

## **Dutch action plan on sustainable plant protection**

This national action plan has been drawn up pursuant to Directive 2009/128/EC on sustainable pesticide use and fleshes out how the Netherlands will set up a more sustainable plant protection policy in the 2013-2018 period.

The subjects are addressed in the order in which they appear in the Directive.

### **Introduction**

Sustainable agriculture provides for the needs of the current generation without harming the interests of future generations, here and in other parts of the world, and strikes a balance between ecological, economic and social interests. Suitable agriculture is a form of agriculture that contributes to a living planet, human prosperity and well-functioning ecosystems.

Under this broad concept of sustainability, we will boost ecological functions by promoting crop resilience, reducing environmental emissions and strengthening ecosystems. The Netherlands will also strengthen the position of its various agricultural sectors by creating a climate in which entrepreneurship and innovation thrive, and boosting their competitive position. Public interests are protected by actions and measures aimed at public health and the quality of the human environment. All these interests play a role in plant protection policy.

Regulation (EC) 1107/2009 lays down rules on placing plant protection products on the market, their use and monitoring and control. Supplementary to the Regulation, the Directive on sustainable pesticide use prescribes a framework in which sustainable use is achieved through reducing risks and adverse impacts and promoting integrated pest management and alternative management methods or techniques (e.g. non-chemical methods).

This national action plan focuses strictly on measures and actions aimed at achieving sustainability in the use of plant protection products. Its guiding principles are derived from environmental law, such as the use of the best available technologies (in terms of feasibility, affordability and effectiveness).

Below, we describe how the Netherlands will implement articles 5 to 15 of the Directive.

## **Approach**

Government bodies, the private sector and civil society organisations are jointly responsible for implementing the action plan, although it is primarily the latter two groups on whom the achievement of ambitions and targets will depend. The method chosen is a supply chain approach, comprising actions throughout the chain. Where water quality standards/pesticide residue limits are locally exceeded, the supply chain approach will be supplemented by an area-based approach specifying the actions, responsibilities and measures for each of the parties involved.

Government's task is to facilitate and stimulate proper implementation of the action plan. Where the Directive provides sufficient scope, a stepwise approach may be followed. Legislative amendments are a possibility if communication and financial and other incentives do not have the desired result.

The development of the action plan coincided with the integral review of Dutch plant protection policy and thus incorporates a series of recommendations from civil society organisations and the private sector. The public participation procedure on the draft action plan also produced valuable input.

## **Training – article 5**

Since 1996, anyone using, buying, distributing or storing pesticides must hold a certificate of competence (licence), which is awarded on passing a pesticide management examination. There are different examinations, leading to different types of certificate, tailored to different roles and responsibilities in pesticide management. This training system works well.

Certificates of competence are not mandatory for non-professional users of pesticides or advisors who do not sell pesticides themselves. Those advisors can take part in training, if they wish.

In the past, persons who performed uncomplicated operations with a limited risk were not required to hold a certificate of competence. Now, they must undergo safety training at the workplace. The certificate issued following this basic training does not entitle the holder to purchase pesticides.

Bureau Erkenningen (Accreditations Office) is the competent authority in the Netherlands for implementing the certification system. Certificates of competence are valid for five years. This may be extended if the holder can provide evidence of sufficient knowledge by enrolling

in additional training or resitting the examination. The compulsory training subjects listed in Annex I of the Directive have been implemented in Dutch legislation and will be implemented in practice within the given time.

The Netherlands will strive for mutual recognition of training and certificates of competence in the EU.

Bureau Erkenningen website: [www.erkenningen.nl](http://www.erkenningen.nl). (Information brochure also available in English and German.)

### **Requirements for sales of pesticides – article 6**

Distributors must have sufficient staff in their employment holding a certificate of competence, who are available at the time of sale to provide adequate information to customers as regards pesticide use, and the health and environmental risks of the products in question. Pesticides authorised for professional use may be sold only to persons holding an appropriate certificate of competence.

Distributors must provide information about:

- using the pesticide correctly;
- health and environmental risks of the product in question;
- safety instructions to manage those risks.

Distributors selling only products for non-professional use are exempted from the requirement to provide general information. In these cases, pesticide producers are required to provide information for customers on their website or by other means. The information must be easy to understand and address the risks of pesticide use for human health and the environment, in particular hazards, exposure, proper storage, handling, application and safe disposal, and low-risk alternatives. Retailers must ensure the information is provided to the customer at the time of sale.

The sale of pesticides classified as toxic, very toxic, carcinogenic, mutagenic or toxic for reproduction (pursuant to Directive 1999/45/EC) to non-professional users is prohibited.

### **Information and awareness-raising – article 7**

All pesticides are toxic to some degree and most are 'hazardous substances' as defined in environmental law. The public is informed about pesticides and their uses by the

government, and often by interest groups too, by means of awareness-raising campaigns and reports in the press.

The Directive states that this information must be accurate and balanced. Important centres of expertise in the Netherlands include the national poisonings centre (NVIC - RIVM), the Netherlands Nutrition Centre (Voedingscentrum) and Wageningen University and Research Centre.

Websites: [www.rivm.nl](http://www.rivm.nl) (NVIC pages in Dutch), [www.voedingscentrum.nl](http://www.voedingscentrum.nl) (information in Dutch and English), and [www.rijksoverheid.nl/onderwerpen/bestrijdingsmiddelen/gewasbeschermingsmiddelen](http://www.rijksoverheid.nl/onderwerpen/bestrijdingsmiddelen/gewasbeschermingsmiddelen) (in Dutch).

### **Inspection of equipment in use – article 8**

Since 1997, pesticide application equipment must undergo periodic inspections, to ensure it is optimally calibrated, reliable and safe for both operators and the natural and human environment. Until 2011, only field sprayers and orchard sprayers were subject to mandatory inspections. The current system works well.

Mandatory inspections have been expanded to other categories of machinery, except knapsack sprayers and handheld pesticide application equipment which are still exempted.

SKL (the organisation for quality control of agricultural equipment) is the competent authority for implementing the inspection system in the Netherlands. In accordance with existing policy, all used equipment must be inspected once every three years. Certain types of spraying equipment with a very limited risk may be inspected at six-yearly intervals. In principle, machinery inspections carried out by institutes in other countries are recognised in the Netherlands.

The points to be included in an inspection, listed in Annex II of the Directive, have been implemented in Dutch legislation and will be implemented in practice within the given time.

SKL website: [www.sklikeuring.nl](http://www.sklikeuring.nl) (in Dutch and English).

### **Aerial spraying – article 9**

Aerial spraying is prohibited. The Minister of Economic Affairs can grant exemptions in emergency situations in accordance with the Directive on sustainable use of pesticides, as long as there is a specific need for application.

### **Information to the public – article 10**

The standard authorisation procedure assumes the risks to local residents and passers-by are lower than for those working with the substance in question. Spatial planning laws also make a physical distinction between land for housing and plots where plant protection products may be applied.

Nonetheless, many people are concerned about the effects of pesticides on their health. The Health Council of the Netherlands has been asked to issue an advisory opinion on the possible health risks of pesticide exposure for local residents, and the scope for and expedience of screening. All subsequent activities will be based on the Health Council's advisory opinion.

Pesticide producers, agricultural sector organisations and other stakeholders will promote good communication between farms and local residents, along the same lines as the Good Neighbour Initiative in the United Kingdom. This Initiative gives farmers guidance for considering the interests of neighbours and local residents and helps the latter group understand why pesticides are used. The aim is to increase mutual understanding between farmers, local residents and passers-by.

### **Specific measures to protect the aquatic environment and drinking water – article 11**

The implementation of plant protection policy for the 2004-2010 period has resulted in an 85% reduction in the calculated pesticide impact in surface water. Total pesticide use has also declined. However, these results are not sufficient to achieve the water quality objectives set out in the Water Framework Directive (WFD).

The action plan thus puts an even stronger emphasis on risk reduction, in accordance with the system and time frame of the WFD. The Netherlands has chosen to achieve the WFD objectives in phases, and by 2027 at the latest:

- quality of surface water, for 'WFD water bodies (part of the WFD reporting obligations)': no water quality standards exceeded in 2027;
- quality of surface water, specific locations for drinking water production: no drinking water quality standards exceeded in 2027.

In 2000, the Netherlands introduced general rules on sustainable plant protection in arable farming, market gardening (field crops) and glasshouse horticulture (from 1994). The main measures applied in field crops are crop free zones and the use of spray-reducing techniques and nozzles. Due to glasshouse horticulture's specific characteristics, measures in this sector are aimed at minimising pesticide use, promoting reuse and reducing residue levels in water discharge.

Farmyards, where pesticides (and other farm equipment) are stored or mixed and where equipment is cleaned, are often surrounded by water courses. Measures to protect surface water from farmyard run-off are addressed below, under 'article 13'.

The Netherlands has a lot of surface water, but has not yet achieved the WFD objectives. In addition to measures implementing the WFD, the government therefore introduced additional specific measures to this end.

- *Introduction of an emissions reduction plan*

The government and businesses have a joint responsibility to tackle excessive emissions of pesticides to surface water, in order to meet the WFD water quality standards. Emission reduction plans will be adopted where monitoring data establishes a plausible relationship between excessive emissions and the application of a pesticide. The holder of the product authorisation bears primary responsibility for drawing up the plan and managing its implementation. The government will monitor the quality of surface water in an adequate manner and will, if necessary, further optimise the monitoring network. Pesticide users are expected to do their part in putting an end to excessive emissions.

- *Reducing spray drift to surface water*

The agricultural sectors have announced that they will further reduce the drift of pesticide spray to surface water. They have requested legislation that demands the best available technologies be used to reduce drift, where possible, by at least 75% for the entire field (rather than a 50% reduction in a buffer zone next to surface water). A decision on the need for additional drift reduction measures to protect surface water will be made in 2017 at the latest, following an evaluation.

- *Closed water systems in glasshouse horticulture*

Growing crops under cover, in a carefully controlled environment, is both highly intensive and efficient. Relative to the area under cultivation, however, the quantity of pesticides

discharged into the environment (especially surface water) is much higher than for field crops. Specific measures will therefore be introduced to reduce pesticide emissions to surface water by this sector, such as coordinating the timing of water discharges and pesticide application and using (end of pipe) water purification techniques.

- *Banning the use of priority hazardous substances*

The use of pesticides containing a priority hazardous substance as defined in the WFD is prohibited near surface water and groundwater protection areas.

### **Reduction of pesticide use or risks in specific areas – article 12**

Certain measures are applicable to multiple articles of the Directive. For instance, measures to protect the general public may also reduce emissions to surface water.

#### a. areas used by the general public or by vulnerable groups

Herbicides applied on hard surfaces tend to run off and end up in surface water, deteriorating surface water quality and even causing limit values for drinking water quality to be exceeded. The general public runs a relatively high risk of exposure when herbicides are used in public spaces.

Outside the agricultural domain, chemical herbicides may only be used on hard surfaces in combination with emission reduction measures. Several non-chemical techniques have been successfully introduced in recent years and are now broadly used.

More far-reaching measures are being studied as drinking water quality standards are consistently exceeded and vulnerable groups need to be protected. On this topic an inventory is being drawn up.

Transboundary pollution will be discussed with other member states.

The government will assess the need for specific policy to regulate the use of pesticides in sports and recreation grounds.

Land-use plans (which fall under spatial planning policy), drawn up by local authorities, contain rules aimed in part at protecting those who live in the close vicinity of areas where pesticides are used. In the interests of good spatial planning, a buffer zone (ranging from ten to fifty metres) must separate zones designated for agricultural use from residential zones.

b. protected areas as defined in the Water Framework Directive, the Birds Directive and the Habitats Directive

The implementation of the WFD is based on river basin management plans, which describe objectives for ecological quality and drinking water quality for water bodies, and how and when they will be achieved. These plans are both complementary to and coherent with the management plans implemented in accordance with the Birds and Habitats Directives. Management plans establish how and when conservation objectives in these Directives are to be achieved.

Measures aimed at sustainable pesticide use will be incorporated in these plans.

c. Recently treated areas

The person who applied a pesticide must inform agricultural workers and others on the farm premises about fields that have been recently treated and the applicable re-entry period.

**Handling and storage of pesticides and treatment of their packaging and remnants – article 13**

Pesticides or remnants of pesticides must be stored in a facility with an impermeable floor or in an impermeable container. The floor or container must be non inflammable, heat resistant and impervious to the products being stored.

To prevent environmental contamination by leakage, the storage facility must have provisions in place to contain spills greater than the volume of the largest jug, bag or box.

Discharge to surface water or municipal sewers is prohibited. Areas where pesticides are mixed may not, therefore, contain any means of drainage.

Water used to clean spraying equipment may be discharged onto non-cultivated land, but not to surface water or the municipal sewers. The results of research into organic purification of waste water are promising.

Since the early 1990s, businesses have been cleaning empty pesticide packaging such that remnants are less than 0.01% of the original weight. Packaging is classified as either industrial waste or chemical waste. The proper method of disposing of packaging depends on the type of pesticide concerned and is stated on it. Waste collection networks have been created for both types of waste. Unused products in their original packaging can be returned



to the distributor. Packaging that has been opened must be given to the recognised waste processing organisation for disposal.

#### **Integrated pest management – article 14**

Plant protection methods can be categorised in terms of their economic and ecological effects and their impact on humans and the environment. The methods chosen in each case after careful consideration should minimise adverse impacts. In recent years the Netherlands has invested heavily in the development and dissemination of knowledge on integrated pest management, through demonstration projects, advisory services, decision-supporting systems, training, websites and publications in farmers' journals.

In the years to come, the emphasis will be on an even broader dissemination of knowledge and methods, as well as continuing the development of new integrated methods. This should ensure that, by 2014, all professional users will be applying the principles of integrated pest management. Distributors will have a major role to play in this. The industry and government will ensure integrated methods are widely used by putting in place, for instance, financial and fiscal incentives, certification, a link with the Common Agricultural Policy or statutory measures.

Website: [www.gewasbeschermingsmaatregelen.nl](http://www.gewasbeschermingsmaatregelen.nl) (in Dutch).

#### **Indicators – article 15**

The Netherlands will use HAIR2010 to determine trends in the environmental impact of pesticide use on, for instance, surface water. This indicator will be refined for the evaluation of this action plan, based on the national environmental indicator NMI-3, in the interests of a more detailed analysis of specific areas.

Water is a vital resource. The Dutch government is responsible for overall water quality monitoring under the WFD, but it also keeps a close check on areas with specific water quality problems. Where limit values are exceeded, this should be tackled through area-based measures aimed specifically at the contaminants in question.

## Appendix

On notifying the Plant Protection Products and Biocides Decree, the Netherlands indicated the legislation implementing the Directive on sustainable pesticide use. This transposition table is included in an appendix to the action plan.

	<b>Article in the Directive on sustainable use</b>	<b>Implemented by national legislation</b>
4	National Action Plan	Plant Protection Products and Biocides Act: 81a
5	Training	Plant Protection Products and Biocides Decree: 17 and 18
6	sale of pesticides	
	- paragraphs 1 and 2	Plant Protection Products and Biocides Act: 71 and 73
	- paragraph 3	Plant Protection Products and Biocides Decree: 25b
7	Information and awareness-raising	does not need to be implemented by national legislation
8	inspection of spraying equipment	Plant Protection Products and Biocides Decree: 32b
9	aerial spraying	Plant Protection Products and Biocides Decree: 29 and 77
10	information to the public	does not need to be implemented by national legislation
11	protection of aquatic environment and drinking water	
	- paragraph 1	same articles as paragraph 2
	- paragraph 2 (a)	Plant Protection Products and Biocides Decree: 27a
	- paragraph 2 (b)	Discharges of Waste Water (Field Crops and Livestock Farming) Decree: 13 and 15 Environmental Management (General Rules for Establishments) Decree: 4.113b Discharges of Waste Water outside Companies Decree 3.26
	- paragraph 2 (c)	Discharges of Waste Water (Field Crops and

		Livestock Farming) Decree:13 and 15 Environmental Management (General Rules for Establishments) Decree: 3.3
	- paragraph 2 (d)	Plant Protection Products and Biocides Decree: 27b Discharges of Waste Water outside Companies Decree 3.4
12	reduction of use or risks in specific areas	
	- opening sentences and (a)	Plant Protection Products and Biocides Decree: 27c
	- opening sentences and (b)	Water Act 6.2 Discharges of Waste Water (Field Crops and Livestock Farming) Decree: 13 <b>[insert hard return after clean-up]</b> Nature Conservancy Act 1998: 19a and 19d
	- opening sentences and (c)	Plant Protection Products and Biocides Decree: 27d
13	handling and storage of pesticides; treatment of their packaging and remnants	
	- paragraph 1	Plant Protection Products and Biocides Act: 2a Plant Protection Products and Biocides Decree: 32a Environmental Management (Agriculture) Decree:2.6, 2.7, and 4.8 Glasshouse Horticulture Decree: 6 and paragraphs 2.1 and 2.2. Working Conditions Decree: 3.23, 4.6, 4.7, 8.1, 8.4 and 9.5 Discharges of Waste Water (Field Crops and Livestock Farming) Decree: 17
	- paragraph 2	Plant Protection Products and Biocides Decree: 8 and 11
	- paragraph 3	Environmental Management (Agriculture) Decree: paragraphs 2.6.4 and 4.8 Glasshouse Horticulture Decree: paragraphs 2.1

		and 2.2
14	integrated pest management	Plant Protection Products and Biocides Decree: 26
15	indicators	does not need to be implemented by national legislation