

Annual Report 2017



CONTENTS

Introduction	3
Chapter 1	Executive Summary of the MANCP Annual Report 2017 5
Chapter 2	Key figures 13
Chapter 3	Reports on areas of supervision in 2017 17
3.1	Introduction 17
3.2	Animal health – monitoring and control 18
3.3	Animal health – prevention (live animals and live products) 23
3.4	Animal welfare 29
3.5	Animal feed 35
3.6	Animal by-products 38
3.7	Meat supply chain (slaughterhouses, cutting plants and cold and frozen stores) 41
3.8	Industrial production – meat products and composite products 50
3.9	Imports of veterinary consignments 54
3.10	Fish, fish products and aquaculture 56
3.11	Dairy, eggs and egg products 59
3.12	Hospitality industry and artisanal production 72
3.13	Food labelling 76
3.14	Contaminants, residues and genetically modified organisms (GMOs) in food 77
3.15	Veterinary medicinal products 85
3.16	Microbiology (pathogens, food-borne infections and zoonoses) 89
3.17	Nutrition and health/special food and drink 93
3.18	Plant health 98
3.19	Plant protection 102
3.20	Organic products 109
3.21	Protected geographical designations: protected designations of origin (PDO), protected geographical indications (PGI) and traditional specialities guaranteed (TSG) 113
Chapter 4	Audits 119
Chapter 5	NVWA Intelligence and Investigation Service (NVWA IOD) 124
Chapter 6	Developments in relevant organisations 126

INTRODUCTION

Since 2007, every Member State of the European Union has drawn up a Multi-Annual National Control Plan (MANCP). Member States report to the European Commission through an annual report on the implementation and results of official controls. This document is the MANCP Annual Report for the Netherlands for 2017.

The MANCP annual report describes the official controls in the areas of food safety, animal health, animal welfare, animal feeds, phytosanitary matters and organic production. In the Netherlands, a range of organisations are involved in producing this report.

Monitoring under Regulation (EC) No 882/2004 is conducted by:

- the Netherlands Food and Consumer Product Safety Authority (NVWA);
- the Netherlands Controlling Authority for Milk and Milk Products (COKZ);
- the Netherlands Controlling Authority for Eggs (NCAE), a department of the COKZ;
- GD Animal Health (GD).

Monitoring under Council Directive 2000/29/EC (plant health) is conducted by:

- the Netherlands Food and Consumer Product Safety Authority (NVWA);
- the Dutch General Inspection Service for Agricultural Seed and Seed Potatoes (NAK);
- the Netherlands Inspection Service for Horticulture (Naktuinbouw);
- the Flower Bulbs Inspection Service (BKD);
- the Quality Control Bureau (KCB).

Monitoring under Council Regulation (EC) No 834/2007 (Organic Production and Products) is conducted by:

- Skal (*Stichting Skal biocontrole*).

The NVWA coordinates the MANCP and the drafting of the annual report for the Netherlands. The first chapter sets out the key findings and conclusions with regard to the controls in 2017 (Executive Summary).

Chapter 2 deals with the key figures in the area of enforcement within the food supply chain.

Chapter 3 contains the reports for the various areas of monitoring, covering 20 different subjects.

The next two chapters report the conclusions from the internal and external audits conducted in 2017 (Chapter 4) and the activities of the NVWA Intelligence and Investigation Service (Chapter 5).

The final chapter describes a number of developments in the organisations involved in carrying out the monitoring.

The MANCP annual reports are available on the NVWA website (in Dutch and English).

CHAPTER 1

EXECUTIVE SUMMARY OF THE MANCP ANNUAL REPORT 2017

The 2017 Annual Report relates to the MANCP that was prepared in 2011 for the period 2012–2016, and the multi-annual enforcement operations plan 2014–2018.

1. Key figures

In 2017, more than 147,000 inspections were conducted in total; this figure is stable in relation to 2016. The table below shows the number of inspections per area of monitoring.

Number of inspections	2013	2014	2015	2016	2017
Identification and registration (I&R)	2,521	2,316	2,028	1,783	1,401
Animal health – prevention	7,340	6,951	6,258	6,723	6,955
Animal welfare (during transport)	10,240	9,359	11,889	12,097	12,436
Animal feed	1,564	1,127	1,107	1,896	1,416
Animal by-products	4,307	3,655	3,804	3,356	2,384
Meat	3,022	2,772	3,017	3,736	4,021
Meat products and composite products	7,235	5,349	4,670	6,920	6,532
Imports of live animals and animal products	59,022	60,938	60,289	61,279	61,585
Milk and dairy products	784	930	1,166	1,227	1,309
Egg sector	1,028	830	729	714	727
Hospitality, catering and retail	30,220	36,403	33,502	28,263	29,818
Residues and contaminants in food	3,860	7,529	7,844	9,772	9,478
Veterinary medicinal products	1,156	620	628	645	316
Claims for foods for particular nutritional uses	1,734	1,862	1,613	1,611	1,045
Plant protection products	1,296	868	944	1,053	1,075
Organic production	4,878	4,908	5,148	5,805	6,482
PDO, PGI and TSG		861	936	1,005	926
Total	140,207	147,278	145,572	147,885	147,906

The number of inspections has also remained stable:

Inspections (in hours)	2013	2014	2015	2016	2017
Meat	273,425	281,747	279,405	287,562	289,729
Live animal exports	72,709	108,028	103,933	107,553	103,326

2. Effectiveness of the controls

Measurement of the effectiveness of controls is performed by the inspection services through specific projects. Projects such as the “Meat Supply Chain Improvement Plan”, “Copper in Pig Feed” and “Compliance Monitor for Red Meat Slaughterhouses and Poultry Slaughterhouses” provide greater insight into compliance by a specific target group or groups and the effectiveness of official controls.

In 2017, work was carried out in some domains on target group analyses and the development of monitoring strategies in anticipation of impact assessments.

3. Analysis of the findings

Animal health

In 2017, highly pathogenic avian influenza was detected on one commercial poultry farm and two non-commercial poultry farms. One commercial poultry farm was affected by low pathogenic avian influenza. Mandatory monitoring for zoonotic *Salmonella* on breeding and laying poultry farms identified 31 farms where contamination was detected in one or more sheds. In 2017, 86 reports of psittacosis were received, of which 31 related to suspected cases in birds and 55 were made by the Municipal Health Service in relation to human patients in whom a psittacosis infection had been established.

In further investigations into 68 suspected cases of tuberculosis, partly as a result of a large tracing investigation stemming from a single index farm, no confirmed cases of bovine tuberculosis were found.

Improvement plans in this area have resulted in more effective monitoring and enforcement. Better preparation of controls facilitates risk-based inspection and earlier identification of any deficiencies. Good coordination with the business community can lead to more and practical communication about legislation. This ensures a greater level of support and ultimately better compliance.

Animal welfare

Every year, the NVWA carries out animal welfare inspections on farms and reports on compliance. The NVWA carries out inspections for compliance with the standards laid down in the European directives on the protection of pigs, laying hens, chickens kept for meat production, calves and animals kept for farming purposes, as well as the Dutch legislation on animal welfare. Areas for improvement have been identified for all animal species.

In the area of animal welfare, with regard to the killing of animals and associated activities, an enforcement project was completed in poultry slaughterhouses in relation to the mechanical “tipping” of live, non-stunned poultry onto conveyor belts. In seven slaughterhouses, this action was deemed to be too rough. Appropriate action was taken.

Animal feed

Registrations and approvals remain a key focus, along with compliance with the provisions of Regulation (EC) No 1831/2003, since these form the necessary basis for risk-based monitoring. Compliance in relation to labelling, the submission of health claims and trade via the Internet require corresponding enforcement efforts.

The sector responds to incidents and reports by assuming responsibility for tracing and the prevention of further spreading. The outcomes of the Copper in Pig Feed project showed that the new enforcement approach, involving the use of targeted enforcement communications, has produced good results.

Animal by-products

With regard to establishments creating animal by-products, compliance is good in the dairy industry and among primary establishments. At red and white meat slaughterhouses, compliance varies from moderate to reasonable. This remains a key point requiring attention for this sector.

Traceability inspections and securing supply streams continue to be priorities in the monitoring of approved and registered establishments. An investigation into the fats supply chain in 2017 found that the traceability of products in storage companies requires further attention.

Meat

Stricter and more uniform monitoring of slaughterhouses has resulted in a significant increase in the number of written enforcement measures (four times as many as in 2014). The majority of the measures were imposed on poultry slaughterhouses. The task now is to encourage companies to comply spontaneously (and not solely after the detection of a breach and consequent enforcement), using the appropriate enforcement instruments.

Meat products and composite products

The number of industrial establishments subject to the “more stringent monitoring” strategy has remained reasonably stable in recent years. The percentage of irregularities uncovered during inspections on microbiological criteria continues to be high: 39% of the establishments are not in compliance with the requirements set out in Commission Regulation (EC) No 2073/2005. Many establishments producing ready-to-eat food that is a breeding ground for *Listeria monocytogenes* appear to have difficulty performing shelf life studies.

Imported veterinary products

The number of batches submitted for inspection increased in 2017. The number of laboratory analyses increased significantly, due to developments around the importing of products from Brazil. This also resulted in an increase in the number of rejections.

Fish and fish products

Risk-based monitoring, which was continued in 2017, makes an important contribution to the selection of establishments to be inspected and the frequency with which they are inspected.

In 2015, the NVWA published inspection data for EC-approved fish auctions. Since December 2017, the inspection results for all EC-approved fish processing establishments have been published on the NVWA website as well.

Official controls carried out in the fish and fish processing industry often reveal omissions that are subject to the intervention policy. The presence and growth of *Listeria monocytogenes* in smoked fish during its shelf life remains an issue that requires attention. In collaboration with the European Commission, a Europe-wide baseline study is underway to chart the presence of norovirus in oysters and the presence and spread of the virus in end products and production areas.

Dairy

In 2017, 11.5% of dairy farms with a quality assurance system were not in compliance with dairy farming requirements. Of the dairy farmers without a QA system, 7.3% were non-compliant.

Amongst the industrial processors, 23.5% were not fully compliant with the statutory provisions.

Based on the zero base assessment for cheese graters and cleaners, it can be concluded that establishments are generally complying with the most important requirements for quality, storage and hygienic conditions of raw materials, as well as with the sampling programme for both raw materials and end products.

Packaging controls relating to labelling requirements showed that these requirements were not adequately implemented in 30 of the 75 samples of packaging investigated. Establishments have been alerted to this matter, and almost all of the establishments concerned have committed to modifying their packaging.

The percentage of microbiological irregularities in dairy samples and the number of reports (under the Rapid Alert System for Food and Feed (RASFF) and the General Food Law (GFL)) that are microbiological in nature remain high and require particular attention.

Eggs and egg products

As in 2016, the results of monitoring in 2017 led to an increase, at varying levels, in the numbers of written warnings given, but this increase cannot be entirely attributed to situations at the inspected establishments having worsened. Bringing the COKZ/NCAE intervention policy more closely into line with the NVWA intervention policy and the COKZ/NCAE raising awareness around this issue may also have led to an increase in written warnings.

Hospitality industry and artisanal production (HAP)

In 2017, more than 29,000 inspections and re-inspections were conducted at around 18,000 hospitality establishments, artisanal businesses, institutions and retail outlets. Of these, 43% were not complying with the rules. As a consequence of a stricter intervention policy, the percentage of fines increased in 2017 compared to 2016 (2016: 25%, 2017: 34%). The number of establishments subject to more stringent monitoring increased, as did the numbers of closures and process shutdowns.

Compliance by chain (formula) establishments has risen considerably. The number of chain establishments with a “yellow” status was halved in 2017.

The NVWA has now accepted eight private-body inspection systems (POCs). A fact-finding mission by the European Commission issued a positive opinion on the POC system and endorsed the added value for monitoring.

Food labelling

In 2017, checks were performed on imitation food, the use of additives and additive statements in particular.

Contaminants, residues and genetically modified organisms in food

Both in breaches and in RASFF reports, the residues of toxic, outdated pesticides (particularly propargite) from third-world countries were striking.

Fewer controls were carried out on Dutch products in 2017, although controls were increased on imported products from countries outside the EU.

For genetically modified organisms, more than 200 samples were investigated for compliance with labelling requirements and for the presence of unauthorised genetically modified organisms (GMOs). Unauthorised GMOs were found in two imported Chinese rice products.

As the severity of fungal attacks can vary by harvesting season and by country of origin, attention must be paid every year to the enforcement of EU regulations governing mycotoxins. Sampling of relevant products has been tailored accordingly. The largest number of irregularities was found in relation to nuts, seeds and nutmeg.

Veterinary medicinal products

In 2017, the NVWA conducted inspections in various sectors, on both the legislation relating to antibiotics and other veterinary medicinal products. Specific checks were carried out in relation to so-called “frequent users”, and an administrative comparison was performed of the stocks of veterinary medicinal products held by veterinary practices. Together with its partners, the NVWA performs risk-based monitoring and enforcement at the import, production and trade stages of the veterinary medicinal products supply chain. In doing so, the NVWA collaborates with regulators and competent authorities from other Member States. Issues requiring attention in this context include product conformity, undesirable trade via import and identifying suspect consignments during import. Under the National Residues Plan, 34,300 analyses were conducted. In 2017, the number of positive findings of lead in wild game meat increased.

Microbiology

The increase in GFL reports by food establishments, the results of NVWA's monitoring programmes and investigations into the source of food-related outbreaks show that there is a continuing need for both food establishments and the supervisory authority to pay attention to microbiological risks. Risk-based monitoring shows that targeted monitoring of specific foods (exotic meats, herbs/spices, smoked fish), targeted inspections of compliance and control of microbiological hazards can have advantages, and can provide businesses and consumers with an action framework.

Nutrition and health, special food and drink

Monitoring of special food and drink has a broad scope, ranging from tube feeding to herbal preparations. In an investigation into online stores, a significant number of the stores were found to have committed promotional breaches.

It can and must be easier for consumers to choose healthier products. A healthy dietary pattern is important to good health. An improvement was noted in the annual monitoring of saturated fat and salt, but extra attention is still required for some product groups.

Plant health

The number of notifications issued by the Netherlands to third countries due to the discovery of a quarantine pest remained virtually unchanged, with 337 interceptions in 2016 and 358 in 2017. Although there was a reduction in the number of interceptions of various organisms, the Netherlands intercepted certain specific organisms more frequently in 2017, such as *Bemisia tabaci*, *Phyllosticta citricarpa*, *Spodoptera littoralis* and *Spodoptera frugiperda*. European emergency measures are expected to be imposed for the last of these organisms, due to an outbreak of *Spodoptera frugiperda* across much of Africa. The number of notifications issued to the Netherlands by countries outside the EU rose sharply in 2017. This was mainly due to more frequent interceptions of harmful organisms in products from the Netherlands. Interceptions of *Bemisia tabaci* by the United Kingdom on pot plants from the Netherlands remains a point of concern. The key changes with regard to pest status are related to three outbreaks in 2017 of *Aculops fuchsiae*, tomato chlorosis virus and tobacco ringspot virus.

Plant protection

A significant contribution to compliance was due to the NVWA's efforts to create an appropriate and effective package of measures and funds to combat pests and diseases. Efforts are being made nationally and internationally to increase the package of measures and funds. The emphasis is on low-risk funds, solutions for small-scale applications and the promotion of integrated plant protection.

Controls carried out, as well as reports and measurements, show, among other things, that compliance in fruit cultivation has improved compared to four years ago. Attention is still required with regard to the supply of and trade in products not authorised in the Netherlands, and the use of unauthorised products in a number of ornamental crops grown in greenhouses and in groundwater protection areas.

Organic products

Skal monitors compliance with European regulations in the Netherlands at all stages of the organic supply chain. A total of 6,482 inspections were performed in 2017. Of these, 65% were annual inspections; the remainder were primarily permit inspections, re-inspections (in response to detected irregularities) and unannounced inspections. Based on written notices of irregularities, it is clear that by far the majority of establishments are obeying the rules. A critical irregularity was identified at fewer than 1% of registered establishments. This can result in a plot of land or batch of products being de-certified, so that the products can no longer be marketed as organic. Seven establishments were also de-certified.

Geographical indications: protected designation of origin (PDO), protected geographical indication (PGI) and traditional specialties guaranteed (TSG)

Generally, compliance with the set standards was satisfactory in 2017. Furthermore, in relation to the PGIs “Gouda Holland” and “Edam Holland”, a marked improvement in compliance with the quality requirements was observed, in particular relating to the fat content of the dry matter in the cheese. With regard to the use of sodium nitrate by initial processors and natamycin by subsequent processors, a slightly higher number of irregularities was detected.

4. Actions taken on non-compliance

The table below sets out a multi-year summary of administrative fines.

Decisions imposing fines	2013	2014	2015	2016	2017
Number of decisions imposing fines (Commodities Act (WaW))	3,322	5,327	3,626	3,975	4,801
Total amount of fines (x 1000 euros)	4,084	6,183	4,593	4,874	5,642
Average fine	1,229	1,278	1,267	1,226	1,175

5. National audit system

In accordance with the Control Regulation (EC) No 882/2004, the NVWA conducts internal and external audits to test the effectiveness of official controls.

These internal audits are conducted annually to verify the accreditation of the laboratories, the national reference centre (NRC), the fish inspection teams and the Border Inspection Posts (BIPs). Audits are also conducted on the controls on I&R of cattle and pig welfare, and the system of decisions imposing fines and internal follow-up is audited.

The external audits were primarily focused on COKZ, the Animal Sector Quality Inspection Foundation (KDS) and the phytosanitary inspection services.

6. Budget/resources

The following table lists the available budget and staffing levels for the relevant inspection services as at 31 December 2017.

Inspection service	Resources in 2017		Resources in 2016	
	Budget (x 1000 euros)	Staff (FTEs)	Budget (x 1000 euros)	Staff (FTEs)
NVWA	344,157	2,393	333,387	2,471
COKZ/NCAE	8,697	52	8,616	53
NAK	22,134	199	20,644	202
Naktuinbouw	28,188	272	27,435	260
BKD	9,094	98	8,846	95
KCB	17,138	152	15,792	141
GD	58,180	323	57,057	334
Skal	4,334	42	4,120	41

7. Actions taken to improve the official controls

Within the domains, concerted efforts have been made to improve the quality of the official controls. This has resulted in the following actions, among others:

- training programmes, courses and exercises;
- NVWA Improvement Plan (NVWA 2020);
- use of data analysis;
- improvement of work instructions;
- application of an enforcement strategy;
- updated intervention policy;
- innovation in the monitoring of veterinary medicinal products using other investigation methods;
- collaboration with other services, including international services;
- measurement of satisfaction among registered establishments.

8. Actions taken to improve compliance by establishments

The following actions, among others, have been taken to improve compliance by establishments within each of the domains:

- intensive contact and consultation with the sector and/or establishments concerned;
- making joint agreements with the sector, including the “National Extreme Temperatures Plan”, which is an animal transport protocol;
- education campaigns on regulations and enforcement;
- consultation with the owners of private quality systems (including in the food, animal feed and dairy sectors, and in hospitality/artisanal production);
- self-regulation in the form of an “Infant Formulae Advertising Code”;
- development of a plant protection action plan: “Healthy Bulbs, Thriving Sector”;
- development and publication of fact sheets.

9. NVWA Intelligence and Investigation Service

The NVWA Intelligence and Investigation Service (NVWA IOD) is active in all NVWA domains. The NVWA IOD is deployed in the event of serious or systematic infringements of the law within the NVWA's enforcement domains. When deployed, the NVWA IOD focuses primarily on complex, supply-chain-related, organised and international criminality.

The core tasks of the NVWA IOD are:

- collecting and refining intelligence;
- carrying out analyses to improve insights into the nature and extent of compliance and non-compliance;
- conducting investigations on the basis of a wide range of powers.

In 2017, the investigations addressed the following subjects, among others:

- fraud involving meat or meat products;
- fraud involving the disposal of manure;
- fraud involving analysis certificates;
- trade in unauthorised plant protection products;
- fraud involving raw materials for animal feed;
- fraud involving EU subsidies for greenhouse horticulture.

10. Organisational developments

1 July 2017, restructuring of the NVWA

The NVWA was restructured on 1 July 2017. The shift to a more process-driven organisation will put the NVWA in a better position to respond to its changing environment.

Integrated risk analysis of the dairy supply chain

The NVWA has performed an integrated risk analysis of the dairy supply chain in the interests of safeguarding food safety, animal health and animal welfare in the dairy supply chain. After all, proper safeguards protect consumers and animals and are in the interests of maintaining a good export position for the dairy industry. The analysis provides a picture of the risks that could arise in this chain, based on a scientific risk assessment, a fraud picture and information from monitoring by the NVWA and the COKZ.

Formation of the Ministry of Agriculture, Nature and Food Quality (LNV)

With the formation of a new government, the Ministry of Economic Affairs became the Ministry of Agriculture, Nature and Food Quality and the Ministry of Economic Affairs and Climate Policy (EZK). The NVWA now falls under the Ministry of Agriculture, Nature and Food Quality.

CHAPTER 2 KEY FIGURES

This chapter reviews the key enforcement figures.

Available resources of the inspection services

The following table lists the available budget and staffing levels for the inspection services involved as at 31 December 2017 (see Chapter 6 for a description of the services).

Inspection service	Resources in 2017		Resources in 2016	
	Budget (x 1000 euros)	Staff (FTEs)	Budget (x 1000 euros)	Staff (FTEs)
NVWA	344,157	2,393	333,387	2,471
COKZ/NCAE	8,697	52	8,616	53
NAK	22,134	199	20,644	202
Naktuinbouw	28,188	272	27,435	260
BKD	9,094	98	8,846	95
KCB	17,138	152	15,792	141
GD	58,180	323	57,057	334
Skal	4,334	42	4,120	41

Total number of inspections and certifications (in hours) by domain, 2013–2017

The following tables list the total number of inspections and certification hours for each of the domains. See Chapter 3 for a specific description of each of the domains.

Number of inspections	2013	2014	2015	2016	2017
Identification and registration (I&R)	2,521	2,316	2,028	1,783	1,401
Animal health – prevention	7,340	6,951	6,258	6,723	6,955
Animal welfare (during transport)	10,240	9,359	11,889	12,097	12,436
Animal feed	1,564	1,127	1,107	1,896	1,416
Animal by-products	4,307	3,655	3,804	3,356	2,384
Meat	3,022	2,772	3,017	3,736	4,021
Meat products and composite products	7,235	5,349	4,670	6,920	6,532
Imports of live animals and animal products	59,022	60,938	60,289	61,279	61,585
Milk and dairy products	784	930	1,166	1,227	1,309
Egg sector	1,028	830	729	714	727
Hospitality, catering and retail	30,220	36,403	33,502	28,263	29,818
Residues and contaminants in food	3,860	7,529	7,844	9,772	9,478
Veterinary medicinal products	1,156	620	628	645	316
Claims for foods for particular nutritional uses	1,734	1,862	1,613	1,611	1,045
Plant protection products	1,296	868	944	1,053	1,075
Organic production	4,878	4,908	5,148	5,805	6,482
PDO, PGI and TSG		861	936	1,005	926
Total	140,207	147,278	145,572	147,885	147,906

Inspections (in hours)	2013	2014	2015	2016	2017
Meat	273,425	281,747	279,405	287,562	289,729
Live animals export	72,709	108,028	103,933	107,553	103,326

Plant health inspections	2013	2014	2015	2016	2017
Results for arable agriculture	34,752	36,696	38,785	40,578	38,973
Results for fruit and vegetables	124,379	117,768	122,560	146,019	125,323
Results for floristry	181,854	184,068	167,965	187,787	184,851
Results for tree nurseries and green spaces	14,146	13,971	14,109	12,371	13,148
Total	355,131	352,503	343,419	386,755	362,295

Total number of samples/analyses by domain, 2013–2017

The following table lists the total numbers of samples/analyses for the various domains. See Chapter 3 for a specific description of each of the domains.

Number of samples/analyses	2013	2014	2015	2016	2017
Animal health – monitoring	204,791	133,406	132,849	261,906	305,176
Animal feed ¹	4,636	5,420	2,640	2,673	2,360
Animal by-products	10	177	160	87	36
Meat	146,679	159,284	155,036	158,560	162,189
Imports of live animals and animal products	1,761	1,530	1,386	1,275	4,029
Fish, fish products and aquaculture	11,409	2,050	2,831	2,949	3,056
Milk and dairy products	6,236	5,366	6,104	6,481	7,818
Egg sector	226	306	244	227	777
Hospitality, catering and retail	4,977	7,155	5,681	8,371	6,759
Residues and contaminants in food	9,393	9174	7,844	9,772	9,478
Veterinary medicinal products – National Residues Plan	32,407	32,810	33,064	34,719	34,300
Microbiology	18,129	15,193	15,463	16,077	13,304
Claims for foods for particular nutritional uses	573	579	694	678	193
Organic production	137	199	196	326	352
PDO, PGI and TSG			6,419	6,292	5,433
Total	441,364	372,649	370,611	510,393	555,260

1) From 2015 onwards, the number of samples is reported instead of the number of analyses.

Summary of decisions imposing fines

Total number of decisions imposing fines in 2017

Legislation	Number	Total amount of fines	Average fine amount	Amount of fines paid
Commodities Act (WaW)	4,801	€5,642,500	€1,175	€4,757,819
Tobacco Act (<i>Tabakswet</i>)	1,877	€2,438,266	€1,299	€2,240,188
Plant Protection Products and Biocides Act (Wgb)	239	€342,109	€1,431	€329,304
Medicines Act (Gmw)	17	€145,498	€7,529	€183,826
Animal Health and Welfare Act (Gwwd)	57	€155,500	€2,728	€156,000
Animals Act (<i>Wet dieren</i>)	1,385	€4,570,250	€3,300	€4,438,964
Total	8,376	€13,294,123	€1,546	€12,106,101

Multi-year summary of decisions imposing fines, 2013–2017

Decisions imposing fines	2013	2014	2015	2016	2017
Number of decisions imposing fines (Commodities Act)	3,322	5,327	3,626	3,975	4,801
Total amount of fines (x 1000 euros)	4,084	6,183	4,593	4,874	5,642
Average fine	1,229	1,278	1,267	1,226	1,175

Key data and performance indicators

The NVWA has adopted a number of indicators for the assessment of the services it provides.

Complaints about NVWA actions

Complaints about NVWA actions	2013	2014	2015	2016	2017
Inspections	48	47	44	71	105
Sample analyses	9	0	2	5	4
Certifications	20	29	22	31	33
Total	77	76	68	107	142

Information requests and reports

The following table lists the developments in the number of requests for information and reports received by the NVWA's Customer Contact Centre. The Customer Contact Centre can be contacted by phone or email 24 hours a day and 7 days a week. As the NVWA's name awareness has increased among consumers, more consumers are familiar with the complaint notification procedure. From 2017, the term "reports" will no longer be used by the NVWA. Only the term "complaints" will be used.

Complaints/requests received	2013	2014	2015	2016	2017
Number of phone calls	52,155	55,561	56,330	53,983	49,532
Number of complaints, concerning:	14,730	15,065	16,397	17,650	20,380
Animal welfare/neglect	2,100	2,556	2,664	2,127	2,144
Smoking in hotels/restaurants/café's	1,692	1,339	1,403	1,040	886
Food poisoning	1,010	1,157	1,250	1,615	1,910
Hygiene issues	1,326	1,315	1,163	1,163	1,283
General Food Law issues	262	918	1,141	1,724	2,722
Inadequate conditions/past the Use By date	324	563	553	502	507
RASFF issues	195	422	542	502	860
Miscellaneous international alerts	154	229	515	590	873
Pests/vermin in food establishments	518	624	505	897	620
Improper food advertising and promotion	431	407	478	496	367
Percentage of justified complaints	62%	65%	64%	64%	64%
Percentage dealt with within six weeks	60%	58%	47%	52%	60%

RASFF notifications

RASFF stands for Rapid Alert System for Food and Feed. This is the European notification system that Member States use to inform each other about food and animal feed that poses a public health risk. If something is found to be wrong with a product being imported or already on the Dutch market that could potentially have cross-border consequences, the NVWA will make a notification in this system. There are also notifications from other Member States about products with a link to the Netherlands.

The following table provides an overview of all notifications involving the Netherlands. The increase in the number of border rejections is primarily due to chicken from Brazil.

Action	2015	2016	2017
Alerts	244	262	327
Border rejections	139	132	305
Notifications for information	60	72	76
Notifications for follow-up	95	123	173
Total	538	589	881

CHAPTER 3

REPORTS ON AREAS OF SUPERVISION IN 2017

3.1 Introduction

Chapter 3 contains the reports on the various domains in 2017.

The following domains are discussed in the following order:

- 3.2 Animal health – monitoring and control
- 3.3 Animal health – prevention (live animals and live products)
- 3.4 Animal welfare
- 3.5 Animal feed
- 3.6 Animal by-products
- 3.7 Meat supply chain (slaughterhouses, cutting plants and cold and frozen stores)
- 3.8 Industrial production – meat products and composite products
- 3.9 Imports and exports of veterinary consignments
- 3.10 Fish, fish products and aquaculture
- 3.11 Dairy, eggs and egg products
- 3.12 Hospitality industry and artisanal production
- 3.13 Food labelling
- 3.14 Contaminants, residues and GMOs in food
- 3.15 Veterinary medicinal products
- 3.16 Microbiology (pathogens, food-borne infections and zoonoses)
- 3.17 Nutrition and health/special food and drink
- 3.18 Plant health
- 3.19 Plant protection
- 3.20 Organic products
- 3.21 Protected geographical indications: Protected designation of origin (PDO), protected geographical indication (PGI) and traditional specialities guaranteed (TSG)

The following will be reviewed for each domain, where data are available:

- applicable legislation and regulations;
- size of the control file;
- control results;
- findings on compliance;
- projects in 2017;
- incidents;
- impact measurement;
- actions taken to improve the official controls;
- actions taken to improve compliance by establishments;
- key conclusions.

3.2 Animal health – monitoring and control

Controlling authority: NVWA

List of the main legislation under which controls were carried out in 2017

EU Legislation	
Council Directive 64/432/EEC	Intra-Community trade in bovine animals and swine (TB, brucellosis, leucosis)
Council Directive 82/894/EEC	Notification of animal diseases
Council Directive 91/68/EEC	Intra-Community trade in sheep and goats (<i>Brucella melitensis</i>)
Council Directive 92/65/EEC	Balai Directive on trade in live animals and live products
Council Directive 92/66/EEC	Newcastle Disease control measures
Council Directive 92/119/EEC	General Community measures for the control of certain animal diseases and specific measures relating to swine vesicular disease
Council Directive 2000/75/EC	Specific provisions for the control and eradication of blue tongue
Council Directive 2001/89/EC	Community measures for the control of classical swine fever
Council Directive 2003/85/EC	Community measures for the control of foot-and-mouth disease
Council Directive 2005/94/EC	Community measures for the control of avian influenza
Regulation (EC) No 999/2001	Rules for the prevention, control and eradication of certain transmissible spongiform encephalopathies

National legislation

- Animal Health and Welfare Act (Gwwd)

Size of the control file in 2017

Type of farm	Number in 2016	Number in 2017
Cattle farms	42,101	42,240
Farms with small ruminants	34,941	35,469
Pig farms, including non-commercial farms*	10,475	10,509
Poultry farms	1,960	1,960

* Farms with more than five pigs (the UBN [Unique Establishment Number] registration system does not distinguish between commercial and non-commercial pig farms).

The number of registered farms includes those with no animals (referred to as “o establishments”). The databases used include: Identification and Registration of Animals, held by the Netherlands Enterprise Agency (RVO.nl) and GD Animal Health (GD).

The section on Animal health – prevention also includes farms, although only farms that actually kept animals in the past year.

Reference to specific reports

- reports on the basis of Council Directive 64/432/EEC;
- reports on the basis of Council Directive 91/68/EEC;
- reports on *Salmonella* controls (on the basis of Regulation (EC) No 2160/2003);
- half-yearly AI monitoring/surveillance;
- reports on welfare in depopulation operations within the context of Council Regulation (EC) No 1099/2009.

Animal Health, results in 2017

Type of case	Total cases	Demonstrated ^(a)	Positive ^(b)	Negative	No action ^(c)
African horse sickness	1	0	0	1	0
African swine fever	11	0	0	11	0
American foulbrood	5	0	3	1	1
Aujeszky's disease	2	0	0	2	0
Avian influenza	281	0	25	148	108
Blue tongue	30	0	0	20	10
Bonamia	2	0	0	0	2
Bovine spongiform encephalopathy	2	0	0	2	0
Brucellosis abortus (Bang's disease)	49	0	0	46	3
Brucellosis canis	20	0	6	10	4
Ovine brucellosis (<i>Brucella melitensis</i>)	41	0	0	41	0
Ovine brucellosis (<i>Brucella ovis</i>)	4	0	0	4	0
Swine brucellosis	81	0	0	78	3
<i>Campylobacter fetus</i>	3	2	0	0	1
<i>Chlamydia caviae</i>	1	0	0	1	0
<i>Corynebacterium ulcerans</i>	2	0	0	1	1
Cysticercosis	1	0	0	0	1
Dourine	1	0	0	1	0
<i>Echinococcus</i>	1	0	0	1	0
Equine infectious anaemia	9	0	1	7	1
Equine viral arteritis	2	0	0	0	2
Erysipelothrix rhusiopathiae suis	22	0	0	0	22
Hantavirus	2	0	2	0	0
Infectious haematopoietic necrosis	1	0	0	1	0
Classical swine fever	13	0	0	13	0
Cowpox	4	0	0	1	3
Koi herpes virus	5	0	3	0	2
Glanders	2	0	0	2	0
Leptospirosis	6	2	0	0	4
Leucosis	40	0	0	38	2
Listeriosis	2	1	0	1	0
Lumpy Skin Disease	2	0	0	1	1
Anthrax	6	0	0	5	1
Foot-and-mouth disease	4	0	0	4	0
<i>Mycobacterium avium</i>	12	0	7	5	0
<i>Mycoplasma gallisepticum</i>	4	0	1	1	2
Newcastle disease	8	0	0	8	0
Psittacosis (animal)	31	0	22	5	4
Psittacosis (human)	55	0	19	15	21
Q fever (animal)	1	0	0	0	1
Q fever (human)	11	1	0	1	9
Q fever (bulk tank milk)	4 (1 pending)	0	0	3	0
Human/bat rabies	30	0	9	15	6
Mammal rabies	20	0	0	10	10
Human/mammal rabies	8	0	0	3	5
Zoonotic <i>Salmonella</i> in poultry	136	0	31	19	86
Salmonellosis	87	85	0	1	1
Sarcosporidiosis	1	0	0	0	1

Type of case	Total cases	Demonstrated ^(a)	Positive ^(b)	Negative	No action ^(c)
Scrapie	1	0	0	1	0
Swine vesicular disease	5	0	0	1	4
Tuberculosis	68	0	0	63	5
Tularaemia	11	0	4	5	2
Vesicular Stomatitis	1	0	0	1	0
Viral haemorrhagic disease	1	0	0	0	1
West Nile virus (horse)	1	0	0	1	0
West Nile virus (birds)	1	0	0	1	0
Yersiniosis	4	2	0	1	1

a "Demonstrated" is the term for Article 10 of Regulation (EC) No 999/2001 animal pathogens which are not subject to compulsory control but which must be reported by the veterinarian.

b "Positive" are to the results for animal diseases subject to compulsory control.

c Additional testing, the clinical picture, a laboratory report and specific circumstances, etc., did not reveal a need for further action.

These are verification tests. See the explanation in the section on zoonotic Salmonella.

Results of animal health monitoring:

Monitoring in 2017	Number of farms	Number of samples	Number not negative (1)	Positive after confirmation
Brucellosis abortion testing	5,566	11,002	25	0
<i>Brucella melitensis</i>	1,524	18,363	44	0
CSF and ASF in wild boar (serology) (2)	N/A	464	0	0
Aujeszky's disease in wild boar	N/A	464	0	0
CSF in wild boar (virological (PCR))	N/A	0	0	0
Aujeszky's disease	4,989	82,668	0	0
AI monitoring serology (ELISA)	2,294	192,215	896	47 H5H7

(1) Number of "not negative" for AI monitoring serology (ELISA) = number of samples (not the number of consignments) tested by the GD which returned positive results in AI ELISA testing and were forwarded to the Wageningen Bioveterinary Research (WBVR) for confirmation.

Number of "positive after confirmation" for AI monitoring serology (ELISA) = number of samples (not the number of consignments) which tested positive at WBVR for H5 or H7.

(2) Serological testing for FMD and SVD in wild boar has not been performed since 2015.

Incidents

Avian influenza (bird flu)

Following the infections with highly pathogenic avian influenza (HPAI) H5N8 in late 2016, the focus in early 2017 was on disinfecting and repopulating contaminated farms where preventative culling had taken place. Sixty reports of bird flu were dealt with in the first three months of 2017. Out of these, 17 infections with HPAI were established. HPAI was also established in dead wild birds in 10 cases. In seven cases, it was found in locations where birds were kept for non-commercial purposes.

In October 2017, an infection with LPAI H5N2 was established at a commercial poultry farm with outdoor access. The birds at the farm were culled and a transport ban area with a 1 km radius was set up. No other poultry farms were situated within this area.

In early December 2017, the highly pathogenic bird flu H5N6 was established in Biddinghuizen, on a farm where ducks were kept for meat production. The ducks were culled, and a 3 km protection zone and a 10 km surveillance zone were put in place. The farms inside the protection zone were screened. No other poultry farms were situated within a 1 km radius of the infected farm.

No other infections at commercial poultry farms were detected. However, there was an outbreak of HPAI H5N6 at a location within the surveillance zone where birds were kept for non-commercial use. These birds too were culled.

Zoonotic Salmonella in poultry

In monitoring for zoonotic Salmonella at breeding and laying poultry farms, zoonotic Salmonella infections were established on 31 poultry farms in 2017. Twenty-nine of these cases involved laying poultry farms. The other two cases involved the breeding parent flock, with the NVWA tracking a suspected infection back to these birds based on the use of antibiotics at the farm.

Monitoring of breeding poultry farms did not detect any zoonotic Salmonella infections in 2017.

Tuberculosis

The high number of suspected cases of tuberculosis was largely due to a strong suspicion at a dairy farm. PCR (polymerase chain reaction) testing of material from two cows on this farm produced positive results for *Mycobacterium bovis*. The official confirmation of an infection must be based on bacteriological testing. This testing can take up to four months. Based on the PCR result and pending the results of the bacteriological testing, it was decided to perform a tracing investigation on 22 farms that had received cattle from the affected farm in the past two years, as well as 2 farms that had supplied cattle to the affected farm. No suspected cases were found among any of the cattle on the 24 farms. The bacteriological testing was unable to confirm the infection.

Training for the animal disease control organisation

In 2017, the following training programmes, courses and exercises were organised and held for the animal disease control organisation:

Two days of in-service training were organised for the animal disease specialists (DZDs). One day covered the taking of samples from poultry (theory followed by practice in the taking of tracheal swabs, cloacal swabs and blood), a demonstration of a post mortem/examination of post-mortem material and an assessment of the pathological status of a poultry flock.

The other day was a combined session for DZDs and veterinarians from the front teams. The following topics were covered: how to search for animal disease information on websites (particularly the OIE) and on the department's own hard drive, "Salmonella: What's New?", the fipronil incident and the response by DZDs, animal welfare reporting after fumigations, concluding a site visit: how to do it, transitioning from a DZD role to being a veterinarian in a front team. A training day on fish diseases was organised for a number of animal disease specialists. The programme included the following topics: fish diseases and laboratories, procedures around suspected/confirmed fish disease infections, brief tour of the laboratory, registration and approval of fisheries in the Netherlands and a tour of a fishing company.

Basic training was organised for the new members of the front team. The following topics were covered: what is a front team, a look back at a crisis and a glance at the future, OHS and hygiene, exercises with personal protective equipment, explanation of external contractors, attitude and behaviour within a front team and specific matters relating to the separate front team roles.

A day of annual refresher training on company emergency response (BHV) was organised for the hygiene and enforcement officers who are members of the front teams.

This year, the NVWA's Veterinary Incident and Crisis Centre (NVIC) again received several groups of final-year veterinary science students and informed them about relevant animal disease control issues and the notification obligation.

Risk assessments

In 2017, the following risk assessments (RAs) were carried out in response to outbreaks of animal diseases in other countries:

Animal disease	Country	Number of RAs
Highly pathogenic avian influenza	Italy	1
Highly pathogenic avian influenza	Belgium	1
Highly pathogenic avian influenza	Luxembourg	1
African swine fever	Romania	1
African swine fever	Czech Republic	1

Conclusions for 2017

- HPAI: one commercial poultry farm and two non-commercial poultry farms were affected by highly pathogenic avian influenza.
- LPAI: one commercial poultry farm was affected by low pathogenic avian influenza.
- Zoonotic *Salmonella*: mandatory monitoring for zoonotic *Salmonella* on breeding and laying poultry farms identified 31 farms where contamination was detected in one or more sheds.
- Psittacosis: 86 notifications of psittacosis were received in 2017. Of these, 31 related to suspected cases in birds and 55 were made by the Municipal Health Service in relation to human patients in whom a psittacosis infection had been established.
- TB: in further investigations into 68 suspected cases, partly as a result of a large tracing investigation stemming from a single index farm, no confirmed cases of bovine tuberculosis were found.

3.3 Animal health – prevention (live animals and live products)

Controlling authority or authorities: NVWA

List of the main legislation under which controls were carried out in 2017

EU Legislation	
Council Directive 90/425/EEC	Trade in live animals and products
Council Directive 64/432/EEC	Trade in bovine animals and swine
Council Directive 2009/156/EC	Import and trade in equidae
Council Directive 90/427/EEC	Zootechnical and genealogical conditions for equidae
Council Directive 2009/158/EC	Trade in poultry and hatching eggs
Council Directive 91/68/EEC	Trade in sheep and goats
Council Directive 92/65/EEC	Balai Directive
Council Directive 88/407/EEC	Bovine semen
Council Directive 90/429/EEC	Porcine semen
Council Directive 89/556/EEC	Bovine embryos
Council Directive 92/102/EEC	I&R of animals
Council Directive 2006/88/EC	Aquaculture animals and products thereof
Council Directive 90/425/EEC	Control Directive
Regulation (EC) No 1760/2000	I&R of bovine animals
Regulation (EC) No 21/2004	I&R of sheep and goats
Regulation (EC) No 504/2008	I&R of equidae
Regulation (EC) No 318/2007	Bird quarantine
Regulation (EC) No 1255/1997	Control posts
Regulation (EC) No 1739/2005	Circus animals
Regulation (EC) No 998/2003	Non-commercial movement of pet animals
Council Regulation (EC) No 708/2007	Use of exotics in aquaculture

National legislation:

Animal Health and Welfare Act with details in the form of specific regulations, including:

- Regulation on the Prevention, Control and Monitoring of Infectious Animal Diseases, Zoonoses and TSEs (Regeling preventie, bestrijding en monitoring van besmettelijke dierziekten en zoonosen en TSE's);
- Regulation on Trade in Live Animals and Live Products (Regeling handel levende dieren en levende producten);
- Regulation on Equine Semen (*Regeling paardensperma*);
- Regulation on Bovine Semen (*Regeling rundersperma*);
- Regulation on Porcine Semen (*Regeling varkenssperma*);
- Regulation on the Identification and Registration of Animals (*Regeling identificatie en registratie van dieren*);
- Regulation on Aquaculture (*Regeling aquacultuur*).

Size of the control file and number of “Animal health – prevention” inspections in 2017

Type of establishment	Number as of December 2017	Number of inspections in 2017
Approved assembly centres (VC), of which approved as:	77	
• pig assembly centre	21	73
• cattle assembly centre	62	215
• sheep/goat assembly centre	27	101
Control post, of which approved as:	4	
• control post (cattle)	3	3
• control post (sheep/goat)	1	1
• control post (pigs)	1	1
Cleaning and disinfection facilities, of which:	332	
• approved	164	463
• designated, poultry	44	47
• simple and authorisation holder	113	138
Semen collection centres (SCC), of which approved as:	118	
• bovine semen collection centres	7	13
• porcine semen collection centres	20	41
• equine semen collection centres	16	13
• national equine semen collection centres	84	-
• sheep/goat semen collection centres	1	1
Quarantine, of which approved as:	22	
• quarantine for porcine SCC	14	30
• quarantine for bovine SCC	7	8
• quarantine for sheep/goat SCC	1	2
Storage centres, of which approved as:	18	
• bovine semen storage centres	13	15
• equine semen storage centres	4	4
• bovine embryo storage centres	1	2
Embryo teams, of which approved as:	13	
• bovine embryo production teams	10	2
• equine embryo teams	3	1
Approved institutions under Directive 92/65/EEC	21	23
Registered circuses	6	-
Bird quarantine stations	1	-
Approved poultry farms, of which approved as:	612 (637 approved)	
• hatchery;	40	44
• hatching egg export station	5	6
• poultry-breeding establishment	285	259
• pedigree breeding establishment	35	See below
• rearing establishment	272	304 (breeding)
Approved aquaculture production establishments (fish farms)	53	13
Approved aquaculture production establishments (molluscs)	143	-
Registered Put and Take fisheries	65	12
Cattle farms	33,963	774
Sheep/goat farms	37,082	627
Approved livestock dealers	564	-
Registered dealers in other species	222	-
Destination controls	-	5,120
Total establishment inspections by visit frequency	-	8,356
Inspections for export certification, in hours	-	106,326

Monitoring of “Animal Health – prevention”, results in 2017

Monitoring of animal health and prevention	Number
Orders subject to a penalty imposed on assembly centres	7
Official reports relating to assembly centres	
Reports of Findings by the Administrative Measures Team (TBM) relating to assembly centres	1
Written warnings to assembly centres	2
Orders subject to a penalty imposed on transporters	
Reports of Findings by the TBM relating to transporters	
Written warnings to transporters	1
Orders subject to a penalty imposed on slaughterhouses (cleaning and sterilisation (C&S))	4
Reports of Findings by the TBM relating to slaughterhouses (C&S)	25
Written warnings to slaughterhouses (C&S)	7
Reports of Findings by the TBM relating to semen collection centres	4
Exporters in response to reports from abroad	29
I&R communications – cattle	210
I&R administrative law – cattle	
I&R official reports – cattle	79
I&R written warnings – cattle	95
I&R communications – sheep and goats	116
I&R administrative law – sheep and goats	
I&R official reports – sheep and goats	62
I&R written warnings – sheep and goats	190

Controls by transport teams	Number of inspections	Number non-compliant
Transport controls in transit and on arrival at or departure from establishments, of which		
C&S controls	639	WWs: 91, RoFs: 30, ORs: 5
other prevention issues	853	WWs: 2, RoFs: 1, ORs: 3
Trade Regulation	1,000	WWs: 43, ORs: 21
Simple washing stations on sheep/goat farms*	627	Not approved: 9, WWs: 5
Simple washing stations on cattle farms*	774	Not approved: 5, WWs: 5, ORs: 1
Unloading animals at multiple addresses	10	RoFs: 3, ORs: 5
In response to alerts:		
prevention	47	WWs: 8, RoFs: 3, ORs: 12
Trade Regulation	9	WWs: 1, ORs: 2
I&R combined with prevention/trade	12	WWs: 1, ORs: 4
Assembly of animals	143	WWs: 32, RoFs: 1, ORs: 68

* Inspections at the primary establishment

WWs = Written Warnings; RoFs: Reports of Findings; ORs: Official Reports.

Reference to specific reports

Relating to I&R: annual report pursuant to Regulation (EC) No 1082/2003 (laying down detailed rules as regards the minimum level of controls to be carried out in the framework of the system for the identification and registration of bovine animals) with regard to cattle, and Regulation (EC) No 1505/2006 with regard to sheep and goats.

More detailed explanation of results from the monitoring of Animal health – prevention

- In 2017, no resources or budget were available for carrying out controls of the records of approved or registered traders.
- In-transit transport controls relate to controls on livestock transport vehicles for irregularities in connection with arrival at or departure from establishments, unloading, complete unloading, correct assembly on the trucks, C&S registration, etc. The C&S of vehicles, including empty vehicles, is monitored as well. Consequently, cattle trucks may also be diverted from the road for controls.
- At livestock farms (cattle and sheep/goats), during all I&R controls, the mandatory presence and functioning of a simple washing station is also checked. Any welfare issues identified during these controls are included in the enforcement. The report on these transport-related welfare issues is set out in the Animal Welfare section.
- The Cattle I&R Project was terminated in March 2017. The average inspection time proved to be longer than scheduled. This was due to the risk analysis that was performed, which was apparently highly effective. This means the total number of inspections was lower than scheduled, and lower than in 2016. The number of controls on sheep/goat farms remained more or less the same.
- Cattle, sheep and goat I&R controls are focused on compliance with the percentage prescribed by the EU (3%) and on actively tracking down non-compliant establishments. The controls are usually a combination of random and selective controls. In 2017, only some of the selective inspections were performed. For cattle I&R controls, a percentage of 2% was achieved, and 1.6% for sheep/goat I&R controls.
- I&R controls for pigs targeted a mix of commercial and non-commercial pig farms. The number of non-commercial farms inspected was limited, due to the preparatory and time-intensive investigation into online sales of piglets.
- Poultry I&R controls were carried out administratively.
- Horse I&R controls were carried out as part of an animal welfare project. The risk selection was focused on animal welfare.
- The transport controls included a variety of focus areas relating to animal health and prevention, such as the presence of certificates when animals are being imported/exported, C&S, unloading at multiple addresses and the 21-day rule.
- During transport-focused controls, the 21-day rule was addressed as a project. Analyses of the I&R system for cattle, sheep and goats under the 21-day rule revealed that many farms remove animals within 21 days. Within this selection, 143 inspections were conducted on farms. See the “Assembly of animals” item in the table.
- In 2017, a number of targeted inspections were conducted on C&S of even-toed ungulates (Prevention Regulation) and the import and export of poultry (Trade Regulation).

Projects in 2017

- Under the Assembly Centres Improvement Plan, which is designed to ensure more risk-based, uniform and efficient monitoring, data are collected from all assembly centres (for risk classification purposes), checklists are developed and working methods are improved to ensure better record-keeping. Each establishment is also given a score for each of the various components. This score determines the frequency of monitoring for that component.
- To bring Dutch regulations into line with the European Trade Directive, work has been carried out in conjunction with the Ministry of Economic Affairs to include approved horse assembly centres in the Prevention Regulation and in the Trade Regulation.
- During transport controls, there were a variety of focus areas relating to animal health and prevention, such as the presence of certificates when animals are being imported/exported, C&S and the associated administration and performance, unloading at multiple addresses and the 21-day rule.
- The number of controls varied by focus area from just a few controls to over 100.

Incidents

Outbreaks of highly pathogenic avian influenza

Work resulting from the various outbreaks in late 2016 continued until April 2017. In early December 2017, the highly pathogenic avian influenza virus (AI H5N6) was found once more, this time at a farm in Biddinghuizen where ducks were kept for meat production.

Fipronil

In 2017, the work following the discovery of the treatment of red mites with products including fipronil required considerable effort in the area of monitoring and enforcement. Establishment lockdowns and excess levels detected in eggs and chicken meat had serious consequences for the monitoring of EU approvals of breeders and hatcheries and on export certification controls.

Impact measurement

Since 2016, the NVWA has been working with all red meat slaughterhouses (including small and medium-sized slaughterhouses) and poultry slaughterhouses, through the “Meat Supply Chain Improvement Plan”.

With the introduction of the improvement plan, the NVWA has targeted its monitoring of the “Cleaning and sterilisation of means of transport” according to the risk profiles that have been estimated/established for each slaughterhouse. Following the introduction of the improvement plan, the NVWA has drawn up impact reports. These show that the compliance picture with regard to C&S remains mixed.

Also, in 2017, the NVWA took samples of the disinfectant solutions provided at all approved cleaning and disinfection facilities. These samples showed that by no means all of the disinfectant solutions were provided in accordance with the regulations (underdosing). In response to this, the NVWA will carry out enforcement on these findings from 2018 onwards.

Actions taken to improve the official controls

- *internal newsletters*
NVWA's internal newsletters devote a great deal of attention to changes in legislation, new or improved methods, changes to inspection lists and improved instructions;
- *assembly centres improvement plan*
In light of its positive experiences with the improvement plans for red meat and poultry slaughterhouses, the NVWA decided to devise an improvement plan for assembly centres in 2017. All preparatory work was completed in 2017, so a pilot could be launched that same year. The improvement plan will be implemented in 2018.
In support of the improvement plan, a structural analysis was begun in 2017 on I&R data from assembly centres. RVO.nl queries were used for this analysis;
- *briefing veterinarians and inspectors;*
 - common instructions to assembly centre managers
In a new section, the NVWA has organised kick-off meetings for assembly centre managers. The NVWA hopes this will achieve a high-quality, effective and uniform approach;
 - accreditation of the Inspection Department
The Inspection Department wishes to obtain accreditation for various parts of the department. Among other things, accreditation requires good working methods resulting in monitoring practices that are as uniform as possible. To this end, in 2017, various instructions for export certification and monitoring relating to prevention were assessed and rewritten;
- *data analysis*
Controls are increasingly being carried out based on the results of data analyses. As a result, the available time can be used more efficiently.
 - A kick-off meeting is held at the start of each project, to inform inspectors about the relevant legislation and the strategies to be applied.
 - For each project, a specific work instruction is drawn up for inspectors, to ensure inspections are performed in a uniform manner.
 - There is a tension between the reduced resources and number of hours available on the one hand, and the numbers of and time required for I&R controls for cattle, sheep and goats on the other. In 2017, an investigation was started into alternative enforcement options that meet the European requirements. This innovation project will continue in 2018.

Actions taken to improve compliance by establishments

- Since 2015, the NVWA has had good experiences with carrying out more intensive consultations with establishments about compliance and the interpretation of regulations. This approach was continued in 2017, and the consultation was also expanded. In addition, the NVWA often provides ideas and advice to sector organisations on communication around components of regulations and their practical implementation.
- In 2017, the NVWA sent out signals to the relevant sector organisations about compliance with specific components that are a source of concern for the NVWA. These signals were picked up by the sector organisations and the concerns were shared with their members, or the sector organisations called on the members to improve compliance by bringing these issues to their attention.
- In conjunction with the Ministry of Agriculture, Nature and Food Quality, the NVWA has set up a consultation structure with the establishments, in which questions, issues and requests for amendments to the Prevention Regulation and the Trade Regulation can be raised and discussed. This consultation structure allows us to explain that certain regulations are actually strict requirements set by the EU, and to clarify why these rules exist. In many cases, however, these are actually national rules that apply over and above the European regulations. Sometimes, due to developments in the industry, it is no longer necessary to impose certain extra restrictions, and the regulations can be modified on that basis. This results in more support and understanding.

Conclusions

- The improvement plans have led to more effective monitoring and enforcement.
- Better preparation of controls facilitates risk-based inspection and earlier identification of any deficiencies.
- Good coordination with the business community can lead to more and practical communication about legislation. This ensures a greater level of support and, ultimately, better compliance.

3.4 Animal welfare

Controlling authority or authorities: NVWA

List of the main legislation under which controls were carried out in 2017

EU Legislation	
Regulation (EC) No 1/2005	Protection of animals during transport and related operations
Regulation (EC) No 1099/2009	Protection of animals at the time of killing
Directive 93/119/EEC	Protection of animals at the time of slaughter or killing
Regulation (EC) No 853/2004	Hygiene rules for food of animal origin
Council Directive 98/58/EC	Protection of animals kept for farming purposes
Council Directive 1999/74/EC	Minimum standards for the protection of laying hens
Council Directive 2007/43/EC	Minimum rules for the protection of chickens kept for meat production
Council Directive 2008/119/EC	Minimum standards for the protection of calves
Council Directive 2008/120/EC	Minimum standards for the protection of pigs

National legislation

- Animals Act, part of Chapter 2: Animals;
- Animal Keepers Decree (Besluit Houders van dieren);
- Regulation on Animal Keepers (Regeling Houders van dieren);
- Enforcement and other Animals Act Matters Decree (Besluit handhaving en overige zaken Wet dieren);
- Regulation on Enforcement and other Animals Act Matters (Regeling handhaving en overige zaken Wet dieren);
- Animal Welfare Policy Rules (Beleidsregels dierwelzijn) 2009;
- Animal Disease Specialists Decree (Besluit Diergeneeskundigen).

Size of the control file in 2017*

Type of establishment	Number
Livestock transporters (short journeys)	1,334
Livestock transporters (long journeys)	238
Large ungulate slaughterhouses (continuous supervision)	22
Small and medium-sized ungulate and farmed game slaughterhouses	159
Large poultry slaughterhouses (continuous supervision)	18
Small poultry slaughterhouses	11

* Reference date: 31 December 2017

Type of establishment	Number as at 1 April 2017*
Laying hens	890
Calves	1,570
Pigs	4,300
Chickens kept for meat production	630
Cattle	24,690
Sheep**	6,787
Goats	510
Chickens kept for meat production parent stock	270
Ratites**	3
Ducks	50
Geese**	7
Fur animals	150
Turkeys	30

*Statistics Netherlands (CBS), The Hague/Heerlen

** Data from the Combined Return, 10 animals or more

Monitoring of “Animal Welfare”, results in 2017

Welfare during transport in 2017 (controls by transport teams)	Number of inspections	Number non- compliant	% non-compliant
In transit	1,101	184	17
Slaughterhouses*	81	10	12
Assembly centres*	57	10	18
Primary establishments*	329	76	23
Total during road transport	1,568	280	18
Complaints	499	284	57
Total	2,067	564	27

* Physical location where control took place; not necessarily also the identity of the offender in the case of a non-conformity.

Explanatory notes on the results

- The percentage of non-conformities from inspections during road transport pursuant to the European Transport Regulation, Regulation (EC) No 1/2005, decreased from 23% in 2016 to 18% in 2017.
- The total number of inspections during road transport in 2017 was 1,568. This number was 1,587 in 2016 and 1,898 in 2015.
- The percentage of non-conformities detected from complaints decreased from 79 in 2016 to 57 in 2017. The underlying reasons for this require further investigation.
- In 2017, a number of targeted inspections took place on the import of young calves. These controls focused on a number of aspects, including animal welfare. These were risk-based, selective controls. A total of 40 such controls were carried out. In 38 of them, the calves were between 14 days and 2 months old. The number of non-compliant controls was 32 (74%). A total of 39 irregularities relating to animal welfare were established. Most of these related to the conditions in which the animals were transported and the requirements to be imposed on the vehicles used. The European Commission responded negatively to notification of the Dutch interpretation of the loading standard for cattle because it was covered by elements of the EU standard. With regard to the proposed interpretation relating to headroom, the European Commission noted that other Member States could refer the matter to the European Court of Justice on the grounds that this standard could have a disruptive effect on the free movement of goods.
- A much larger number of inspections was conducted at primary establishments than in 2016 (155). This is due to the high number of inspections at poultry farms as part of the poultry project.

Reports of findings by supervising veterinarians at slaughterhouses and assembly centres	Number	Number of interventions
Regulation (EC) No 1/2005	607	463
Regulation (EC) No 1099/2009	326	278
Regulation on Animal Keepers – poultry welfare irregularities	221	201

Journey log controls and GPS controls	Number	Number of interventions
Journey log controls (100%)	6,455	42
GPS project (around 10%)	710	44

The tables below show inspections of primary establishments and measures, broken down by animal type. The number of measures is the total number of measures imposed. It is possible that multiple measures could be imposed following a single inspection, such as a punitive measure and a corrective measure.

Monitoring of laying hens (Directive 1999/74/EC)		Number
Inspections		42
Measures		3
Monitoring of calves (Directive 2008/119/EC)		Number
Inspections		201
Measures		93
Monitoring of chickens kept for meat production (Directive 2007/43/EC)		Number
Inspections		73
Measures		23
Monitoring of pigs (Directive 2008/120/EC)		Number
Inspections		350
Measures		138
Monitoring of cattle (Directive 98/58/EC)		Number
Inspections		640
Measures		358
Monitoring of sheep (Directive 98/58/EC)		Number
Inspections		356
Measures		63
Monitoring of goats (Directive 98/58/EC)		Number
Inspections		189
Measures		39
Monitoring of chickens kept for meat production parent stock (Directive 98/58/EC)		Number
Inspections		88
Measures		5
Monitoring of ducks (Directive 98/58/EC)		Number
Inspections		2
Measures		0
Monitoring of fur animals (Directive 98/58/EC)		Number
Inspections		100
Measures		1
Monitoring of turkeys (Directive 98/58/EC)		Number
Inspections		5
Measures		0

Monitoring of the killing of animals at primary establishments (Regulation (EC) No 1099/2009)	Number
Inspections	4
Measures	0

Reference to specific reports

- Annual report in accordance with 2013/188/EU.
- Annual reports to the European Commission as referred to in 2006/778/EC.

More detailed explanation of the results for “Animal Welfare”

Projects in 2017

Animal welfare during transport

- The transport sector was able to find solutions that made the export of unweaned calves for a duration of eight hours or more permissible again from 2017 onwards. Additional controls were put in place for import consignments of unweaned calves with a transport duration of eight hours or more. The focus was on drinking facilities. The lack of suitable drinking facilities and the use of metal teats were sanctioned.
- A project concerning the “transport of cows close to calving” was implemented. In this project, dairy farmers were confronted with findings that a cow sent for slaughter appeared to be close to calving. The first time such a finding was made, farmers received a warning. Administrative fines were imposed in cases of repeat offending. The project also looked at the transport of other vulnerable animal categories, such as newborn calves and cows that have recently given birth.
- Poultry project: in 2017, a poultry project was also implemented, focusing on compliance with the legislation around capture before transport and the legislation around intra-Community trade. In subproject 1, a number of infringements were found, including in relation to the suitability of crates (sharp edges due to broken crates), inadequate cleaning and disinfection and a lack of properly-functioning water supplies. Based on a total of 80 inspections, 13 written warnings were issued, 5 reports of findings were issued and 6 official reports were written. In the context of the monitoring of capture, 65 inspections were conducted. Two written warnings were issued.
- In June 2017, the NVWA conducted a total of 118 inspections at 18 poultry slaughterhouses, to check whether poultry farmers were taking adequate measures to prevent injury (wounds or broken bones) during capture. During this period of intensive enforcement, compliance improved from 45% to 92%. Most deficiencies were observed in relation to the heavier breeds of chickens kept for meat production. The animals primarily originated in the Netherlands and Germany. Enforcement by the NVWA appears to have been effective; the improvement in compliance during the operation was primarily observed in flocks on Dutch soil. A follow-up measurement is required to check that the identified improvement is structural in nature.

Animal welfare at the time of stunning and killing

In the area of animal welfare, with regard to the killing of animals and associated activities, an enforcement project was completed in poultry slaughterhouses in relation to the mechanical “tipping” of live, non-stunned poultry onto conveyor belts. In seven slaughterhouses, this action was deemed to be too rough. Appropriate action was taken.

Animal welfare in establishments handling farm animals

Every year, the NVWA carries out animal welfare inspections on farms and reports on compliance. The NVWA carries out inspections for compliance with the standards laid down in the European directives on the protection of pigs, laying hens, chickens kept for meat production, calves and animals kept for farming purposes, as well as the Dutch legislation on animal welfare.

Pigs

In 2017, the NVWA checked for compliance with the rules for the protection of pig welfare. A total of 350 production sites were inspected, of which 248 were found to be compliant. Compliance with European rules on pig welfare is 70%. One or more non-compliances were observed at 102 production sites. Most of the non-compliances observed in 2017 related to flooring, loose material and adequate space. In particular, these deficiencies concerned the prescribed solid part of the floor, the maximum gap width between grating bars, the pen enrichment material and the minimum prescribed space per pig. Other non-compliances observed in 2017 related to buildings and accommodation, the provision of feed and water and minimum lighting. In particular, these deficiencies concerned sharp edges or

protrusions in the stall, the provision of a permanent supply of fresh water and the provision of a light intensity of at least 40 lux for at least eight hours per day.

Laying hens

In 2017, the NVWA checked for compliance with the rules for the protection of the welfare of laying hens. A total of 42 production sites were inspected, of which 39 were found to be compliant. The rate of compliance with the European rules on the welfare of laying hens is 93%. Three deficiencies were observed: two in the Buildings and Accommodation category and one in the Automatic and Mechanical Equipment category.

Chickens kept for meat production

In 2017, compliance with the rules for the protection of the welfare of chickens kept for meat production was unsatisfactory. The most common infringements related to administrative requirements and a failure to properly apply the rules concerning lighting in sheds.

Calves

In 2017, the level of compliance with the rules for the protection of calf welfare was moderate (60%). The figures are mostly based on inspections in the dairy farming sector, and to a lesser extent on inspections in the veal calf sector. The figures do not give a representative picture of compliance within the sector. The inspections were conducted in combination with other controls, such as cross-compliance controls, as part of the risk-based “High Calf Mortality” project, in response to a report or a risk-based inspection at an establishment warranting attention. The non-compliances mainly related to Buildings and Accommodation, regarding a lack of sanitary housing.

Other production animals

In 2017, cattle inspections were conducted in response to complaints or risk analyses (establishments warranting attention or under the “High Calf Mortality” project). The compliance provides a representative picture of general compliance in the Netherlands in 2017 in establishments handling cattle. The non-compliances mainly related to Inspection (failure to call in a veterinarian in a timely manner, lame animals), Buildings and Accommodation (lack of sanitary housing or broken housing components) and Feed, Water and Other Substances (inadequate drinking water or contaminated feed).

In 2017, sheep inspections were conducted in response to complaints or risk analyses (establishments warranting attention) or through random sampling. Compliance among establishments handling sheep was high. The most frequently-detected non-compliances related to Buildings and Accommodation (sharp objects in the pasture), Inspection (failure to call in a veterinarian in a timely manner, lame animals) and Feed, Water and Other Substances (inadequate drinking water).

In 2017, goat inspections were conducted in response to reports or risk analyses (goat fattening farms) or through random sampling. Compliance among establishments handling goats was high.

Impact measurement

Animal welfare at the primary establishment

All completed projects were evaluated. The outcomes of this evaluation are important – alongside other factors – to help decide whether a project should be repeated in the near future.

Animal welfare during transport

All completed projects were evaluated. The outcomes of this evaluation are important – alongside other factors – to help decide whether a project should be repeated in the near future.

Animal welfare at the time of stunning and killing

Every six months, the “Compliance Monitor” provides an overview of the scores obtained by slaughterhouses on key aspects of animal welfare. See also Chapter 3.7.

Actions taken to improve the official controls

Animal welfare during transport

- In 2017, the NVWA drafted a policy on the transport of animals in the context of animal testing, and actively communicated it to the sector.
- In 2017, data were collected for the Poultry Integrated Risk Analysis (IRA). Transport was considered as part of this analysis. The capturing of poultry falls under the EU Transport Regulation (Regulation (EC) No 1/2005). The IRA sees this as a potential risk for animal welfare. To a lesser extent, the transport that directly follows the capture can also be seen as a risk.
- The number of projects will be reduced, to allow for a better focus on achieving all of the controls.
- Controls are increasingly being carried out based on the results of data analyses. This means the available time can be used more efficiently. A targeted project will be launched for administrative controls.
- To ensure a uniform assessment of the evaluation of whether animals are fit for transport, a project was started in 2017 with inspectors from transport teams and supervising veterinarians, in which case studies are discussed. This will be continued in 2018, with specific attention for “end-of-career animals”, such as cows past milking age.

Animal welfare at the time of stunning and killing

- In 2017, preparations were made for continuous supervision of ritual slaughter without stunning, which came into force on 1 January 2018.
- To implement a resolution adopted by the House of Representatives for mandatory camera surveillance in slaughterhouses, consultation was begun in 2017 between slaughterhouses and the government. An initial pilot is expected to be run in 2018.

Animal welfare at the primary establishment

- In 2017, data were collected for the Poultry Integrated Risk Analysis (IRA). Primary establishments were considered as part of this analysis as well. The IRA identified a number of animal welfare risks on primary poultry farms. These will be crucial in drawing up supervision for 2018 and 2019.
- The NVWA intends to make greater use of administrative monitoring where possible.
- In 2018, the NVWA started monitoring the climate in pig sheds, based on a scientifically-established protocol. Animal-based indicators were included in this protocol.

Actions taken to improve compliance by establishments

The Netherlands Food and Consumer Product Safety Authority and relevant sector parties have drawn up a new version of the National Plan for Livestock Transport at Extreme Temperatures. In this plan, the NVWA and the establishments have made agreements about the transport of pigs, cattle, sheep and goats at extreme temperatures. The agreements elaborate on the general rules in the European Transport Regulation (Regulation (EC) No 1/2005), which states that animals must be protected from extreme temperatures during transport.

3.5 Animal feed

Controlling authority or authorities: NVWA

List of the main legislation under which controls were carried out in 2017

EU Legislation	
Regulation (EC) No 178/2002	General principles and requirements of food law
Regulation (EC) No 1831/2003	Feed hygiene
Regulation (EC) No 1831/2003	Additives for use in animal nutrition
Regulation (EC) No 1829/2003	GMOs in animal feed and foodstuffs
Regulation (EC) No 1830/2003	
Regulation (EC) No 999/2001	TSE Regulation
Council Directive 2008/38/EC	Diet Directive
Council Directive 2002/32/EC	Undesirable substances in animal feed
Regulation (EC) No 767/2009	Placing on the market and use of feed (prohibited materials)
Council Directive 82/475/EC	Categories (main groups) for labelling
Regulation (EC) No 669/2009	Import controls on high-risk products
Council Directive 90/167/EC	Medicated feedingstuffs

National legislation:

- Animals Act (Wet dieren)
- Animal Feedingstuffs Decree (Besluit diervoeders) 2012;
- Regulation on Feedingstuffs (Regeling diervoeders) 2012;
- Veterinary Medicinal Products Decree (Besluit diergeneesmiddelen).

Size of the control file in 2017

Type of establishment	Number
Total number of establishments with one or more approvals, registrations, consents, authorisations or permits*	4,683
Approved production establishments	147
Approved traders (with/without storage)	90
Establishments approved in connection with dioxin requirements	20
Registered production establishments	807
Registered traders (with storage)	1,212
Registered traders (without storage)	764
Registered retail traders	432
Registered storage establishments (no trading or transport)	726
Registered road transporters (with storage)	545
Registered road transporters (without storage)	1,063
Registered rail transporters	27
Registered inland shipping transporters	1,118
Registered food business operators with waste flows being used for animal feed	330
Establishments with registration or a consent under the TSE Regulation	70
Establishments with approval under the TSE Regulation	126
Establishments with a permit to produce medicated animal feed	65

* 31% of establishments are approved or registered for a single activity involving animal feed. The remaining establishments hold an approval, registration, consent, authorisation and/or permit for a range of activities involving animal feed, or for comparable activities involving a range of products (such as feed materials, additives, premixes, compound feed for food-producing animals and/or compound feed for non-food-producing animals).

Monitoring of “Animal Feed”, results in 2017

Monitoring domain name	Number
Inspections	1,416
Samples	2,360
Measures	263

The measures comprise 212 written warnings, 49 reports of findings and 2 official reports.

More detailed explanation of the results for “Animal Feed”

Compliance in the animal feed sector is generally good. The sector also responds to incidents by assuming responsibility for tracing and the prevention of further spreading.

Issues that still require attention include the conditions from Annex II of Regulation (EC) No 183/2005 hygiene, traceability, carry-over/cross-contamination and Hazard analysis and Critical Control Point (HACCP). Correct information on labels and in claims continues to be an area of concern.

Projects in 2017

- inspections related to approval and registration conditions for animal feed establishments (including HACCP audits): inspection of animal feed establishments for compliance with the requirements of Annex II of Regulation (EC) No 183/2005;
- converting old approvals: establishments with old approvals are still recorded in the NVWA registration system. This project has corrected this anomaly;
- sampling under the National Animal Feed Plan: annual monitoring programme for prohibited and undesirable substances in animal feed. The NVWA takes animal feed samples from the establishments and the RIKILT Institute of Food Safety tests the samples. In 2017, 2,360 samples were taken and 4,399 analyses were carried out;
- inspections on labelling: monitoring with regard to the labelling requirements in Regulation (EC) No 767/2009 concerning online suppliers of animal feed and fish feed for recreational fishing in. Deficiencies were observed at virtually all inspected establishments. In addition, labelling deficiencies were found in half of the additives tested;
- monitoring health claims: monitoring of claims made about animal feed, carried out in collaboration with the Veterinary Medicinal Products Unit (BD). According to the picture that emerged, 38% of claims were borne out, 33% required an adjustment to the wording and 29% were misleading;
- transport controls: these inspections include controls on road transport. The report is currently being prepared;
- feed ban controls: controls relating to cleaning and disinfection in the context of Regulation (EC) No 999/2001.

Specific projects in 2017

- food-feed waste flows: inspections of food business operators whose food waste is intended for use in animal feed;
- monitoring the traceability of fats at fat storage facilities: this was a combined project with animal by-products, in which the traceability of the different fat streams at fat storage facilities was investigated. Financial records were also investigated as part of this project;
- use of zinc oxide as a veterinary medicinal product in piglet feed. This project looked at certificates issued by veterinarians, the production of medicated feed (including carry-over and concentration in the feed) and the use of the feed at primary establishments. The project found issues relating to carry-over, homogeneity and concentrations in medicated animal feed;
- use of copper in pig feed: following on from 2016 monitoring, in which targeted enforcement communications were sent to the target group, an impact measurement was performed in 2017. Inspections in 2016 showed that compliance had risen from 67% to 92%. To check whether this trend had continued in 2017, another measurement was performed; this revealed compliance to be at 100%;
- laboratory reporting obligation: monitoring of laboratories' compliance with their reporting obligation when animal feed is found to be non-compliant. This is a follow-up to the project started in 2016.

Incidents

In 2017, 338 case files (including animal by-products) were handled which related to RASSF notifications, GFL reports and “self-reporting” under the National Animal Feed Plan, for example. One case file may involve multiple reports. Most case files concerned incorrect labelling or excessive concentrations of undesirable substances. No major incidents occurred in 2017.

Impact measurement

See the “Copper in Pig Feed” project.

Actions taken to improve the official controls

Private quality systems

In late 2017, two private quality systems were approved and listed on ketenborging.nl. This means these two systems meet the criteria formulated to strengthen private safeguarding of food quality. Transparency and the exchange of information are included in these criteria. The NVWA will carry out controls through second-line monitoring of the certification bodies for these quality systems;

Training

In 2017, inspectors received training on applying the intervention policy and drafting clear, concise reports of findings. Several inspectors also completed BTSF (Better Training for Safer Food) courses, including the course on contaminants in food and feed.

Actions taken to improve compliance by establishments

In 2016 and 2017, investments were made in producing reports and improving the information resources on the website. The reports were discussed with the organised business sector and resulted in concrete improvement actions. One example is the laboratories’ notification obligation, where the establishments themselves are implementing the improvement actions.

Conclusions

- Registrations and approvals remain a key focus, along with compliance with the terms of Regulation (EC) No 1831/2003, since these form the necessary basis for risk-based monitoring.
- Compliance in relation to labelling, the submission of health claims and trade via the Internet require corresponding enforcement efforts.
- The sector responds to incidents and reports by assuming responsibility for tracing and the prevention of further spreading.
- The outcomes of the Copper in Pig Feed project showed that the new enforcement approach, involving the use of targeted enforcement communications, has produced good results.

3.6 Animal by-products

Controlling authority or authorities: NVWA, COKZ, NCAE

List of the main legislation under which controls were carried out in 2017

EU Legislation	
Regulation (EC) No 1069/2009	Basic regulation
Regulation (EC) No 142/2011	Implementing Regulation
Regulation (EC) No 999/2001	TSE Regulation

National regulations

- Animals Act;
- Animal Products Decree (*Besluit dierlijke producten*);
- Regulation on Animal Products (*Regeling dierlijke producten*).

Size of the control file in 2017

Type of establishment	Number
Primary production	Approx. 30,000
Establishments of origin: <ul style="list-style-type: none"> • red meat, white meat, game, industrial food production • hospitality • retail 	Approx. 5,500 Approx. 83,000 Approx. 20,000
Section I: storage of animal by-products (Cat. 1, Cat. 2 and Cat. 3)	473
Section II: storage of derived products (approved)	136
Section III: incineration/combustion (approved)	48
Section IV: processing establishments	25
Section V: oleochemical establishments	3
Section VI: biogas establishments	112
Section VII: composting establishments	60
Section VIII: pet food	84
Section IX: handling of animal by-products and derived products outside the feed supply chain	129
Section X: registered users	428
Section XI: assembly centres	18
Section XII: manufacture of organic fertilisers/soil improvers	46
Section XIII: other registered operators <ul style="list-style-type: none"> • transporters • traders • other registered operators 	1,523 374 484

Monitoring of “Animal By-products”, results in 2017

Monitoring of animal by-products	Number
Monitoring of approved/registered/new ABP establishments	659
Monitoring of ABP establishments of origin – food	> 500
Monitoring of establishments of origin – livestock farming	191
Monitoring of ABP transport	94
Traceability projects (fats, processed animal proteins)	47
Destination controls	466 (2,342 consignments)
Inspections in response to complaints and reports	125
Unplanned inspections	172
Re-inspections	130
Microbiology samples	24
Chemical samples	12
Measures	
• written warnings	237
• fine reports	60
• official reports	1

More detailed explanation of the results for “Animal By-products”

The work performed by the COKZ and the NCAE is described in Chapter 3.11.

The number of establishments operating in the ABP sector increases every year. As a consequence, the number of inspections of approved and registered establishments is also increasing, as is the number of destination controls, for example. To ensure that monitoring resources – which have not been increased – are used as effectively as possible, inspections are becoming increasingly risk-focused.

With regard to establishments creating animal by-products, compliance is good in the dairy industry and among primary establishments. At red and white meat slaughterhouses, compliance varies from moderate to reasonable. This remains a key focus for this sector.

Traceability inspections and securing supply streams continue to be priorities in the supervision of approved and registered establishments. An investigation into the fats supply chain in 2017 found that traceability of products in storage establishments is an issue.

Projects in 2017

- monitoring of approved and registered establishments: this relates to routine monitoring of establishments' compliance with their approval and registration conditions (including consents), HACCP and traceability, and additional monitoring of high-risk establishments (such as Cat. 1 processing establishments);
- monitoring establishments of origin for food: this relates to monitoring of the collection and removal of animal by-products (ABPs) at food business operators. This monitoring is performed by two inspectors: a “food” inspector and an “ABP” inspector. The report is currently being prepared;
- monitoring at primary establishments of origin: inspections on livestock farms in relation to the collection and removal of carcasses. The level of compliance is high. Reports were also handled that related to shed fires, as well as to dead animals, which, when collected by the destructor, did not appear to be dead;
- transport monitoring: these inspections include controls on road transport. In 2017, the 2016 control reports were delivered: of the 101 controls carried out, 29 were non-compliant with the legislation relating to identification, a lack of sufficient commercial documentation, unsealed receptacles or leaking vehicles;
- destination controls: inspections conducted pursuant to Art. 48 of Regulation (EC) No 1069/2009 and controls of consignments imported from third countries;
- inspections in response to complaints and reports: inspections conducted in response to a complaint or report received through the RASSF system or the NVWA notification system;
- unplanned inspections: this relates to unplanned inspections that inspectors may conduct if, during the course of their work, they see any indication that further investigations are required;

- microbiology samples: this relates to the taking of samples and microbiological testing of pet food or processed animal proteins;
- chemical samples: this relates to the taking of samples and testing of products derived from GTH (glyceroltriheptanoate). GTS is used as a marker substance in Category 1 and/or 2 material.

Specific projects

- monitoring of illegal exports of processed animal proteins: the PAP (Processed Animal Proteins) Task Force was set up in 2015 with a specific focus on the illegal export of PAPs derived from ruminants by traders and PAP storage establishments. Since 2015, work has been done to tackle the illegal export of processed animal proteins derived from ruminants to third countries. Twelve storage establishments and traders have been involved. To date, this project has resulted in 10 establishments discontinuing such activities. Progress on this work has been hampered by legal proceedings brought against the NVWA by the establishments involved, complex trading systems and the international component of this trade. These issues have been discussed with the European Commission;
- monitoring the traceability of fats at fat storage facilities: this was a combined project between ABP and Animal Feed, investigating the traceability of the different fat streams at fat storage facilities. Financial records were also investigated as part of this project. The report is currently being prepared.

Reports/incidents

The majority of RASFF reports related to non-compliance with the microbiological provisions, primarily with regard to *Salmonella* in processed animal proteins and raw pet food. Other reports related to traceability, such as omissions from the TRAdE Control and Expert System (TRACES) and incorrect commercial documents.

One specific incident related to a dog being found to be infected with the bacteria *Brucella suis* type 1. This was caused by raw pet food. Further investigation revealed that the dog had eaten raw pet food made from Argentinian hare meat. In response to this finding, the NVWA launched a monitoring programme at the border inspection posts for hare meat from South America.

Impact measurement/target group analysis

Not performed in 2017.

Actions taken to improve the official controls

- *enforcement strategy*
 - In 2017, the Animal By-Products Enforcement Strategy document was updated, including a description of the various supply chains and target groups in the animal feed sector. For each target group, a description was given of the risk factors, risk analysis, level of compliance, blind spots and enforcement methods. This document will be updated periodically based on outcomes from the enforcement cycle. Monitoring projects will be set up partly on the basis of this document.
 - The design of annual plans and their implementation in projects will be included in the enforcement strategy cycles. This will help improve the design and implementation of risk-based projects;
- *training*
 - In 2017, new veterinarians received training on monitoring of red and white meat slaughterhouses (3x), and refresher training courses were also held (1x).
 - In consultation sessions with ABP inspectors, specific topics were discussed: more extensive traceability controls, destination controls and the amendments to Regulation (EC) No 999/2001.
 - ABP inspectors briefed their food inspector colleagues on ABP monitoring of food business operators.
 - The police received training from the NVWA on Regulation (EC) No 999/2001.

Actions taken to improve compliance by establishments

- improving and updating the information on the website;
- consultation with and supply of targeted information to the organised business sector and individual establishments;
- introduction of an improved application procedure for Article 48 consents.

3.7 Meat supply chain (slaughterhouses, cutting plants and cold and frozen stores)

Controlling authority: NVWA

List of the main legislation under which controls were carried out in 2017

EU Legislation	
Regulation (EC) No 178/2002	General principles of food law
Regulation (EC) No 882/2004	Ensuring proper checks on food and animal feed
Regulation (EC) No 852/2004	Food hygiene
Regulation (EC) No 853/2004	Hygiene rules for food of animal origin
Regulation (EC) No 854/2004	Food products of animal origin – official controls
Regulation (EC) No 2073/2005	Microbiological criteria
Regulation (EC) No 2074/2005	Implementing measures for certain animal products
Regulation (EC) No 1375/2015	Rules on official controls for Trichinella in meat
Regulation (EC) No 1069/2009	Animal by-products Regulation
Regulation (EC) No 999/2001	Prevention and control of specific TSEs (BSE)

National legislation:

- Animals Act;
- Regulation on Animal Products.

Size of the control file in 2017

Type of establishment (approvals)	Number as at 1 January 2017	Number as at 31/12/2017	Inspections Management**
Domesticated ungulates slaughterhouses	183	181	181
Poultry slaughterhouses	32	29	29
Rabbit (lagomorphs) slaughterhouses	6	6	6
Farmed game slaughterhouses	24	21	21
Wild game slaughterhouses (game-processing establishments)	17	15	15
Cutting plants (all types of meat)*	1,225*	1,258	223***
Cold and frozen stores*	499*	530	97

Note: an establishment may hold multiple approvals; most slaughterhouses also hold a cutting plant approval, and sometimes a cold or frozen store approval as well.

* This concerns all cutting plants and cold and frozen stores approved by the Inspections Department (V&I) or other authorities (e.g. Enforcement (C&V)).

** Inspections also includes all slaughterhouses and establishments whose main activity is cutting up meat or storing fresh meat.

*** This relates to stand-alone cutting plants, which are not connected to a slaughterhouse and which sometimes hold additional approvals.

Monitoring of “Meat Supply Chain”, results in 2017

Audits and inspections in 2017	Number of basic inspections	Number of re-inspections
HACCP audits	297	32
Approval maintenance	363	53
Inspections for new approval application	39	9
Traceability (tactical and system inspections)	532	336
Microbiological criteria system inspections	101	2
Tactical inspections of hygienic work practices	2,089	117
Other system inspections	600	14
Total	4,021	563 (14%)

Red meat inspections (source: RSG, the Dutch database for livestock slaughter data)

Animal type	Number of slaughters
Pigs	15,146,754
Calves	1,503,695
Cattle	644,183
Other ruminants*	700,575
Solipeds	2,528
Red meat total	17,997,735

* Sheep, goats, farmed deer, llamas

Poultry meat inspections (source: PLADMIN, the NVWA poultry administration database)

Animal type	Number of slaughters*
Chickens kept for meat production	617,767,317
Chickens	16,937,023
Ducks	8,064,361
Other**	6,583
Poultry meat total	642,775,284

* Refers to the numbers of live poultry supplied to the slaughterhouse

** Refers to pigeons, geese and turkeys

No. of hours for Inspections

Meat inspections (No. of hours)	2016	2017
Red meat	180,122	181,126
Poultry meat	107,440	108,603
Total	287,562	289,729

Number of samples/analyses (sources: Labvantage, KBBL)

Samples/analyses*	Number of samples	Number of analyses**
Microbiological	207	207
Antibiotics analysis	324	324
Trichinella in farmed pigs	159,169	15,241,457
Trichinella, other	2,489	7,922

* These are samples taken and analyses performed within the scope of PM inspections at the slaughterhouse.

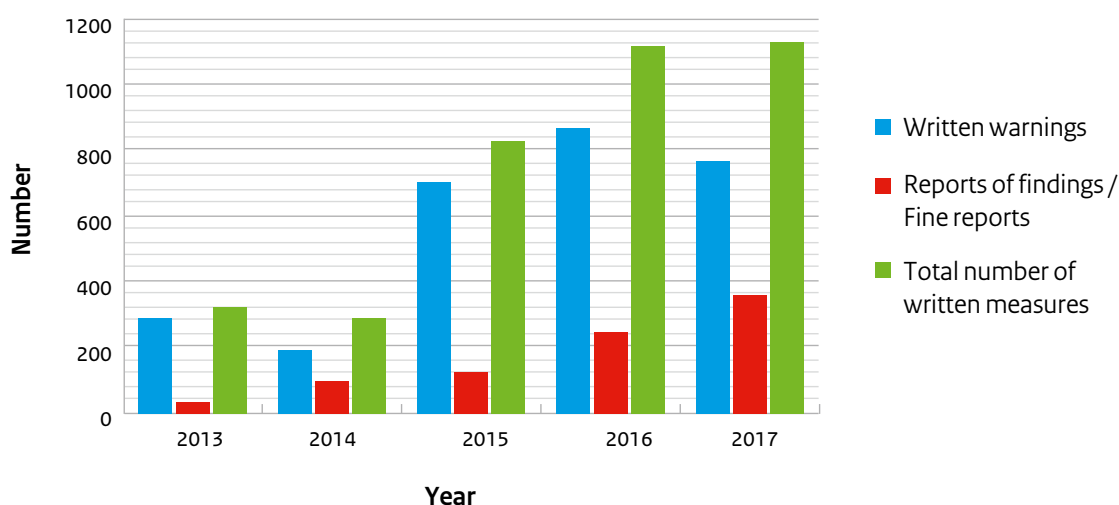
** Numbers of animals tested based on registration at the laboratories

Taken by the NVWA

2017 measures	Written warnings	Fine reports*
Red meat slaughterhouses	266	101
Poultry slaughterhouses	452	260
Game-processing establishments	2	0
Cutting plants	42	2
Cold and frozen stores	9	0
Total	771	363

* These are reports of findings sent to the NVWA's Administrative Measures Team for compiling a fine report.

Trend in the numbers of written measures in this area:



Reference to specific reports

A separate report is being issued on the National Residues Plan (see also Chapter 3.15).

More detailed explanation of the results for “Meat Supply Chain”:

Approvals for slaughterhouses, game-processing establishments, cutting plants and cold and frozen stores

As of the reference date, 31 December 2017, 22 slaughterhouses and 159 small/medium-sized slaughterhouses for domesticated ungulates and farmed game were under continuous supervision. In 2017, eight red meat slaughterhouses shut down and three slaughterhouses started up with a new approval. Eighteen poultry slaughterhouses were under continuous supervision and 11 approvals were granted for non-continuous supervision, of which 7 establishments actually slaughtered animals in 2017. Some establishments in the latter category were also approved for the slaughter of lagomorphs (rabbits and hares). Finally, there were 223 cutting plants and 97 cold and frozen stores not connected to a slaughterhouse or game-processing establishment. The following basic inspections were performed in relation to the maintenance of approvals: 105 inspections of red meat slaughterhouses, 22 inspections of poultry slaughterhouses and 7 inspections of game-processing establishments. In addition to the basic inspections, 14 re-inspections were also conducted at these slaughterhouses. As in previous years, most infringements related to the formation of condensation, the accumulation of dirt and the condition of walls, ceilings and doors. At the stand-alone cutting plants, 164 inspections were conducted. During these inspections, 37 infringements were detected, 16 reports of findings (RoFs) were drawn up and 13 re-inspections were scheduled. As in 2016, the infringements primarily related to hygiene practices, maintenance and the prevention of condensation and mould. Sixty-four system inspections for approval maintenance were conducted at stand-alone cold and frozen stores. Six infringements were detected, four RoFs were drawn up and one re-inspection was scheduled. Most of the infringements related to the same areas as for cutting plants.

HACCP audits

In 2017, 163 audits were conducted at slaughterhouses. Most of the re-inspections were conducted at the small and medium-sized red meat slaughterhouses not subject to continuous supervision. At game-processing establishments, there was a striking discrepancy between the number of audits conducted and the number scheduled (only 37.5% of scheduled audits were performed). Most of the omissions were observed in the other basic conditions, at both red meat and poultry slaughterhouses. These concerned good hygiene practices such as pest control, personal hygiene and hygiene before, during and after the production process. At red meat slaughterhouses under continuous supervision, 19% more omissions were found in relation to these basic conditions than in 2016. Compliance with HACCP rules by slaughterhouses was 90%, which is comparable with 2016. Ninety-five audits were conducted at stand-alone cutting plants and 35 audits were conducted at cold and frozen stores. The numbers and types of infringements observed appear to be comparable to 2016. The infringements largely related to inadequate hygiene. In 19% of the audits conducted at cutting plants, one or more omissions in relation to the other basic conditions were found. The equivalent figure for cold and frozen stores improved significantly over 2016 (from 17% to 6%). With regard to the HACCP protocol, both at cutting plants and at cold and frozen food stores, the infringements observed primarily related to the performance of the described monitoring procedures and the actual application of HACCP. The establishments have HACCP procedures, but do not always operate entirely in accordance with these procedures.

Traceability: at slaughterhouses handling farm animals, 81 traceability system inspections were conducted, and 14 infringements were detected. These mainly related to incomplete labelling. Fourteen traceability system inspections were conducted at poultry slaughterhouses; eight minor infringements were detected, relating to a missing date of production or date of freezing, or to incomplete traceability information or labelling. At the stand-alone cutting plants, 130 inspections were conducted and 19 infringements were detected, all at a single cutting plant. Six reports of findings (RoFs) were drawn up and seven re-inspections were scheduled. Twelve infringements were detected during 58 inspections conducted at cold and frozen stores, with 4 RoFs being drawn up and 5 re-inspections scheduled. For both the cutting plants and the cold and frozen stores, the infringements related mainly to the registration and labelling of meat. It was striking that the majority of system inspections in relation to traceability were performed as re-inspections. After identification and evaluation of the relevant causes, the checklist for this inspection may be amended in 2018.

Hygienic work practices

The monitoring results relating to hygienic work practices in slaughterhouses are explained in greater detail under the Impact measurement/Compliance monitor headings below. At red meat slaughterhouses, the NVWA checks for visible contamination of carcasses at two points in the slaughter line (before the PM (post-mortem) inspection and before refrigeration). At poultry slaughterhouses, the NVWA performs this check at the end of the processing line (before refrigeration). At stand-alone cutting plants, in 14.5% of inspections, it was revealed that meat processing operations were not organised in such a way as to prevent contamination of the meat. In 7% of inspections, it appeared that the establishments did not have functioning facilities for disinfecting their equipment. A report of findings on this topic was drawn up in nine cases.

Inspections

The long-standing trend of rising numbers of inspection hours has flattened out; in 2017, inspection hours for both red meat and poultry increased by only 0.7% from 2016. During these hours, not only were inspection tasks performed (AM (ante-mortem) and PM inspections and monitoring of the PM inspection), but a significant portion of the monitoring activities at the slaughterhouses were carried out at the same time. In principle, the PM inspection at red meat slaughterhouses is performed by Official Assistants (OAs) from the Animal Sector Quality Inspection Foundation (KDS), under the supervision of the Official Veterinarian (OV). In 2017, the OAs from the KDS performed at a level above the set minimum standards in almost all cases: in 99.8% of controls with regard to missed pathological irregularities, in 96.5% of controls with regard to the performance of inspection activities and in 97.5% of controls at the time of the release of carcasses from the clean-up position. There are four major calf slaughterhouses where the PM “visual inspection” methodology is applied for calves < eight months of age, which are eligible for such a methodology. The PM “visual inspection” methodology is applied at all pig slaughterhouses, supplemented by an additional PM inspection of any pigs for which it is deemed necessary. Based on AM or PM inspections, a total of 86 suspected cases of animal diseases were reported to the NVWA department responsible for following up on such matters (NVIC) in 2017. These primarily related to suspected cases of leucosis and tuberculosis, but there were also suspected cases of swine fever, for which an increased focus had been requested by the NVWA. The number of slaughters of poultry was at a similar level to 2016 (+0.4%). The use of official veterinarians to monitor the slaughter process increased by 5% from 2016 to 2017, reaching 84%. Further recruitment efforts and the efficient deployment of veterinarians are still required to resolve the capacity shortage. With regard to monitoring of the PM inspection by in-house inspectors, assessments of a total of 262 in-house inspectors were performed at 15 establishments. The results show that, in 2017, among chickens kept for meat production, slightly more pathological irregularities were missed, 0.7% compared to 0.6% in 2016. In most cases, these related to skin conditions, but irregularities in texture, yolk sac infections, back muscle infections, arthritis and injuries were also missed. The percentages are well below the standard of 2%, which applies to the individual in-house inspectors. However, this limit was exceeded in isolated cases.

Measures taken by the NVWA

The substantial increase reported since 2014 in the number of written measures (warnings and fine reports) stabilised in 2017 at the 2016 level (a total of 1,134 measures – see the trend graph). The number of fine reports increased by around a third (to 363), while written warnings fell by approximately 13% (to 771). The vast majority of measures were imposed at slaughterhouses, while poultry slaughterhouses were almost entirely responsible for the significant rise in the number of fine reports compared with 2016. Approximately twice as many written warnings and around three times as many fine reports were issued to poultry slaughterhouses in 2017 than to red meat slaughterhouses. The large numbers of measures at slaughterhouses are mainly a consequence of the risk-based monitoring system for slaughterhouses, under which the detection of infringements and the associated enforcement in a specific risk area results in an increase in the frequency of controls on this component by the system, which in turn creates a higher chance of detecting further infringements. A total of 42 written warnings and 2 fine reports were issued to stand-alone cutting plants; cold and frozen stores received 9 written warnings and no fine reports. The results for these two types of establishment are comparable to 2016. In addition to the infringements with regard to food safety and hygiene, for the establishment types falling within this area of monitoring, infringements were also observed in the area of animal by-products and (in relation to slaughterhouses) with regard to animal welfare and animal health. Only the infringements in the area of animal by-products (93 written measures in total) were included in the figures reported above for the various types of establishments. For infringements with regard to animal welfare and animal health, see elsewhere in this annual report.

Incidents

1. Preliminary ruling by the Court of Justice of the European Union

In 2017, in response to a number of appeals brought by poultry slaughterhouses against measures imposed by the NVWA following the detection of contamination in poultry carcasses, the Court of Rotterdam requested a preliminary ruling from the Court of Justice of the European Union. Specific questions were posed and the European Court requested responses from the Member States and the European Commission. A decision from the European Court is expected in 2018.

2. Fipronil

In the second half of 2017, the NVWA locked down a large number of poultry farms (358 in total) because the chickens present had been treated with fipronil, a substance that has not been approved for use in poultry. Due to this treatment, fipronil was detected in eggs, meat and manure, and products were placed on the market with residue levels above the statutory threshold (MRL). Once an establishment had been locked down, it could only be released following a sample analysis to check fipronil levels per shed and per component (eggs, meat and manure). As part of the investigation into possible contaminated consignments of chicken meat from animals that had left the farm in 2017 and had been slaughtered before the farm was locked down, a targeted sample was taken in 2017 from 12 flocks slaughtered in the Netherlands, where the period between fipronil treatment and the slaughter date was < 12 weeks. This is because the likelihood of the MRL values being exceeded was deemed to be highest in that period. Stock remnants that had not yet been sold were tracked down and samples were taken. All test results were negative (no fipronil was detected). From this, it can be reasonably assumed that these flocks were not contaminated with fipronil to such an extent that this had resulted in residue levels in the meat above the statutory MRL.

Projects in 2017

Meat Supply Chain Improvement Plan

The improvement plan scheme for slaughterhouses was fully rolled out for this target group in 2017 and integrated into the routine monitoring for this sector. Monitoring of all approved slaughterhouses is now done on the basis of risk profiles. A network analysis of red meat slaughterhouses was performed in 2017 to identify possible additional enforcement instruments.

Risk-based monitoring of the game meat supply chain

After implementation of a pilot in the context of the Game Meat Supply Chain Improvement Plan in late 2016 and early 2017, the results were evaluated and a more targeted and risk-based monitoring policy was developed in 2017. Inspections of the various target groups (game-processing establishments, restaurants and cafés, retail traders/poulterers for the local market) were harmonised and a common training programme developed for NVWA inspectors from the various organisational units within the NVWA. Risk-based monitoring will concentrate on product tracking (creating batches), declarations by qualified persons, Trichinella testing of wild boars, hygiene of hunters (materials and equipment) and of the end products (contamination and spoilage) and animal by-products (collection and removal). Monitoring of the various target groups in the game meat supply chain will be performed under this new system from 2018 onwards, and will continue to be developed.

Retrospective analysis of microbiological carcass sampling

In 2016/2017, an information project was performed in which all Dutch red meat and poultry slaughterhouses were requested to provide the results of their mandatory sampling for the microbiological process hygiene criteria¹ from 2014, 2015 and the first half of 2016. These data were retrospectively analysed to investigate whether, based on animal species/slaughterhouse size, one or more risk groups with regard to microbiological process hygiene could be identified. This was done to further develop/improve risk-based monitoring under the relevant legislation. All slaughterhouses supplied their data and benchmarks were established for the various clusters of slaughterhouses. The results showed that all clusters of slaughterhouses have consistently complied with the statutory microbiological criteria with regard to process hygiene. Although the cumulative data shows a picture of the sector, it is more difficult to shape risk-based monitoring on the basis of establishment size or animal type. For further development of risk-based monitoring, it is therefore necessary to zoom in on the performance and measures of individual establishments.

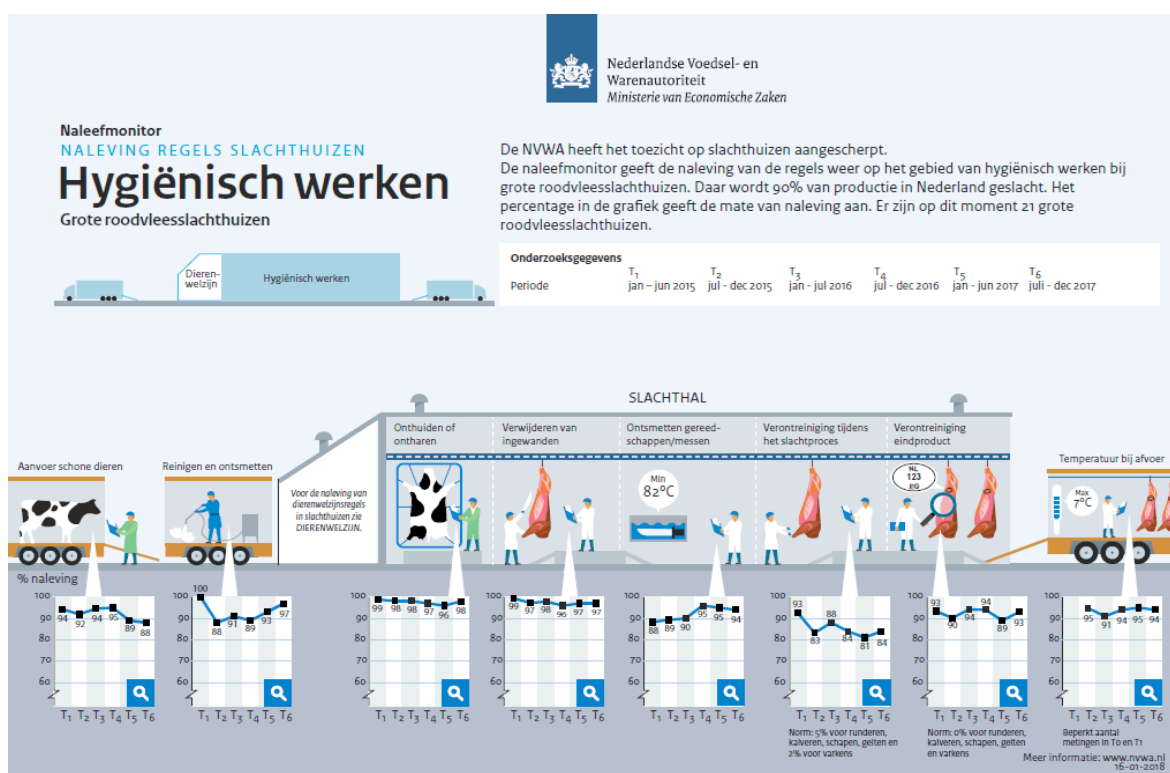
Reliable Food Chain Information (FCI) projects

Two projects were implemented in 2017 to promote compliance with the rules regarding FCI (and thus the reliability of FCI). The “Dubious FCI” project is an ongoing project, in which reports from official veterinarians who have doubts about the reliability of FCI are followed up with the primary establishment. In 2017, around 240 reports of dubious FCI were submitted by veterinarians. Of these, 148 recorded reports related to cases where the veterinarian had doubts about the FCI (11 for poultry/lagomorphs, 4 for sheep/goats and 133 for calves/cattle). Around 45 of these reports were dealt with as a matter of urgency, because no inspection decision could be made. Inspections at primary establishments to follow up on reports of dubious FCI resulted in 36 reports of findings and 47 written warnings. The aim of the second project, “Reliable FCI”, was to promote correct completion of FCI for cattle. The project was launched in 2017 with a risk analysis, a target group analysis and development of an enforcement approach for cattle farmers. The enforcement approach involves a communication campaign in collaboration with sector organisations through trade media, study clubs, specific websites and newsletters to promulgate information on how to complete FCI correctly. This campaign will be implemented and evaluated in 2018.

¹ Commission Regulation (EC) No 2073/2005 of 15 November 2005 on microbiological criteria for foodstuffs

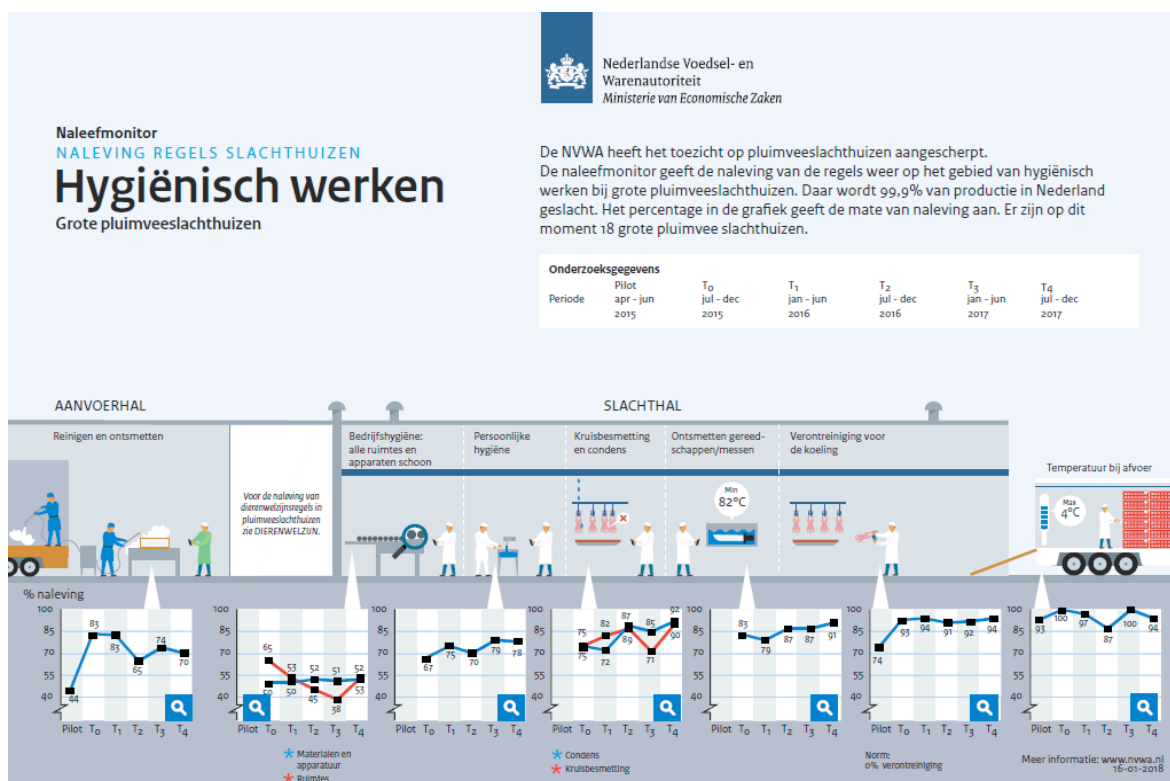
Impact measurement

- Compliance monitor for red meat slaughterhouses
- In 2014, the NVWA started more uniform and risk-based monitoring of red meat slaughterhouses. From a systematic analysis of the checklists based on a number of key high-risk parameters, a clear picture emerged of compliance at each establishment (see below). Based on this compliance monitor for red meat slaughterhouses, it appears that, since the new method of monitoring was introduced, compliance has improved. Nevertheless, there are still several areas of concern. From the data for 2017, it appears that compliance with hygienic work practices in critical dressing procedures such as skinning and the removal of intestines has been at quite a high level for the past three years. Nevertheless, compliance with the standards for carcass contamination during the slaughter process remains below the desired level. Clearly, operators need to pay more attention to controlling all steps in the slaughter process, for instance by performing more checks themselves and by connecting the slaughter speed with their findings. Ultimately, no contamination whatsoever should be visible on the end product. For this key compliance parameter, a downward trend was observed in 2017 (in contrast to the data from poultry slaughterhouses). The NVWA continues to check both standards and will continue to intervene if the standards are breached.



Compliance monitor for poultry slaughterhouses

The new monitoring system was introduced to the large poultry slaughterhouses in 2015. With regard to controls on contaminated carcasses, a reasonable level of compliance has been reached, of between 91% and 94%, since the introduction of the measurements in 2015. When contamination is detected, it is only in around 1 out of every 115 animals checked, on average. On a number of points, such as cleaning of processing areas and prevention of condensation and cross-contamination, the steep downward trend from the first half of 2017 was offset by a sharp increase in compliance in the second half of the year. It would appear that many establishments have taken action in these areas on their own initiative. In the event of non-compliance, the NVWA imposes corrective measures so that the establishment can become compliant. The NVWA also enters into discussions with slaughterhouses to address their individual areas of concern. This requires the necessary resources from the NVWA.



Conclusion

Stricter and more uniform monitoring of slaughterhouses has resulted in a significant increase in the number of written enforcement measures (four times as many as in 2014). The majority of the measures were imposed on poultry slaughterhouses. The task now is to encourage companies to comply spontaneously (and not solely after the detection of a breach and consequent enforcement), using the appropriate enforcement instruments.

3.8 Industrial production – meat products and composite products

Controlling authority or authorities: NVWA

List of the main legislation under which controls were carried out in 2017

EU Legislation	
Regulation (EC) No 178/2002	General principles of food law
Regulation (EC) No 852/2004	Food hygiene
Regulation (EC) No 853/2004	Food hygiene of products of animal origin
Regulation (EC) No 2073/2005	Microbiological criteria for foodstuffs

Size of the control file in 2017

Type of establishment	Number
Production establishments	2,564
Importers	1,080
Trading companies	2,643
Other	728
Total number of establishments	7,015

Monitoring of “Industrial Production – meat products and composite products”, results in 2017

Monitoring of Industrial Production	Number
Inspections (numbers of lists)	6,337
Audits	195
Samples*	
Measures during inspections/audits	1,781

* The samples taken at industrial establishments are reported under the domains responsible for analysing the samples (including Microbiology and Contaminants).

More detailed explanation of the results for “Industrial Production – meat products and composite products”

Overview of the establishment database

The Industrial Production domain covers all establishments that do not supply consumers directly. There were 8,702 such establishments in 2017. Supervision of the dairy and egg sectors is performed by the COKZ/NCAE, while supervision of fish processing establishments is performed by the Fish inspection teams. The remaining establishments are inspected by the Industrial Production inspection teams; in 2017, there were 6,225 registered establishments and 790 approved establishments in this category.

In 2011, all food production establishments were categorised using a risk-based classification system, based on information that had been collected. Each establishment was assigned a colour: orange, yellow, green or white. In 2012, prioritisation of monitoring was based on the colour of the establishment. Importers were also assigned colours in 2012. This classification system is intended for internal use only. The visit frequency for establishments and the matters covered during the inspection depend on the colour-coding of the establishment in question and whether there is a need to apply the intervention policy at the establishment.

The consequences of the colour codes for the establishments are as follows:

orange: these establishments are not in compliance with the legislation at a structural level; these are the establishments subject to “more stringent monitoring”. Monitoring of these establishments is customised, and focuses either on improving the situation or on temporary shutdowns, suspensions or withdrawal of approvals. The frequency of inspections is determined by the “More stringent monitoring” core group; inspections occur as often as necessary;

yellow: these establishments occasionally fail to comply with the legislation; a measure was imposed due to a deficiency on at least one occasion in the past two years. Routine monitoring focuses on eliminating the infringements (through re-inspections). Monitoring also focuses on the basic conditions (at least at production establishments) and any other inspection items that may be applicable;

green: these establishments comply with the legislation and are thus rewarded with the minimum inspection frequency. During previous inspections over the past two years, no infringements were recorded at these establishments. At a minimum, monitoring of “green” production establishments focuses on the basic conditions and one other applicable item. The “other item” will be chosen by the inspector, based on their own intuition, but in such a way that all relevant items are addressed every few years;

white: no inspections have been conducted at these establishments in the past two years; accordingly, no inspection data are available for that period.

The number of establishments in each category is indicated in Tables 1 through 3.

Table 1: Database of registered establishments

Colour code	Number	Percentage
Green	1,874	30
Yellow	1,235	20
Orange	50	1
White	3,066	49
Total registered	6,225	100

Table 2: Database of approved establishments

Colour code	Number	Percentage
Green	295	37
Yellow	404	51
Orange	13	2
White	78	10
Total approved	790	100

A variety of different subjects may be assessed during inspections at establishments. A number of inspection checklists are available for each of the various subjects. Compliance with Regulation (EC) No 852/2004 on the hygiene of foodstuffs is assessed by performing system inspections and audits.

In 2017, two other subjects were specifically assessed: compliance with the traceability requirements set down in Regulation (EC) No 178/2002 on the general principles of food law, and compliance with Regulation (EC) No 2073/2005 on microbiological criteria.

In addition, further investigation into complaints and reports took up a great deal of time.

In some cases, it was discovered during an inspection that an establishment did not have a food safety plan. In principle, in such a situation, a measure would immediately be imposed; however, the deficiency could sometimes be rectified on the spot by placing an order for a hygiene code.

The results of inspections on these subjects are set out in Table 3.

Subject of inspection	Number of inspection checklists	% non-compliant
System inspections	1,457	17
Notification obligation	877	16
Microbiological criteria	663	38
Complaints/reports	919	17
No food safety plan	172	95

The percentage of irregularities uncovered during inspections on microbiological criteria continues to be high, 39% of the establishments are not in compliance with the requirements set out in Commission Regulation (EC) No 2073/2005 of 15 November 2005 on microbiological criteria for foodstuffs.

One of the requirements in this regulation is that shelf life studies must be performed for ready-to-eat food that is a breeding ground for *Listeria*. During inspections, it was noted that many establishments were having difficulty with this requirement. The reason may be that such studies are rather expensive, and not every establishment has the necessary specialist knowledge in house.

Projects in 2017

Industrial production food safety

Compliance percentages for the various types of inspections were in line with the results from previous years.

Inspections under Regulation (EC) No 2073/2005 (microbiological criteria) again uncovered an extremely low rate of compliance.

In 2017, three private quality systems were accepted as potential monitoring support systems. A pilot was performed in which the basic conditions and the risk analysis were not assessed at establishments that had been certified by the relevant certification schemes. The evaluation report is expected in early 2018.

Publication of inspection data on spice importers

Following on from the publication of inspection data from the Fish and Hospitality domains, a project was launched in 2017 to publish inspection data from industrial production establishments. Importers handling large consignments of spices were chosen for this, the reason being that spices are used in a wide variety of foods. Another reason for selecting this group was that it is relatively small, which was important because the available resources were limited. Legal obstacles were identified, and the first inspections were performed in late 2017.

STEC² in the meat supply chain

This project was implemented and the final evaluation has been completed. Due to a lack of resources, fewer establishments were inspected than had previously been agreed. In total, 25% of the inspected establishments had not included "STEC" as a hazard in their hazard identification process. This applies both to establishments with a hygiene code and to those operating with their own HACCP plan.

Waste flows in products of animal origin

This project was partially implemented and 61 establishments were inspected. In total, nine infringements were detected at seven establishments. At the establishments of origin for by-products, it was investigated whether these establishments were correctly handling these product flows intended for use in animal feed. It was also assessed whether these establishments of origin had access to the correct documents. The results of the second phase of the project are not yet available.

Incidents

The fipronil incident (see also the sections on eggs and veterinary medicinal products) had a significant effect on IP resources. A number of inspectors spent a large part of the year working exclusively on controls in the egg sector.

² Shiga toxin-producing *Escherichia coli*

Impact measurement

No specific target group analyses or impact measurements were performed.

Actions taken to improve compliance by establishments

“More Stringent Monitoring” Project

Starting in November 2015, adjustments have been made to some components of the approach to the industrial establishments that are part of the group subject to more stringent monitoring. The aim of these adjustments is to inform establishments at an earlier stage of the consequences that will ensue if they do not make structural improvements to their compliance with the hygiene legislation. In so doing, the NVWA hopes to see these establishments start making improvements more quickly, thus preventing a possible closure of establishments or other drastic legal measures.

The number of industrial establishments tackled under the “more stringent monitoring” strategy has remained reasonably stable in recent years. The number of establishments subject to this approach was 39 in 2015; in 2016 and 2017, the number remained constant at 45 establishments.

During the year, establishments were added to and removed from the NVWA's group of establishments subject to more stringent monitoring, because they either discontinued their activities after intensive monitoring or were found to be in compliance with the regulations again at a structural level.

Inspections of establishments subject to more stringent monitoring in 2016 and 2017 respectively, by establishment category

Establishment category	Number in 2016	% 2016	Number in 2017	% 2017
Trading companies	23	21%	25	20%
Importers	18	17%	18	15%
Production establishments	66	62%	79	65%
Total	107	100%	122	100%

Interventions at establishments subject to more stringent monitoring in 2016 and 2017 respectively

Type of intervention	Number in 2016	% 2016	Number in 2017	% 2017
Report of findings (RoF)	17	16%	36	30%
Written warning (WW)	11	10%	14	11%
RoF and WW	8	8%	6	5%
No intervention	71	66%	66	54%
Total	107	100%	122	100%

Conclusions

The number of industrial establishments subject to the “more stringent monitoring” strategy has remained reasonably stable in recent years. The percentage of irregularities uncovered during inspections on microbiological criteria continues to be high, 39% of the establishments are not in compliance with the requirements set out in Commission Regulation (EC) No 2073/2005 of 15 November 2005 on microbiological criteria for foodstuffs. Many establishments producing ready-to-eat food that is a breeding ground for *Listeria* appear to have difficulty performing shelf life studies.

3.9 Imports of veterinary consignments

Controlling authorities: NVWA and Customs

List of the main legislation under which controls were carried out in 2017

EU Legislation	
Directive 91/496/EEC	Veterinary checks on animals from third countries
Council Directive 97/78/EC	Veterinary checks on animal products from third countries
Council Directive 2002/99/EC	Animal health rules governing the production, processing, distribution and introduction of products of animal origin for human consumption
Commission Decision 2004/292/EC	Introduction of TRACES
Regulation (EC) No 282/2004	Document for the declaration of and veterinary checks on animals from third countries
Regulation (EC) No 136/2004	Procedures for veterinary checks on products imported from third countries
Regulation (EC) No 882/2004	Official controls on compliance with feed and food law, animal health and animal welfare rules
Regulation (EC) No 853/2004	Specific hygiene rules for food of animal origin
Regulation (EC) No 854/2004	Specific rules for the organisation of official controls on products of animal origin intended for human consumption
Commission Decision 2007/275/EC	Lists of animals and products to be subject to controls at border inspection posts
Commission Decision 2011/163/EU	Residue monitoring plans of third countries

National legislation

Health, Welfare and Sport

- Commodities Act (WaW), Section 9;
- Import of food from third countries (Commodities Act) Decree (*Warenwetbesluit Invoer levensmiddelen uit derde landen*);
- Commodities Act Regulation on Veterinary Controls (third countries) (Section 2/4) (*Warenwetregeling Veterinaire controles (derde landen)*);
- Commodities Act Regulation on the Import of Egg Products from Third Countries (*Warenwetregeling invoer ei producten uit derde landen*).

Agriculture, Nature and Food Quality

- Decree establishing the mandate, powers and authority of the Ministry of Economic Affairs, 2016 (*Besluit mandaat, volmacht en machtiging EZ 2016*);
- Decision on marketing animals and products and the application of measures relating to animals and products brought into the Netherlands (*Besluit inzake het in de handel brengen van dieren en producten en de toepassing van maatregelen met betrekking tot in Nederland gebrachte dieren en producten*);
- Regulation governing the veterinary legal rules on trade in animal products (*Regeling veterinair rechterlijke voorschriften handel dierlijke producten*);
- Regulation on trade in live animals and live products (*Regeling handel levende dieren en levende producten*).

Size of the control file in 2017

Type of establishment	Number
Border inspection posts	7
Inspection points	28
Warehouses without veterinarians	11
Ship suppliers	6
Special warehouses	14

Monitoring of “Imports of Veterinary Consignments”, results in 2017

Monitoring domain name	Number
Inspections	61,585
Samples	4,029
Measures	616

More detailed explanation of the results for “Imports of Veterinary Consignments”

The number of samples was much higher than in previous years. The more stringent requirements with regard to products from Brazil are the main reason for this. Out of the 8,056 landed consignments from Brazil that were eligible for testing, microbiological testing was carried out on 2,639, and 146 positive results were produced.

Actions taken to improve the official controls

Work is being done in the Netherlands to grant accreditation to all aspects of the import process. The process of accrediting the monitoring of warehouses and the monitoring of the import of food and feed of non-animal origin is progressing, and will probably be completed with regard to the warehouses in 2018.

Actions taken to improve compliance by establishments

Establishments as a group are consulted regularly (four times a year) about import-related matters; a variety of different topics are discussed.

Conclusions

The number of batches submitted for inspection increased in 2017. The number of laboratory analyses increased significantly, due to developments relating to Brazil. This also resulted in an increase in the number of rejections.

3.10 Fish, fish products and aquaculture

Controlling authority: NVWA

List of the main legislation under which controls were carried out in 2017

EU Legislation	
Regulation (EC) No 852/2004	Food hygiene
Regulation (EC) No 853/2004	Hygiene during production of products of animal origin
Regulation (EC) No 854/2004	Official controls on products of animal origin
Regulation (EC) No 2073/2005	Microbiological criteria for foodstuffs
Council Directive 2006/88/EC	Aquaculture

Size of the control file in 2017

Type of establishment	Number
Fish auctions	13
Cold and frozen stores	54
Dispatch centres	41
Fresh fish processing	137
Purification centres	16
Processed fishery products	124
Fish farms	53
Mollusc and crustacean farms	143
Total number of establishments with EC approval	581

Type of establishment	Number
Freezer vessels	12
Factory vessels	207
Total number of vessels with EC approval	219

Production areas	Number
Number of production areas (open)	14
• Category A	13
• Category B	1
Number of designated rewatering areas*	187
• Mussel rewatering plots	97
• Oyster beds (boxes)	90

* Set annually; non-designated rewatering areas are part of the production area in which they are situated.

Monitoring of “Fish, Fish Products and Aquaculture”, results in 2017

Monitoring of the fish supply chain	Number
Inspections	1,336
Samples	1,009
Measures, of which:	233
• written warnings	164
• fine reports	64
• official reports	5

Monitoring	Number of samples	Number of non-compliant samples/sampling
E. coli in rewatering areas	191	0
E. coli in production areas*	1,113	4/7
Phytoplankton**	326	24/27
Biotoxins	403	0
Chemical contaminants	14	0

* New E. coli criteria for shellfish came into effect on 1 January 2017 (Commission Regulation (EU) 2015/2285. Five samples were taken per sampling operation and per production area in 2017. Where 2 of these 5 samples exceeded the standard of 230 colony-forming units (cfu)/100g, or 1 of the 5 samples contained more than 700 cfu/100g (=non-compliant), additional measures were imposed.

** In the event of non-compliance, the number of samples taken within the production area is increased.

Measures/non-compliances	Number
Area declassification for rewatering areas (E. coli)	0
Area declassification for production areas (E. coli)	4
Measures for phytoplankton in production areas	11
Measures for biotoxins in production areas	0
Measures for chemical contaminants in production areas	0
Other (preventative) measures for rewatering areas	0
Other (preventative) measures for production areas	0

More detailed explanation of the results for “Fish, Fish Products and Aquaculture”

- This target group is represented by a relatively large number of small and medium-sized fish processing establishments with a relatively simple production process. The sector also has about 20 large industrial establishments. There are currently 385 EC-approved fish processing establishments in the Netherlands (not including fish farms). The NVWA conducts inspections at these establishments as part of the official controls. The Netherlands also has 219 EC-approved fish-processing vessels, the majority of which are engaged in shrimp fishing, and 12 EC-approved freezer vessels. In 2017, 1,336 inspections were conducted. The NVWA imposed a total of 233 measures in the period from 1 January 2017 to 31 December 2017 inclusive. Monitoring of aquaculture production establishments is risk based. The selection of the establishments to be inspected and the inspection frequency are based on the risk classification of the fish farms.

Projects in 2017

- basic conditions, focusing on an establishment's architectural infrastructure, hygiene and working methods within the establishment and correct storage temperatures;
- supervision of HACCP-related procedures, setting up and implementing such procedures on an ongoing basis;
- tracing and reporting: establishments must be able to trace their products. They must be able to establish the origin and destination of each product. Specific attention on the obligation for establishments to notify the competent authority if they know that unsafe or harmful food has been introduced to the market;
- microbiological criteria: do establishments comply with the microbiological criteria laid down in Regulation (EC) No 2073/2005, which also focuses on the method by which establishments should verify the food safety criteria in this Regulation. Specific attention was paid to controlling *Listeria monocytogenes*, particularly in smoked fish products;
- chemical criteria: do establishments comply with the statutory requirements for contaminants, additives, biotoxins, etc.;
- publication of inspection data for all fish processing establishments: the inspection results for fish auctions have been published since 2015. Data for all fish processing establishments was also published in December 2017;
- European baseline survey on norovirus in oysters (2016–2018): this baseline survey was started in 2016. The aim of the study was to map the spread and infection of oysters with norovirus across Europe.

HACCP system monitoring

In 2017, 1,336 inspections were conducted in the fish sector, including 73 audits of the application of HACCP procedures. Official controls at purification centres focused specifically on validation of the purification process as part of Regulation (EC) No 853/2004.

RASFF 2017

Findings at fishery establishments led to 26 RASFF notifications being submitted by the Netherlands in 2017. Dutch fishery establishments were also involved in 17 follow-up reports. Detected deficiencies included: excessive levels of residues of environmental contaminants in fish, excessive histamine levels in fish, *Listeria monocytogenes* in smoked fish and the presence of unauthorised additives (phosphate) in unprocessed fish.

Incidents

No major incidents occurred in 2017.

Actions taken to improve compliance by establishments

The established intervention policy was strictly applied, and further work was done in 2017 on publishing inspection results for all fish processing establishments. This was completed in December 2017.

Conclusions

- Risk-based monitoring, which was continued in 2017, made an important contribution to the selection of establishments to be inspected and the frequency with which they are inspected.
- In 2015, the NVWA published inspection data for EC-approved fish auctions. Since December 2017, the inspection results for all EC-approved fish processing establishments have been published on the NVWA website.
- Official controls carried out in the fish sector and the fish processing industry often reveal omissions that are subject to the intervention policy.
- The presence and growth of *Listeria monocytogenes* in smoked fish during its shelf life remains an issue that requires attention.
- In collaboration with the European Commission, a Europe-wide baseline study is underway to chart the presence of norovirus in oysters and the presence and spread of the virus in end products and production areas.

3.11 Dairy, eggs and egg products

3.11.1 Dairy

Controlling authorities: COKZ

List of the main EU legislation under which monitoring was carried out in 2017:

EU Legislation	
Regulation (EC) No 178/200	General principles of food law
Regulation (EC) No 852/2004	Food hygiene
Regulation (EC) No 853/2004	Hygiene during production of products of animal origin
Regulation (EC) No 2073/2005	Microbiological criteria for foodstuffs
Regulation (EC) No 1069/2009	Animal by-products Regulation
Regulation (EC) No 142/2011	Animal by-products
Regulation (EU) No 1169/2011	The provision of food information to consumers
Regulation (EC) No 1333/2008	Food additives
Regulation (EC) No 37/2010	Veterinary medicinal product residues
Regulation (EC) No 1881/2006	Maximum levels for contaminants in foodstuffs
Council Directive 2006/141/EC	Infant formulae and follow-on formulae
Council Directive 1999/21/EC	Dietary foods for special medical purposes

Relevant national legislation

- Dairy (Commodities Act) Decree (*Warenwetbesluit zuivel*);
- Food Hygiene (Commodities Act) Decree (*Warenwetbesluit hygiëne van levensmiddelen*);
- Preparation and Handling of Food (Commodities Act) Decree (*Warenwetbesluit bereiding en behandeling van levensmiddelen*);
- Commodities Act Regulation on Infant Formulae (*Warenwetbesluit zuigelingenvoeding*) 2007;
- Commodities Act Regulation on Dietary Foods for Special Medical Purposes (*Warenwetregeling dieetvoeding voor medisch gebruik*);
- Food Information (Commodities Act) Decree (*Warenwetbesluit informatie levensmiddelen*);
- Animal Products Decree (*Besluit dierlijke producten*);
- Regulation on Animal Products (*Regeling dierlijke producten*).

Size of the control file in 2017

Type of establishment	Number
Primary phase:	
• cow milk farms	± 17,000
• goat milk farms	± 500
• sheep milk farms	± 30
• horse milk farms	16
• buffalo milk farms	4
• donkey milk farms	2
• camel milk farms	1
Total	17,553
Secondary phase:	
• farm milk recipients	38
• industrial dairy processors	172
• subsequent processors of cheese	106
• storage locations	38
• small-scale dairy processors and farmhouse dairies	477
• producers of foods for particular nutritional uses	13
Total	844

Monitoring in the context of the package of hygiene measures (HP) and ABPs, results in 2017

Type of establishment	Number
Primary phase (HP):	
• inspections (random and re-inspections) of dairy farms (with a quality system)	140
• audits (routine and re-audits) of dairy farms not covered by a quality system	82
Secondary phase (HP/ABP):	
• audits of farm milk recipients	41
• audits of industrial dairy processors (routine and re-audits)	177
• inspections of industrial processors (random, including establishments in the process of shutting down and re-inspections)	28
• audits of subsequent processors of cheese (routine and re-audits)	126
• inspections of subsequent processors (random, including establishments in the process of shutting down and re-inspections)	22
• audits of storage locations (routine and re-audits)	38
• audits of small-scale and farmhouse dairy processors (routine and re-audits)	540
• inspections of small-scale and farmhouse dairy processors (random, including establishments in the process of shutting down and re-inspections)	68
• audits of producers of foods for particular nutritional uses (routine and re-audits)	18
• inspections of producers of foods for particular nutritional uses (random and re-inspections)	2
Audits and inspections in response to reports and emergencies	27
Sampling (results):	
• number of batches tested at dairy establishments - <i>microbiology</i>	728
- number of analyses	1,595
- number of batches breaching the standard (in %)	12 (1.6%)
• number of batches tested at small-scale and farmhouse dairy processors – <i>microbiology</i>	1,875
- number of analyses	4,627
- number of batches breaching the standard (in %)	123 (6.5%)
• number of batches tested at producers of foods for particular nutritional uses - <i>microbiology</i>	53
- number of analyses	215
- number of batches breaching the standard (in %)	2 (3.8%)
• number of batches tested at producers of foods for particular nutritional uses - <i>composition</i>	33
- number of analyses	1,116
- number of batches breaching the standard (in %)	1 (3.0%)
• number of batches of Category 3 material tested - <i>animal by-products</i>	109
- number of analyses	265
- number of batches breaching the standard (in %)	14 (12.8%)
Measures pursuant to the intervention policy:	
• warnings	222
- relating to the package of hygiene measures	206
- relating to animal by-products	16
• administrative fines	2
- relating to the package of hygiene measures	2
- relating to animal by-products	0
• official reports	0
• withdrawals/suspensions of registrations/approvals	0

More detailed explanation of the results for the dairy industry

Primary phase

Dairy farms that supply dairy companies sign up to quality assurance systems managed by the dairy companies. For these types of farms, the COKZ conducts random inspections of their compliance with the package of hygiene measures. A limited number of dairy farms do not use such a quality assurance system; these dairy farms are directly monitored by the COKZ. These farms are audited every year on their compliance with the package of hygiene measures.

As in 2016, the findings of the COKZ in 2017 in relation to its monitoring of dairy farms were communicated to sector representatives and to the NVWA. During this consultation, the following topics were discussed: the setting up of the quality assurance system, reports of rejections of milk and exceeding of antibiotics MRLs (see also “recipients of farm milk”), monitoring of animal health and the results of assessments by quality assurance systems compared to COKZ assessments. It was agreed that the quality assurance system will be further evaluated/reviewed by the industry, with the starting point being that statutory and non-statutory assessment points will be assessed separately. For the statutory aspects, there will be an effort to align the quality assurance system with the COKZ assessment list. The systems will also take note of the NVWA intervention policy.

Since 2017, COKZ inspectors have been using a revised assessment list, which has resulted in findings being reported more clearly and data summaries being clearer and more reliable. In addition, it seems that, as a result of the implementation by the COKZ of the NVWA intervention policy, the results of COKZ assessments in 2017 are more in line with the results of assessments by the quality assurance system.

In 2017, 11.5% of dairy farms with a quality assurance system did not fully comply with the requirements applicable to dairy farms. Of the dairy farms with no quality assurance system (directly monitored by the COKZ), 7.3% were non-compliant.

Secondary phase

Farm milk recipients

During annual audits, it is assessed whether the established practice in the event of a breach of a standard (plate count and/or cell count or excessive antibiotics MRLs) has been followed. In addition, there is an assessment of whether dairy farms supplying farm milk recipients have signed up to a quality assurance system, and also whether the established practice in the event of a rejection of milk by the recipient has been followed.

In response to findings in relation to the practice to be followed when MRLs are exceeded, an information meeting with the sector was held in 2017, at which the COKZ presented the results regarding the quality of “excessive MRL” reports and the follow-up by the recipients with the dairy farms in whose milk the excessive MRLs were found.

In 2017, 28.9% of farm milk recipients were not fully compliant with the statutory provisions.

Industrial dairy processors, subsequent processors and storage locations

These establishments undergo one routine audit per year (system monitoring) in relation to approval in the context of the package of hygiene measures. The audit covers the following aspects: general, documentation, HACCP, quality of raw materials, hygiene and design of processing areas and facilities, cleaning and disinfection, water, pests/vermin, cross-contamination, personal hygiene, heat treatment, storage, refrigeration/freezing, packaging and labelling, transport, sampling and testing. Regular monitoring in accordance with the above is also carried out in establishments that are not subject to approval, such as ice-cream makers.

Monitoring with regard to the assessments listed above is also carried out for compliance in relation to animal by-products, with an assessment of the extent to which establishments correctly handle the identification, storage and sale of such products.

In addition to the above assessments relating to the package of hygiene measures, random inspections are also conducted.

In 2017, 23.5% of industrial processors were not fully in compliance with the statutory provisions with regard to the package of hygiene measures. For subsequent processors, this rate was 17.5%, and 8.3% of storage locations were not fully in compliance with the applicable statutory provisions.

With regard to animal by-product compliance, the levels were as follows:

- 6.8% of industrial processors and 2.9% of subsequent processors were not fully compliant.
- No serious deficiencies were observed at storage locations.

Areas of concern are designated each year and given specific attention during assessments. In 2017, for example, as in 2016, specific attention was given to tracing of raw materials; it can be concluded that compliance improved significantly in 2017 compared to 2016. In addition, a baseline assessment for cheese graters and cleaners was conducted in 2017 as a specific project (see “Projects”).

In addition to assessments, microbiological testing is used to check whether dairy products meet the standards in the package of hygiene measures. The frequency of testing and the parameters for the tests depend on the product type and the risk assessment for the establishment type. In 2017, 1.6% of batches tested at dairy establishments did not meet the applicable statutory microbiological standards.

Small-scale processors and farmhouse dairy processors

These establishments undergo one routine audit per year (system monitoring) in relation to approval in the context of the package of hygiene measures. The audit covers the following aspects: general, documentation, HACCP, quality of raw materials, hygiene and design of processing areas and facilities, cleaning and disinfection, water, pests/vermin, cross-contamination, personal hygiene, heat treatment, storage, refrigeration/freezing, packaging and labelling, transport, sampling and testing. Regular audits in accordance with the above are also carried out in establishments in this category that are not subject to approval, because they primarily supply consumers directly.

Monitoring with regard to the assessments listed above is also carried out for compliance in relation to animal by-products, with an assessment of the extent to which establishments correctly handle the identification, storage and sale of such products.

Some farmhouse dairy processors apply the farmhouse dairy production hygiene code to their production process; these establishments are assessed with regard to whether they comply with that code.

In addition to the above assessments relating to the package of hygiene measures, random inspections are also conducted for compliance with this package.

Of small-scale processors and farmhouse dairy processors, 16.6% were not fully in compliance with the statutory requirements relating to the package of hygiene measures. With regard to compliance with the animal by-product requirements, no serious deficiencies were observed.

In addition to assessments, microbiological sampling is used to check whether dairy products meet the standards in the package of hygiene measures. The frequency of testing and the parameters for the tests depend on the product type and the risk assessment for the establishment type.

In 2017, 6.5% of batches tested at dairy establishments did not meet the applicable statutory microbiological standards. Areas of concern include deviations from the process hygiene criteria standards for coagulase-positive *Staphylococci* (particularly in raw-milk products) and *Enterobacteriaceae* in various product types.

Producers of foods for particular nutritional uses

In a European context, foods for particular nutritional uses are regulated by the national implementation of the European directive on foodstuffs intended for particular nutritional uses. In line with the categories defined in this directive, the COKZ monitors Dutch producers of infant formulae, dietary foods for special medical purposes, processed cereal-based foods and baby foods for infants and young children.

In 2017, there were 13 establishments in the Netherlands producing one or more of the above categories of foods and monitored by the COKZ. This monitoring focuses on the provisions of the package of hygiene measures (see “Industrial processors”), composition and the provisions of the other Commodities Act regulations. Monitoring of claims for these types of products is not part of the scope of the COKZ’s monitoring; this is performed by the NVWA (as part of the “Special food and drink” domain – see Chapter 3.17).

Monitoring with regard to the assessments listed above is also carried out for compliance in relation to animal by-products, with an assessment of the extent to which establishments correctly handle the identification, storage and sale of such products.

Each year, producers of foods for particular nutritional uses are subject to one routine audit (system monitoring) in relation to approval of the establishment.

In 2017, it was observed that 54% of producers of foods for particular nutritional uses were not fully in compliance with the statutory provisions with regard to the package of hygiene measures.

With regard to animal by-product compliance, it was found that 23% of establishments were non-compliant.

In addition to assessments, microbiological testing is used to check whether products meet the standards in the package of hygiene measures. The frequency of testing and the parameters for the tests depend on the product type and the risk assessment for the establishment type. In addition to microbiological testing, composition testing is also performed.

In 2017, 3.8% of the batches tested did not meet the applicable statutory microbiological standards and 3.0% did not meet the composition standards.

Control and processing of milk from establishments with suspected cases of animal diseases

Milk from dairy farms with suspected cases of tuberculosis or brucellosis must be heat treated under the supervision of the competent authority. In 2017, the COKZ performed 19 audits of dairy product processors. The purpose of these audits was to check that the milk concerned was processed correctly at the processing location. Where appropriate, the processing of milk relating to multiple separate reports of suspicions was checked during a single audit. In such audits, it was observed that the milk in question was processed correctly in all cases (and as a result, heat treatment was carried out).

During administrative controls on farm milk, an assessment takes place of whether the milk from the farm concerned was actually processed at the indicated processing location. In 2017, 35 administrative assessments were conducted. In these controls, it was observed that the milk was in fact processed at the indicated processing locations.

Projects in 2017

STEC investigation

Raw-milk and/or surface-ripened cheese samples were taken from nine producers and four cutters to be tested for STEC. A total of 55 samples were taken (38 samples of surface-ripened cheese and 17 samples of soft or raw-milk cheese). No STEC was detected in any of the samples.

Baseline assessment in the cheese graters and cleaners sector

In 2017, 17 cheese graters and 7 cheese cleaners were specifically inspected for the quality, storage and hygienic condition of their raw materials, as well as for their sampling programmes for both raw materials and end products, to identify the current state of affairs in this sector with regard to these points.

Among the graters, at one establishment, minor infringements were detected in multiple areas (hygienic condition of raw materials/suitability for human consumption and storage of cheese).

Among the cleaners, multiple deficiencies were observed at one establishment (hygienic condition of raw materials/suitability for human consumption and no adequate sampling plan). The establishment received a written warning in relation to these deficiencies. It was also observed that there was room for improvement in the environmental testing at this establishment (minor deficiency). By the time of the reassessment, these points had all been resolved, but a new infringement was detected with regard to cheese care and the handling of waste flows. The establishment received another written warning in relation to these matters.

Packaging controls for dairy establishments

In 2017, 75 controls on packaging were carried out at dairy establishments, to establish the extent to which the new labelling requirements were being met. A total of 45 samples of packaging were assessed as acceptable. Irregularities were observed in 30 packaging samples. These irregularities were varied in nature.

In general, the irregularities were spread across the different product groups. However, irregularities in relation to the “nutrition information” aspect were mainly found in liquid products (15% of liquid products, n=33).

Reports and incidents in 2017

Dairy establishments, small-scale processors and farmhouse dairy processors, and producers of foods for particular nutritional uses

Reports are received through a variety of channels. They may come from the RASFF, or through a GFL report from the establishment itself; reports are also received from other competent authorities, or directly from consumers. In 2017, the COKZ handled a total of 65 cases based on reports and emergencies received through one of the above channels. Of these, 55 related to product irregularities; the remaining 10 related to reports of fraud, animal disease and/or establishment hygiene aspects.

Official sampling by the COKZ itself can also result in a case being taken on. In 2017, a total of 137 cases were handled in response to official sampling in the context of the EU package of hygiene measures.

Microbiology

In terms of microbiological criteria for food, a distinction is made between food safety criteria and process hygiene criteria (Regulation (EC) No 2073/2005).

Process hygiene criteria

Irregularities in relation to process hygiene criteria are not notifiable. However, where irregularities are detected, the establishment must ascertain the cause, take corrective measures with regard to the process and perform testing to demonstrate that the measures were effective. If irregularities in relation to process hygiene criteria are detected during official sampling by the COKZ, the report to the establishment will indicate the measures that must be taken.

The follow-up assessment generally checks the extent to which the establishment has implemented the correct measures to remedy the irregularities in relation to process hygiene criteria.

In 2017, in response to the results of official sampling by the COKZ, 122 specific cases were handled in accordance with the above procedure with regard to the establishment taking responsibility.

Food safety criteria

If food safety criteria are breached, the establishment must block the consignments concerned around or from the production date when the breach is detected. A recall operation may have to be initiated for any batches already delivered during this period. The cause of the contamination must be discovered and removed. A thorough analysis of the critical points of the production process must be conducted. Corrective measures should be taken and testing must demonstrate that the measures were effective. This is supervised by the COKZ through inspection and additional sampling if necessary.

In response to the results of official sampling by the COKZ, 15 specific cases (12 involving the presence of *Listeria monocytogenes*, 2 involving *Cronobacter spp.* and 1 involving *Salmonella*) were handled in 2017 in accordance with the above procedure with regard to the establishment taking responsibility.

Reports and emergencies received through a different channel (RASFF, etc.; see above) that raised the possibility that food safety criteria may have been breached were also handled based on this procedure.

Chemical, physical and other contaminants

Ten cases of irregularities relating to chemical or physical contamination were dealt with, all originating from reports, including RASFF and GFL reports. Cases concerning relevant irregularities in relation to food safety were handled in accordance with the method described above for dealing with food safety microbiology.

The cases handled related to the following issues, amongst others:

- the presence of plastic particles in various products, including cheese and yoghurt;
- aflatoxins in milk;
- antibiotics in milk.

Other cases that were handled primarily concerned labelling irregularities, such as incorrect ingredient statements (including a failure to state allergens or a Best Before date), and inadequate hygiene in establishments.

Impact measurement

The report for this component is incorporated into the sections on dairy farms, dairy establishments, small-scale and farmhouse dairy processors and producers of foods for particular nutritional uses in the paragraphs above.

Actions taken to improve the official controls

The alignment of the COKZ's intervention policy with that of the NVWA continued to take shape in 2017 and has resulted in a specific dairy and eggs intervention policy. Assessment lists have been adjusted accordingly, which has resulted in findings being reported more clearly and data summaries becoming clearer and more reliable.

As a consequence of the implementation of the NVWA-specific and general intervention policies, the results of COKZ dairy farm assessments in 2017 were more in line with the results of assessments performed by other parties, such as private quality assurance systems (although it was more difficult to compare them with COKZ results from previous years). In addition, the COKZ once again carried out unannounced inspections in 2017; some were carried out at establishments chosen at random, and some at dairy establishments identified as persistent offenders on the basis of audit results.

In 2017, an investigation was conducted to discover the extent to which bacterial growth inhibitors that are used or could be used on dairy farms have been sufficiently tested. This evaluation was performed by the RIKILT, and the results of the investigation are currently being discussed with the sector.

Actions taken to improve compliance by establishments

See the section on dairy farms.

Conclusions

After analysing the reports made by farm milk recipients in relation to rejections of milk and excessive antibiotics MRLs, it was established that the information provided in these reports was not always complete or consistent. In 2017, the COKZ organised an information meeting to improve follow-up by farm milk recipients in relation to excessive MRLs in particular.

Based on the zero base assessment for cheese graters and cleaners, it can be concluded that establishments are generally complying with the most important requirements for quality, storage and hygienic conditions of raw materials, as well as with the sampling programme for both raw materials and end products. A critical observation in this regard is that the assessments were announced in advance, which may have had an impact on the results.

In packaging controls carried out to check whether dairy establishments had implemented Regulation (EC) No 1169/2011 on the provision of food information to consumers, which came into effect on 13 December 2014, it was found that the regulation had not been sufficiently implemented in relation to 30 of the 75 packaging samples examined. Establishments have been alerted to this matter, and almost all of the establishments concerned have committed to modifying their packaging.

The percentage of microbiological irregularities in dairy samples and the number of reports (RASFF and GFL) that are microbiological in nature remain high, and require particular attention both from the COKZ and from the establishments.

3.11.2 Eggs and egg products

Controlling authorities: COKZ/NCAE

List of the main EU legislation under which monitoring was carried out in 2017

EU Legislation	
Regulation (EC) No 178/2002	General principles of food law
Regulation (EC) No 852/2004	Food hygiene
Regulation (EC) No 853/2004	Hygiene during production of products of animal origin
Regulation (EC) No 2073/2005	Microbiological criteria for foodstuffs
Regulation (EC) No 1069/2009	Animal by-products Regulation
Regulation (EC) No 142/2011	Animal by-products
Regulation (EU) No 1169/2011	The provision of food information to consumers
Regulation (EC) No 1333/2008	Food additives
Regulation (EC) No 1881/2006	Maximum levels for contaminants in foodstuffs
Regulation (EC) No 2160/2003	Control of <i>Salmonella</i>

Relevant national legislation:

Commodities Act:

- Food Hygiene (Commodities Act) Decree;
- Preparation and Handling of Food (Commodities Act) Decree;
- Food Hygiene (Commodities Act) Decree;
- Food Information (Commodities Act) Decree.

Animals Act:

- Animal Products Decree
- Regulation on Animal Products

Size of the control file in 2017

Type of establishment	Number
Primary phase: <ul style="list-style-type: none">• egg-laying poultry farms	895
Secondary phase: <ul style="list-style-type: none">• collectors• packing stations• egg product producers• egg product traders	11 120 20 15
Total primary and secondary	1,061

Monitoring in the context of the package of hygiene measures (HP) and ABPs, results in 2017

Type of establishment	Number
Assessments:	
• egg-laying poultry farms (inspections and re-inspections)	300
• collectors (inspections and re-inspections)	10
• packing stations (audits, re-audits, inspections and re-inspections)	225
• egg product producers (audits, re-audits, inspections and re-inspections)	79
• egg product traders (audits and inspections)	15
Audits and inspections in response to reports and emergencies (including re-audits/re-inspections)	98
Samples/analyses from egg product producers – <i>microbiology</i>	
• number of batches tested	103
• number of analyses	630
• number of batches breaching the standard (in %)	2 (1.9%)
Samples/analyses from laying poultry farms – <i>contaminants (dioxins, dioxin-like polychlorinated biphenyls (PCBs) and other PCBs)</i>	
• number of batches tested	49
• number of analyses	147
• number of batches breaching the standard (in %)	1 (2%)
Measures pursuant to the intervention policy:	
• warnings	39
- relating to the package of hygiene measures	35
- relating to animal by-products	4
• administrative fines	2
- relating to the package of hygiene measures	2
- relating to animal by-products	0
• official reports	0
• withdrawals/suspensions of registrations/approvals	0

More detailed explanation of the egg sector results

Primary phase

Egg-laying poultry farms

The general principle behind the monitoring of egg-laying poultry farms is that establishments with an assurance system are assessed once every three years, and establishments without an assurance system are assessed annually. These assessments are unannounced. Based on this principle, 395 assessments were scheduled in 2017. The number of assessments actually performed ended up being around 300, all of which were unannounced.

The discrepancy between the number of inspections that should have been performed and the number that actually were performed is due to:

- bird flu (HPAI) in the Netherlands, which resulted in no assessments being carried out in Q1, Q4 and part of Q2, because of the visitor regulations in place;
- the fipronil incident, and particularly the possible criminal component; assessments were temporarily halted in Q3 of 2017;
- six egg-laying poultry farms that ceased their activities in 2017.

Assessments focus on hygienic aspects, administration, accommodation, drinking water and cross-contamination, and random samples were taken to test for other dioxins in eggs (see below). At egg-laying poultry farms, monitoring by the COKZ/NCAE of the use of veterinary medicinal products focuses solely on the use of veterinary medicinal products that could lead to residue formation in the eggs. This includes veterinary medicinal products for which a withdrawal period has been set.

Monitoring with regard to the assessments listed above is also carried out for compliance in relation to animal by-products, with an assessment of the extent to which establishments correctly handle the identification, storage and sale of such products.

In 2017, 1% of inspected egg-laying poultry farms were not fully in compliance with the requirements of the package of hygiene measures. The deficiencies detected were mostly related to inadequate hygiene in the processing areas (egg packing room), and in particular the presence of old egg residues. No deficiencies were observed in relation to animal by-products.

Since 2014, random testing has been performed for the presence of dioxins, dioxin-like PCBs and indicator PCBs in the eggs of free-range chickens.

In 2017, eggs from 49 establishments were tested. The standard was found to be breached at one establishment, with regard to the sum total of dioxins, dioxin-like PCBs and indicator PCBs. An additional investigation was carried out to discover the cause of this contamination. This revealed that the most likely cause was an old fireplace in the open-air run. The NCAE instructed the establishment to implement corrective measures, including keeping the hens indoors. The establishment also carried out remediation work in the open-air run. Soil sampling showed that this work was effective.

Monitoring to control *Salmonella* at egg-laying poultry farms is conducted by the NVWA. Monitoring by the COKZ/NCAE is limited to checking the correct marking of eggs contaminated with *Salmonella enteritidis* or *Salmonella typhimurium* and the channelled sale of eggs directly from the poultry farm to the egg product producer.

In both Q1-Q2 and Q4 2017, bird flu-related visitor regulations were in place. During these periods, the COKZ/NCAE did not make any visits to poultry farms, and verification of the correct channelling of eggs was performed exclusively by egg product producers.

In total, seven written warnings were issued in 2017 due to incorrect marking of eggs and/or an inability to prove that the eggs were delivered directly to the egg product producer.

Secondary phase

Collectors

Inspections of collectors are conducted annually, and are unannounced. These inspections focus on hazard identification and risk assessment, food safety, traceability, general hygiene rules, specific requirements relating to design and environment, transport, waste, personal hygiene, packaging, training, suppliers and specific requirements relating to eggs. The handling of animal by-products is also assessed.

In 2017, 10 inspections of collectors were conducted. No deficiencies were observed during these assessments, either in relation to the package of hygiene measures or in relation to ABPs.

Packing stations

Packing stations are subject to one routine announced inspection per year, as well as one routine unannounced inspection. Additional inspections may also be conducted on the basis of a risk analysis.

In 2017, fewer assessments were performed than planned, since some packing stations are also egg-laying poultry farms. For a significant part of 2017, no assessments could be performed at these establishments due to the bird flu and the fipronil incident; see the section on egg-laying poultry farms.

Almost all packing stations operate according to the "Hygiene code for egg packing stations, collectors and wholesalers". This hygiene code has been approved by the Ministry of Health, Welfare and Sport. Packing stations are assessed by means of an audit into their implementation of this hygiene code. Unannounced inspections are also carried out. The following components are assessed: design and maintenance of processing areas and equipment, hygiene, cleaning and disinfection, water quality, HACCP including documentation, quality of raw materials, pest control, cross-contamination risk, personal hygiene, training and instruction of staff, cold chain, packing, transport, sampling and testing. The correct handling of animal by-products is also assessed.

In 2017, 5.7% of packing stations were not fully in compliance with the applicable statutory requirements with regard to the package of hygiene measures. No deficiencies were observed in relation to animal by-products.

Egg product producers

Egg product producers are subject to one routine announced inspection per year, as well as two routine unannounced inspections. The following components are assessed: design and maintenance of processing areas and equipment, hygiene, cleaning and disinfection, water quality, HACCP including documentation, quality of eggs and other raw materials, pest control, cross-contamination risk, personal hygiene, training and instruction of staff, cold chain, packing, transport, sampling and testing, and correct handling of animal by-products.

In 2017, 21 routine announced and 36 routine unannounced assessments were performed.

In 19 assessments of 11 different egg product producers, 1 or more deficiencies in relation to the package of hygiene measures were detected. This resulted in 18 written warnings and 1 report of findings.

One written warning and one report of findings were also issued, in relation to the package of hygiene measures, to an egg product producer during an assessment in response to a report. See the section on reports and incidents.

This means that 55% of egg product producers were, in some cases repeatedly, not fully in compliance with the statutory provisions with regard to the package of hygiene measures.

With regard to animal by-product compliance, 10% of establishments were not fully in compliance with the statutory provisions.

In addition to the above assessments, assessments were performed in 2017 (n=12) in the context of monitoring compliance with Commodities Act regulations (food labelling) in relation to the correct indication of the farming method upon delivery of egg products by egg product producers. If the farming method was indicated on or near the end product, it was checked whether the eggs used had actually originated from a farm using the method in question. This was checked in relation to a number of batches during such controls. No deficiencies were found.

In addition to assessments, microbiological sampling is used to check whether egg products meet the standards in the package of hygiene measures. The frequency of testing and the parameters for the tests depend on the product type and the risk assessment for the establishment type. In 2017, a total of 103 batches were tested for *Enterobacteriaceae* and *Salmonella*, and 12 batches were tested for *Listeria monocytogenes*. Contamination with *Salmonella* was detected in one batch of chicken egg yolk. In addition, in one batch of cooked and painted eggs, a breach of the *Enterobacteriaceae* process hygiene criteria was identified (in three out of five samples). The establishments involved were informed, and instructed to take appropriate measures.

Egg product traders

A total of 15 assessments of egg product traders were performed, 14 announced and 1 unannounced. No deficiencies were observed during these assessments, either in relation to the package of hygiene measures or in relation to ABPs.

Reports and incidents in 2017:

General

Reports and notifications of emergencies are made through a variety of channels. They may come from the RASFF, or through a GFL report from the establishment itself; reports are also received from other competent authorities and/or directly from consumers.

In 2017, the COKZ/NCAE handled various cases based on reports and emergencies (which had been received through one of the above channels).

Official sampling by the COKZ/NCAE itself can also result in a case being taken on. A number of the incidents on which the COKZ/NCAE worked in 2017 are described below. Various actions are also described in the “egg-laying poultry farms” and “egg product producers” sections.

Fipronil incident – eggs

Since late July 2017, the COKZ/NCAE has been collaborating intensively with the NVWA on the incident relating to the presence of fipronil in eggs. Tracing was checked at establishments that are subject to routine monitoring by the COKZ/NCAE, for example if the tracing information supplied by the establishment was inadequate. Multiple joint NVWA-COKZ/NCAE assessments were performed; the NCAE also carried out monitoring work in relation to the correct disposal of eggs contaminated with fipronil, tracing of unstamped eggs and in response to specific questions from the NVWA.

In 2017, 57 assessments were conducted, including joint assessments with the NVWA. These assessments were conducted at the following links in the supply chain:

- egg-laying poultry farms (11);
- packing stations (24);
- egg product producers (22).

The NVWA was responsible for handling and overseeing the application of the measures policy, particularly in relation to establishments that failed to make a GFL report and establishments that were not cooperating with the NVWA or were not sufficiently cooperative.

Bird flu (HPAI)

In both Q1 and Q4 2017, establishments in the Netherlands were infected with bird flu (HPAI).

In this context, the COKZ/NCAE performed monitoring work in relation to establishments' compliance with the "Hygiene Protocol for the Egg Supply Chain". In concrete terms, this means that the COKZ/NCAE carried out cleaning and disinfection controls on trays and similar equipment at designated establishments receiving eggs from "protection and surveillance zones" (P&S zones). In addition, in Q4 2017, the COKZ/NCAE performed baseline assessments on potential designated establishments.

In total, 34 assessments were performed in 2017, of which 4 were baseline assessments.

No deficiencies were detected during these assessments.

Tracing the source of salmonellosis

- In response to various cases of disease that may have been related to the consumption of eggs, the COKZ/NCAE performed a range of monitoring activities in relation to the poultry farms that may have been involved, in collaboration with the NVWA. The COKZ/NCAE took egg samples and performed a tracing investigation. Further analysis of the eggs by the NVWA showed no contamination with *Salmonella*.
- In mid-2017, the NVWA and the NCAE were informed of cases of illness in Germany linked to eggs originating from a Dutch poultry farm.

The COKZ/NCAE worked closely with the NVWA to obtain the necessary tracing information and to determine whether the farm involved was indeed contaminated with *Salmonella*, which proved to be the case. The COKZ/NCAE then audited the farm's compliance in relation to correct channelling of eggs to the egg products industry.

Salmonella in powdered eggs

The COKZ/NCAE was informed through the RASFF that *Salmonella* had been detected on two occasions at (and by) an egg product producer in a batch of egg product. One contaminated batch was reprocessed, and the second batch was partially destroyed by the purchaser of the batch at the place of destination (in another Member State) and partially returned and reprocessed. In relation to the second batch, the establishment did not notify the competent authority of the irregularity in a timely manner. Based on this incident, a report of findings was issued. The reprocessed batches were then tested for *Salmonella* (n=5), and no *Salmonella* was found. Furthermore, it was observed that the establishment concerned had insufficient safeguards around its laboratory testing; the establishment was informed that all batches still in its possession and yet to be produced must be individually tested by a laboratory with relevant accreditation. Moreover, after investigating the cause of the problem, the establishment took one of its pasteurisers out of operation. The establishment has also been ordered – for other reasons – to implement extensive hygiene measures, and has been placed under more stringent monitoring. The establishment has drawn up a detailed action plan containing an overall approach to layout, hygiene measures and a review of the HACCP system. The COKZ/NCAE will check during periodic assessments whether sufficient progress has been made on following up on this action plan.

Impact measurement

The report for this component is incorporated into the sections on “Egg-laying poultry farms”, “Collectors”, “Packing stations”, “Egg product producers” and “Egg product traders” in the sections above.

Actions taken to improve the official controls

In 2017, further work was done on performing assessments in a uniform manner and on drafting a specific dairy and eggs intervention policy.

Conclusions

As in 2016, the results of monitoring in 2017 led to an increase, at varying levels, in the numbers of written warnings given, but this increase cannot be entirely attributed to a worsening of the situation at the inspected establishments. Bringing the COKZ/NCAE intervention policy more closely into line with the NVWA intervention policy and the raising of awareness around this issue by the COKZ/NCAE may also have led to an increase in written warnings. Incidents were followed up in an appropriate manner. Where necessary, appropriate measures were taken and sanctions were imposed.

3.12 Hospitality industry and artisanal production

Controlling authority or authorities: NVWA

List of the main legislation under which controls were carried out in 2017

EU Legislation	
Regulation (EC) No 178/2002	General principles and requirements of food law
Regulation (EC) No 852/2004	Food hygiene

National legislation

- Commodities Act

Size of the control file in 2017

Type of establishment	Number
Hospitality	± 60,000
Retail (supermarket and similar)	± 21,000
Artisanal (butcher, baker, greengrocer, poulterer, market trader)	± 25,500
Institutions (including crèches)	± 10,000

Monitoring of “Hospitality Industry and Artisanal Production”, results in 2017

Inspections	Number
Hospitality	20,983
Artisanal	6,836
Institutions	273
Retail	1,726
Total inspections, of which	29,818
chargeable re-inspections	11,619
digital re-inspections	4,574
Samples/analyses	
Microbiological	6,759
Inspection measures	Number
Hospitality	8,343
fine/official report	2,950
written warning	5,393
Artisanal	2,177
fine/official report	673
written warning	1,504
Institutions	47
fine/official report	6
written warning	41
Retail	557
fine/official report	187
written warning	370
Total inspection measures	11,124
Temporary shutdown of activities	
• intention to close	180
• closures	79
• shutdown of processes	61
• seizure	3
• judicially imposed penalty	3

More detailed explanation of the results for “Hospitality Industry and Artisanal Production”

In 2017, more than 29,000 inspections and re-inspections were conducted at hospitality establishments, artisanal businesses, institutions and retail outlets. The apparent decline from 2016 is a by-product of a registration change that took place in 2017. The number of individual establishments inspected in 2017 was 18,000, more than in 2016 (around 15,000). Of the approximately 18,000 establishments inspected, 43% were not complying with the rules. During the inspections and re-inspections, a total of 11,124 measures were imposed. Of these, 34% were fines and 66% were written warnings. The fine percentage is higher than in 2016 (2016: 25%). This is the result of an adjustment to the intervention policy at the start of 2017, due to which reports of findings are more likely to be drawn up. The majority of the measures related to basic conditions (hygiene and building structure) and HACCP (inadequate process control).

More stringent monitoring

In 2017, as in previous years, the more stringent monitoring method was applied in this domain. A total of 660 establishments were subject to more stringent monitoring in 2017. This is an increase from 2016 (513). Compared to 2016, the numbers of closures (79) and shutdowns of processes (61) also increased in 2017. Most of these cases related to hospitality establishments.

Chain approach

The chain approach is characterised by the use of random samples to determine the level of compliance across the chain (one establishment with multiple locations). This method has been adopted for well-known national chains (also known as “formulas”) of supermarkets, bakeries, caterers, petrol stations, hotels and restaurants. The control file for chain establishments consists of around 15,000 outlets that form part of a chain.

Based on random sampling, the NVWA has divided the establishments into:

- “green” chains, where more than 90 percent of locations comply with food safety requirements;
- “yellow” chains, where fewer than 90 percent of locations comply with food safety requirements.

Green chains are eligible for less frequent monitoring, in which the focus is placed on systems control at the head office and the establishment’s own control data. For chains in the yellow category, a random sample of outlets are inspected for enforcement purposes.

This efficient and effective method was continued in 2017. The table below presents an overview of the random inspections performed and the measures imposed by chain type.

Sector	Number Chain establishments	Number Enforcement inspections	Number Measures
Bakeries	6	67	10
Catering	10	0	0
Hotels, restaurants and cafés	53	120	23
Butchers	1	0	0
Supermarkets	22	155	31
Petrol stations	6	0	0
Total	98	342	64

At the end of 2016, there were 99 chains in total, of which 16 were categorised as yellow and 83 as green. For the 16 yellow chains, a random sample of outlets was inspected for enforcement purposes. In 2017, 342 such inspections were conducted. By the end of 2017, eight of the yellow chains had improved and had been given green status. The annual results by chain are published on the NVWA website.

In addition, for some chains, there are individual outlets with such poor compliance that they have been placed under more stringent monitoring. There were 16 outlets in this situation in 2017, mainly supermarkets.

Projects in 2017

Enforcement strategy

A multi-year development of the use of special and/or specific instruments for each target group with an emphasis on influencing behaviour was continued in 2017.

- The video clips that had been developed were rolled out for shawarma businesses in 2017 as part of risk-based monitoring.
- The qualitatively-evaluated instrument mix for Chinese food service businesses was adjusted in 2017. A quantitative measurement was then started into the impact of the instruments, including video clips and an alternative intervention.
- In 2017, the instrument mix focusing on the temperature of baby foods in hospital ward kitchens was completed. These instruments will be able to be implemented in 2018.

Publication

The NVWA is taking steps to improve the transparency of its monitoring. The HAP domain has made an important contribution to this goal in the form of publication of control results for the hospitality industry. In 2017, the national control results for lunch rooms were supplemented with the control results from all food-preparation businesses in the municipalities of Utrecht and The Hague, and preparations were started for publication in 2018 of the results of hospitality industry controls in the municipality of Rotterdam. In addition, as part of the chain approach, results of controls at the chain level have also been published.

Impact measurement

In 2017, an impact measurement was started as part of the Chinese food service sector project. This measurement will continue in 2018. This quantitative measurement will examine the impact of the individual instruments.

Actions taken to improve compliance by establishments

Private-body inspection systems (POCs)

The NVWA makes use of private-body inspection systems in its monitoring. Eight such systems are currently approved. In 2017, 2,283 establishments took part in a POC system, which means the POC carries out the controls and the NVWA only inspects the establishments concerned if it receives a report. This was a slight decrease in participating establishments compared to 2016 (2,458). In 2017, particular efforts were made to improve and harmonise working methods. In addition, three administrative controls and three audits of POCs were conducted.

A fact-finding mission by the European Commission's Directorate-General for Health and Food Safety issued a positive opinion on the POC system and endorsed the added value for monitoring.

Covenants were also signed with four establishments. The NVWA conducts no direct monitoring at the outlets of these establishments, which number 2,295 in total.

Hygiene codes

In the Netherlands, HACCP obligations are encapsulated in hygiene codes for the different sectors. Individual businesses can use these codes to comply with their statutory obligations. The codes describe the applicable work processes for safe production and safe handling of food. The codes are reviewed periodically. Evaluations are currently underway, and are expected to continue through 2018 and into 2019.

Other aspects

Following on from the general intervention policy, the specific intervention policy for the Hospitality industry and artisanal production domain was tightened up in 2017. An important consequence of this adjustment is that reports of findings/fine reports are more likely to be drawn up.

In 2017, work continued on developing and implementing a new IT system (Inspect). Pilot inspections were conducted in this domain as well. The system covers all processes, from scheduling inspections to the handling of measures. Phased implementation will be started in 2018.

Conclusions

- In 2017, more than 29,000 inspections and re-inspections were conducted at around 18,000 individual establishments, including hospitality establishments, artisanal businesses, institutions and retail outlets.
- Of the approximately 18,000 establishments inspected, 43% were not complying with the rules.
- As a consequence of a stricter intervention policy, the percentage of fines increased in 2017 compared to 2016 (2016: 25%; 2017: 34%).
- The number of establishments subject to more stringent monitoring increased, as did the numbers of closures and process shutdowns.
- Compliance by chain (formula) establishments has risen considerably. The number of chain establishments with a “yellow” status was halved in 2017.
- The NVWA has now accepted eight private-body inspection systems (POCs). A fact-finding mission by the European Commission issued a positive opinion on the POC system and endorsed the added value for monitoring.

3.13 Food labelling

Controlling authority or authorities: NVWA

List of the main legislation under which controls were carried out in 2017

EU Legislation

Regulation (EU) No 1169/2011

The provision of food information to consumers

National legislation

Most of the regulations on labelling and allergens are described in the Nutritional Information on Food (Commodities Act) Decree (*Warenwetbesluit Voedingswaarde-informatie levensmiddelen*). However, the Commodities Act contains 40 other instances of additional labelling regulations.

Projects in 2017

No new projects relating to food labelling were started in 2017. However, food labelling activities were carried out in 2017; these were additional controls relating to infringements observed in 2016. Such additional controls were conducted in relation to two projects implemented in 2016:

- misleading imitation;
- additives.

Misleading imitation

In 2016, 249 foodstuffs were assessed regarding whether they contained ingredients that had been wholly or partially substituted for those that would normally be used, without including a statement of the full or partial substitution. The statement concerning this substitution is a requirement listed in Regulation (EU) No 1169/2011 (Annex VI, Part A, Point 4). A breach of this legal rule was detected in relation to 81 of the 249 foodstuffs, and official measures were imposed (warnings). Re-inspections in relation to these breaches were started in 2017. Since, in many cases, a long lead time was agreed with the establishment concerned to allow for the breach to be rectified, not all re-inspections in relation to these breaches were performed in 2017. The extent to which these breaches have been rectified will only become clear in the course of 2018.

Additives

In 2016, inspections were conducted at meat processing establishments on the use and labelling of additives in food. A total of 137 products (meat preparations and meat products) were assessed. In relation to these 137 products, it was observed in 20 instances that additives had been added, but not listed; in 12 instances, it was observed that additives had not been listed correctly, and 36 other labelling infringement were observed as well. In some instances, multiple infringements were observed in relation to a single product.

The re-inspections were performed in 2017. During the re-inspections, 110 products were assessed. In 7 instances, it was observed that additives had been added, but not listed; in 7 further instances, it was observed that additives were not listed correctly, and 30 other labelling infringements were observed.

3.14 Contaminants, residues and genetically modified organisms (GMOs) in food

Controlling authority or authorities: NVWA

List of the main legislation under which controls were carried out in 2017

EU Legislation	
Regulation (EC) No 1881/2006	Maximum levels for certain contaminants in foodstuffs
Commission Regulation (EC) No 1151/2009	Mineral oil in sunflower oil originating in or consigned from Ukraine
Regulation (EC) No 669/2009	Increased level of official controls on imports of certain feed and food of non-animal origin
Commission Implementing Regulation (EU) No 884/2014	Special conditions governing the import of certain feed and food from certain third countries due to contamination risk by aflatoxins
Commission Implementing Regulation (EU) No 885/2014	Specific conditions governing the import of certain feed and food from certain third countries due to excessive pesticide residues
Commission Recommendation 2013/647/EU	Investigations into the levels of acrylamide in food
Commission Recommendation 2012/154/EU	Monitoring of the presence of ergot alkaloids in feed and food
Commission Recommendation 2013/165/EU	Presence of T-2 and HT-2 toxin in cereals and cereal products
Regulation (EC) No 396/2005	Maximum residue levels of pesticides
Regulation (EC) No 2016/662	Coordinated multiannual control programme to ensure compliance with MRLs
Regulation (EC) No 1829/2003	Authorised GMOs in animal feed and foodstuffs
Commission Implementing Decision 2013/287/EU	Emergency measures regarding unauthorised genetically modified rice in rice products originating from China
European Commission Statement, 10 March 2015	Presence of perchlorate in food, action limits for intra-European trade
Regulation (EC) No 1333/2008	Food additives, including Sudan dyes
Regulation (EC) No 2073/2005	Microbiological criteria for foodstuffs, including histamine

National legislation

- Commodities Act;
- Preparation and Handling of Food (Commodities Act) Decree;
- Contaminants in food (Commodities Act) regulation (*Warenwetregeling Verontreinigingen in levensmiddelen*);
- Pesticide residues (Commodities Act) regulation (*Warenwetregeling Residuen van bestrijdingsmiddelen*).

Size of the control file in 2017

Type of establishment	Number
Importers, wholesalers, manufacturers, supermarket chains, retail stores	Approx. 150,000

Monitoring of “Contaminants, Residues and GMOs”, results in 2017

Results of NVWA inspections/samples in 2017		Number
Pesticide residues		3,210
• on the basis of the National Control Plan		2,492
– representative for the market		1,272
– on the basis of a risk profile		954
– special projects		266
• on the basis of EU Regulation (EC) No 669/2009		718
Non-compliant samples on the basis of pesticide residues		316
• on the basis of the National Control Plan		245
– representative for the market		32
– on the basis of a risk profile		162
– special projects		51
• on the basis of EU Regulation (EC) No 669/2009		71
Mycotoxins		Number
• on the basis of the National Control Plan		3,447
– representative for the market		1,307
– on the basis of a risk profile		2,147
• on the basis of Regulations (EC) No 669/2009 and (EU) No 884/2014		1,574
Non-compliant samples on the basis of mycotoxins		127
• on the basis of the National Control Plan		24
– representative for the market		13
– on the basis of a risk profile		114
• on the basis of Regulations (EC) No 669/2009 and (EU) No 884/2014		94
Environmental and process contaminants		1,020

Reference to specific reports

Report of Pesticide Residues Monitoring Results of the Netherlands for 2017.

Excessive levels were reported via the Rapid Alert for Food and Feed system.

More detailed explanation of the results for “Contaminants, Residues and GMOs in Food”

Pesticide residues

Testing for pesticide residues reveals that the percentage of irregularities for crops grown in the EU is still low. However, the percentage of products from outside Europe containing excessive levels remains relatively high, and appears to have increased slightly in recent years (see Figure 1). The increase can be partly explained by the fact that the MRLs have been lowered for a number of commonly-used substances. Exporters located outside Europe are not yet sufficiently taking these changes into account.

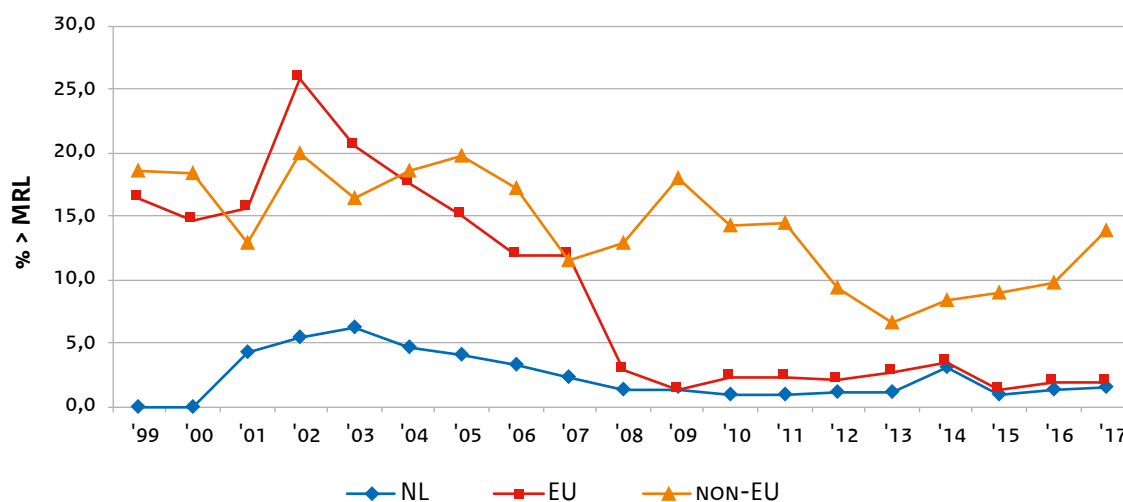


Figure 1. Percentage of MRL violations not including 669/2009 import control.

The programme reveals that:

- 3,200 samples were found to contain approximately 7,700 residues of 200 different pesticides. The number of different substances found in 2017 was comparable to the number found in 2016. The EU has determined which agents must, at a minimum, be included in any national control programme. In addition to the mandatory list of substances to be included, there is also a list of substances that the EU recommends be included. In 2016, 92% of the various residues that were found were on the mandatory list, and 5% were on the recommended list. The results for substances on the recommended list and the rest of the national additions can be used to supplement the EU programme where necessary;
- many samples of fruit and vegetables from Asia did not comply with the MRLs. A considerable proportion of products from Colombia (31%), Turkey (26%), the Dominican Republic (22%), Suriname (20%) and Egypt (not 669/2009, 14%) also failed to comply with the statutory limits. The following tables provide an overview of the product/country combinations with the highest numbers of MRL irregularities. Vine leaves and rambutans are particularly noteworthy. Vine leaves are often harvested from vineyards without taking plant protection measures into account. The import of these products is therefore subject to more stringent controls at the border. However, this does not change the fact that imports still occur, and that imported products enter the Netherlands via other EU countries. The Netherlands has reported the high percentage of irregularities in relation to rambutans and vine leaves to the European Commission, so that measures can be taken. Due to better compliance with the legislation, Egyptian oranges were removed from the stringent control regime pursuant to Regulation (EC) No 669/2009. However, it appears that the improvement was only temporary. Once again, many consignments of Egyptian oranges have been found that do not comply with the limits.
- In 2017, the Netherlands submitted 17 reports to the Rapid Alert System for Food and Feed (RASFF) on the basis of NVWA inspections and a further 8 reports on the basis of notifications from establishments under the General Food Law Regulation. The total number of reports is comparable to the number in 2015, but the ratio is moving back towards more reports based on NVWA sampling and fewer reports based on notifications from establishments. The higher number of reports based on NVWA analyses is primarily due to the reassessment of propargite – a pesticide suspected of containing genotoxic contaminants. Most reports sent related to goji berries and okra;
- both in breaches and in RASFF reports, notifications of residues of toxic, outdated pesticides (particularly propargite) from third-world countries were striking.

Fewer controls on Dutch products were carried out in 2017, although controls were increased on imported products from countries outside the EU, with particular attention focused on South-East Asia, the Dominican Republic, Suriname, Egypt, India and China.

Table. Important products analysed in the National Control Plan with high percentages of excessive levels, with country of origin.

Product	Pesticides	%>MRL	Country of origin
Rambutans	Cypermethrin, carbendazim	68.8	Thailand
Vine leaves	Many	61.9	Turkey
Goji berries	Propargite, acetamiprid, carbosulfan	61.4	China
Pitayas	Iprodione, carbendazim	47.4	Various
Tropical herbs and spices	Various	38.0	Thailand
Passion fruit	Various	33.3	Colombia
Rice	Thiamethoxam, carbendazim	30.3	India
Chilli peppers	Carbendazim, chlorfenapyr, various	29.6	Laos, Suriname, various

Table. Major products with high percentages of excessive levels found in import controls pursuant to Regulation (EC) No 669/2009 and Regulation (EC) No 885/2014.

Product	Pesticides	%>MRL	Country of origin
Chinese long beans	Hexaconazole	21.1	Dominican Republic
Pitayas	Carbendazim, azoxystrobin, iprodione	20.4	Vietnam
Okra	Propargite, acephate	9.7	India

Genetically modified organisms (GMOs)

For labelling	Number	Non-compliant
Routine	175	0
Non-GMO	9	0
Controls on unauthorised GMOs		
Imports of Chinese rice products	25	2
Papayas	8	0
With GMO statement on label	3	0
Total	220	2

Routine investigations related to foodstuffs whose labels did not include a statement about the presence of GMOs in the product. Nine other samples were tested for which the labels expressly stated that the products did not contain GMOs. For investigations into the presence of unauthorised GMOs, a 100% import control on Chinese rice products is still in effect. Since an unauthorised GMO has been detected in papayas several times in the past, a number of papaya products were specifically sampled and tested. There are few products on the Dutch market that specifically state that they contain GMOs. Tests were performed on three of these products for any evidence of the use of unauthorised GMOs.

In 2017, a total of 220 samples were tested for correct statements regarding the presence of GMOs in the product and/or the use of GMOs that are not authorised in the EU.

All products complied with the labelling requirements for statements about the presence of GMOs.

Only two products did not comply with the legal requirements for unauthorised GMOs. Both were Chinese rice products. A 100% import control applies to such products. These foodstuffs therefore did not enter trade channels within Europe.

Mycotoxins

As the severity of fungal attacks can vary by harvesting season and by country of origin, attention must be paid every year to the enforcement of EU regulations governing mycotoxins. Sampling of relevant products has been tailored accordingly. In addition to risk-based controls on imports from third countries and at production establishments, attention was also devoted to products from other EU Member States, since risky products can enter the Netherlands by this route as well. A multi-method analysis is used to analyse mycotoxins, which allows multiple mycotoxins to be measured at the same time. Samples taken under the national plan are analysed for around 40 different mycotoxins. In sampling planning in 2017, emphasis was placed on importers to an even greater extent than in previous years. The number of samples taken under the national plan was 40% lower than in 2016, and the number taken from imports was higher by almost the same percentage. This explains the large difference in total sampling numbers under the national plan and from imports in 2017.

Tested samples and percentages of breaches of maximum limits (MLs, pursuant to Reg. (EC) No 1881/2006).

Product	National Plan	%>ML	Imports	%>ML
Cereals (and cereal products, including cake)	348	0.6	49	2.0
Dried fruit (including subtropical fruit)	184	0.5	89	2.2
Nuts and seeds (nut and seed products)	453	2.9	1,591	5.8
Wine, beer and fruit juice	37	5.4	0	
Baby foods	75	0	0	
Herbs and spices	134	4.5	122	5.7
Coffee and tea (including liquorice and Dutch liquorice (<i>drop</i>))	76	0	3	0
Final total	1,307		1,854	

Additional comments for specific product groups:

Cereals

The excessive levels found related to ochratoxin A and fumonisin B1 in two different samples of cornmeal. A consignment of rice being imported was rejected for excessive levels of aflatoxins.

Dried fruit (including subtropical fruit)

The percentage of irregularities in this product group has decreased significantly, from 2.8% to 0.5% for samples taken under the national plan, and from 6.8% to 2.2% for samples taken from imports. These related to several cases of dried figs, which contained excessive levels not only of aflatoxin, but also of ochratoxin A. Whether this reduction in the percentage is a lasting change remains to be seen.

Nuts and seeds

Since this is the most extensive product group, the shift in focus towards a greater emphasis on import controls has been most visible here. The percentage of irregularities found in samples taken under the national plan decreased from 5.3% to 2.9%, while the percentage for those taken from imports rose from 4.5% to 5.8%. In addition to imports of consignments of nuts containing excessive levels of aflatoxins being rejected, a consignment of peanut butter from Sudan and a consignment of soybean meal from India were also rejected at import due to excessive levels of aflatoxin B1. In addition to imports being rejected due to excessive levels of aflatoxins, more imports than in previous years were rejected on the basis of excessive contamination with ochratoxin A. This was the case for five consignments of peanuts with levels of up to 280 µg/kg. For pistachio nuts, it was noted that 13 consignments were rejected, of which 6 contained excessive levels of aflatoxins (up to 73 µg/kg) and 8 contained excessive ochratoxin A levels (up to 943 µg/kg). Both of these mycotoxins were found in 1 of the 13 consignments.

Wine, beer and fruit juice

The number of samples taken in this product group was significantly lower due to the good measurement results in previous years. Due to the low number of samples and the detection of two instances of excessive levels of patulin in apple juice products at one establishment, the percentage of irregularities ended up being relatively high. Once this detected breach has been resolved, it seems likely that the findings will return to a much lower level of infringements in 2017.

Baby foods

The annual survey did not reveal any breaches of the limits.

Herbs and spices

The problems with obtaining aflatoxin-free nutmeg are continuing. With 6 breaches in 86 samples, the percentage of irregularities was 7.0%. This rate was 9.1% in 2016 and 6.4% in 2015. Regardless of this percentage, the maximum measured level of aflatoxin B1 was 210 µg/kg. This is the reason why controls on nutmeg are regulated by Regulation (EC) No 669/2009. Aflatoxin B1 was also found in two of the eight samples of ginger (12 and 60 µg/kg). Aflatoxins were found in several other herbs and spices as well. The limit for ochratoxin A was exceeded in two samples of pepper (60 and 110 µg/kg), as well as in two samples of nutmeg (55 and 70 µg/kg).

Reference to specific reports

Breaches of maximum limits were reported via the Rapid Alert for Food and Feed system. Results for samples taken under Regulations 669/2009 and 884/2014 were reported to the European Commission each quarter in accordance with the applicable rules. The overall analysis results were submitted to the EFSA database.

Environmental and process contaminants

Contaminants are chemical substances that have not been deliberately added to food, but which may nonetheless be present in food accidentally. In addition to substances produced by fungi (mycotoxins, see previous section), contaminants include substances that enter food from the environment (environmental contaminants) or during the production process (process contaminants). Sampling for these contaminants is done by importers, production establishments, wholesalers and retail chain distribution centres.

Tested samples and percentages of breaches of maximum limits and guide values/process criteria under Regulations (EC) Nos 1881/2006, 2073/2005, 1333/2008 and 2013/647/EU

Contaminants	Number	%>ML or reference level
PAHs	119	6.7%
3-MCPD	123	0%
Acrylamide (reference level)	276	15.9%
Heavy metals	214	1.4%
Biocides, chlorates and perchlorates	198	8.6%
Other		
Histamine (process criteria)	48	6.3%
Sudan dyes (additive)	42	16.7%
Final total	1,020	7.9%

Additional comments for specific product groups

Polycyclic aromatic hydrocarbons (PAHs)

PAHs occur as a result of incomplete combustion and are carcinogenic. PAHs may be found in dried herbs, oils and smoked products, such as smoked fish. In 2017, the following product groups were tested: palm oil, smoked meat/fish and dried herbs/spices.

Out of the 38 samples of palm oil, breaches of the maximum limit (2.0 µg/kg) for benzo(a)pyrene were found in 8 samples. An average level of 1.57 µg/kg of benzo(a)pyrene was measured, and a maximum level of 6.96 µg/kg. For smoked meat/fish, 27 samples of meat and 1 sample of fish were taken at various markets and food events across the country. The assigned task was to sample primarily smoked products or products from the barbecue or hotplate. An average level of 2.36 µg/kg of benzo(a)pyrene was measured, with benzo(a)pyrene levels above the maximum limit for cooked meat being measured in three samples of meat (non-smoked meat). In the 53 samples of dried herbs that were sampled, no breaches of the maximum limit (10.0 µg/kg) were found. The maximum level of benzo(a)pyrene measured in dried herbs was 8.5 µg/kg.

3-MCPD

3-monochloropropane-1,2-diol (3-MCPD) is a by-product that can be produced in the preparation of soy sauce and hydrolysed vegetable proteins. 3-MCPD and 3-MCPD esters are also produced unintentionally during the refining process for vegetable oils and fats. These substances are carcinogenic in rats and are suspected to be carcinogenic in humans. The European Commission has issued a recommendation (2014/661/EU: Commission Recommendation of 10 September 2014 on the monitoring of the presence of 2 and 3-monochloropropane-1,2-diol (2 and 3-MCPD), 2- and 3-MCPD fatty acid esters and glycidyl fatty acid esters in food) concerning monitoring for the presence of 2 and 3-MCPD, 2 and 3-MCPD fatty acid esters and glycidyl fatty acid esters. The recommendation requests Member States to investigate certain foods, including fried products and snacks made from potatoes, and foods intended for infants and young children (as defined in Commission Directive 2006/141/EC of 22 December 2006 on infant formulae and follow-on formulae and amending Directive 1999/21/EC). In this context, 51 samples of crisps and various kinds of baby food were tested in 2017. The highest level measured in the crisps was 0.089 µg/kg; in the majority of the crisps samples, very low or nil quantities of 3-MCPD were measured. Out of the 10 samples of infant formula, 3-MCPD was measured in 2 samples (0.031 and 0.038 µg/kg). In the 17 samples of follow-on milk, the highest level measured was 0.035 µg/kg, but here, too, no 3-MCPD was found in the majority of the samples. No 3-MCPD was found in the 20 samples of cereal-based baby foods, including 10 samples of porridge. Furthermore, 3-MCPD was measured in only 1 of the 10 samples of porridge, at a level of 0.16 µg/kg. Finally, 25 jars of baby food were tested; no 3-MCPD was found in the majority of the samples, but a level of 0.01 µg/kg was found in 3 samples.

Acrylamide

Acrylamide is produced by heating products containing reducing sugars and the amino acid asparagine. Acrylamide is carcinogenic in mice and rats and is suspected to be carcinogenic in humans. A European recommendation has been published concerning the monitoring of acrylamide (2013/647/EU), containing reference levels. These reference levels, known as performance indicators, were established on the basis of the ALARA principle (As Low As Reasonably Achievable). If these reference levels are exceeded, this is cause for further investigation into the producer's food safety plans.

The following product groups were investigated: cereal-based baby foods (porridge and baby biscuits), *kruidnoten* (Dutch spiced biscuits), gingerbread, fried snacks, chips based on potato dough, *oliebollen* (Dutch doughnuts), crisps, vegetable crisps, regular and instant coffee, crackers and crostini. In four of these product groups, a number of breaches of the reference levels were detected:

- three samples of cereal-based baby foods (two samples of porridge at 109 and 66 µg/kg and one baby biscuit at 2,803 µg/kg);
- 30 samples of French fries made from potato dough (measured values of 32-2643 µg/kg, with an average of 933 µg/kg);
- three samples of *kruidnoten* (measured values of 33-1272 µg/kg, with an average of 367 µg/kg);
- eight samples of crackers and crostini (measured values of 26-1645 µg/kg, with an average of 269 µg/kg).

When measurements of acrylamide levels above the reference values are found, establishments are informed and an investigation is carried out into the food safety plans of the manufacturers of the foods in question.

In the meantime, a new regulation was issued in 2017 (Commission Regulation (EU) 2017/2158 of 20 November 2017 establishing mitigation measures and benchmark levels for the reduction of the presence of acrylamide in food), which came into force in April 2018. It requires food business operators to take risk mitigation measures in relation to the formation of acrylamide in food. This regulation contains lower (stricter) reference levels than the recommendation published previously (2013/647/EU).

Heavy metals

Heavy metals are present in the environment (e.g. in the soil) and can be naturally present in products. Children in particular run the risk of ingesting more than the tolerable daily intake of a metal. Regulation (EC) No 1881/2006 sets out the maximum limits for lead, cadmium, mercury, tin and inorganic arsenic.

In 2017, heavy metal levels were tested for the following product groups: swordfish, rice products, baby foods and seaweed. A total of 13 samples of swordfish were tested, with 3 being found to contain higher than the maximum levels of mercury (at 1.6, 1.8 and 2.1 mg/kg). Also, 82 samples of baby foods (10 of infant formula, 17 of follow-on formula, 24 of cereal-based baby foods and 31 of baby food in jars) were tested. A level above the specified maximum limit was measured in none of the samples. Nor were excessive levels of heavy metals (including inorganic arsenic) measured in any of the 63 total samples of rice products. The highest total arsenic level measured in 44 samples of rice was 0.56 mg/kg. In the rice samples taken in the second half of the year, inorganic arsenic was measured to see if the total arsenic level was over the maximum limit for inorganic arsenic. Out of these 10 results, the highest level measured was 0.16 mg/kg. In the 10 samples of rice cakes, inorganic arsenic was measured in 6 samples, with the highest value being 0.22 mg/kg. In nine samples of rice porridge and rice flour, the highest measured level of inorganic arsenic was 0.098 mg/kg. Furthermore, 56 samples of seaweed were tested, and the following levels were measured: arsenic, average of 1.35 mg/kg and maximum of 9.7 mg/kg; cadmium, average of 0.036 mg/kg and maximum of 0.068 mg/kg; mercury <0.006 mg/kg; lead, average of 0.075 mg/kg and maximum of 0.23 mg/kg; and iodine, average of 27.4 mg/kg and maximum of 350 mg/kg. Seaweed and algae can absorb heavy metals and the trace element iodine from the sea where they grow. A long-term high intake of heavy metals and iodine in food can eventually cause damage to the brain and other organs. In 2017, the European Commission, partly at the request of the Netherlands, started drafting a recommendation for iodine (and heavy metals) in seaweed and seaweed products. This recommendation has now been published (Commission Recommendation (EU) 2018/464 of 19 March 2018 on the monitoring of metals and iodine in seaweed, halophytes and products based on seaweed) and came into force in March 2018.

Biocides, chlorates and perchlorates

Benzalkonium chloride (BAC) and didecyldimethylammonium chloride (DDAC) belong to the group of quaternary ammonium compounds (quats). Both substances are used as biocides for disinfection. Their use can lead to detectable residues in food. BAC is not an approved active substance in plant protection products, as defined by Regulation (EC) No 1107/2009. DDAC was approved as an active substance in plant protection products for use on ornamental plants, but since the approval, all permits for plant protection products containing DDAC have been revoked.

Chlorates are an unauthorised plant protection product in the EU. Perchlorates occur naturally in the environment (in nitrate and potassium deposits) and can be formed in the atmosphere and enter the soil and groundwater through precipitation. From there, they can enter our food.

In 2017, 52 samples of baby foods were tested for biocides, chlorates and perchlorates, including 10 samples of infant formula, 17 samples of follow-on formula and 25 samples of baby food in jars. Excessive levels of chlorates were found in three samples of follow-on milk (0.182, 0.265 and 0.291 mg/kg). No excessive levels of perchlorates or quats were found in either infant formulae or follow-on formulae. In baby food in jars, a perchlorate level was measured (0.058 mg/kg) that is higher than the action limit (0.02 mg/kg) set for internal European trade. No excessive levels of chlorate

or quats were detected in baby food in jars. Furthermore, 146 samples of various species of fish (including tuna, trout, eel and shrimp) were tested for quats. Quats were detectable in 15 samples, in which the average level measured was 0.069 mg/kg and the highest level measured was 0.21 mg/kg.

Other

Sudan dyes

The “Sudan dyes” group, of which “Sudan red” is the most well known, may not be added to food, because they are potentially genotoxic and carcinogenic (Regulation (EU) No 1333/2008). In 2017, 42 samples of palm oil were tested, and Sudan dyes were detected in 7 of them. The measured values were between 15 and 403 mg/kg, with an average of 107 mg/kg.

Histamine

Histamine may be found in spoiled fish. After consumption of the fish, the histamine can bind to histamine receptors in the human body, which in high doses can lead to clinical effects, such as gastrointestinal symptoms, high temperature (sweating), excessive blood flow and headaches. Regulation (EC) No 2073/2005 sets a process criterion of 100 mg/kg for histamine in fish.

In 2017, 48 samples of tuna were tested for histamine; 3 samples were found to have exceeded the process criteria. The measured levels were in a range of 154-2005 mg/kg, with an average of 752 mg/kg for the positive samples.

3.15 Veterinary medicinal products

Controlling authority: The Netherlands Food and Consumer Product Safety Authority (NVWA)

List of the main legislation under which controls were carried out in 2017

EU Legislation	
Commission Regulation (EU) No 37/2010	MRLs for residues of veterinary medicinal products
Regulation (EC) No 470/2009	Veterinary medicinal product residues
Council Directive 96/22/EC	Prohibition on the use of growth promoters
Council Directive 96/23/EC	Monitoring residues in live animals and products of animal origin

National legislation

- Animals Act (*Wet dieren*)
- Veterinary Medicinal Products Decree (*Besluit diergeneesmiddelen*).
- Veterinary Medicines Regulation (*Regeling diergeneesmiddelen*);
- Animal Disease Specialists Decree (*Besluit diergeneeskundigen*);
- Animal Disease Specialists Regulation (*Regeling diergeneeskundigen*);
- Animal Keepers Decree.
- Regulation on Animal Keepers

Size of the control file in 2017

Type of establishment	Number as at 1 April 2017*
Laying hens	890
Calves	1,570
Pigs	4,300
Chickens kept for meat production	630
Cattle	24,690
Sheep**	6,787
Goats	510
Chickens kept for meat production parent stock	270
Ratites**	3
Ducks	50
Geese**	7
Fur animals	150
Turkeys	30

* CBS, The Hague/Heerlen

** Data from the Combined Return, 10 animals or more

Results in 2017

Antibiotics	Number
Total inspections:	53
• risk-based inspections	26
• quadratic comparison for veterinary practices	12
• ongoing frequent users of antibiotics	15
Total measures:	19
• risk-based inspections	10
• quadratic comparison for veterinary practices	7
• ongoing frequent users of antibiotics	2

Reports/own initiative	Number
Total inspections:	247
• FCI reports	141
• own initiative	48
• National Residues Plan reports	28
• other reports	30
Total measures:	157
• FCI reports	87
• own initiative	33
• National Residues Plan reports	20
• other reports	17

Trade	Number
Total inspections:	16
• prescription-only medicines, horse markets	3
• permit holders	2
• raw materials traders	11
Total measures:	1
• prescription-only medicines, horse markets	1
• permit holders	0
• raw materials traders	0

National Residues Plan	Number
Analyses	34,300
Measures	12

Projects in 2017

National Residues Plan

A total of 34,300 analyses were performed in 2017. The results of 79 of these (0.23%) were non-compliant.

Group A substances (as set out in the Annex to Directive 96/23/EC)

In the testing performed on group A substances (18,152 analyses), 24 samples were found to be non-compliant, i.e. 0.13% of analyses on group A substances. The substances detected were: thiouracil (15), β -nortestosterone (4), α -boldenone (1), α -nortestosterone (1), clenbuterol (1) and nitrofurazone (SEM; 2).

Group B substances (as set out in the Annex to Directive 96/23/EC)

In the testing performed on group B substances (16,148 analyses), 55 samples were found to be non-compliant, i.e. 0.34% of the analyses.

The non-compliant samples were distributed as follows among groups B1, B2 and B3:

- In the testing performed on group B1 (antibiotics), 11 samples of the 7,903 analysed were found to be non-compliant, i.e. 0.14% of the antibiotics analyses. The substances detected were oxytetracycline (3), doxycycline (2), flumequine (2), tulathromycin (1), gentamicin (1), dihydrostreptomycin (1) and neomycin (1).
- In the testing performed on group B2 (other veterinary medicinal products), 6 samples of the 6,590 analysed were found to be non-compliant, i.e. 0.09% of the analyses of other veterinary medicinal products. The substances detected were salicylic acid (2), toltrazuril sulfone (1), levamisole (1), flubendazole (1) and naproxen (1).
- In the testing performed on group B3 (contaminants), 38 samples of the 1,655 analysed were found to be non-compliant, i.e. 2.30% of the contaminants analyses. The substances detected were lead (29 x game (2 x pigeons, 8 x ducks, 2 x hares, 4 x bucks, 4 x rabbits, 5 x does, 4 x wild boars)), cadmium (7 x beef kidneys), lead and cadmium (1 x beef kidney), and crystal violet (1).

Key findings:

The naturally-occurring hormones thiouracil (from brassicas) and β -nortestosterone produced many positive results, which on further investigation often did not lead to enforcement measures.

The number of samples that tested positive for lead was four times higher than in 2016, despite the fact that the number of game samples tested was virtually the same.

The crystal violet was detected in a trout raised in a Dutch stock pond. The trout was traced back to supplies from Germany.

At the time of reporting, not all supplementary testing had been completed.

Frequent users

In 2017, an investigation was launched into compliance with the antibiotics regulations by 36 establishments that are ongoing frequent users of veterinary medicinal products in the monitored livestock sectors (dairy, veal calves, pigs). Veterinarians supply antibiotics to these establishments. In 2017, 15 inspections were completed at livestock farms (3 dairy farms, 1 other cattle farm, 7 veal farms and 4 meat pig farms). In 2 of the 15 inspections, the farms were found to be non-compliant. Most of the farmers knew that they were frequent users and were actively engaged in reducing their use of antibiotics as much as possible. Measures included adjustments in management (ventilation and vaccination) and changing piglet suppliers.

Quadratic comparison

In 2017, an investigation was launched into the so-called “quadratic comparison” in veterinary practices. The quadratic comparison is a comparison between the veterinary medicinal products received and dispensed and the stock actually held.

Nationwide, twelve veterinary practices were contacted by telephone and asked whether they carried out a detailed audit of their records at least once every calendar year, to compare the veterinary medicinal products received and dispensed with the stock actually held, and to draw up a report showing any discrepancies that might be uncovered. Of the 12 practices, 7 were unable to supply such a report and were issued with written warnings. Re-inspections are yet to be completed. The other practices did provide a report, after which a physical administrative audit was performed to check the quadratic comparison and reports in the databases. So far, this audit has been performed at three practices, which have all been found to be compliant.

Cascade

In the period from 2012–2016, the NVWA mapped inspection findings and information from reports relating to the “cascade scheme”. This scheme relates to veterinary medicinal products (including antibiotics) that may only be administered to animals in exceptional cases. The NVWA has noted little use of such medicines. As expected, the investigation uncovered relatively little use of these medicines among so-called major species, but relatively high use among so-called minor species. This is in line with expectations, since fewer authorised veterinary medicinal products are available for minor species.

Self-monitoring

The self-monitoring obligation with regard to the use of veterinary medicinal products and prohibited substances is enshrined in statute. This obligation applies to farmers raising farm animals. Livestock farmers comply with this obligation by participating in a self-monitoring programme as part of a quality system. Those who do not participate in a sector self-monitoring programme must demonstrate to the NVWA how they are complying with the statutory self-monitoring obligation. In 2017, the NVWA held discussions with the quality systems, commented on the submitted self-monitoring programmes and sent out an information letter to the poultry farmers who did not take part in a self-monitoring programme. In 2018, the NVWA will start inspections of these non-participating poultry farmers, followed by inspections in the calf and pig sectors.

Actions taken to improve the official controls

Clarification of working instructions in collaboration with other domains, such as animal welfare and animal health. The NVWA has started a dialogue with the livestock sectors and the Royal Dutch Society for Veterinary Medicine (KNMvD) about how compliance can collectively be improved and how enforcement communication could play a role in this. Enforcement through administrative law, veterinary disciplinary law and criminal law will continue to be optimised. In addition to risk-based investigations, the NVWA is continuing to focus on random testing (“quick scans”) and on increasing compliance through enforcement communication.

Innovative developments in the monitoring of antibiotic use are also being introduced:

- by developing an integrated enforcement approach in relation to animal health and animal welfare;
- by supporting risk-based controls with targeted analyses based on relevant data;
- by performing measurements on animals using on-site quick tests;
- by adopting best practices from sister organisations in the Netherlands and abroad.

Actions taken to improve compliance by establishments

The NVWA holds regular discussions with professional groups/sectors in which it shares its inspection results, amongst other things. The NVWA has also intensified its enforcement communication and hopes to use target group analyses to foster a better understanding amongst the various target groups. Through risk-based inspections, the NVWA hopes to visit those establishments where the need is greatest.

Conclusions

Together with its partners, the NVWA performs risk-based monitoring and enforcement at the import, production and trade stages of the veterinary medicinal products supply chain. In doing so, the NVWA collaborates with regulators and competent authorities from other Member States. Issues requiring attention include product conformity, undesirable trade via import and identifying suspect consignments during import. In 2017, an investigation was conducted into farmers who are frequent users of veterinary medicinal products. An administrative comparison was also performed of the stocks of veterinary medicinal products held by veterinarians.

Under the National Residues Plan, 34,300 analyses of animal products were conducted. The high numbers of positive findings of lead in wild game meat were striking.

3.16 Microbiology (pathogens, food-borne infections and zoonoses)

Controlling authority or authorities: NVWA (antimicrobial resistance in collaboration with Wageningen Bioveterinary Research (WBVR); source tracing in collaboration with the National Institute for Public Health and Environmental Protection (RIVM)

List of the main legislation under which controls were carried out in 2017

EU Legislation	
Council Directive 2003/99/EC	Zoonoses and zoonotic agents
Regulation (EC) No 2073/2005	Microbiological criteria for foodstuffs
Regulation (EC) No 854/2004	Products of animal origin
Commission Implementing Decision 2013/652/EU	Monitoring and reporting of antimicrobial resistance in zoonotic and commensal bacteria

National legislation

Preparation and Handling of Food (Commodities Act) Decree.

Monitoring of “Microbiology”, results in 2017

Monitoring of Microbiology	Number of samples
1. Monitoring of pathogens, primary phase (farm/slaughterhouse): including farm animals, sampling for AMR by WBVR	3,918
2. Monitoring and surveillance of pathogens, secondary phase (import, industry, wholesale): including meat, fish, bivalves, herbs and spices, etc.	2,935
3. Monitoring and surveillance of pathogens, retail/restaurant phase: including meat, fish, bivalves, vegetables, salads, sushi/tapas, etc.	5,591
4. Complaints and reports, source tracing (bacteriology, virology)	860
Total samples	13,304
	Isolates*
5. Antibiotics resistance (susceptibility of pathogens, indicators from products)	1,223
6. Active surveillance of ESBL isolates – WBVR/RIVM	244
Total isolates	1,467

* These are not separate samples; they are tests for bacterial isolates taken from routine sample testing

Reference to specific reports

- [EU zoonosis reports in 2016](#);
- [NETHMAP-MARAN reports in 2017 \(AMR 2016\)](#);
- [Reports of food-borne infections and food poisoning in 2016](#).

More detailed explanation of the results for “Microbiology”

The Microbiology domain (pathogens, food-borne infections and food-borne zoonoses) uses the laws and regulations listed above to monitor the prevention of pathogenic micro-organisms in food and antimicrobial resistance. This monitoring is primarily based on samples taken from every stage of the food supply chain, from primary production establishments to the retail trade. The selection of the products to be sampled, their location in the supply chain and the pathogens to be analysed is determined based on results from previous projects, scientific understanding, complaints and reports.

In addition, this domain is responsible for assessing microbiology-related complaints and reports from consumers, producers and competent authorities in other countries and Member States and from source investigations arising from disease notifications.

Selection of projects in 2017

1. Monitoring of pathogens, primary phase (farm/slaughterhouse)

Since 2013, work has been ongoing on a master plan for periodic monitoring of farm animals within the context of European Directive 2003/99/EC. This plan can be used to track trends in the prevalence of zoonotic agents in populations of farm animals. The results are submitted to the EFSA in the annual EU zoonosis report. In addition, possible relationships can be identified between different types of zoonotic agents carried by farm animals and people living or working on livestock farms. This is a repeating cycle in which a different animal supply chain is studied each year. The supply chains monitored for various relevant pathogens are the pig, poultry, cattle, veal calf and small ruminant supply chains. In 2017, the NVWA took a total of 1,169 samples at 196 beef farms and analysed them for the presence of *Salmonella*, *Campylobacter*, *Listeria monocytogenes*, STEC and *E. coli* ESBL. Moreover, the antimicrobial resistance profile was determined for a selection of *Campylobacter* and ESBL isolates. The RIVM took faeces samples from participating farmers, farm workers and/or family members at 103 participating farms. The RIVM then performed an analysis to establish the risk factors for infection with zoonotic diseases in humans and animals. The RIVM will report the results in 2018. In the primary phase, approximately 1,500 additional samples were taken, some during the first phase of slaughter, and used to obtain isolates that were then analysed for resistance to antibiotics in projects 5 and 6 described below. The competent authority has an obligation under Regulation (EC) No 854/2004 to verify *Salmonella* results as sampled by pig slaughterhouses. In this context, the NVWA took 374 samples at pig slaughterhouses and an additional 258, 168 and 216 samples at poultry, calf and cattle slaughterhouses respectively. The NVWA also took 239 samples in 2017 that were analysed for *Campylobacter*.

2. Monitoring and surveillance of pathogens, secondary phase (import, industry, wholesale)

In the secondary phase, the Microbiology domain takes risk-based samples from a wide range of food supply chains. With regard to pathogens, products of animal origin, and meat in particular, are the most susceptible products. As in 2016, under the heading of “exotic meat” samples were taken in 2017 from the meat of animals that are not farmed for their meat, or at least not on a large scale, such as kangaroos, ostriches and crocodiles. In 2017, STEC was found half as often (around 1 in every 22 consignments) as in 2016, but *Salmonella* was found more often (around 1 in every 7 consignments). One in every six consignments of poultry meat preparations, sampled both at import and at industrial processing establishments, were found to contain *Salmonella* in 2017, which means that, after a dip in 2016, the percentage of consignments testing positive for *Salmonella* at import has returned to the 2014/2015 level. Aside from meat, it is worth noting that 1 in 20 consignments of imported fresh herbs were contaminated with *Salmonella*. In 2016, this rate was one in five consignments. However, the number of consignments tested was relatively low (around 50 per year).

3. Monitoring and surveillance of pathogens in the retail phase

Risk-based sampling was also performed on a wide range of products in the retail phase. However, much less *Salmonella* was found in poultry meat at retail (around 1 in every 50 consignments) than at import or during industrial processing. As in 2016, *Listeria monocytogenes* was detected in a quarter of consignments of poultry meat, although the level detected was below the statutory standard in all instances. *Listeria monocytogenes* was also found in red meat, particularly in fresh meat from small ruminants (sheep/goats; 1 in 3 consignments) and to a lesser extent in beef (1 in 10 consignments) and red meat to be eaten raw (1 in 20 consignments; in 2016, this was 1 in 10 consignments). The NVWA paid particular attention to the category of red meat to be eaten raw, with inspections of *Listeria* control and studies performed to establish shelf life. *Listeria monocytogenes* was also found in one consignment of small ruminant meat, at a level that exceeded the standard.

In meat from the group of small ruminants, which was sampled more extensively in 2017, in addition to *Listeria monocytogenes*, STEC was also found relatively frequently (1 in 10 consignments).

In addition to meat, attention in the retail phase was also devoted to *Listeria monocytogenes* and the related shelf life established for fish and for products that were not sufficiently heated before consumption to kill *Listeria*. *Listeria monocytogenes* was found in approximately 1 in every 20 consignments of fish products, in some instances even exceeding the standard. *Listeria monocytogenes* was also found in a number of samples (including at levels that exceeded the standard) of ready-to-eat products, such as pre-made salads and tapas. This makes *Listeria monocytogenes* a relevant hazard for producers of such products. In 2018, more targeted inspections will be conducted in this area with regard to control and establishing shelf life.

4. Complaints, source tracing (bacteriology, virology)

In 2016 (the 2017 figures are currently being processed), more outbreaks of food-borne infections and food poisoning were recorded than in the previous year. In 2016, a total of 594 outbreaks were reported with 2,731 cases of illness, compared with 406 reported outbreaks and 1,850 cases the previous year. The increase in the number of reported outbreaks and cases of illness is primarily due to a rise in NVWA reports. This may have been caused by a higher number of food-related outbreaks in the Netherlands and/or by more outbreaks being reported to the NVWA.

The most important pathogen involved in the reported food-related outbreaks in 2016 was norovirus, both in the number of outbreaks and in the number of cases of illness. Of the specific micro-organisms causing notifiable diseases, *Shigella* and the Hepatitis A virus resulted in the highest numbers of patients. The annual number of reports of shigellosis is relatively stable. The number of reports of Hepatitis A has fallen since 2011, and has reached a historic low, with 80 reports in 2015 and 81 reports in 2016. In addition to the food-related outbreaks and the specific pathogens described here, there are other pathogens that can be transferred via food; these are monitored through disease-specific records. Moreover, if these pathogens could also have a zoonotic origin, such as *Campylobacter*, *Salmonella*, STEC and *Listeria*, then their occurrence will in any event be described in the State of Zoonotic Diseases report.³ Listeriosis and STEC infections are also discussed in separate articles. (Reports of food-borne infections and food poisoning in 2016; Infectious Diseases Bulletin, Dec. 2017).

In addition to the reports of illness described above, a total of 2,631 reports of (potentially) unsafe food were made to the NVWA in 2017, and were processed within the Microbiology domain (in 2016, this number was 2,232). Microbiology follows up on and assesses any potentially unsafe foods with a microbiological or physical cause (such as the presence of glass, metal or plastic). These reports may be made by consumers, food business operators or fellow food safety or other authorities within the EU. If tracing is performed, all establishments involved are required to make a report. Multiple reports can be combined into a smaller number of case files to this end, so that the combined reports for a single instance of contamination can be processed together. In 2016, reports for the Microbiology domain were combined into 826 case files (589 in 2016).

5. Antibiotics resistance (pathogen susceptibility, indicators from products) and

6. Active surveillance of ESBL isolates – CVI/RIVM

Within the context of European Commission Implementing Decision 2013/652/EU, the NVWA, together with the WBVR and the RIVM, has for some years been monitoring various isolates for antibiotics resistance. These isolates include:

- *Salmonella*: approx. 2,500 isolates from humans, approx. 1,500 isolates from farm animals and approx. 200 from meat and other foodstuffs;
- *Campylobacter* (incl. *C. jejuni*): approx. 100 isolates per year from manure from chickens kept for meat production and approx. 250 isolates per year from poultry products;
- *E. coli* indicator: approx. 270 isolates per year for each animal species (chickens kept for meat production, dairy cows, fattening pigs and veal calves) and approx. 600 isolates per year from raw chicken meat, pork, beef and veal;
- *Enterococcus faecium*, *faecalis*: approx. 120-250 isolates per animal species (depending on the species) once every 2 years from animal manure, and approx. 350 isolates from raw meat once every 2 years per animal species;
- ESBL/AmpC and carbapenemase screening in *E. coli*: in all manure samples (approximately 1,500 per year) and approximately 1,900 meat samples, 196 beef farms and 100 samples of other foods, such as herbs and spices, sprouts and imported farmed fish. In the latter category, samples were also screened for carbapenemase-producing organisms (CPE). Such organisms were found in two consignments of shrimp. The results from Projects 5 and 6 are reported annually in the Netherlands in the NETHMAP-MARAN report (MARAN = Monitoring of Antimicrobial Resistance and antibiotic usage in Animals in the Netherlands). In this report, the use of and resistance to antibiotics in animals is reported alongside the human data. The slight downward trend in resistance in previous years appears to have continued. At the European level, the data is reported in the annual EU zoonotic disease reports.

³ See https://www.rivm.nl/Documenten_en_publicaties/Wetenschappelijk/Rapporten/2017/november/Staat_van_Zo_nosen_2016

Incidents

Of the 680,000 annual cases of food-borne infections (estimate by the RIVM), only a few are known to the RIVM or the NVWA, particularly because, in most cases, the disease symptoms are not serious enough to warrant a visit to a GP and/or microbiological testing, which would bring them to the attention of the GGD or RIVM, and/or because very few consumers report cases of potential food poisoning to the NVWA. The Food Poisoning Expertise Centre (ExpVV) is in regular contact with the GGD and RIVM which, like the NVWA, also monitor reports of food poisoning. Every year, the cases of food poisoning in which this trio of organisations are involved are reported in the “Register of Food-Borne Infections and Food Poisoning”, referred to under point 4 of the above list of projects.

In 2017, no incidents involving the Microbiology domain occurred in which support was also requested from the NVWA's Incident & Crisis Management (ICB) department.

Impact measurement

Before the restructuring of the NVWA, which took place in 2017, impact measurement was seen as irrelevant to the Microbiology domain, as it does not manage a specific target group where targeted activities can be used to encourage compliance. An indicator of establishments' awareness of microbiological and other risks across the entire food supply chain is the number of reports of unsafe batches of food that are made by the establishments themselves. These reports, which are mandatory under the General Food Law, are being made more frequently. As in 2016, the number of reports increased throughout 2017. For Microbiology, they increased by roughly 18% (the number of case files grew by 40%). Since the NVWA's sampling programme has uncovered no signs that there was a corresponding sharp increase in the actual number of unsafe batches of food in 2017, we conclude that there has been a steady and positive change in attitude among establishments with regard to the reporting of microbiologically unsafe batches of food.

Actions taken to improve the official controls

European legislation relating to microbiological risks is complex (particularly with regard to *Listeria monocytogenes*, due to the double standard included in Regulation (EC) No 2073/2005, and the studies to establish a shelf life), and it sometimes allows Member States considerable leeway in their interpretation (for example where no standards exist, or where there is flexibility for small establishments). During 2017, the Microbiology domain ran several sessions of in-service training for groups of inspectors in the Consumer and Safety Division, in which attention was explicitly devoted to standardisation of monitoring under the legislation around *Listeria monocytogenes*.

Actions taken to improve compliance by establishments

In 2017, as in 2016, the NVWA devoted considerable attention to shelf life studies by following up on sampling with regard to *Listeria monocytogenes*. In spite of an improvement in the quality of these studies, the NVWA intends to actively express its views with regard to the studies in the course of 2018, as well as conduct targeted inspections by following a sector-based approach.

Conclusions

The increase in GFL reports by food establishments, the results of the NVWA's monitoring programmes and investigations into the sources of food-related outbreaks show that there is a continuing need for both food establishments and the regulatory authority to pay attention to microbiological risks. Risk-based monitoring shows that targeted monitoring of specific foods (exotic meats, herbs/spices, smoked fish), targeted inspections of compliance and control of microbiological hazards can have advantages, and can provide businesses and consumers with a framework for action.

3.17 Nutrition and health/special food and drink

Controlling authority: NVWA

List of the main European regulations comprising the package that covered the “Special food and drink” domain in 2017

EU Legislation	
Council Directive 96/8/EC	Foods intended for use in energy-restricted diets for weight reduction
Council Directive 1999/21/EC	Dietary foods for special medical purposes
Council Directive 2001/83/EC	Establishing a Community code relating to medicinal products for human use (hereinafter referred to as the Medical Preparations Act)
Council Directive 2002/46/EC	Concerning the approximation of the laws of the Member States relating to food supplements
Council Directive 2006/125/EC	Processed cereal-based foods and baby foods for infants and young children
Council Directive 2006/141/EC	Infant formulae and follow-on formulae ²
Regulation (EC) No 258/97	Novel foods and novel food ingredients
Regulation (EC) No 1881/2006	Setting maximum levels for certain contaminants in foodstuffs
Regulation (EC) No 1924/2006	Nutrition and health claims made on foods
Regulation (EC) No 1925/2006	Addition of vitamins and minerals and of certain other substances to foods
Regulation (EU) No 1169/2011 (EC) No 608/2004	Provision of food information to consumers
Regulation (EU) No 609/2013	Food intended for infants and young children, food for special medical purposes, and total diet replacement for weight control
Commission Delegated Regulation (EU) 2016/127	Supplementing Regulation (EU) No 609/2013 as regards the specific compositional and information requirements for infant formula and follow-on formula and as regards requirements on information relating to infant and young child feeding
Commission Delegated Regulation (EU) 2016/128	Supplementing Regulation (EU) No 609/2013 as regards the specific compositional and information requirements for food for special medical purposes
Commission Delegated Regulation (EU) 2017/1798	Supplementing Regulation (EU) No 609/2013 of the European Parliament and of the Council as regards the specific compositional and information requirements for total diet replacement for weight control

Specific national legislation is also applicable, the most important of which are the Commodities Act and the Herbal Preparations (Commodities Act) Decree (*Warenwetbesluit Kruidenpreparaten*), the Addition of Micronutrients to Foodstuffs (Commodities Act) Decree (*Warenwetbesluit Toevoeging micro-voedingsstoffen aan levensmiddelen*) and the Exemption of vitamin preparations (Commodities Act) Regulation (*Warenwetregeling Vrijstelling vitaminepreparaten*). This domain also has many interfaces with the legislation and regulations governing food in general, such as the Food Information (Commodities Act) Decree, the Contamination in Foodstuffs (Commodities Act) Decree (*Warenwetregeling Verontreinigingen in levensmiddelen*), Regulation (EC) No 853/2004 on the hygiene of foodstuffs and Regulation (EC) No 178/2002 establishing the general principles and requirements of food law.

It is characteristic of this domain that the legal status of many products is not clear in advance. Certain products could be classified simultaneously as a medical aid, a medicinal product or a food supplement.

Categories of establishments covered by the “Special food and drink” domain in 2017

Importers
Label holders
Producers
Online shops

Categories of foods covered by the “Special food and drink” domain in 2017

Herbal preparations
Foods bearing claims
Novel foods
Fortified foods
Vitamin preparations
Food for specific target groups
Food supplements

Special food and drink domain, results in 2017

Special food and drink	Number
Inspections/Checklists completed at establishments	1,045
Samples	193
Measures (inspections and samples):	256
• warnings	192
• administrative fines	64
• not specified	9

Inspections at establishments

This relates to the 1,045 inspection checklists completed on unique visit dates at 409 different special food and drink establishments. This includes 303 reports made by consumers and establishments and 190 inspections in the context of remote certification. The numbers also include data from the System Inspection project involving producers, label holders and importers.

Inspections at establishments are focused on the following:

- labelling, nutrition and health claims and the use of broad medical claims;
- advertising of infant formulae;
- novel foods;
- prohibited herbs/spices.

Specific label controls

Specific label controls are focused on the following:

- nutrition and health claims and the use of medical claims;
- other labelling requirements.

Reports made by consumers, establishments, etc.

In 2017, 303 inspections were carried out at 202 establishments in response to 1 or more reports made by a consumer or an establishment. At 85 establishments, 1 or more irregularities were found. In other words, in 42% of the cases (85 of the 202 establishments), the report was well founded (measures were justified). In 2016, this percentage was 31%. For each report, it was identified which legislation was applicable (multiple pieces of legislation could apply to each report). Most infringements related to a failure to comply with the conditions of Regulation (EC) No 1924/2006 (“Regulation on Claims”) (28%), followed by the Medical Preparations Act (21%). The figures are shown in the table below.

Legislation	Infringements (%)
Medicines Act (Gmw)	21
Regulation (EC) No 1924/2006	28
Regulation (EC) No 1169/2011	12
Regulation (EC) No 852/2004	23
Other	16
Total	100

RASFF and GFL reports

In 2017, the NVWA received 90 reports via the Rapid Alert System for Food and Feed (RASFF) (57 in total) and so-called “GFL reports” from establishments (33 in total).

Advertising of infant formulae

Advertising of infant formulae is an infringement of the Infant Formulae (Commodities Act) Regulation 2007, which is based on European Directive 2006/141/EC. In 2017, 10 reports were recorded in relation to advertising of infant formulae. Of these, only two reports were found to relate to an actual breach of the legal prescriptions.

Samples (European legislation)

A total of 103 herbal preparations and food supplements were sampled for Bap analysis and a total of 4 PAHs, and 90 herbal preparations and food supplements were sampled for analysis of heavy metals. This excludes the samples analysed as part of the project on pharmaceutically-active ingredients in food supplements. Of the 103 total herbal preparations and food supplements sampled, 8 contained an amount of benzo(a)pyrene or a total of 4 PAHs that exceeded the statutory maximum level.

In 2017, 90 herbal preparations and food supplements were sampled for analysis for cadmium, mercury and lead. One sample contained an amount of lead that exceeded the statutory maximum level.

Measures

Sometimes, infringements of one piece of legislation can be combined with infringements of other pieces of legislation in a single measure. It is also possible for multiple infringements to be merged into a single report of findings. In 2017, one or more measures were imposed on 191 individual establishments on the basis of a single inspection. These measures consisted of 64 reports of findings, with 78 different findings of irregularities at 59 individual establishments, as well as 192 written warnings, with 247 different findings of irregularities at 162 individual establishments. Out of the total of 265 measures, 9 measures were imposed in relation to samples (1 with heavy metals and 8 with Bap or a high total of 4 PAHs). The other 256 measures were imposed following inspections.

Project on food safety system inspections of importers, label holders and producers of special food and drink products

In 2017, 178 special food and drink establishments were inspected in the context of food safety system inspections. Special food and drink inspectors inspect importers, label holders and producers that sell special food and drink products. They conduct product-related inspections in combination with food safety system inspections. A food safety system inspection is an inspection that looks at the extent to which an establishment is ensuring the safety of food in the food supply chain with regard to the dangers associated with raw materials.⁴ In this investigation, 137 infringements were detected at 85 establishments (=48%). Most of the infringements related to a failure to comply with the HACCP conditions in Article 5 of Regulation (EC) No 852/2004 (45%), followed by the Regulation on Claims (18%). The figures are shown in the table below.

⁴ www.nvwa.nl: Information Sheet 64: Ensuring food safety in the food supply chain with regard to the dangers associated with raw materials.

Legislation	Infringements (%)
Regulation (EC) No 852	45
Regulation (EC) No 1924/2006	18
Regulation (EC) No 1169/2011	14
Regulation (EC) No 258/97	13
Other	10
Total	100

More stringent monitoring of special food and drink establishments

In 2017, 16 special food and drink establishments were subject to more stringent monitoring due to serious risks to food safety. Establishments that have received an administrative fine three times in the space of two years for an infringement relating to food safety are placed under more stringent monitoring by the NVWA, with the purpose of remedying the infringement in question. All 16 establishments were wholesalers and/or importers of food supplements and herbal preparations.

Project on nutrition and health claims by web shops trading in glucosamine

In this project, in early 2017, the NVWA inspected 77 pre-selected Dutch web shops selling food supplements containing glucosamine (sometimes in conjunction with chondroitin) to check their use of non-permitted health claims and prohibited medical claims. There are no permitted health claims for glucosamine, a popular food supplement. In the investigation, 14 web shops (=18%) were found to have made prohibited medical claims, and 41 web shops (=53%) were found to have made non-permitted health claims. No infringements of the Medical Preparations Act or the Regulation on Claims were found in 23 of the web shops (=30%).

EU project on medical claims and novel foods sold through web shops

In the period from September–October 2017, under the protocol prescribed by the European Commission, 26 Dutch web shops were assessed on their use of claims and their sale of novel foods.

This investigation revealed that 13 web shops were making non-permitted claims; in 12 web shops, novel foods were found for which no permit had been issued; in 1 web shop, both a non-permitted claim and a novel food without a permit were found.

Nutrition and health claims project

Food as a component of weight loss diets – enforcement relating to nutrition and health claims on labels and websites
In 2015, the labels, presentation and advertising (brochures, websites) used by 36 establishments (producers, importers and traders) were assessed in relation to the use of nutrition and health claims and other aspects of labelling. The investigation related to individual foods, which were specially formulated to form part of a specific weight-loss diet, and meal replacement products (replacing one or two meals per day).

The investigation revealed that 34 of the 36 inspected establishments (=94%) had breached the legal requirements in the Regulation on Claims to a greater or lesser extent. Of these establishments, 21 were using non-permitted nutritional claims; 28 were using non-permitted health claims; 21 were using claims alluding to the speed and extent of weight loss that were not permitted; and 19 did not comply with other labelling requirements.

Project on pharmaceutically-active ingredients in food supplements

In the period from March–April 2017, 16 establishments selling libido-enhancing, weight control or performance-enhancing supplements were inspected. In terms of range, these establishments cover most of the Dutch market.

In 2016, in this product group, breaches were detected of the Medical Preparations Act, the Herbal Preparations (Commodities Act) Decree and the Regulation on novel foods and novel food ingredients. Inspections consisted of an administrative check of the food safety plan and a physical check of the product stock held. Establishments where infringements were detected in relation to the food safety plan or product stock held were inspected again in June–July 2017. Of the 16 establishments involved, only 2 (12%) had an adequate food safety plan on paper and in practice. After the re-inspection, another six establishments (38%) had an adequate food safety plan on paper and in practice, whereas the remaining eight (50%) still did not have a proper food safety plan. Progress had been made by four of these establishments, but no progress was evident from the others. The establishments in this latter category were placed under more stringent monitoring. This means that these establishments will receive more frequent visits from the NVWA than establishments subject to routine monitoring. Establishments will remain under more stringent monitoring until they comply with the food safety rules.

Healthy food

Projects monitoring saturated fat and salt (reports published in December 2017)

In recent years, based on the Improved Product Composition Agreement, agreements have been made regarding maximum levels of salt, saturated fat and calories (sugars and fat) in foods. The Minister of Health, Welfare and Sport signed this agreement in early 2014 with sector organisations in the food, retail, hospitality and catering industries. The aim is that, by 2020, it must be easier for consumers to consume a maximum of 6 grams of salt and a maximum of 10% of their daily calorie needs from saturated fat. In this context, on behalf of the Ministry of Health, Welfare and Sport, the NVWA and RIVM monitor the salt, sugar and saturated fat content of foods. Since 2011, the NVWA has sampled 10 groups of food products each year, and often also samples another specific group of products, e.g. to measure an extensive fatty acid composition. It did so in 2015, 2016 and 2017. The 10 product groups routinely tested are bread, crisps and savoury crackers, preserves, fresh and frozen snacks, cheese, ready-to-eat meals, cakes and pastries, sauces, soup and meat products.

The findings of the 2017 investigation included the following:

- The salt content has dropped 11% since 2011.
- Salt reduction is down across all product groups, apart from sauces.
- 40% of the pâté/liver sausage sampled still does not comply with the maximum saturated fat standard, although it had been agreed that this would happen by 2015.
- 95% of the ready-to-eat meals sampled comply with the maximum saturated fat standard from June 2017.
- 30% of the salami/grilled breakfast bacon sampled still does not comply with the maximum salt standard, although it had been agreed that this would happen by 2015.
- 85% of the soups and broths sampled comply with the maximum salt standard from December 2016.

3.18 Plant health

Controlling authorities: NVWA, KCB, NAK, Naktuinbouw and BKD.

List of the main legislation in force in 2017

EU Legislation	
Council Directive 2000/29/EC	Protective measures against the introduction into the Community of organisms harmful to plants or plant products and against their spread within the Community
Council Directive 2007/33/EC	Control of potato cyst nematodes
Council Directive 98/57/EC	Control of <i>Ralstonia solanacearum</i> (Smith) Yabuuchi et al.
Council Directive 93/85/EEC	Control of potato ring rot
Directive 68/464/EEC	Control of potato wart disease

National legislation:

Plant Diseases Act (*Plantenziektenwet*)

Size of the control file in 2017

Type of establishment	Number in 2015	Number in 2016	Number in 2017
Arable agriculture	12,393	10,811	10,685
Ornamental horticulture – flower bulbs	1,551	1,622	1,654
Ornamental horticulture – floristry	3,314	3,035	2,807
Ornamental horticulture – tree nurseries	3,950	3,680	3,508
Vegetables	4,264	4,185	4,164
Fruit	2,389	2,701	2,789

Arable agriculture, results in 2017

- Within the area of arable agriculture, the most noticeable activity is the ongoing effort to combat a small number of soil organisms related to potato cultivation. These organisms include quarantine pests such as the potato cyst nematode (PCN), as well as *Meloidogyne chitwoodi*, brown rot, ring rot and potato wart disease. Pests from other EU countries also pose a threat to potato cultivation in the Netherlands, such as *Epitrix* spp. and the zebra chip (*Candidatus Liberibacter solanacearum*).

Results for arable agriculture	Number of inspections			Rejections due to quarantine pests		
Inspections	2015	2016	2017	2015	2016	2017
Imports	798	1,178	1,721	0	0	0
Potato wart disease	193	80	341	1	0	0
National seed potato crop	18,481	21,695	17,957	34	45	57
Exports	19,313	17,625	18,954	18	22	0

In 2017, the key findings in the arable agriculture sector were as follows:

- In 2017, attention was again devoted to the increased virulence of the potato cyst nematode, which was first observed in 2015. This increased virulence relates not only to *Globodera pallida*, but also to nematodes of the *G. rostochiensis* species.
- In 2017, brown rot was established in one batch of seed potatoes. The cause of the contamination can probably be traced back to a summer storm in 2015, during which surface water contaminated with brown rot was blown onto a plot of land used for seed potato cultivation.
- In 2017, there was a record number of discoveries of *Meloidogyne chitwoodi* (46 in seed potatoes and 12 in harvest crops) and *M. fallax* (10 and 3 respectively). The majority of these discoveries were in seed potatoes. In 2018, new zones will be established for these nematodes. Growers cultivating seed potatoes in the designated zones must allow their harvests to be tested for the presence of the nematodes *M. chitwoodi* and *M. fallax*.
- In 2017, no Potato spindle tuber viroid (PSTVd) was detected in potatoes, but it was found in rocket crops. Rocket grown as a trap crop for potato cyst nematodes had not previously been considered as a host plant for PSTVd.

- No ring rot was detected in the Netherlands in 2017. This suggests there has been good compliance with the measures designed to combat ring rot in the Netherlands.

Fruit and vegetables, results in 2017

Results for fruit and vegetables			Number of inspections			Rejections due to quarantine pests		
Inspections	2015	2016	2017	2015	2016	2017		
Imports	74,400	84,500	73,705	159	151	176		
National survey	3,533	3,816	4,231	36	62	86		
Plant passport	3,426	3,664	3,819	46	88	34		
Exports	41,201	54,039	43,568	853	1,266	1,103		

The fruit and vegetables sector covers the development of new varieties, global seed production and distribution, plant propagation and the cultivation of fruit and vegetables, outdoors or in greenhouses. The sector also covers imports from all over the world, distribution across the entire EU and exports to every corner of the globe. The key findings for 2017 were as follows:

- In 2017, the number of interceptions of quarantine pests during import inspections in the fruit and vegetable sector increased from 151 in 2016 to 176 in the reporting year.
- Importing citrus fruits from South Africa was again an area of concern. As a consequence, the requirements for citrus black spot and citrus canker will be tightened up in 2018.
- In late 2017, tomato chlorosis virus was detected at several tomato growers. The strategy to combat this virus is focused on eliminating the virus through crop rotation.
- No quarantine pests were detected under the phyto monitoring programme in 2017.
- Quarantine pests were detected in inspections of non-regulated products, including *Bemisia tabaci* and *Spodoptera* spp., primarily in herbs from various countries of origin and vegetables from Suriname that were not subject to mandatory inspection.

Floristry, results in 2017

Results for floristry			Number of inspections			Rejections due to quarantine pests		
Inspections	2015	2016	2017	2015	2016	2017		
Floristry imports	87,200	80,100	80,545	93	183	108		
Flower bulb imports	357	481	581	0	0	0		
Floristry, national survey	710	600	1,247	6	1	10		
Floristry, plant passport	10,324	10,433	10,309	5	15	8		
Flower bulbs, plant passport	27,144	45,195	44,926	97	116	81		
Floristry exports	33,328	38,250	38,999	9,618	7,234	NB:		
Flower bulb exports	8,902	12,728	8,244	283	297	264		

The floristry sector covers a wide range of products for ornamental horticulture, including propagation material, end products and products at all stages in between. The highly-internationalised production chains have close connections between the different links in the chain. The key phytosanitary findings for 2017 were as follows:

- The number of interceptions of harmful organisms during import inspections fell to 108, which is close to the 2015 figure of 93.
- There were many interceptions of *Liriomyza huidobrensis*, *Spodoptera littoralis*, *Bemisia tabaci* and *Thrips palmi*. These species can survive in Dutch greenhouses.
- PSTVd was detected in cultivation of the pot plant *Solanum muricatum*.
- A tracing investigation was performed in response to a notification of *phylloxera* in a shipment of *Vitis*, and this organism was successfully eliminated through destruction of the parent consignment.
- It appears that the recent *Ralstonia solanacearum* race 1 contamination in roses is nearly behind us; in 2017, one establishment was found to still be contaminated after the monitoring period.
- Quarantine pests such as *Hirschmaniella* spp. and *Opogona saccheri* were detected under the phyto monitoring programme. *Bemisia tabaci* and *Liriomyza* spp. were detected in inspections of non-regulated products.

Flower bulbs, results in 2017

Outdoor cultivation of flower bulbs involves specific risks relating to soil-borne organisms. Other organisms, such as viruses, are also a threat to the cultivation and global sale of flower bulbs. In the European market, the measures applicable to flower bulbs originating from plots of land contaminated with potato cyst nematodes were relaxed in 2014. However, third countries require guarantees that flower bulbs come from PCN-free plots. This requires a good track-and-trace system.

The key phytosanitary findings for 2017 were as follows:

- Of the nearly 72,000 inspected export shipments, 0.84% were rejected. There was a relatively high number of rejections due to the presence of soil.
- Third countries that import flower bulbs from the Netherlands carry out laboratory tests as part of their import inspections. The Netherlands anticipates this, as a result of which the contamination rates for Arabis mosaic virus and strawberry latent ringspot virus in random export checks have fallen to nil.
- In surveys as part of the phyto monitoring programme, the tobacco necrosis virus and tulip virus X have been detected in tulip cultivation.

Tree nurseries and green spaces, results in 2017

The tree nursery sector is closely connected with woods, gardens, public plantings and parks in what are referred to as “green spaces”. Infections in green spaces can have serious consequences for tree nurseries and vice versa. When outbreaks of quarantine pests occur in green spaces or in tree nurseries, the eradication measures mandated by EU legislation can be drastic.

The key phytosanitary findings for 2017 were as follows:

- The bacteria *Xylella fastidiosa* is a tangible threat to tree nurseries and green spaces alike. The trade and tree nurseries sectors must remain alert to the risk of introduction of *Xylella fastidiosa* to the Netherlands via plant material.
- No quarantine pests were detected in green spaces in the context of the phyto monitoring programme.
- However, several regulated organisms were detected during tree nursery inspections in the context of the phyto monitoring programme. These were organisms that are known to be present in the Netherlands and Europe and are only regulated for certain plant species, such as fire blight (*Erwinia amylovora*).
- The number of cases of contamination with fire blight (*Erwinia amylovora*) fell to 104 in 2017, which is fewer than in 2016 (134).

Results for Tree nurseries and green spaces in 2017

Tree nurseries and green spaces	Number			Rejections due to quarantine pests		
	2015	2016	2017	2015	2016	2017
Inspections						
Tree nurseries, national survey	179	205	100	2	0	0
Tree nurseries, plant passport	9,285	9,559	9,431	28	38	48
Wood packaging materials inspection programme	4,008	1,946	2,846	19	22	6
Green spaces, national surveys	637	661	771	111 ¹⁾	134 ²⁾	104 ¹⁾

1) Relates to *Erwinia amylovora* in buffer zones outside nurseries.

2) 132 rejections relating to *Erwinia amylovora* in buffer zones outside nurseries.

Incidents

In 2017, no incidents arose on a comparable scale to the *Ralstonia solanacearum* infection that affected rose growers in 2015 and 2016. An infection was discovered at one grower in 2017, which suggests that the infection with this bacteria is now under control.

A brown rot infection (*Ralstonia solanacearum*) was also discovered in a consignment of seed potatoes. The infection was traced back to the brown rot infections of 2015.

In November 2017, the tomato chlorosis virus (ToCV) was detected at one tomato grower. One month later, the virus was found at two other tomato growers. The adopted strategy is for the growers to eliminate the virus through crop rotation.

Conclusions

The number of notifications issued by the Netherlands to third countries due to the discovery of a quarantine pest remained virtually unchanged, with 337 interceptions in 2016 and 358 in 2017. Although there was a reduction in the number of interceptions of various organisms, the Netherlands intercepted certain specific organisms more frequently in 2017, such as *Bemisia tabaci*, *Phyllosticta citricarpa*, *Spodoptera littoralis* and *Spodoptera frugiperda*. European emergency measures are expected to be imposed for the last of these organisms, due to an outbreak of *Spodoptera frugiperda* across much of Africa. The number of notifications issued to the Netherlands by countries outside the EU rose sharply in 2017. This was mainly due to more frequent interceptions of harmful organisms in products from the Netherlands. Interceptions of *Bemisia tabaci* by the United Kingdom on pot plants from the Netherlands remains a point of concern.

The key changes with regard to pest status are related to three outbreaks in 2017 of the organisms *Aculops fuchsiae*, tomato chlorosis virus and tobacco ringspot virus.

3.19 Plant protection

Controlling authority: NVWA, the Dutch Water Boards

List of the main legislation under which controls were carried out in 2017

EU Legislation	
Regulation (EC) No 1107/2009	Placing of plant protection products on the market
Council Directive 2009/128/EC	Sustainable use of pesticides
Regulation (EC) No 1185/2009	Statistics on pesticides
Council Directive 2006/42/EC	Machines for the application of pesticides
Regulation (EC) No 396/2005	Residue levels of pesticides

National legislation

- Plant Protection Products and Biocides Act (*Wet Gewasbescherming en biociden*);
- Plant Protection Products and Biocides Decree (*Besluit gewasbescherming en biociden*);
- Regulation on Plant Protection Agents and Biocides (*Regeling gewasbescherming en biociden*);
- Activities (Environmental Management) Decree (*Activiteitenbesluit Milieubeheer*).

Size of the control file in 2017

Type of establishment	Number (approx.)	Hectares (approx.)
Approval holders	150	N/A
Importers	40	N/A
Trade (professional)	258 ¹	N/A
Users of plant protection products:		
• ornamental crops grown in greenhouses ²	2,588	4,273
• field-scale vegetable cultivation	8,113 ³	83,703
• outdoor cultivation of trees and perennials	3,045	17,252
• arable agriculture	12,911	444,368
• outdoor fruit cultivation	2,541	20,199
• flower bulbs	1,613	26,024
• vegetables grown in greenhouses	1,325	4,915
• floristry crops (outdoor cultivation)	1,048	2,755

¹ Source: CDG** list. 223 CDG branches and 35 VKL*** branches.

² Encompasses tree nurseries and tree and perennial cultivation in greenhouses.

³ Also encompasses vegetable growers on arable farms

* CBS = Statistics Netherlands

** CDG = Certification for the distribution of plant protection products (*Certificatie distributie in gewasbeschermingsmiddelen*)

*** VKL = Food Quality Contract Work (*Voedselkwaliteit loonwerk*)

Target groups

In relation to controls on trade and on the use of plant protection products, the risks for each target group under the Plant Protection Products and Biocides Act are regularly reviewed. The various target groups are monitored periodically and, where necessary, controls are intensified or other activities are undertaken to improve compliance.

The target groups were classified as follows in 2017:

High risk	Medium risk	Low risk
Ornamental crops grown in greenhouses	Tree nurseries	Arable agriculture
Flower bulb cultivation	Outdoor cultivation of ornamental crops	Field-scale vegetable production
Trade (professional)	Plant protection outside of the agricultural sector	Greenhouse vegetables
Imports	Fruit cultivation	Approval holders

This table lists the most important target groups. Where the NVWA carries out controls on the use of plant protection products only as part of a broader inspection or on the basis of reports and personal observations, such as in relation to livestock farming and private use, these target groups are not included. The classification is based on cultivation. As a result, there are other focus areas, such as cultivation in groundwater protection areas, which are not specifically mentioned here.

The “trade in products for professional use” and “imports” product groups deserve further explanation. These target groups are classified as high risk.

Trade: due to its position in the chain, it has an effect on the compliance level for all target groups. After all, correct use of a product depends on the provision of the correct information and resources to the users.

Imports: given the number of illegal imports observed and the knock-on effects of illegal agents in the rest of the chain, this target group has been classified as high risk.

Plant protection outside of the agricultural sector: 2017 is the first year in which this target group has been subjected to a focused examination, and the risk is still difficult to estimate. For now, this target group will be classified as medium risk.

The improved compliance in fruit cultivation in inspections in 2016 is due to fruit cultivation being reclassified from high risk to medium risk. The use of plant protection products near surface water remains an area of concern.

Cultivation in areas with large amounts of surface water or in water extraction or groundwater protection areas constitutes a high environmental risk. This has contributed to the prioritisation of this target group. This target group is also assigned a higher priority when the risks are greater due to more intensive plant protection and an increased probability of the identification of non-compliance, such as for ornamental crops grown in greenhouses.

Controls

The NVWA uses two forms of controls when monitoring users of plant protection products:

- Application controls consist of surveillance in the field while the grower is spraying a crop. In these controls, inspectors focus primarily on the use of plant protection products authorised for use in the Netherlands and for use within 14 metres of surface water. These controls focus on compliance with the legal instructions for use and the special rules (emission-control measures) applicable to spraying near surface water and for the protection of non-target organisms.
- Establishment controls ensure that growers only use authorised products and use them in accordance with the legal requirements. In addition to a thorough inspection of establishments and their records, inspectors may also take samples for laboratory testing for residues of unauthorised products. This enables the NVWA to determine whether growers have used unauthorised plant protection products and whether they have complied with the instructions on the label. The spraying records are also inspected, including the presence of a certificate of professional competence.

For controls on both open-air and protected crops, the NVWA works with other bodies, in particular the Dutch Water Boards. In 2011, a covenant for joint monitoring of the import of plant protection products was signed with Dutch Customs.

Monitoring of “Plant protection”, results in 2017

Results in 2017	Number of establishment controls	Administrative and criminal law settlements	Warnings
Approval holders	7	-	-
Importers	88	10	1
Trade	53	6	9
Users of plant protection products:			
• ornamental crops grown in greenhouses	132	37	22
• field-scale vegetable cultivation	17	4	6
• Arable agriculture	43	13	8
• field-scale fruit cultivation	69	13	8
• flower bulbs	11	2	2
• plant protection outside of the agricultural sector	77	39	9
• vegetables grown in greenhouses	3	1	-
• other (test exemptions/contract workers/private individuals/livestock farmers)	14	4	2
• ornamental crops, including open-air tree nurseries	337	50	62
Total users of plant protection products	703	163	119
Application inspections	137	32	14
Reports/complaints/incidents	87	11	5
2017 total	1,075	222	148

A total of 502 samples were taken and tested during controls in 2017.

The results in the above table are not representative of the Dutch situation, because, in addition to random monitoring, the NVWA also carried out targeted controls based on inadequate compliance, reports and other signs. Furthermore, the above table is based on inspections completed in 2017, whereas most of the inspections were conducted as part of projects that were not defined until 31 December.

Re-inspections

In more than 150 inspections, an aspect that had previously been found to be unacceptable was found to be acceptable after a re-inspection.

Cross-compliance

In 2017, the NVWA carried out 489 cross-compliance controls, of which 121 in arable agriculture/vegetable cultivation establishments looked at whether good plant protection practices and instructions for use had been followed. In these controls, four infringements were detected at arable agriculture/vegetable cultivation establishments. The use of plant protection products at establishments that only kept animals was considerably less than at arable agriculture establishments. Work at these establishments is often performed by contract workers.

Hygiene Regulation

In the 25 inspections specifically performed under the Hygiene Regulation in relation to primary production of products of non-animal origin, plant protection aspects were also taken into account.

In total, in 2017, the NVWA carried out around 1,200 controls specifically relating to the use of plant protection products and around 500 controls in which the use of such products was considered in a wider context.

Dutch Water Boards

Together with the NVWA, the water boards monitor the use of plant protection products near surface water. In 2017, based on their monitoring, the water boards submitted 119 reports of findings to the NVWA for further administrative processing. The results from the water boards are not included in the above table.

More detailed explanation of the results for “Plant protection”

Approval holders

To comply with the European obligations in Regulation (EC) No 1107/2009 on placing plant protection products on the market, the NVWA made a risk-based selection of plant protection product case files for six approval holders and carried out inspections. This included taking 34 samples for the quality requirements and comparing the approval decision for a number of the selected products with the text on the label. The analyses of the sampled products did not reveal any irregularities. Due to a lack of specifications or analysis methods, not all physical and chemical parameters and additives could be checked for accuracy. Testing was performed to fill in these gaps as much as possible. This is a common problem encountered in many EU countries.

Various irregularities were observed in controls on label texts. One warning was issued, and a report of findings was issued to one approval holder in connection with multiple inaccurate labels.

Imports

In 2017, in conjunction with Dutch Customs, the NVWA inspected 11 postal parcels and 40 containers being imported that potentially contained plant protection products. As a result of these inspections, 10 official reports and 1 written warning were issued. Of the 10 official reports, 7 related to shipments with 1 or more consignments from China. Six of the official reports were issued for the import of unauthorised products in postal parcels and three were issued for the import of counterfeit products.

Thirty-seven inspections were carried out on parallel imports. No irregularities were established in these inspections.

Trade

In 2017, as part of the Trade project, 37 traders in plant protection products were inspected, and 6 written warnings were issued. Three reports of findings were issued in connection with the detection or delivery of products bearing the incorrect version code (w-code). The remaining 16 inspections in the area of trade were in response to tracing or investigations into the legitimacy of the claimed effect.

Since 1 January 2010, all establishments supplying professional users of plant protection products must be affiliated with the Foundation for Certification for the Distribution of Plant Protection Products (CDG). This requirement means that the CDG monitors compliance with the regulations among this target group.

Cultivation

The Plant Protection domain encompasses various target groups (see the Target Groups table). Once every four years, a compliance measurement is performed for each target group. In 2017, compliance measurements were completed for ornamental crops grown in greenhouses and for fruit cultivation, and were started for tree nurseries, perennials and open-air floristry. For fruit cultivation, compliance in inspections of establishments is at 90% (80% in 2012); for ornamental crops grown in greenhouses, it is at 80%. This corresponds with the general picture that the compliance level for food crops is around the 90% mark, and between 60 and 90 % for ornamental crops grown in greenhouses (depending on the cultivation type).

The investigations into tree nurseries, perennials and open-air ornamental crops will be completed in 2018.

The data available at the end of 2017, based on 283 conducted inspections, resulted in 49 written warnings and 42 reports of findings. A significant number of the reports of findings were issued in relation to the use of products that are not authorised for the type of cultivation in question. A sufficiently effective package of measures and funds is seen as a crucial prerequisite for improving compliance among growers. The efforts of the NVWA to secure an adequate package of measures and funds help reduce the desire to break the rules.

Nevertheless, as the legal instructions for use become increasingly complicated, accompanied by extensive restrictions, it is increasingly difficult for growers to comply with the regulations.

Plant protection outside of the agricultural sector

In response to the ban on the use of plant protection products on hard surfaces by professional users, the NVWA implemented an inspection programme. Under this programme, 77 inspections were performed, leading to 39 reports of findings. The majority of these related to a breach of the conditions of application of a non-professional legal instruction for use, namely the use of herbicides on paved areas where such a use was banned by a sentence in the conditions of application such as "Intended solely for private use in gardens, including allotments". Thirteen of the cases involved the use of an unauthorised product. One infringement concerned a professional product where the use was covered by an exception, but the dose applied was higher than that stated in the instructions for use. In almost all of the infringement detected, the person applying the product was not aware of the regulatory provisions. The infringements were primarily committed by small establishments with hard surfaces that applied the herbicides themselves.

Inspections affecting all target groups

Groundwater protection areas

Restrictions apply to the use of plant protection products in groundwater protection areas. A total of 46 inspections were conducted at establishments with 1 or more parcels of land in groundwater protection areas.

With regard to 25 of these inspections, reports of findings were issued, of which 23 related to the use of products in breach of the legal instructions for use. These products were not authorised for use in a groundwater protection area. In addition, one report of findings was issued in connection with the use of an expired product, and another was issued for the use of a product that was not approved for the type of cultivation in question. These results, indicating a compliance rate of 46%, will lead to follow-up actions in 2018 and 2019 to increase awareness of the regulations and to improve compliance.

Seeds for sowing

Among the 24 inspected producers/traders in treated seeds, the key issue that surfaced was uncertainty regarding the labelling requirements. This was addressed with the sector. Three reports of findings were issued due to the use of unauthorised products.

Application inspections

In 2017, 137 application inspections were carried out; 71% of these were within a radius of 14 metres from surface water. A total of 32 reports of findings were issued. The majority of these related to a failure to follow the drift-reducing measures set out in the Activities (Environmental Management) Decree and/or the legal instructions for the products. Around 50% of these inspections were conducted among the fruit cultivation and arable agriculture target groups.

Plant protection monitor

A total of 530 inspections were conducted on the presence of the plant protection monitor. Non-compliances were found in 105 cases (20%). The monitor was absent in almost all of these cases.

Certification of spraying equipment

In the application inspections, the inspectors also looked at whether the spraying equipment was certified. The equipment was found to be uncertified in eight cases.

Reports

In 2017, the NVWA received 207 reports containing the subject/description of "plant protection products" or "pesticides". These reports can be divided into the following categories.

Category	Number of reports
Neighbours/careless use	63
Bee mortality	19
Import	45
Use	40
Miscellaneous	42

It is not possible to make a clear distinction between the categories of “careless use” and “neighbours”. Of the 63 reports from neighbours, 24 were related to health complaints or concerns about the effects of the spraying on their health. No infringements were observed in relation to these reports. The other 39 reports related to a nuisance or careless use. Cases of physical health complaints or concerns were referred to the GGD (nine cases in 2017).

In 2017, the NVWA received 19 reports on the topic of bee mortality. For all reports, it was investigated whether the bee mortality was connected to any potentially incorrect use of plant protection products. Where a potential relationship existed between the use of plant protection products and the bee mortality, samples were taken from the bees and from any crops in the vicinity that were attractive to bees. These investigations revealed that, in 13 of the 19 cases, the use of a plant protection product was not the cause of the bee mortality.

For six reports relating to the same time period and the same region, it appeared from a sample analysis of the dead bees, which revealed the presence of active substances from plant protection products, that the use of an approved (but hazardous to bees) product was a possible cause of the bee mortality. During the investigation, it appeared that multiple beekeepers (10) in that region had experienced large-scale mortality among their bees (33 populations). However, there were no bee-protection restrictions on the use of the product for the type of cultivation in question. The growers that had used the product were not breaching any regulations. The effect of this product on bees was reported to the Dutch Board for the Authorisation of Plant Protection Products and Biocides (Ctgb), which promised to take action.

OECD/RAS

At the initiative of the Organisation for Economic Co-operation and Development (OECD), the Rapid Alert System (RAS) was set up to track consignments of (suspected) illegal plant protection products from the point where they enter the EU to the place of destination within the Member States. This system has been operational since October 2012. In 2017, the Netherlands submitted four RAS notifications of suspected illegal plant protection products and/or active substances from third countries that had been imported into the Netherlands and were destined for one of the EU Member States.

Actions taken to improve compliance

In 2016, we started focusing our planning in such a way as to concentrate activities on certain sectors. These projects were implemented in 2016 in outdoor fruit cultivation and ornamental crops grown in greenhouses. In 2017, a large project was launched focusing on tree nurseries, perennials and open-air ornamental crops, and extra attention was paid to imports and trade. The target groups were given advance notification. It is expected that this approach and the associated communication will improve the level of compliance.

In 2016, a target group analysis was performed in the flower bulb sector, on the basis of which joint actions were taken with establishments in the sector in 2017 to improve compliance in flower bulb cultivation.

The flower bulb sector has developed an action plan, “Healthy Bulbs, Flourishing Sector”, which aims for a reduced and more sustainable use of plant protection products. The 2014 compliance results from the NVWA were a clear stimulus to the sector to develop alternative practices. A flower bulb communication and action plan was drafted by the sector in 2017 and will be jointly implemented with the NVWA until March 2018.

To determine and encourage compliance, the NVWA will be conducting a large number of inspections in the bulb cultivation sector in 2018.

In 2017, a target group analysis was performed among traders in plant protection products for professional use.

In line with the vision of this target group, it is expected that traders will play a more important role in preventing the use of unauthorised products by dispensing advice and by only selling products for which the grower has an approved purpose.

In 2017, the NVWA worked hard at both the national and international level to identify and improve the accessibility of plant protection products. Its actions included dispensing advice with regard to “small-scale applications” and determining the agricultural necessity for the granting of exemptions for use.

Conclusions

Both dispensing technical agricultural advice and carrying out monitoring will contribute to the policy-related objectives with regard to plant protection products.

The 2017 approach of collaboration with growers' organisations, communication and openness in trade can potentially contribute significantly to improving compliance. This approach will therefore be continued and possibly expanded with alternative instruments.

A significant contribution to compliance came from the NVWA's efforts to create an appropriate and effective package of measures and funds to combat pests and diseases. Efforts are being made nationally and internationally to increase the package of measures and funds. The emphasis is on low-risk funds, solutions for small-scale applications and the promotion of integrated plant protection.

The controls carried out, as well as reports and measurements, show that:

- compliance in fruit cultivation has improved from four years ago;
- attention is still required with regard to:
 - the supply of and trade in products not authorised in the Netherlands;
 - the use of unauthorised products in a number of ornamental crops grown in greenhouses;
 - failure to use or incorrect use of drift reduction measures in open-air cultivation areas near surface water;
 - the use of unauthorised products in groundwater protection areas;
 - correct labelling of seeds treated with protection products.

3.20 Organic products

Controlling authority or authorities: Skal (Stichting Skal Biocontrole)

List of the main legislation under which controls were carried out in 2017

EU Legislation	
Regulation (EC) No 834/2007	Organic production and labelling of organic products
Regulation (EC) No 889/2008	Implementation of Regulation (EC) No 834/2007 on organic production and labelling of organic products with regard to organic production, labelling and control
Commission Regulation (EC) No 1235/2008	Arrangements for imports

National legislation

- Section 15 of the Agricultural Quality Decree (*Landbouwkwaliteitsbesluit*) 2007:
 - Skal is the authority referred to in Article 27(4)(a) of Regulation (EC) No 834/2007 and is charged with:
 - a) monitoring compliance with the rules laid down in or pursuant to this decree with regard to organic production methods and the production methods designated as equivalent by ministerial regulation;
 - b) keeping the records referred to in Article 28 of Regulation (EC) No 834/2007;
 - c) other implementation activities required for the proper implementation of the regulation referred to in the preamble.

Every establishment wishing to produce, process, package, import, trade in or store organic products must be certified by Skal to do so. Skal monitors the entire organic supply chain in the Netherlands. A component of this monitoring is a compulsory annual inspection of all organic establishments.

Size of the control file in 2017

Type of establishment	Number
Agricultural establishments	1,930
Food manufacturers, importers, trading and storage establishments	2,800
Total number of registered establishments	4,730

Monitoring of “Organic Products”, results in 2017

Monitoring of organic production	Number
Inspections	6,482
Samples	352
Measures: 1,050 serious and 59 critical irregularities	1,109
Number of establishments suspended	5
Number of establishments decertified	7

Types of inspections	Number
Permit inspections	709
Expansion as a result of a broader scope	290
Annual inspections	4,185
Re-inspections	200
Targeted inspections	730
Total (excluding sampling)	6,114

Reference to specific reports

2017 Annual Report, published on 15 March 2018: www.skal.nl/over-ons/publicaties

More detailed explanation of the results for “Organic products”

The year 2017 was a growth year for Skal. It was a year in which the organic sector increased by 420 establishments to a total of 4,486 certified establishments. Inspections showed that, despite its growth, the Dutch organic sector continues to comply with the regulations. The organic sector is characterised by high compliance with the rules. The organic sector is growing significantly in both complexity and diversity. By integrating its inspection capacity, Skal ensures the quality that such growth demands of a regulatory authority. Effective monitoring requires a total focus on the core task: monitoring compliance with European regulations concerning organic production, labelling and certification. In doing so, Skal also contributes to maintaining the credibility of the organic sector.

In 2017, more than 6,100 visits were made to establishments, of which 709 were permit inspections of new establishments. In its monitoring, Skal pays special attention to new establishments. Skal grants organic certification to establishments that can show during the inspection that they are complying with the legal requirements. If the proof of compliance is no longer sufficient, Skal can revoke an establishment's organic certification. This was done seven times in 2017.

Projects in 2017

Input list

To improve its services to growers, Skal published a list of fertilisers and plant protection products in late 2016 that may be used in the organic sector. This input list provides a transparent overview of products that may be used in organic cultivation in the Netherlands. The input list shows the product names of authorised fertilisers and plant protection products.

From May 2017, farmers may only purchase products that appear on the input list. If a farmer uses products that are not on the input list, the burden of proof is on the farmer.

Over the course of 2017, the input list grew into a workable system with 237 approved fertilisers and 57 approved plant protection products. Partly due to the fipronil incident, an evaluation of the input list was started in late 2017 in light of the Biocides Directive.

Publication of decertifications

From 2017, Skal has started publishing the names and locations of the establishments it has decertified on its website. A summary is provided of the most recent infringements that are relevant to the decertification decision. Publication takes place only after all opportunities to appeal the decertification decision have passed. Until 2017, it was the policy of Skal that decertifications of establishments should be published on the website in anonymised form.

Organic propagation establishments

There is a high risk of contamination at propagation establishments, because they are permitted to grow conventional stock in close proximity to organic stock. Good separation between conventional and organic stock is crucial. A targeted inspection was conducted of the 16 largest certified organic propagation establishments, including sampling. The results of the sampling showed that young organic plants from three propagation establishments contained residues from unauthorised plant protection products.

Use of copper by organic potato growers

Despite the low rate of *phytophthora* infections in 2017, Skal conducted a number of inspections in July and August on the use of copper in the cultivation of organic potatoes. Copper had been administered at four establishments.

Focus on imports

Infrequent importers

In 2017, 60 unannounced inspections were conducted of importers that do not import organic products frequently. A total of 15 irregularities involving 12 importers were observed during these inspections. Most of the irregularities related to import certificates not having been signed (or not having been signed correctly). In spite of these irregularities, there was clear evidence of the organic status of the imported consignments.

Random samples of non-reporting importers

Of the 135 certified import establishments with an organic turnover of at least 1 million euros, 70 have never reported an irregularity with an organic product to Skal. Of these establishments, 43 were visited in 2017 to check that their internal procedures were in order and to ensure they were aware of the reporting obligation applicable to organic establishments.

Testing was performed in respect of 23 of the 43 establishments visited. The testing did not give rise to any suspicion that the importers were evading their reporting obligations.

Sampling of importers

In addition to these controls, which were mainly administrative, sampling was performed at import establishments in 2017 in respect of 104 consignments. The sampled consignments originated from 33 countries. Samples were taken of fresh fruit, potatoes and vegetables, dried fruit and superfoods. Residues were found in 12 of the 104 consignments. This led to decertification of one consignment. In six cases, the consignment was released because there was no evidence of active use. Investigations are still ongoing in relation to five consignments, which have been blocked in the meantime.

Guidelines on imports from Ukraine and neighbouring countries

In late 2015, in response to irregularities in imports from Ukraine in 2014 and 2015, the European Commission issued a guideline for imports from (in 2017) Ukraine, Kazakhstan and the Russian Federation. The guideline states that all consignments imported from these countries that meet certain conditions must be sampled. In 2017, Skal sampled 137 consignments pursuant to this guideline. Two of these consignments were decertified.

Incidents

Fipronil

The organic establishments that used the product DEGA-16 to combat red mites did not comply with the organic regulations because they did not check its composition. This meant that the poultry farmers involved were guilty of a significant irregularity. They were ordered to ensure that they have a proper procedure for checking the products they bring into their establishments. In this way, the penalty for the breach will ensure that no similar incident occurs in the future.

Organic eggs from the establishments involved were placed on the market only after the NVWA had approved this action. The fipronil incident clearly showed the importance of incoming goods inspections; all products used in an organic establishment must demonstrably comply with the organic legislation as well as other applicable regulations.

Impact measurement

In 2017, an action plan was drafted for working to improve the effectiveness of monitoring by Skal. This project consists of a number of pilots involving new forms of monitoring and will be rolled out in 2018.

Actions taken to improve the official controls

To ensure internal quality, procedures and working instructions have been drafted and digital resources deployed.

With the aim of professionalising monitoring, inspectors have expanded their specialist knowledge by taking training courses such as Information-Based Enforcement, Innovative Root Cause Analysis and Lead Auditor. New inspectors are authorised by Skal following intensive training consisting of both theory and practice.

Skal also holds regular discussions with representatives from the organic sector to clarify its role as regulatory authority and the role of the sector. Skal works with the sector to assess risks. In doing so, Skal is careful to ensure that it is serving the public interest and not the interests of the sector.

Skal continually monitors whether registered establishments are satisfied with the professionalism of its annual inspections. It does so via telephone surveys after each inspection is completed. Specifically, 150 establishments per quarter receive a telephone call after the completion of their annual inspection. In these surveys, inspectors were given an average score of 7.9. In 2016, the average score was 7.8. Respondents were satisfied with the expertise and professionalism of the inspections, the transparency of inspections and the smooth running of inspections. Areas for improvement included communication about preparation for inspections and the duration and scheduling of inspections.

Actions taken to improve compliance by establishments

The main objective of the provision of information by Skal is to promote compliance among the certified businesses. Skal has adopted an active, informative approach through active communication.

The www.skal.nl website is the key communication channel for both parties exploring the market and already-certified establishments. All relevant and current regulations can be found on this website, broken down by subsector.

Certified establishments and other interested parties received four digital newsletters in 2017, as well as two printed newsletters containing announcements of new rules or reminders of existing regulations. In addition to the newsletters, certain segments of the sector were informed via email of legislative amendments relevant to them and were invited to give feedback on the thematic monitoring of their specific subsector.

Conclusions

Skal monitors compliance with European regulations in the Netherlands at all stages of the organic supply chain. A total of 6,482 inspections were performed in 2017. Of these, 65% were annual inspections; the remainder were primarily permit inspections, re-inspections (in response to detected irregularities) and unannounced inspections. Based on written notices of irregularities, it is clear that by far the majority of establishments are obeying the rules. A critical irregularity was identified at fewer than 1% of registered establishments. This can result in a plot of land or batch of products being de-certified, so that the products can no longer be marketed as organic. Seven establishments were also de-certified.

3.21 Protected geographical designations: protected designations of origin (PDO), protected geographical indications (PGI) and traditional specialties guaranteed (TSG)

Controlling authorities: COKZ, KCB and NVWA

List of the main legislation under which controls were carried out in 2017

EU Legislation	
Regulation (EU) No 1151/2012	Quality schemes for agricultural products and foodstuffs
Commission Delegated Regulation (EU) No 664/2014	The establishment of the Union symbols for protected designations of origin, protected geographical indications and traditional specialties guaranteed
Commission Implementing Regulation (EU) No 668/2014	Implementing provisions for Regulation (EU) No 1151/2012

National legislation:

- Animals Act (*Wet dieren*);
- Animal Products Decree;
- Regulation on Animal Products.

Size of the control file in 2017

Type of establishment	Number
Producers, importers and trading and storage establishments of cheese with a protected designation	
Industrial processors of PDO and/or PGI cheese	17
Processors of Dutch farmhouse cheese (TSG) and/or <i>Boeren-Leidse met sleutels</i> (PDO)	Approx. 215
Subsequent processors of PDO, PGI and/or TSG cheese	Approx. 60
Total	Approx. 290

Monitoring of PDO, PGI and TSG cheese, results in 2017

Results	Number
COKZ inspections/certifications of cheese with a protected designation in 2017	
Industrial processors of PDO and/or PGI cheese	48
Sub-inspection I (PGI)	4,104
Industrial processors of Dutch Goat Cheese	4
Sub-inspection I (Goat PGI)	507
Processors of Dutch farmhouse cheese (TSG) and/or <i>Boeren-Leidse met sleutels</i> (PDO)	683
Subsequent processors of TSG, PDO and/or PGI cheese (including Goat PGI)	191
Sub-inspection II – PGI and Goat PGI	1,193
Sub-inspection III – PGI and Goat PGI	583
Samples of cheese with a protected designation	
Industrial processors of PDO and/or PGI cheese ¹	
• microbiological testing	343
• phosphatase activity	128
• composition analysis	4,116
Processors of Dutch farmhouse cheese (TSG) and/or <i>Boeren-Leidse met sleutels</i> (PDO)	
• composition analysis	506
• phosphatase	189
Subsequent processors of PDO, PGI and/or TSG cheese	
• microbiological analysis	35
• additives (cheese rind treatment)	52
• phosphatase activity	64

More detailed explanation of the results of controls on PDO, PGI and TSG cheese in 2017

General

Under the regulations passed in the context of the Animals Act (the Animal Products Decree and the Regulation on Animal Products), the COKZ is mandated to carry out monitoring in relation to the cheese varieties named in these regulations. In the context of this report, this includes the cheese varieties prepared in the Netherlands for which rules have been set in or pursuant to Regulation (EU) No 1151/2012 on quality schemes for agricultural products and foodstuffs, namely:

- *Gouda Holland* and *Edam Holland* (both PGI cheeses) and *Noord-Hollandse Gouda* (PDO)
- (Note: *Noord-Hollandse Edammer*, *Kanterkaas*, *Kanternagelkaas* and *Kanterkomijnkaas* are not currently being produced);
- Dutch farmhouse cheese (*Boerenkaas*) (TSG) and *Boeren-Leidse met sleutels* (PDO);
- Dutch Goat Cheese (*Hollandse geitenkaas*) (BGA).

The Regulation on Animal Products (Animals Act) designates the COKZ as the supervisory authority. The COKZ performs its monitoring duties using product-specific control regulations that are drawn up by the COKZ and approved by the Minister.

Industrial processors of PDO and/or PGI cheese

The vast majority of naturally-matured Gouda cheese and, increasingly, naturally-matured Edam cheese, is marketed under the respective EU-protected geographical indications (PGI) *Gouda Holland* and *Edam Holland*. Since 2016, goat cheese has also been produced and traded under the protected designation "*Hollandse geitenkaas*" (BGA). In addition, certain Gouda cheese produced in the Province of North Holland is marketed under the EU-protected designation of origin (PDO) "*Noord-Hollandse Gouda*".

In total, there are 17 different industrial processors of PDO and/or PGI cheese:

- 15 producers of *Gouda Holland* and/or *Edam Holland*;
- 2 producers of *Noord-Hollandse Gouda*;
- 4 producers of Dutch Goat Cheese.

The 15 processors of *Gouda Holland* and/or *Edam Holland* include 2 establishments that also produce *Noord-Hollandse Gouda*. Of these 15 processors, two also produce Dutch Goat Cheese. Finally, there are two processors solely producing Dutch Goat Cheese.

Noord-Hollandse Gouda (PDO)

The product specifications for *Noord-Hollandse Gouda* were adopted in 1997. There are two initial processors and four subsequent processors of *Noord-Hollandse Gouda*.

The processors concerned are already subject to monitoring by the COKZ in the context of other control programmes for cheese. Based on these programmes, in terms of monitoring of the composition and quality of *Noord-Hollandse Gouda*, the controls that take place in that context are considered to be sufficient.

The two initial processors of *Noord-Hollandse Gouda* were subject to two controls on compliance with process requirements in 2017. During two inspections, a deficiency was observed at one of the processors. Some of the cheese produced as *Noord-Hollandse Gouda* was not sufficiently identifiable as such on the trade document. Agreements on this subject were made with the establishment. These will be checked at the next inspection in 2018. The records at each processing location were also inspected to check that the dairy raw materials used in making the *Noord-Hollandse Gouda* came exclusively from North Holland. If non-North Holland milk was received, the procedures to separate the North Holland and non-North Holland milk, and compliance with these procedures, were assessed. This administrative control was carried out twice at both production locations in 2017. In the first round of controls, a deficiency was noted at both establishments. They were unable to provide sufficient evidence that the milk had not been stored by the dairy farmer for longer than the maximum prescribed period of 72 hours. However, such evidence was available at the second inspection in late 2017.

Gouda Holland and Edam Holland (PGI)

The designations “*Gouda Holland*” and “*Edam Holland*” have been protected under European law as geographical indications (PGI) since 24 December 2010 at the request of the Dutch Dairy Association (NZO). The basis for this protection can be found in the product specifications with the same names, which were approved by the European Commission on 2 December 2010.

These specifications include a stipulation that the milk used for *Gouda Holland* and *Edam Holland* must be produced in the Netherlands, and that the cheese must mature naturally.

Initial processors of Gouda Holland (PGI) and Edam Holland (PGI)

In 2017, 7 companies with 15 production locations between them were operating as initial processors producing *Gouda Holland* (PGI) or *Edam Holland* (PGI). The standard control programme for PGI cheese includes nine control visits per quarter. Every quarter, up to 150 samples are taken to analyse the composition and pasteurisation of the cheese milk. Furthermore, samples are analysed at a specific frequency for microbiological aspects and nitrate, and the brine is analysed.

When samples are taken for composition analysis, the “first sub-inspection” is performed at the same time. During this “Sub-inspection I”, the following requirements laid down in the product specifications are checked: the cheese mark used, maturing temperature, pH, shape, appearance, rind, the dairy, including consistency, colour and hole formation, the smell and flavour and the designation of the cheese.

All initial processors are also inspected with regard to use of the correct rennet and starter culture and correct use of the PGI cheese mark, among other matters. No deficiencies were detected during these inspections.

The administrative control on the origin of the milk used in the production of the cheese takes place once each year. At each production location, a mass balance is used to compare all farm milk received with the amounts of cheese and PGI cheese produced. If non-Dutch milk is also received, the procedures to separate the Dutch milk and non-Dutch milk, and compliance with these procedures, are assessed. Traceability tests are used to verify that PGI cheese is produced from Dutch milk. The annual check was carried out at all 15 processing locations in 2017. In 2017, during the routine check, extra attention was devoted to the aspect of whether the milk was transported to the factory within 72 hours of milking, as stipulated in the product specifications. Deficiencies were found at most establishments in this regard, since they were unable to provide sufficient evidence that this timeframe had been observed. The establishments are now taking measures to provide clear evidence of the relevant timeframes. This matter will be checked again during the next inspection in 2018.

Initial processors of PGI cheese can opt for partial self-inspection. In this case, provided they use a COKZ-approved quality assurance system and once they have obtained permission from the COKZ, they become responsible for taking and analysing (or arranging for analysis of) two-thirds of the samples (100 samples) out of the required number of up to 150 samples that are to be taken for analysis each quarter. The analyses to be carried out by the establishment include, at a minimum, analysis of the composition and pasteurisation of the cheese milk. If warranted by its own monitoring results, the COKZ can withdraw permission for partial self-inspection.

In 2017, of the 15 initial processors of *Gouda Holland* and/or *Edam Holland*, the COKZ carried out 100% of the controls at 5 processing locations (4 establishments). The other 10 processing locations opted for the COKZ monitoring system, in which the establishments themselves analysed two-thirds of the samples.

With regard to moisture content of “*Gouda Holland*” and “*Edam Holland*” cheeses, eight establishments complied so fully with the requirements that not a single infringement had to be referred for disciplinary proceedings in 2017. However, such proceedings were necessary in respect of the other seven establishments. For these establishments, the proceedings related to an excessive moisture content measured in one quarter. High moisture content was the cause of 84 infringements out of a total of 323 infringements across all establishments. The sanctions handed down by the disciplinary tribunal were in line with the proposals.

There were 58 infringements relating to the fat content of the dry matter of “*Gouda Holland*” and “*Edam Holland*” cheeses. Seven of these infringements were serious enough to be referred to the disciplinary tribunal. These related to two establishments. All infringements were resolved by the disciplinary tribunal in accordance with the fine regulations. The 14 breaches of the maximum dry matter salt content detected among initial processors in 2017 were not serious enough to warrant referral to the disciplinary tribunal.

At one establishment, an infringement relating to phosphate activity in the milk raw material was identified. This infringement was referred to the disciplinary tribunal and resulted in a reprimand.

In 2017, five cases were observed of excessive nitrate levels in cheese. Of these, two irregularities at one establishment were referred to the disciplinary tribunal. In accordance with the proposal, the disciplinary tribunal decided to issue a reprimand to the establishment in question for both irregularities.

A *Listeria monocytogenes* infection was identified at one establishment. The batch concerned was blocked for further analysis, as were technologically similar batches from the same period, as a preventative measure. This case is addressed in more detail in the context of the package of hygiene measures.

Subsequent processors of Gouda Holland (PGI) and Edam Holland (PGI)

PGI cheese is inspected at the age of approximately 28 days (sub-inspection II) at the subsequent processors' premises. Sub-inspection II concerns the shape, appearance, rind, dairy, smell/flavour, cheese mark and maturing temperature. Sub-inspection III occurs when the cheese is delivered. In this random sub-inspection, the testing is supplemented by a control on the correct use of the *Gouda Holland* or *Edam Holland* designation. It is particularly important that, when the cheese is cut, it can be demonstrated that the cheese used is actually PGI cheese.

Inspections of subsequent processors uncovered two cases in 2017 in which the cheese did not comply with the minimum prescribed maturity period. In two other cases, misleading labelling was discovered. This cheese had matured for a shorter period than was stated on the packaging. These deficiencies, which were observed at four different establishments, were all referred to the disciplinary tribunal.

The deficiencies most frequently identified during sub-inspections II and III were blind cheese and an anomalous taste and/or consistency. These deficiencies were not deemed serious enough to warrant referral to the disciplinary tribunal. Notification to the establishments concerned that they must take measures to prevent a recurrence was considered sufficient.

In testing in relation to the use of natamycin in the surface treatment of cheese, eight minor breaches of the limit value were detected. In these cases, it was considered sufficient to notify the establishments concerned that such breaches had been observed.

No infringements were identified when cheese cutters were tested for *Listeria monocytogenes*.

Dutch Goat Cheese (BGA)

There are four producers in the Netherlands engaged in industrial production of the protected cheese variety Dutch Goat Cheese, or "*Hollandse geitenkaas*". Dutch Goat Cheese is a traditional, geographical designation for a semi-hard cheese produced in the Netherlands and matured naturally or in foil. The cheese is prepared in accordance with a centuries-old production process for Gouda cheese. It must be produced entirely from goats' milk obtained from the Dutch white goat or from crossbreeds of this goat with other goat breeds producing typical milk. Furthermore, the milk must originate exclusively from goat farms located in the Netherlands. Dutch Goat Cheese must mature naturally for at least 25 days, allowing a rind to form, or be matured in foil packaging as a rindless cheese to create a product ready for the consumer. The associated product specifications, submitted to the European Commission by the Dutch Goat Milk Association (NGZO), were officially registered by the European Commission in May 2015.

With regard to the fat content of the dry matter, the three infringements identified at one initial processor of Dutch Goat Cheese were such as to warrant referral to the disciplinary tribunal. These infringements concerned a dry matter fat content that was too low.

In four instances, monitoring results relating to the salt content in the dry matter led to disciplinary proceedings being brought against the establishment concerned. All four of these instances related to one establishment. In total, six infringements were identified at two establishments.

The various sub-inspections are also performed in relation to Dutch Goat Cheese. The first sub-inspection is performed on the premises of the producers. The second sub-inspection is performed on the premises of the subsequent processors, and the third at the time of delivery. No irregularities were observed during any of these sub-inspections.

Processors of Dutch farmhouse cheese and/or *Boeren-Leidse met sleutels*

Dutch farmhouse cheese (TSG)

The product specifications for Dutch farmhouse cheese were adopted in 2007. This cheese is made on the farm from raw milk largely supplied by the farm's own cows.

Monitoring of this sub-sector revealed that, in 2017, there were around 215 active Dutch farmhouse cheese producers, but only 40 active subsequent processors of Dutch farmhouse cheese. The latter group is mainly involved in storing Dutch farmhouse cheese for maturing.

The majority of the Dutch farmhouse cheese inspected complied with the relevant requirements. The infringements identified mainly related to the fat content of the dry matter (four) and the moisture content (five). No fine regulations are in force for moisture content infringements. These infringements were dealt with by issuing a warning.

Of the four instances of excessive fat content in the dry matter, two were referred to the disciplinary tribunal and sanctioned in accordance with the fine proposal. Two of the four instances related to cheese that was designated as Dutch farmhouse cheese without any further statement of variety, such as "Gouda", "Leidse" or "made from sheep's milk". The Dutch farmhouse cheese product specifications do not contain a list of specific composition requirements for these varieties of Dutch farmhouse cheese. For the purpose of the statement of the fat content in the dry matter, Dutch farmhouse cheese without a designation of variety is tested against the relevant stipulations in the Dairy (Commodities Act) Decree, and if the fat content limit is exceeded, the standard response is a warning.

Since 2016, extra analyses of phosphatase content have been performed. Since that time, phosphatase levels have been analysed for all initial processors of Dutch farmhouse cheese, and samples have also been taken from subsequent processors of Dutch farmhouse cheese for the same purpose. Of the 253 samples analysed in total, only one was non-compliant. Disciplinary proceedings were brought against the establishment concerned.

Boeren-Leidse met sleutels (PDO)

The product specifications for "*Boeren-Leidse met sleutels*" were adopted in 1997. This variety of cheese is a semi-hard farmhouse cheese produced in the Netherlands in accordance with the special recipe for this variety, in an area precisely defined in the product specifications. Twelve initial processors are engaged in the production of *Boeren-Leidse met sleutels*. About fifteen subsequent processors are engaged in the production of *Boeren-Leidse met sleutels*.

The majority of the initial processors of *Boeren-Leidse met sleutels* can be assessed within the testing programme for Dutch farmhouse cheese (TSG); this is because the broad outlines of the programme cover the same testing aspects as the control programme drawn up specifically for *Boeren-Leidse met sleutels*. The other establishments are tested for compliance with the applicable requirements under the latter programme. Both programmes encompass analyses including the fat content in the dry matter, the moisture content and the raw-milk character of the cheese. In 2017, the number of infringements with regard to the dry matter fat content (three) was one higher than in 2016, when two irregularities were detected. Ten samples were tested in both 2017 and 2016.

Projects in 2017

In 2015, in collaboration with the RIKILT, the COKZ launched a project to test a number of analysis methods to see if it was possible to accurately identify the raw-milk character of Dutch farmhouse cheese with sufficient reliability. This investigation was continued in 2016. In 2017, it resulted in adjustments to the analysis methods used and the associated fine regulations. These adjustments will take effect in 2018.

NVWA retail audit

- In 2017, the NVWA performed an investigation into the use of protected names/the TSG logo for herring. From the results, it appears that, in supermarkets (n=94), 97% of packaging complied. At market fish stalls (n=26), this percentage was considerably lower, at 27%. However, the percentages for both categories had improved since 2016. In 2016, around 50% of supermarkets were complying with the requirements, and none of the audited fish stalls.
- An investigation was conducted at markets in 2017 into the correct use of the TSG logo for Dutch farmhouse cheese. The results of this investigation showed that the indications relating to the TSG logo for packaged (pre-packaged) and unpackaged Dutch farmhouse cheese met the requirements in 66% of inspections.

Incidents

In monitoring relating to PGI cheese, contamination with *Listeria monocytogenes* was detected at one establishment. As soon as the contamination was detected, the necessary measures were taken to prevent food safety being compromised.

Impact measurement

Reporting on this component was incorporated into the sections above.

Actions taken to improve the official controls

The initiative reported under “Projects in 2017”, to collaborate with the RIKILT to test a number of analysis methods with the possibility of using them to accurately identify the raw-milk character of Dutch farmhouse cheese with sufficient reliability, will be continued in 2018.

Actions taken to improve compliance by establishments

No specific actions took place in this regard in 2017.

Conclusions

- Generally, compliance with the set standards was satisfactory in 2017.
- In 2017, in relation to the PGIs “Gouda Holland” and “Edam Holland”, a marked improvement in compliance with the quality requirements was observed, in particular those relating to the fat content of the dry matter in the cheese.
- With regard to the use of sodium nitrate by initial processors and natamycin by subsequent processors, a slightly higher number of irregularities was detected.

CHAPTER 4

AUDITS

Introduction

This chapter reviews the audits conducted in the context of Regulation (EC) No 882/2004 in 2017. The chapter begins by describing the internal audits conducted by the NVWA, and then moves on to the audits conducted by the NVWA in 2017 of external organisations that perform certain tasks under the responsibility of the NVWA. Internal audits are conducted by the Internal Audit Service (IAD) and the quality officers in the NVWA divisions. External audits are conducted by NVWA inspectors.

Internal audits at the NVWA in 2017

Various NVWA laboratory and inspection activities have been accredited by the Dutch Accreditation Council (RvA) on the basis of international quality standards. In addition to the annual audits of these NVWA activities conducted by the RvA, the NVWA also conducted a number of internal audits in 2017. The key conclusion from these audits was that the NVWA's quality system is appropriate and effective, and complies with ISO 17025 or ISO 17020. These internal audits related to the following divisions:

- *Laboratory for Feed and Food Safety*
The laboratory performs laboratory research on products of animal origin and on food; it is accredited by the Dutch Accreditation Council (RvA) and registered under the code L-104.
- *National Reference Centre (NRC)*
The NRC is the knowledge centre in the division dealing with phytosanitary organisms and diagnostics, vectors and invasive plants. The laboratory's research is RvA accredited and registered under the code L-522.
- *Fish Monitoring*
The Fish teams monitor compliance with the regulations upon landing and export of fishery products. This task is RvA accredited and registered under the code I-134.
- *Border Inspection Posts (BIPs)*
One of the tasks of the Import Inspection Department is to monitor compliance with the regulations on imports of live animals and products of animal origin at Border Inspection Posts (BIPs). This task is RvA accredited and registered under the code I-134.

In 2017, the following internal audit was also conducted pursuant to Regulation (EC) No 882/2004.

The key conclusion was:

- *2017 – 115 Application Processes*
The IAD conducted a quick scan into the application process. Establishments working with food, animal feed, live animals or other plant or animal material or plant protection products often need to apply to the NVWA for an official document of some sort.
This document may be an approval, registration, permit, consent, authorisation, designation or endorsement. Alternatively, the establishment may require an exemption or waiver.
The purpose of the quick scan was to provide support on issues related to registration and management of applications.

Audits of external bodies conducted by the NVWA in 2017

The NVWA conducted the following external audits in 2017:

Consumer & Safety Division

The Netherlands Controlling Authority for Milk and Milk Products (COKZ) and its subsidiary department, the Netherlands Controlling Authority for Eggs (NCAE)

In the Netherlands, the COKZ has been designated as the authority for monitoring the EU package of hygiene measures in the dairy industry. In addition, the COKZ/NCAE has been designated as the authority for monitoring this package in the egg sector in the Netherlands. The NCAE is a department of the COKZ. At the dairy establishments and egg processing establishments monitored by the COKZ/NCAE for compliance with the package of hygiene measures, the COKZ also monitors compliance with other relevant Commodities Act regulations. These include the Commodities Act Regulations on Food Labelling, Infant Formulae, Baby Foods and Foods for Special Medical Purposes. As an exception, monitoring of claims under the latter regulation is performed by the NVWA. Furthermore, the COKZ (and thus also the NCAE) has been appointed by the Inspector-General of the NVWA to perform monitoring under the regulations concerning animal by-products (Regulations (EC) No 1069/2009 and (EU) No 142/2011).

The NVWA is also authorised to issue veterinary certificates on behalf of the Minister of Economic Affairs for milk and dairy products, including infant formulae and follow-on formulae. In issuing these certificates, the NVWA is relying on the monitoring performed by the COKZ.

The objective of the audit was to obtain an understanding of the performance of the monitoring activities by assessing the extent to which the COKZ and the NCAE have adhered to the agreements recorded in the dairy and egg work plans for 2016 and 2017 and in the agreement relating to the issuing of veterinary certificates.

It was established that the COKZ/NCAE had given an adequate performance in implementing the 2016 and 2017 work plans, but that improvements were still necessary in some aspects. It was also established that the COKZ had given an adequate performance in relation to the arrangements as described in the agreement relating to the issuing of veterinary certificates.

The observations revealed that the COKZ and NCAE inspectors were performing their work in accordance with the procedures and had sufficient knowledge and expertise to carry out their monitoring tasks.

The report from this audit contains 14 recommendations for improvements.

Agriculture & Nature Division

Phytosanitary inspection services (phytosanitary certifications, including all related activities)

The Ministry of Economic Affairs has delegated certain phytosanitary certification inspections to the four phytosanitary inspection services: BKD, KCB, NAK and Naktuinbouw, as part of the Multi-Year Phytosanitary Inspection Agreement. The NVWA oversees the implementation of the phytosanitary work by these inspection services and carries out regular monitoring of the performance of phytosanitary certification inspections. The monitoring is performed in accordance with a monitoring protocol (TzP) and a multi-year monitoring plan (MTP). In 2017, the NVWA monitored phytosanitary certifications through its own audits, in which it also observed inspectors on their visits, and by reading the reports of audits conducted by the Dutch Accreditation Council (RvA) in 2017.

Due to a staff shortage resulting from the long-term illness of both the lead auditor and their deputy, the NVWA was forced to reschedule some of its observations to 2018. The NVWA underwent restructuring during 2017. One of the results of this process was that, in the future, replacement auditors will always be available.

The following audits were conducted and completed in 2017:

BKD

In the period from February to April 2017, the NVWA observed BKD inspectors on visits on eight separate occasions, focusing on:

- internal monitoring by the BKD of two approval visits in the context of the issuing of plant passports, performed by two different inspectors;
- the performance of six import inspections on flower bulbs by six different inspectors.

The NVWA did not notice any irregularities during these observations.

The NVWA also observed sampling being carried out on three plots of land in the context of official testing for potato cyst nematode. During these observations, one Category B breach was noted, relating to hygiene in the inspector's company car. This concerned an incident in which the BKD had imposed a corrective measure.

In addition, as part of its monitoring, the NVWA read the RvA report on the BKD.

During the audit assessment by the RvA in March 2017, it was established that the BKD's quality management system complied with the criteria laid down in NEN-EN-ISO/IEC 17025:2005 and ISO/IEC 17020:2012 and is operational. The accredited operations were properly performed by competent staff who used appropriate tools and facilities.

Ten Category B irregularities were observed. Two related to certifications, three related to the laboratory (see also below) and five related to the quality management system. These irregularities appeared to have all been resolved by August 2017.

NAK

In January 2017, the NVWA observed NAK inspectors on five separate occasions, focusing on:

- internal monitoring by the NAK of 11 certifications of seed potatoes in cultivation, performed by two different inspectors;
- the performance of three export inspections of potatoes for consumption, performed by two different NAK inspectors;
- the performance of seven certifications of seed potatoes (in the cultivation phase), performed by two different NAK inspectors.

The NVWA did not notice any irregularities during these observations.

In addition, as part of its monitoring, the NVWA read the RvA report on the NAK.

The RvA conducted an audit of the NAK on 11 and 14 July 2017. In this audit, one Category B irregularity was observed, relating to inspector hygiene during the inspection. This involved a failure by the inspectors to disinfect their hands, creating a risk of cross-contamination. The NAK implemented a corrective measure (information and instruction) within the allotted three-month period, which the RvA considered adequate.

Naktuinbouw

In response to a notification from the United Kingdom on 15 December 2016: "Non-compliant Castanea – significant breakdown in the system", the NVWA conducted two investigations at Naktuinbouw.

A document audit was carried out from mid-December 2016 until 9 January 2017. This audit uncovered a Category A irregularity, in that a number of documents in Naktuinbouw's quality management system were not in a proper, well-organised and accessible state. Naktuinbouw immediately took corrective action, which was followed by structural corrective measures.

In addition, during the period from February to March 2017, the NVWA observed administrative audits by nine different Naktuinbouw inspectors. The audits in question were performed in the context of the organisation's authorisation to issue plant passports.

Subsequently, an audit was conducted at Naktuinbouw's offices on 14 April 2017. The audit concluded that Naktuinbouw's internal quality assurance system had a very limited focus on the actual performance of "administrative audits" by Naktuinbouw's Tree Nurseries team, that the inspectors were highly motivated and involved and that the inspectors had sufficient knowledge of crops, cultivation and relevant pests and diseases, but that there was room for improvement in the quality awareness and audit skills of some of the inspectors. This was acknowledged by the inspectors and by Naktuinbouw's leadership. Recent improvements were set in motion by Naktuinbouw at the time of the audit. During 2018, the progress of these improvements will be monitored by the NVWA.

The RvA also conducted an audit of Naktuinbouw on 8 June 2017. The RvA assessment team observed two Category B irregularities in components of the quality management system. Naktuinbouw implemented corrective measures within the allotted three-month period. These appear to have been high-quality measures, since all irregularities were resolved by September 2017.

KCB

As part of its monitoring of the KCB, the NVWA read the RvA report for 2017. An office inspection was conducted by the accreditation body on 21 and 23 November 2017. During the inspection, the KCB provided evidence of its general compliance with the requirements set by ISO 17020 for a Type A inspection body. Three Category B irregularities were observed, three relating to the quality management system and one relating to document management of a phytosanitary instruction.

The RvA performed observations on 13 and 21 November 2017; no irregularities were noted. The final RvA report, including an assessment of the corrective measures implemented, had not been released by the end of 2017.

Phytosanitary inspection services (laboratory diagnoses)

External laboratories that carry out official phytosanitary testing have received the necessary authorisation from the NVWA NRC (National Reference Centre). This relates to testing of "official samples" for specific organisms referred to in EU Directive 2000/29/EC. Some of these operations are audited annually by the NVWA under the Phytosanitary Inspection Agreement. The laboratories have also received accreditation for some or all of the authorised operations. The Dutch Accreditation Council (RvA) also conducts annual audits. The reports of these audits are taken into account in the NVWA's assessment.

NAK

The NAK has been authorised for 28 phytosanitary operations. Five of these have RvA accreditation. The methods investigated by the NVWA on 14 September 2017 included visual and ELISA (Enzyme-Linked Immunosorbent Assay) techniques in the virology field and visual, IF and plating techniques in the bacteriology field. One Category B irregularity was observed, and was adequately corrected. Based on the 2016 RvA report, the nematology operations were also found to be compliant.

The RvA also audited the NAK laboratory on 4 October 2017. In addition to the quality management system, the virology and nematology operations were comprehensively assessed. The conclusion of the accreditation institution was that the laboratory activities were being performed with competence. The RvA also concluded that the equipment and facilities were appropriate for the intended purpose and were well maintained. All walk-through tests were applied. The results obtained in ring tests were good. The RvA assessment team has confidence in the reported test results. No irregularities were found during this audit or in the associated random testing.

Naktuinbouw

This inspection service has been authorised for 56 different operations. It has been accredited by the RvA for seven of these. The NVWA conducted a two-day audit of Naktuinbouw in May 2017 at its laboratory in Roelofarendsveen (nematology) and at its Horst Test Centre (virology). Methods were assessed through observations and interviews, and by consulting records. This audit uncovered one Category B deficiency relating to nematology; in a comprehensive re-audit by the NVWA, it was found that this deficiency had been rectified.

Based on the 2016 RvA report, the bacteriology operations were also found to be compliant. The RvA conducted an audit of Naktuinbouw on 8 June 2017. In components of the quality management system (one) and in the accredited operations in the field of molecular biology (Real-Time PCR: one) and virology, the RvA assessment team observed a total of two Category B irregularities. Naktuinbouw implemented corrective measures within the allotted three-month period. These were confirmed as resolved in September 2017.

It was concluded that the operation of the NAK and Naktuinbouw quality management system complied with the requirements of the Multi-Year Phytosanitary Inspection Agreement and its quality requirements for diagnostic laboratory testing for plant pathogens.

BKD

The BKD does not carry out laboratory tests on EU quarantine pests. The NRC has authorised the BKD for seven operations on third-country quarantines, six of which are accredited by the Dutch Accreditation Council (RvA). The RvA report stated that these operations are being carried out in accordance with the prescribed requirements. In the March 2017 audit, three Category B irregularities relating to the laboratory were discovered. These irregularities appeared to have all been resolved by August 2017.

The KCB does not have a laboratory.

Resistance testing for potato cyst nematode and potato wart disease

Independent research institutions can make the results of their resistance tests available to the NVWA, to allow the NVWA to produce lists of resistant potato varieties. These test results are used to produce such lists only if it is confirmed that the tests were carried out in accordance with the relevant version of the specified implementation protocols. The NVWA obtains such confirmation by auditing the research institutions. This concerns the resistance of potato varieties to potato cyst nematode disease (a disease caused by the nematodes *Globodera pallida* and *Globodera rostochiensis*) and potato wart disease (a disease caused by the fungus *Synchytrium endobioticum*). In the Netherlands, there are two laboratories that are authorised to perform official resistance testing for potato cyst nematode disease (the NAK and the HLB) and one (the HLB) that can perform official resistance testing for potato wart disease. The NVWA monitors both laboratories. The NVWA conducted audits of the laboratories in April 2017, while testing was being performed.

One Category B deficiency was noted at the HLB, relating to upkeep of working instructions. This breach concerned documentation and had no direct impact on the performance of the work.

In 2017, the NAK worked according to the potato cyst nematode disease resistance testing implementation protocol. The NAK holds accreditation under ISO 17025 and its quality management system meets the requirements. Breaches and recommendations from 2016 had been removed or implemented (as applicable), and no new breaches were detected.

CHAPTER 5

NVWA INTELLIGENCE AND INVESTIGATION SERVICE (NVWA IOD)

The tasks of the Special Investigation Service (*Bijzondere opsporingsdienst*, BOD) of the Ministry of Agriculture, Nature and Food Quality and the Ministry of Health, Welfare and Sport have been incorporated into the NVWA Intelligence and Investigation Service (NVWA IOD). The NVWA IOD works in all of the NVWA's areas of monitoring and is deployed in the event of serious or systematic infringements of the law in the NVWA's enforcement domain. The NVWA IOD focuses primarily on complex, supply-chain-related, organised and international criminality.

The core tasks of the NVWA IOD are:

- collecting and refining intelligence;
- carrying out analyses to improve insights into the nature and extent of compliance and non-compliance;
- conducting investigations on the basis of a wide range of powers.

In 2017, the subjects tackled in investigations included:

- fraud involving meat or meat products;
- fraud involving the sale of manure;
- fraud involving analysis certificates;
- trade in unauthorised plant protection products;
- fraud involving raw materials for animal feed;
- fraud involving EU subsidies for greenhouse horticulture.

Cooperation with other investigation agencies is ensured through the Special Investigative Services Platform and the National Intelligence Agenda. In areas relating to environmental enforcement, the NVWA IOD cooperates intensively with the police and the Intelligence and Investigation Service of the Human Environment and Transport Inspectorate (ILT-IOD). This cooperation is formalised in the Environmental Chamber.

Investigations

In 2017, the NVWA IOD completed a range of investigations and referred them to the National Public Prosecutor's Office for Financial, Economic and Environmental Offences for follow-up. The NVWA IOD also launched multiple large-scale investigations that were not completed before the end of the year.

Food fraud remains an important theme, but other topics, such as fraud in the export of horses and the use of unauthorised biocides, are also significant. In addition, in a number of different investigations in 2017, the NVWA IOD targeted "facilitators", which are organisations that help fraudsters prepare for, carry out or disguise their illegal activities. For example, it conducted two investigations at two laboratories that were suspected of producing fraudulent analysis results.

Fraud Expertise Unit

The Fraud Expertise Unit (FEK) is a partnership between the monitoring divisions of the NVWA and the NVWA IOD. In the FEK, an experienced investigator advises, guides and coaches the NVWA-BOA/inspector (BOA stands for special investigating officer) on criminal investigations under the Economic Offences Act (WED). These are usually investigations that are outside the scope of the day-to-day practice of the NVWA-BOA/inspector.

Other tasks

In addition to carrying out investigations, the expertise of the NVWA IOD includes gathering and analysing information. To this end, the Intelligence team establishes a detailed picture of other domains/sectors/supply chains, forms of crime, modus operandi, risks, trends and developments, relevant laws and regulations and IOD and NVWA monitoring activities.

The IOD also plays a reflective and monitoring role within the NVWA and for the Ministries of Agriculture, Nature and Food Quality and Health, Welfare and Sport. In this role, it performs critical reviews of the course of investigations and makes recommendations relating to its own operations and those of the monitoring division concerned. Any gaps uncovered in the investigation in relation to laws and regulations are referred to the ministries in The Hague.

The partners involved also provide their perspectives.

These insights are shared with the Executive Board and in triangular consultations.

In 2017, the IOD contributed to the NVWA's integrated risk analysis of the dairy supply chain and the integrated poultry risk analysis. The risk analysis of the dairy supply chain and the dairy fraud overview were published in the summer of 2017.

In this fraud overview, the NVWA IOD presented its information position on fraud in the dairy supply chain.

With its fraud overview, the NVWA IOD contributed to the NVWA's integrated risk analyses. These documents brought together insights from the scientific risk assessment of the Office for Risk Assessment & Research, fraud insights from the investigation service and information from monitoring. In this way, entire production chains were examined from a variety of perspectives and areas of expertise.

CHAPTER 6

DEVELOPMENTS IN RELEVANT ORGANISATIONS

1 July 2017 restructuring of NVWA

The NVWA was restructured on 1 July 2017. A changing society places demands on the NVWA's capacity to respond to these changes, particularly in innovative ways. Laws are regularly adjusted, so monitoring in turn must also be adjusted. In addition, the sectors in which the NVWA performs monitoring are often characterised by long, highly-globalised supply chains, and the economic stakes are high. In addition to the usual quality and safety aspects, fraud is an increasing problem. How the NVWA operates, how it deals with citizens and the business community and how it accounts for its actions to politicians changes with all these movements and developments. As a result, the NVWA is continuously developing in response to the constant demand for it to be a transparent, reliable, independent and professional regulator. These four core values underpin every one of NVWA's internal and external actions. The selected structure will enable the NVWA to respond quickly to future changes, both major and minor. This applies to the NVWA as a whole and to its inspection tasks in particular, which may be reassigned elsewhere at some future point if the politicians so choose.

The new structure of the NVWA means a shift from an organisation focused on specific areas to an organisation focused on functions, based on logical, identifiable process steps that, supported by new ICT tools, will enable it to work in a more efficient, uniform and effective manner.

The primary clustering and structuring of the organisation mainly occurs at the functional step in the work processes. The management instruments derived from Enforcement Strategy 2.0 and the ICT support for the primary process as developed in the Process Renewal, Information and ICT programme (Perspective on NVWA 2017) primarily focus on that dimension. Further restructuring can also take place if desired, based on specialisation and/or content. In a number of cases, this may also be desirable due to the scale of a functional step. At the same time, in addition to their people management tasks, executives are being asked to take primary responsibility for all or part of a step in the production process for the "monitoring" product. That also justifies the primary structure being modelled on the steps to be differentiated in the monitoring production process.

This has created a more efficient NVWA, which operates in a more uniform manner and can also be more effective. Based on their respective responsibilities, there is integrated collaboration between the Strategy, Enforcement, Certification, CFO/Finance and Operational Management departments in the monitoring production chain.

The compact senior management structure will result in the NVWA as a group being run in a simpler, more straightforward and more agile way, and being easier to manage. A six-member Executive Board has been set up to run the NVWA, consisting of the Inspector-General, the three directors of the Strategy, Enforcement and Inspection departments, the Chief Financial Officer (CFO), who is also the Finance Director, and the Operational Management Director.

Integrated risk analysis of the dairy supply chain

The NVWA has performed an integrated risk analysis of the dairy supply chain in the interests of safeguarding food safety, animal health and animal welfare in the dairy supply chain. Proper safeguards protect consumers and animals and are in the interests of maintaining a good export position for the dairy industry. The analysis provides a picture of the risks that could arise in this chain, based on a scientific risk assessment, a fraud picture and information from monitoring by the NVWA and the COKZ. By looking at risks from a supply chain perspective and integrating our own insights, we can see where the chain is working well and where it needs to improve. In addition, we obtain insights into the interactions between the various links in the dairy supply chain and thus into the possibilities for risk management. We can also see where our information position requires further improvement.



Nederlandse Voedsel- en
Warenautoriteit
Ministerie van Economische Zaken



Integrale risicoanalyse zuivelketen



Heading towards 2020, the NVWA is developing into a knowledge-driven and risk-focused authority that engages with the supply chain in a targeted and effective manner, on the basis of an integrated risk analysis and with a sound knowledge and information position. This integrated risk analysis gives the NVWA, and thus also the COKZ, the possibility of adapting its monitoring in response to developments in the dairy supply chain.

The integrated risk analysis of the dairy supply chain is not only relevant to regulators, it is also particularly relevant to the establishments in the chain. They, after all, are primarily responsible for risk management. The analysis is also relevant to policy makers, because the monitoring performed by the NVWA and the COKZ is based on the statutory frameworks and standards that safeguard public interests, such as food safety and animal welfare. Furthermore, it is relevant to social organisations as well, since they give voice to the public interests, which acts as a stimulus for improvements.

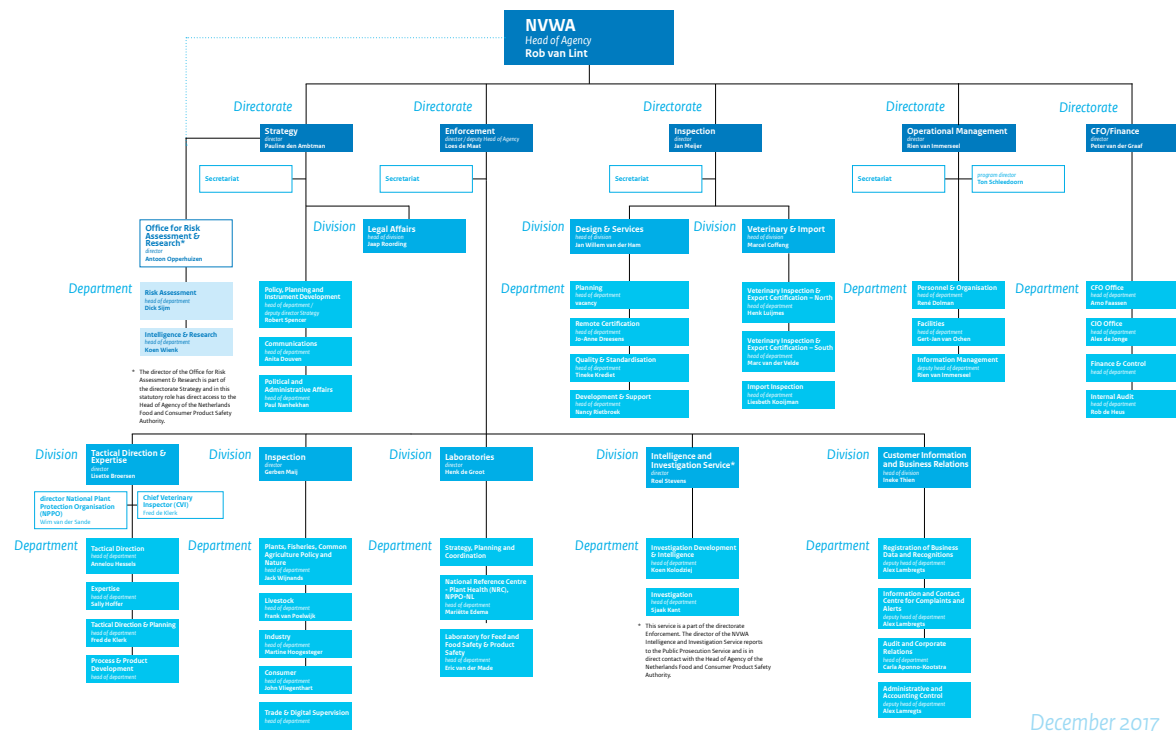
Formation of the Ministry of Agriculture, Nature and Food Quality (LNV)

With the formation of a new government, the Ministry of Economic Affairs became the Ministry of Agriculture, Nature and Food Quality and the Ministry of Economic Affairs and Climate Policy (EZK). As of 26 October 2017, the Ministry of Agriculture, Nature and Food Quality consists of the Directorate-General for Agriculture and Nature Policy (DGAN), the Netherlands Food and Consumer Product Safety Authority (NVWA) and three coordinators for finance, communication and management support, under the leadership of a Coordinator/Secretary General. For consistency, in this annual report, the “Ministry of Agriculture, Nature and Food Quality” refers to both the Ministry itself and to its predecessor, the Ministry of Economic Affairs.

Description of the inspection services

The Netherlands Food and Consumer Product Safety Authority (NVWA)

The NVWA, part of the Ministry of Agriculture, Nature and Food Quality, was created from the Plant Protection Service (PD), the General Inspection Service (AID) and the Food and Consumer Product Safety Authority (VWA). Rob van Lint has been the Inspector-General since July 2017. Since the restructuring in July 2017, the structure of the organisation is as follows:



In 2017, the NVWA had a budget of €344 million (€137 million from the Ministry of Agriculture, Nature and Food Quality, €84 million from the Ministry of Health, Welfare and Sport and €100 million from third parties). The organisation had a staff of 2,393 FTEs.

Staff working in the Enforcement and Inspection departments are largely responsible for the results reported in Chapter 3.

Although the Product Safety domain falls within the Consumer & Safety Division, it is not included in this annual report, as it does not fall within the scope of Regulation (EC) No 882/2004. Product Safety has two laboratories in Zwijndrecht and Groningen.

The Office for Risk Assessment & Research (BuRO) is authorised under the Food and Consumer Product Safety Authority Independent Risk Assessment Act (*Wet onafhankelijke risicobeoordeling 2006*) to provide independent advice to the Minister and to the IG on feed, food and consumer product risks. Since 2015, its operations have been expanded to include animal welfare. BuRO operates in a similar way in the animal health and phytosanitary field. Its advice often relates to situations or actions, as well as products involving risks that could be mitigated by the implementation of measures. BuRO's advice is underpinned by research it has commissioned from knowledge institutions such as the National Institute for Public Health and the Environment (RIVM), RIKILT, Wageningen Bioveterinary Research and universities. The BuRO has a staff of more than 28 people. An Advisory Board monitors the scientific quality of the advice and of the evidence it is based on. This guarantees the independence and objectivity of its risk assessments and overall advice. The NVWA publishes its risk assessments and advice. The results of individual risk assessments are not included in this report, as risk assessment does not fall within the scope of Regulation (EC) No 882/2004.

The tasks of the Special Investigation Service (BOD) of the Ministry of Economic Affairs and the Ministry of Health, Welfare and Sport have been incorporated into the NVWA Intelligence and Investigation Service (NVWA IOD). The NVWA IOD works in all of the NVWA's areas of monitoring and is deployed in the event of serious or systematic infringements of the law in the NVWA's enforcement domain. The NVWA IOD focuses primarily on complex, supply-chain-related, organised and international criminality. The NVWA Intelligence and Investigation Service has prepared a report of its activities in 2017, which can be found in Chapter 6.

Finally, the NVWA has in-house laboratory resources to analyse samples collected during official controls. The following table shows the laboratories, their staff numbers and their locations.

Laboratory	Number of staff	NRL ¹	Location
1 for food safety	119	RIVM ² RIKILT ³ NVWA ⁴	Wageningen
1 for plant pests and diseases	57	NVWA ⁵	Wageningen
2 for product safety: (1 for chemical and microbiological analyses and 1 for physical, mechanical and electrical analyses)	16.1	FCM ⁶	Groningen
	18.5		Zwijndrecht

¹ NRL = National Reference Laboratory

² NRL for microbiology (except *Campylobacter*)

³ NRL for heavy metals, marine biotoxins, dioxins, polycyclic aromatic hydrocarbons (PAHs), growth promoters, veterinary medicinal product residues, animal feed and genetically modified organisms

⁴ Pesticides in human food and animal feed

⁵ Plant pests and plant diseases (phytosanitary)

⁶ FCM = Food Contact Materials

Netherlands Controlling Authority for Milk and Milk Products (COKZ)/Netherlands Controlling Authority for Eggs (NCAE)

The Netherlands Controlling Authority for Milk and Milk Products (COKZ)/Netherlands Controlling Authority for Eggs (NCAE) is the Dutch authority for the control of milk and milk products, as well as for eggs, egg products and poultry meat (trading standards). The control of eggs and poultry meat is carried out by a separate division of the COKZ, namely the Netherlands Controlling Authority for Eggs (NCAE).

The COKZ has been appointed to monitor compliance with the EU hygiene regulations for dairy cows and the dairy industry. Under the Animals Act, the COKZ is also appointed to monitor compliance with the requirements governing exports of infant formulae, the quality of Gouda, Edam and Dutch Mimolette cheese and the protected designation of origin, protected geographical indication and traditional specialities guaranteed certification of a number of specific cheese varieties.

The COKZ/NCAE monitors compliance with the requirements governing the egg trade. These requirements are laid down in Regulation (EC) No 589/2008. In addition, the COKZ/NCAE monitors compliance with the requirements laid down in Regulation (EC) No 543/2008 governing the poultry meat trade. The COKZ/NCAE is the designated regulatory authority for compliance with all EU hygiene regulations by all food business operators in the egg sector.

GD Animal Health (GD)

With around 400 staff, GD works in the area of the health of farm animals and pets in the interests of animals, animal owners and society. GD performs its work in conjunction with animal owners, veterinary practices, the government and the business community. GD is based in Deventer, operates in the Dutch market and also undertakes international activities. In 2017, GD achieved a turnover of 58 million euros.

It has its own extensive veterinary laboratory for the more than 4.8 million laboratory tests it performs each year. GD is accredited by the RvA under ISO 17025:2005 for the performance of many laboratory tests, under the registration number L120. It is also accredited (under the registration number Ro16) in accordance with ISO 17043:2010 for running a large number of proficiency testing schemes (PTS).

GD is also certified under ISO 9001:2008, which means that it works in accordance with a quality management system that meets the requirements of the ISO 9001:2008 standard. For information security, GD is certified under ISO 27001:2013, which means it handles customer data and information in a secure and responsible manner.

GD has a team of veterinarians, specialists and scientists working in the areas of histology, microbiology (bacteriology and virology), molecular biology, immunology, epidemiology, chemistry and toxicology. Its Pathology Team has its own collection service for carcasses and a modern post-mortem room for both mammals and poultry. GD veterinary specialists provide livestock farmers, veterinarians and the government with assistance and advice on the control of infectious diseases and establishment-specific disorders, as well as on other aspects, such as biosecurity and animal welfare. GD has been commissioned to perform animal health monitoring and practice-oriented research, and has developed a range of voluntary programmes for animal disease prevention and control.

For Animal Health Monitoring in the Netherlands, a joint initiative by the government and the livestock sector, GD gathers and analyses reports and results from the various monitoring instruments: consultations through the “*Veekijker*” telephone help desk and establishment visits, the laboratory, the post-mortem room and data analysis. The results will be processed periodically or, if there is a possible acute risk to animals and/or people, will immediately be reported to the clients. GD has also been commissioned by the government to monitor a number of notifiable animal diseases, such as classical swine fever, avian influenza (AI), brucellosis and leucosis.

To improve food quality and food safety (of milk and meat products, for example), GD has developed a range of voluntary eradication and prevention programmes for livestock farmers to combat infectious animal diseases such as salmonellosis and paratuberculosis in the Netherlands.

Internationally, GD is known as GD Animal Health, and has a good reputation as a contract research organisation for applied research, education and consultancy. GD Academy, an education and training institute, runs training courses on animal health for livestock farmers and their veterinarians and for the pharmaceutical and livestock feed industries. The courses cover both the theory and practice of veterinary diagnostics and laboratory testing.

Skal (Stichting Skal Biocontrole)

As an independent regulatory authority, Skal is committed to ensuring the demonstrable reliability of organic products in the Netherlands.

Organic farming and feed are legally-defined terms and the word “organic” is a legally-protected term. The legislation focuses on the maintenance and justification of consumer confidence in organic products. In the EU, the designation “organic” may be used only for agricultural products and foodstuffs that demonstrably comply with the applicable statutory requirements, laid down in EU Regulations No 834/2007 and 889/2008.

“Demonstrably organic” means it is verified and certified by an EU-recognised inspection body. Skal translates the regulations into a workable monitoring system for the Netherlands. The European authorities lay down the regulations, the certified organic businesses comply with them and Skal monitors compliance.

The number of organic businesses in the Netherlands has risen sharply in recent years. Every business wanting to produce, process, package, import, trade, export or store organic products must be certified by Skal to do so. This includes all businesses in the supply chain, apart from shops that sell packaged products directly to the final consumer

and food service businesses that serve Dutch citizens consuming food out of doors. All costs of Skal's monitoring are funded by contributions from the registered businesses. Skal's mission is to perform efficient and effective monitoring of compliance with the organic regulations and thus to contribute to confidence in the organic sector.



If an organic business places pre-packaged consumer products on the market, use of the European certification label is mandatory. When it issues this label, Skal makes the reliability of organic products visible for both customers and consumers. The organic certification label may be used only by certified businesses and only on certified organic products.

In the Netherlands, Skal was appointed by the Minister of Agriculture, Nature and Food Quality in Section 15 of the Agricultural Quality Decree 2007 as the control authority as defined by EU Regulation No 834/2007. Skal is tasked with monitoring compliance with the rules concerning organic production methods.

The European regulation allows Member States to choose the structure of their monitoring regime. The Netherlands has opted for a straightforward structure: one control authority that is responsible for all statutory control tasks within organic production.

Skal is an independent governing body subject to private law and performs a number of statutory duties. This means that Skal can sometimes give further interpretation to the regulations.

Netherlands Inspection Service for Horticulture (Naktuinbouw)

The Netherlands Inspection Service for Horticulture is better known as Naktuinbouw. Naktuinbouw promotes and monitors the quality of products, processes and supply chains in the horticulture industry. It focuses on propagating material at both the national and international level. Naktuinbouw is an independent governing body, subject to monitoring by the Ministry of Agriculture, Nature and Food Quality. Naktuinbouw's mandatory inspection system has adopted the requirements of the European directives governing propagating material for floricultural, arboricultural and vegetable crops. These directives have been implemented in the Netherlands in the form of the Seeds and Planting Materials Act (ZPW). Naktuinbouw operates impartially and autonomously. Public duties relating to basic inspections assigned to other national or international quality and/or inspection services are not performed or are only performed on a collaboration basis. Naktuinbouw is the only organisation in the Netherlands with the authority to assess varieties of vegetable, agricultural and ornamental plant crops in terms of their distinctness, uniformity and stability (DUS testing) for registration and/or plant breeders' rights.

Naktuinbouw operates voluntary quality certification systems. These complement the statutory certifications or extend beyond the legal guidelines. They include quality assessments of propagating material and examinations of varietal identity and varietal purity. The majority of the service's clients are individual producers and groups of producers of propagating material. In addition, Naktuinbouw focuses on promoting quality and certain specialist areas. This concerns establishments from the entire horticulture supply chain, including outside of the Netherlands.

Flower Bulb Inspection Service (BKD)

The Ministry of Agriculture, Nature and Food Quality has given the BKD authority over quality certifications of all flower bulb crops in the Netherlands, other than Freesia and Nerine, which have been entrusted to Naktuinbouw. In addition, BKD conducts phytosanitary inspections and performs other tasks on behalf of the NVWA. The BKD inspects flower bulbs for both quality defects and quarantine pathogens. The BKD also carries out quality certifications, import and export inspections and laboratory testing. The BKD's testing system has adopted the requirements of the European quality and phytosanitary directives governing propagating material for flower bulbs. These directives have been given shape in the Netherlands in the form of the Agricultural Quality Act (LKW), which in turn is implemented through the BKD Inspection Regulations and Implementation Guidelines. The BKD also applies the requirements stipulated by countries outside of Europe for flower bulbs originating from the Netherlands. This takes the form of inspections and tests, which are performed on behalf of growers and traders after coordination with the NVWA.

Quality Control Bureau (KCB)

The Quality Control Bureau (KCB) is an independent administrative agency subject to monitoring by the Ministry of Agriculture, Nature and Food Quality. The KCB exclusively performs public functions.

At the end of 2017, the head office had a staff of around 37 people in the management and support departments, with around 130 additional staff active in the field. The KCB's control and inspection work is carried out from the offices in the various districts. The KCB is a foundation; it has a board with members who are appointed by sector organisations in the fruit and vegetable sector, the ornamental horticulture sector and the Dutch Food Retail Association (CBL). The Minister of Agriculture, Nature and Food Quality approves the appointment of the Board Chair.

The KCB's most important duty is to inspect consignments and shipments of fresh fruit and vegetables, cut flowers and potted plants. The KCB also monitors the quality of fresh fruit and vegetables that are imported into, exported from and traded within the Netherlands. In addition to this, the KCB inspects establishments in the context of export programmes for specific destinations. The government has appointed the KCB to conduct these inspections. Examples of these establishment inspections include "monitoring exports to Japan for Medfly", "monitoring the export of tomatoes to the USA" and "monitoring the export of pears to China". Phytosanitary export inspections of plant products and the issuing of phytosanitary export certificates are carried out by NVWA officers. As an independent organisation, the Dutch Accreditation Council (RvA) has accredited the KCB to conduct these inspections.

The Netherlands General Inspection Service for agricultural seeds and seed potatoes (NAK)

The NAK is the Netherlands General Inspection Service for agricultural seeds and seed potatoes. The NAK performs this statutory task on behalf of and under the oversight of the Minister of Agriculture, Nature and Food Quality. The service carries out phytosanitary controls under the responsibility of the NVWA. Specialist inspectors conduct field and batch testing that contributes to the high quality of Dutch export products. After certification by the inspector, the grower can order the NAK certificate that must be affixed to the packaging of potatoes and seeds. Potatoes and seeds cannot be traded without a NAK certificate, so businesses depend on the NAK to certify their seed potatoes and seeds. The NAK certificate represents independence, quality and expertise, which is recognised by foreign buyers. The NAK also conducts additional phytosanitary batch inspections for export to third countries. To support certification, the NAK has modern laboratories where large-scale virus and bacteria testing of seed potatoes is carried out using molecular testing techniques (PCR) and nematode testing of soil samples. Seeds are tested for moisture, purity, germination, health and cleanliness. The laboratory also has a diagnostics laboratory.

In addition to the head office in Emmeloord, the NAK has a Testing and Control establishment in Tollebeek where various trial field tests and controls are performed on agricultural crops (variety/type comparison, certification control).

