

Åland Islands
Provincial Government

**ACTION PLAN FOR SUSTAINABLE USE
OF PLANT PROTECTION PRODUCTS IN THE ÅLAND ISLANDS**

Mariehamn 2012

Working group memorandum
2012

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To the Åland Islands Provincial Government

In July 2011 the Åland Islands Provincial Government appointed a working group to draw up proposals for an action plan for sustainable use of pesticides with regard to the Åland Islands.

It was originally planned that the working group would complete its work by the end of October 2011. As the work proved to be more extensive than anticipated, the working group's remit was extended to 30 April 2012.

Tage Eriksson, the acting chief executive of *Ålands Producentförbund* (Åland Islands Growers Association) was appointed chair of the government's working group. Annika Hollsten, a crop protection inspector in the Agriculture Office of the Ministry of Industry and Trade, Susanne Vävare, an investigator from the Ministry of Social Affairs and the Environment, Joachim Regårdh, an agronomy advisor from *ProAgria Hushållningssällskapet* and Paul-Mårten Sjölund, an agronomy advisor from *Ålands Trädgårdshall*, were appointed as members. Maija Häggblom, acting agricultural inspector in the Agriculture Office of the Ministry of Industry and Trade, was appointed secretary.

The draft programme has been sent out for comment, and replies have been received from *Ålands Biodlarförening* (Åland Islands Beekeepers Association) and the municipalities of Lemland and Lumparland.

Account has been taken of the replies received as far as possible.

An updated provincial law on application in the province of the Åland Islands of the Plant Protection Products Act entered into force on 1 October 2012 (ÅFS 2012:41). A new provincial decree on application in the Åland Islands of national statutory instruments on plant protection products entered into force at the same time (ÅFS 2012:43).

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1 Introduction

Directive 2009/128/EC of the European Parliament and of the Council establishing a framework for Community action to achieve the sustainable use of pesticides, referred to below as the *Framework Directive*, entered into force in November 2009. At the same time, Regulation (EC) No 1107/2009 concerning the placing of plant protection products on the market, referred to below as the *Plant Protection Products Regulation*, was also approved.

The purpose of the Framework Directive is to promote integration of a high level of environmental protection into Community policy in accordance with the principle of sustainable development as set forth in Article 37 of the European Union's Charter of Fundamental Rights (2000/C 364/01 and 2007/C 303/01).

The objective of the Framework Directive is to steer the Member States towards sustainable use of pesticides, i.e. to reduce the risks and consequences represented by the use of pesticides for human health and the environment and to promote the use of integrated pest management and other alternative methods or techniques. In addition, it is recommended that the Member States as far as possible use non-chemical alternatives to pesticides.

The Directive mentioned above requires the Member States to adopt a National Action Plan. The Åland Islands have to start to apply an action plan to reduce the risks posed by the use of plant protection products by 26 November 2012. The action plan includes quantitative objectives, targets, measures and timetables to reduce the risks posed by pesticide use to human health and the environment.

In Finland *ProAgria Centralernas förbund* (the Association of ProAgria Centres) and *Kasvinsuojeluseura*, at the request of the Ministry of Agriculture and Forestry, adopted a preliminary study of the sustainable use of plant protection products in Finland in the spring of 2009 (this is, however, only available in Finnish). The preliminary study surveyed and assessed the measures already taken to reduce the risks associated with the use of plant protection products and ways of reducing these risks, as the basis for the national action plan. In addition, the Swedish Environmental Protection Agency has made a proposal for implementation of Directive 2009/128/EC establishing a framework for Community action to achieve the sustainable use of pesticides (ref. No 363-722-09). This, too, has been studied in connection with the adoption of this action plan.

The Åland Islands action plan for sustainable use of plant protection products meets the objectives of the national plan for hazardous chemicals with regard to plant protection products. The purpose of the national plan for hazardous chemicals is to put into practice the global objective adopted at the sustainable development summit in Johannesburg in 2002 so that chemicals no longer pose any significant inconvenience to health or the environment in the Åland Islands from 2020.

2 Legal basis

The Åland Islands Provincial Government has full or principal legislative authority with regard to agriculture and forestry, management of agricultural production, commercial activity and the provincial authorities under Section 18(1), (15) and (22) of the Autonomy Act.

The production of poisons and determination of their uses comes under national legislative authority under Section 27(30) of the Autonomy Act, while sale and storage of poisons comes under provincial authority (RP 73/1990 rd page 77). Jurisdiction also comes under national legislative authority under Section 27(23) of the Autonomy Act.

The system of autonomy is based on the province attending to such administrative tasks as fall within its legislative authority. This principal rule is stated in Section 23 of the Autonomy Act, according to which the province has administrative authority in those areas that fall within the legislative authority of the province. However, an exception to the main principle mentioned has been incorporated into Section 30(8) of the Autonomy Act. It follows from this provision that those tasks which, pursuant to national legislation on the production and use of poisons, are incumbent upon a national authority have to be fulfilled in the province by the provincial government or some other authority designated in provincial legislation.

2.1 Applicable statutory instruments

The Framework Directive

On 22 July 2002, the European Parliament and the Council adopted the Community's 6th Environmental Action Programme, which contains provisions on a thematic strategy for sustainable use of pesticides. This was followed on 12 July 2006 by a communication from the Commission, A Thematic Strategy on the Sustainable Use of Pesticides [COM(2006)372 final – not published in the Official Journal of the European Union].

The aim of the thematic strategy is to mitigate the consequences of the use of plant protection products for human health and the environment, while at the same time ensuring appropriate crop protection. The measures proposed apply in particular to special measures related to the use of pesticides and an increase in supervision and research, training for users and information.

The aim of the Framework Directive is to introduce those parts of the strategy that apply to the use of pesticides and that necessitate the adoption of new legislation by the Member States.

The Member States have to implement the laws and other statutory instruments necessary to comply with the Framework Directive by 26 November 2011.

The word pesticides is used in the name of the Framework Directive, but the Directive initially applies only to **plant protection products**. The intention is to expand the Directive to also cover biocides at a later stage.

Other EU acts

Other acts supporting the realisation of the aim of the strategy are the *Plant Protection Products Regulation*, Regulation (EC) No 1185/2009 of the European Parliament and of the Council concerning statistics on pesticides, referred to below as the *Statistics Regulation*, with the aid of which information is gathered on use and sale of plant protection products and Directive 2009/127/EC of the European Parliament and of the Council amending Directive

2006/42/EC with regard to machinery for pesticide application, referred to below as the *Machine Safety Amending Directive*.

The Plant Protection Products Regulation applies among other things to procedures for the approval of plant protection products. The Statistics Regulation contains provisions on the gathering of information on the use and sale of plant production products and the Machine Safety Amending Directive contains environmental requirements to be met by new machines for the application of plant protection products.

Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006, referred to below as the *CLP Regulation*, entered into force on 20 January 2009. After the transitional periods, the Regulation will replace current EU regulation on this matter. Plant protection products are also covered by the criteria for classification and labelling under the CLP Regulation.

The general provisions of the Chemicals Act (744/21989) applied in the Åland Islands through the Provincial Act (1990:32) on application in the province of the Åland Islands of national statutes on chemicals also applies to plant protection products insofar as the Provincial Act on application in the Åland Islands of the Plant Protection Products Act (2012:41) does not contain more detailed provisions. Several of the obligations in the EU chemicals legislation (REACH, 1907/2006/EC), such as the obligation to prepare a safety data sheet, also apply to plant protection products, despite it being considered that the registration of plant protection products is ensured through the legislation that applies to plant protection products, so that there is no need to have separate registration under the REACH Regulation with regard to plant protection products.

Provisions on residues of pesticides are contained in Regulation (EC) No 396/2005 of the European Parliament and of the Council on maximum residue levels of pesticides in or on food and feed of plant and animal origin and amending Council Directive 91/414/EEC, referred to below as the *Pesticide Residues Regulation*.

National statutory instruments

Both the Provincial Act on application in the province of the Åland Islands of the Plant Protection Products Act (2012:41) and the Provincial Decree on application in the Åland Islands of national statutory instruments on plant protection products (2012:43) with regard to manufacturing, approval, placing on the market, packaging and labelling, storage and use and supervision of plant protection products are applicable in the Åland Islands. With regard to approval and associated procedures, the Åland Islands have an decree containing an agreement with Finland allowing the expertise that exists in the national authorities to be utilised.

Before a plant protection product is approved an assessment is made of the risks posed by use of the plant protection product. To allow a preparation to be approved, it is always a requirement that use of the preparation in accordance with instructions does not pose a risk to the environment or human health.

2.2 Timetable according to the Framework Directive

Subject	Article	No later than (date)
Directive transposed into national legislation	23	26.11.2011
The national action plan is communicated to the other Member States and the Commission	4	26.11.2011
The Commission and the Member States develop a strategic guidance document on monitoring and surveying of impacts of pesticide use on human health and the environment	7	
The Member States have to establish sanctions for contraventions of the national provisions and notify the provisions to the Commission	17	
Aerial spraying: aircraft have to be equipped with accessories that constitute the best available technology to reduce spray drift	9	1.1.2013
Member States have to report to the Commission on the implementation of integrated pest management and, in particular, whether the necessary conditions for implementation are in place.	14	30.6.2013
Training: Member States have to establish certification systems and designate competent authorities	5	26.11.2013
Professional users of plant protection products are to observe the general principles of integrated pest management	4	1.1.2014
The Commission presents a report to the European Parliament and the Council on the Member States' National Action Plan (NAP). The report has to include what methods have been used and what effects the establishment of various types of targets for reducing risks and use of pesticides have had.	4	26.11.2014
Sale: distributors are to have sufficient staff holding a certificate. Distributors selling pesticide to professional users must hold a certificate. General information is to be given to non-professional users on the risks to health and the environment as well as on low-risk alternatives.	6	26.11.2015
Application equipment: Member States have to ensure that equipment for application has been inspected at least once. The inspections must take place at least every five years up to 2020, then at least every three years.	8	26.11.2016
The Commission submits a report to the European Parliament and the Council on Member States' experience of the implementation of national targets established in order to achieve the objectives of this Directive. The report may be accompanied, if necessary, by suitable legislative proposals.	4	26.11.2018

3 OBJECTIVES

The fundamental objective of the action plan for sustainable use of plant protection products in the Åland Islands is to reduce adverse consequences of the use of plant protection products for human health and environment. Another objective is to encourage the development and introduction of integrated pest management and alternative methods of cultivation, working practices and techniques and indicators. The intention is to reduce dependence on chemical plant protection products, but in such a way that plant health remains at the present-day high level.

The first action plan for sustainable use of plant protection products in the Åland Islands has been adopted for the period 2012–2020. The Åland Islands Provincial Government will follow up attainment of the objectives in a mid-term evaluation in 2016 and the action plan will undergo further focusing on the basis of the evaluation so that the objectives will be attained.

3.1 Reduction in risks to health

The objective is for the use of plant protection products to be kept at a level that does not cause the maximum residue levels for pesticides in products from the plant kingdom that are consumed by humans or used for feedstuffs or maximum levels in household water and groundwater to be exceeded.

Plant protection products are counted among chemicals that have to be pre-approved. Approval of a plant protection product is conditional on a risk assessment having been made and on this showing that the level of pesticide residues caused by use of the plant protection product in foods does not pose a risk to consumers.

Acceptable exposure levels are also established for users, employees and outsiders. Approval is conditional on the exposure not exceeding the levels deemed safe. The maximum residue level (MRL) is established for the active substances in plant protection products for all uses. The MRL is the maximum permitted level of a substance. The MRL is established so that the level reflects the function desired for each plant protection product according to good agricultural practice and so that the level is safe for consumers. The population may be exposed to plant protection products both through food and through drinking water.

The Directive concerning protection of groundwater (2006/118/EC) includes quality standards applicable to pesticides and their breakdown products in groundwater, which agree with the MRLs for drinking water. The Directive on protection of groundwater has been implemented in the Åland Islands, and the threshold value, instead of groundwater, has been introduced through the Water Decree 2010:93. The MRL for a single pesticide or its breakdown product in household water is 0.1 micrograms per litre ($\mu\text{g}/\text{l}$), and the combined MRL for several pesticides and their breakdown products is 0.5 $\mu\text{g}/\text{l}$ ¹.

The Water Act (1996:61) otherwise applies to the protection of water. In addition, under the Water Decree 2010:93 release of certain substances hazardous to groundwater without a licence is prohibited.

¹ The MRL for residues of pesticides in drinking water is common to the whole of the EU from 25 December 2003 and is 0.1 micrograms per litre (0.0000001 g/l) for a single substance and 0.5 micrograms per litre (0.0000005 g/l) if several occur in the same sample. Source: <http://www.slv.se/sv/grupp1/Risker-med-mat/Kemiska-amnen/Bekampningsmedel/Bekampningsmedel1/>.

Another objective is to improve training and general knowledge as well as supervision with the aim of providing both professional and non-professional users with sufficient information on safe handling and use of plant protection products and on how risks can be reduced.

3.2 Reduction of environmental risks

The objective is to develop and control appropriate and sustainable use of plant protection products so that the risks to the environment and nature are minimised. In order to attain this objective, the operator, under Section 16a of the Chemicals Act, which is applied in the Åland Islands through the Provincial Act (1990:32) on application in the province of the Åland Islands of national statutory instruments on chemicals, where reasonably possible, is obliged to choose from among alternatives available the plant protection product or method that causes least environmental hazard.

In connection with the pre-examination and the procedures for approval of plant protection products, the comparative assessment described in the Plant Protection Products Regulation is starting to be applied, with the aim of always replacing more harmful plant protection products with less harmful substances where it is possible to do so in view of the selection of products.

Water conservation

The EU's Water Framework Directive (2000/60/EC), referred to below as the *Water Framework Directive*, coordinates water conservation in the EU. The purpose of the Directive is to establish a framework for the protection of inland water, water in transition zones, coastal water and groundwater. The objective is for all natural water to attain good water quality, which includes good surface water status and good chemical status by 2015. This means that no deterioration due to the impact of human activity may occur. Following the adoption of the Framework Water Directive a 'daughter directive' has been adopted, Directive 2006/118/EC of the European Parliament and of the Council of 12 December 2006 on the protection of groundwater against pollution and deterioration (the Groundwater Directive). The Directive states *inter alia* how the chemical status of groundwater has to be assessed and guidelines for measures to prevent or limit the input of pollutants to groundwater.

The protection of Åland Islands waters is governed in particular by Provincial Act 2008:124 on environmental protection, Provincial Decree 2008:130 on environmental protection, the Water Act 1996:61 for the Åland Islands and the Water Decree 2010:93. To protect and manage water so that good water quality is achieved, monitoring programmes, programmes of measures and administrative plans have to be established pursuant to Provincial Act 2005:54 amending the Water Act for the Province of Åland. The requirements of the Water Directive are largely fulfilled by Provincial Act 2005:54 amending the Water Act for the Province of the Åland Islands. Provincial Decree 2010:42 on application in the Province of the Åland Islands of national statutory instruments on chemicals and safety in the handling of hazardous chemicals and explosive articles also touches on water conservation to some extent.

Under certain circumstances the objectives may nevertheless be amended or the time limits extended. With regard to plant protection products, the objectives can be attained by setting restrictions on use as a condition for approval of preparations, such as safety distances and groundwater restrictions, which are to be observed to prevent the plant protection products from escaping into watercourses. The approval process is also administered for the Åland Islands by the Finnish Safety and Chemicals Agency.

In order to be able to assess the current status of surface and groundwater and development trends, it is essential that the continuous follow-up of levels of plant protection products is

also effective in the Åland Islands and that national environmental quality standards are established for all plant protection products on the market. Using these, it can be assessed whether the restrictions that represent conditions for approval of plant protection products are sufficient and whether they can be used to protect surface water and groundwater. Testing of the levels of plant protection products in drinking water is stipulated in the Åland Islands Provincial Government decision (1997:101) on application in the province of the Åland Islands of certain national statutory instruments on household water.

In connection with water conservation and areas that require special protection, account also has to be taken of groundwater areas that are important and suitable for water supply (Class I and II), as well as areas around wells and springs used to obtain household water. The Åland Provincial Government has defined 'groundwater area' through an amendment to the Water Act for the Province of the Åland Islands (2012:42) and will decide which areas are groundwater areas.

In addition, precedence has to be given to the most efficient application techniques and equipment for the application of pesticides with low spray drift. In the vicinity of watercourses buffer distances have to be observed and other measures have to be taken, for example careful refilling and cleaning of spraying equipment, to reduce runoff of plant protection products to watercourses.

Crop rotation

Another objective is to favour the use of crop rotation in conventional production over the next aid period. Sufficiently varied crop rotation prevents crop pests accumulating in certain fields or resistance building up due to non-varied use of plant protection products. In particular it protects against damage due to continuous use of plant protection products that are broken down slowly and move slowly in the soil. The use of crop rotation also makes it easier for the grower to observe the environmental restrictions of plant protection products.

Sites requiring special protection

The objective is to try to avoid use of plant protection products on certain sites requiring special protection. These include areas covered by the Birds and Habitats Directives, such as Natura 2000 sites, and areas where the general public or sensitive population groups, such as children and elderly, move around. Such areas include parks, public gardens, sports fields, school yards and playgrounds, as well as yards of healthcare facilities. In some cases the use of plant protection products is nevertheless, authorised in public spaces, as the spread of certain harmful plants, for example giant hogweed, can cause greater risks to health than controlled use of plant protection products.

Storage and packaging

Caution should be exercised in handling and storing plant protection products and handling packs and leftover products, to ensure that harmful substances are not spread in the environment. The objective is to make supervision effective so that plant protection products that are no longer used and out-of-date products are no longer stored on farms and in commercial warehouses. The products are instead to be handed in as soon as possible for treatment as problem waste under the terms of the Waste Act.

3.3 Improvement of knowledge on safe use of plant protection products

One aim is to spread objective knowledge on crop protection, plant protection products and safe use of these, as well as about the risks to health and the environment for users and consumers, through better training, advice and information.

The intention is for the training of users of plant protection products to be made more effective and broader. The range of training provided is to be developed according to the various groups of users and needs of distributors. The training is to be made available by 26 November 2013 and later, by 2021, professional users are to have passed an examination entitling them to use plant protection products. The aim of the training and advice is to ensure that all users of plant protection products know for instance how to apply plant protection products carefully, without this posing a risk to the environment and to human health. The areas of use included in the training are listed in Annex I to the Framework Directive.

Another aim is for the risks posed by use of plant protection products to decrease among non-professional users and for the latter to primarily choose non-chemical methods of crop protection as their knowledge improves. The preparations used by non-professional users must pose as little risk as possible to the environment and health. When preparations are approved the authorities are to approve the most harmful preparations for professional use only.

3.4 Promotion of integrated pest management

One aim is to promote the use of integrated pest management and alternative methods and techniques, with which the risks in use to human health and the environment and dependence on plant protection products can be further reduced.

It is mandatory for the Member States to apply the principles of integrated pest management according to the Plant Protection Products Regulation and the Framework Directive. The Member States have to report to the Commission on implementation of integrated pest management by 30 June 2013. Annex III to the Framework Directive contains a list of the general principles of integrated pest management.

The aim is to offer growers sufficient training, advice and information on the methods of integrated pest management and follow-up of crop pests to enable them to introduce the general principles of integrated pest management per group of crops. There has long been a commitment to integrated pest management in fruit and berry cultivation in particular, such that there is an established system and a great deal of knowledge to be acquired for training, advice and information about methods in the province.

3.5 Use of comparative assessment

The aim is to follow up the uses and methods of use and associated risks of plant protection products containing particularly hazardous active substances and establish timetables and targets to reduce use of these, particularly when this is a suitable method of achieving the risk reduction targets and alternatives are available.

The timetables for the comparative assessment of individual active substances depend on the Commission's timetable for the assessment of replacement substances.

4. Measures

4.1 Consumer protection and residues of plant protection products

4.1.1 Residues of plant protection products in vegetable products

The Provincial Government and the Åland Islands Environmental and Health Protection Agency are responsible for supervision of domestic vegetables and animal products, while Finnish Customs monitors vegetables imported from the other EU Member States and third countries. The samples are analysed in accredited laboratories. Manufacturers and marketers to some extent have analyses carried out on the quantity of residues of plant protection products as part of their own self-inspection.

The sampling of vegetable products is mainly done on a random basis. This random sampling is focused in particular on products that have previously shown problems with residues of plant protection products or on which information has been received through the RASFF² system. Products consumed in significant quantities in the Åland Islands may come into consideration. The analytical results are not used solely for supervision but also for the assessment of the risk of inhabitants of the Åland Islands being exposed to residues of plant protection products and the significance of the exposure to health. Attempts are made with the aid of effective supervision to prevent products that do not fulfil the requirements being released onto the market. Products that are already on the market are recalled if it is suspected that the product poses a risk to consumer health. If domestic products contain residues of plant protection products that contravene the provisions, the grower may be subject to reductions in or loss of aid (cross-compliance).

The grower is responsible for the crop protection products that have been purchased. These also have to be approved in Finland for the Åland Islands and be used in accordance with instructions. The Provincial Government controls and provides advice on supervision of the use of plant protection products and controls the supervision of cross-compliance. The Provincial Government additionally guides other authorities and coordinates the planning, implementation and reporting of supervision in the Åland Islands. The Åland Environmental and Health Protection Agency, for its part, takes samples of domestic products and products that are already on the market, while Finnish Customs takes samples of imported vegetables. No samples are taken at present because a re-organisation is in progress in which the tasks of the provincial veterinary officer in the Environmental Office of the Provincial Government will be transferred to the Åland Environmental and Health Protection Agency.

The occurrence of residues of plant protection products has been followed up in the Åland Islands since the 1990s on the basis of the EU recommendation. Participation in the EU's harmonised control programme has been mandatory for the Member States since 2009. In addition to the EU control programme, the Åland Islands supervisory programme includes a supervisory programme specifically for the Åland Islands, the results of which are reported together with the EU's harmonised programme.

The food safety authority Evira is responsible for reporting the nationwide supervisory information annually to the Commission and the European Food Safety Authority (EFSA). The results are also published in Evira's publication series '*Pesticide residue monitoring in Finland*'. The results from Åland are reported through Evira.

² See glossary in Annex 1.

4.1.2 Residues of plant protection products in household water

Household water may pose a risk to consumers if the surface water is polluted. The risk to health caused by plant protection products in household water can be reduced through quality control of the household water and above all through measures to protect the environment (chapter 4.3).

Proposed measures:	<p>The follow-up of plant protection products continues and efforts are made to safeguard the proportion of local samples. The methods are developed so that all relevant plant protection products approved in Finland are included in the selection for analysis. TUKES³ updates the database relating to the reporting of plant protection product residues, where the analytical results are kept. The database makes comparison, compilation of statistics and reporting of results to the EFSA⁴ and others possible. The annual publication that provides information on the results is also renewed and the manual for consumers is updated.</p> <p>The adequacy of the present-day measures is assessed.</p> <p>The investigation of consumer safety is completed.</p>
Body responsible:	Provincial Government, Åland Islands Environmental and Health Protection Agency
Need for investigation:	The possibility of analysing residues of pesticides to a greater extent through different types of sampling than today.

4.2 Protection of employees and users

An assessment is made in conjunction with the approval of a plant protection product of what risks use of the plant protection product poses for users and other employees and for outsiders. To allow a preparation to be approved, use of the preparation in accordance with instructions is required not to pose any risk to human health.

The most common direct risks to users of plant protection products are irritation of skin, eyes and mucous membranes. Prolonged exposure can lead to the development of skin allergy or hypersensitivity in the airways. Plant protection products that have entered the body through the skin, airways or mouth can lead to immediate symptoms of poisoning, such as headache, nausea and drowsiness. The direct toxicity of a chemical and its irritant and allergenic properties are to be indicated by warning signs on the sales pack, as well as other serious health risks associated with the chemical.

The consequences of repeated and prolonged exposure can affect vital organs or organ systems and cause, for example, liver or kidney damage or destroy the blood-forming tissue in the bone marrow. The acceptable user exposure, i.e. the AOEL⁵ value, for an employee is determined using safety factors based on non-hazardous exposure doses ascertained through animal experiments. If the exposure dose for an employee is below this value when the preparation is used, the plant protection product can be approved for use.

Special conditions have been stipulated for substances that are carcinogenic, mutagenic and toxic for reproduction. A plant protection product is, in principle, not approved for use if it is classified as carcinogenic, mutagenic or toxic for reproduction in humans based on

³ See glossary in Annex 1.

⁴ See glossary in Annex 1.

⁵ See glossary in Annex 1.

epidemiological studies, or in animals based on laboratory experiments, in accordance with Ministry of Social and Health Care Decree 807/2001 and the CLP⁶ Regulation. In exceptional cases approval can be given for a substance that has been classified as carcinogenic or toxic for reproduction in humans or animals, if the exposure and therefore also the risk are insignificant. The approval process in Finland is followed in the Åland Islands through an agreement decree.

Endocrine disrupters, which may pose a risk to human health, are not approved under the EU Plant Protection Products Regulations.

It is possible to limit the use of the most hazardous plant protection products to only professional use, and it can now also be required that the users have passed a special examination.

Even if exposure to the plant protection product according to the calculations is at an acceptable level, the importance of using protective equipment has to be emphasised using training and information as it is possible for a plant protection product despite the studies to have hazardous properties that are not yet known.

Promotion of health protection

Health protection for employees and users can be promoted by favouring preparations that are less hazardous to health and reducing exposure by using the preparations in an advantageous form (e.g. water-soluble bags, preparations in tablet form and low-dose products), arranging adequate protective equipment, safe working methods and correct storage of the plant protection products.

The text on the sales packaging and the safety data sheet gives instructions on the dosage of the plant protection product, way of working and protective equipment. Certain plant protection products have been given an HTP⁷ value in the Social and Health Care Ministry Decree, i.e. the concentration found to be harmful, which is to be taken into account when assessing the exposure to the plant protection product concerned.

The employer's obligation

The employer is obliged to ensure the safety of the employee by arranging suitable working and protective equipment. The employee has to receive instruction and guidance on how to handle the plant protection product safely. Before work begins, the employer has to make sure that the employee has acquainted himself or herself with all the instructions. In addition, the employer has to comply with applicable parts of the provisions of special legislation for industrial safety, for example the Government Decree (1485:2001) on health examinations in work that poses a particular risk of ill-health.

Significance of training and advice for professional growers and employees

Training and information are important for the improvement of industrial safety for farmers and employees and to make them aware of how plant protection products are used safely. It is particularly important to prepare for unexpected situations, such as the equipment breaking during the work of spraying plant protection product.

Use of plant protection products in domestic gardens

It is assumed when assessing the user's exposure in connection with the approval of a plant protection product that the product will be used professionally as the health risk can be reduced using protective equipment. Amateur growers are able to buy the same preparations, but their protective equipment is generally not as good as that of professional users. It cannot

⁶ See glossary in Annex 1.

⁷ See glossary in Annex 1.

be assumed that they use personal protective equipment, and the way they work is not always professional. It is thus possible for amateur growers to be exposed to harmful levels of plant protection products.

The exposure of amateur growers will be assessed systematically at Tukes as part of the exposure calculations for those preparations that can be assumed to be purchased by people with an interest in gardening. The intention is for only preparations that do not require protective equipment to be approved for non-professional use. A condition to be met for approval in this case is that no safer products have been approved for a corresponding purpose or the same purpose.

Proposed measures:	Assessment of the exposure of amateur growers is combined with the assessment of the exposure of professional users. Only preparations that require minimal protective equipment are to be approved for amateur use. Industrial safety is included in the training aimed at the users and distributors and advisors on plant protection products (see training).
Body responsible:	Provincial Government, the operator, the employer, the employee, the trade, the areas of responsibility of the Regional State Administrative Agencies (www.avi.fi).
Need for investigation:	The Finnish national action plan proposes an investigation into ways in which information can be gathered on cases of acute poisoning related to plant protection products and as far as possible also on chronic cases of poisoning. Åland Islands follow up the outcome of this investigation. The Finnish national action plan proposes an investigation to develop techniques relating to the use of plant protection products (dilution of plant protection product, refilling of spray tanks and application of the preparations). Åland Islands follow up the outcome of this investigation.

4.3 Measures for protecting the environment

4.3.1 Sufficient and continuous environmental monitoring of plant protection products

By comparing the measured environmental concentrations of plant protection products with the set quality standards it is possible to obtain a picture of the quality of the environment. Using the results it is possible to assess whether the measures contained in the action plan work and are effective. In order to measure how the targets of the action plan are met it is therefore very important to arrange continuous monitoring.

4.3.2 Development of the environmental restrictions on the basis of risk assessments

Certain restrictions on use have been set as a condition for the approval of plant protection products with the aim of preventing environmental risks. It is essential that the user observes these restrictions. Information on these can be found in the text on the sales pack of the preparations. Tukes also maintains a plant protection products register for the Åland Islands (www.tukes.fi), in which the packaging texts can also be found. A shortcoming of the plant protection products register is that some of the information is not available in Swedish.

Buffer distance specified to protect aquatic organisms

Pollution of surface water can be prevented by establishing buffer strips alongside surface watercourses and making sure in that way that the watercourses are not exposed to spray drift,

leaching and runoff. The following safety distances for watercourses are specified as a condition for approval of plant protection products in Finland and the Åland Islands: to protect aquatic organisms the preparation may not be used and the equipment for application of plant protection product may not be cleaned less than 10 m (fairly toxic substances), 15 m (toxic active substances) or 25 m (very toxic substances) from watercourses.

The watercourse restrictions for plant protection products are for the time being not determined on the basis of the risk to aquatic organisms but are based on the hazard for the most sensitive species of aquatic organisms in a study of the active substance or preparation and calculated for the level of active substance. The intention is that the minimum distance from watercourses determined according to the EU instructions for assessment of the risk of pollution of surface water (FOCUS SW) varies depending on the quantity of a preparation that is used, the number of applications, the plant species treated and the various types of watercourses. The system is thus significantly more complex than the present-day system. By introducing risk-based watercourse restrictions it is possible also to protect aquatic organisms in ditches, while the current system only protects larger streams, rivers and lakes.

Project proposals

Follow-up of the proposed project is taking place in the Finnish national action plan to investigate ways of making the watercourse restriction of plant protection products based on risk. The aim of the project is to investigate suitable alternatives with the user in mind. To ensure that operators are treated equally and to facilitate supervision of use, it is proposed that all preparations are included in the new system simultaneously.

Follow-up is taking place on the investigation of how effective the buffer zones covered in vegetation alongside the watercourses are with regard to reducing the risks posed by plant protection products to aquatic organisms and how wide the zones should be. It has already been noted that the zones have reduced drainage flow, but the field margins and buffer strips created in accordance with the environmental aid conditions are rarely sufficiently wide to prevent spray drift of plant protection products to the watercourses.

According to the environmental aid for agriculture a 1-3 metre wide strip covered in perennial forage crops is to be left around fields alongside ditches. A strip with an average width of three metres but a maximum width of ten metres is to be created around fields bordering larger watercourse, wells for household water, ponds, lakes and seas.

The spread of weeds from the buffer strip can be controlled by mowing. The strip must not be treated with plant protection products, with the exception of control of wild oat or point control of difficult weeds, which can be carried out according to a specified plan. If plant protection products are used on the buffer strip, written notification must be given beforehand to the Åland Islands Provincial Government.

According to the criteria for forest certification only biodegradable plant protection products may be used for forest management. Chemical plant protection products may only be used in an emergency, for example in treating individual stumps of broadleaf trees or stocks of softwood timber in the forest. No such treatment is, however, carried out in the Åland Islands at present. In addition, a buffer zone is to be left alongside streams and ponds. No chemical pesticides or fertiliser may be used in the buffer zone. Shores are classified in the Åland Islands as habitats meriting particular concern, and the buffer zone against forestry actions on average has to be at least 10 metres here. Furthermore, chemical pesticides are not allowed to be used in groundwater areas.

Groundwater restrictions

The Åland Provincial Government has defined the term 'groundwater area' through the Provincial Act amending the Water Act for the Province of the Åland Islands (2012:42) and will decide what areas are groundwater areas.

Some plant protection products or their breakdown products are transported readily in the soil and their use is therefore completely prohibited or restricted in groundwater areas (Class I or II groundwater areas). Prohibitions of or restrictions on use are highlighted in the text on the sales pack.

An unconditional ban on the use of plant protection products in groundwater areas is marked on the sales pack as follows: 'The plant protection product/breakdown product of the plant protection product is mobile in the soil, and the preparation must therefore not be used in important groundwater areas or other areas suitable for obtaining groundwater (groundwater area classes I and II), An untreated buffer zone at least 30-100 m wide must be left around wells and springs used to obtain household water. Avoid use of the plant protection product on fine sand and soils coarser than fine sand'.

Use in groundwater areas has been restricted for certain preparations approved for the control of weeds in sugar-beet cultivation and certain preparations containing glyphosate as active ingredient. In addition there are preparations not recommended for use in groundwater areas.

Tukes also maintains a list of preparations that may be used in groundwater areas.

Project proposals

It is also proposed that the investigation on the principles for the establishment of groundwater restrictions in the other EU Member States that have been proposed for implementation in Finland should be followed up. The measures to reduce the risk have not been harmonised in the Member States, and under the new Plant Protection Products Regulation it is possible for the Member States to impose the restrictions considered necessary to prevent environmental inconveniences. Growing conditions and climatic conditions, hydrogeology and how the groundwater arises vary in different Member States, which means that the principles underpinning the establishment of any prohibitions and restrictions also vary.

As the procedures according to the operators are unclear, it is proposed that an investigation is carried out in the form of a project in two phases, in which the principles for the establishment of groundwater restrictions in the Nordic and Baltic states are examined in a preliminary study and it is considered on the basis of the results whether it is necessary to alter practice in Finland and therefore in the Åland Islands. During the second phase the restrictions for individual preparations are examined and if necessary proposals are made on how they can be modified to fit the new system if it is considered necessary to alter the current restrictions.

To ensure that the operators are treated the same way and make supervisor of use easier in practice, it is appropriate for all preparations to be transferred to the new system at the same time. For this reason, and to enable the task to be accomplished outside of the service, there is a need for special project funding.

Restriction of repeated application

The use of a plant protection product during consecutive years can be restricted if the active substance of the preparation has been found to accumulate in the soil and pose a risk to soil organisms. An up-to-date list of preparations with limited repeated use can be obtained from the plant protection product register. In some cases the growers have had problems with the choice of plant protection product, when monoculture takes place on the same fields. The

risks to soil organisms are reduced by sufficiently varied crop rotation when the need to use the same plant protection product in successive years decreases.

Protection of sensitive aquatic environments

The use of plant protection products on areas where drinking water is extracted, on transport routes (e.g. railway lines) or alongside them and in impenetrable areas or areas that are not highly penetrable may pose a substantial risk to the aquatic environment. The use of such areas is to be reduced or if necessary stopped completely.

At present the three largest sources of drinking water, Dalkarby träsk, Markusbölefjärden and Långsjön, have been established as water protection areas under a ruling of the Western Finland Water Court from 1988. Since the Water Act entered into force in 1996, responsibility has been transferred to the Provincial Government. The Provincial Government can stipulate that a particular area is to be a water protection area pursuant to Chapter 5(3) of the Water Act (1996:61). Establishing water protection areas for our drinking water means, firstly, that current legislation on protection of water is complied with and, secondly, that the Provincial Government fulfils the EU requirements under the Water Directive.

Use of plant protection products has to be avoided in protection areas for water sources established in the Water Framework Directive or Natura 2000 sites where special protective measures are required in accordance with the Directive on the Conservation of Wild Birds (79/409/EEC) and the Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora (92/43/EEC). If agriculture is undertaken on sites of this type, these are mentioned separately on the pre-filled base parcel form (Form No 102A) for the annual application for aid. A cross is marked for this item even if only part of the base parcel is on these sites. Detailed information on the boundaries of the protection areas and Natura 2000 sites is held by the Provincial Government's Environmental Office.

Protection of bee colonies

'The plant protection product is harmful to bees and bumblebees. Do not use for treatment of flowering plants with the exception of potatoes and peas. Treatment of flowering peas is only permitted after the bees' flying period. Do not use less than 60 m from beehives without the approval of the beekeeper.'

Åland Islands legislation in the area allows regulations to be issued if necessary for the protection of bee colonies. The risks to bees can be minimised by use of plant protection products in accordance with the rules and communication between crop grower and beekeeper.

4.3.3 Establishment of environmental quality standards (EQS⁸) for all plant protection products on the market

There are regulations in the Water Framework Directive on the minimum requirement for environmental monitoring of hazardous substances, and environmental quality standards for the time being have therefore only been adopted for priority substances in the EU. These priority substances nevertheless do not provide any picture of the actual use of plant protection products in Finland, and quality standards are needed for all plant protection products on the market. The Environment Office in the Provincial Government carries out environmental monitoring of the priority and other polluting substances in the aquatic environment. Some pesticides are contained in these substances. The Environment Office carries out screening of surface water and groundwater in the Åland Islands.

⁸ See glossary in Annex 1.

Contraventions of the quality standards observed in connection with environmental monitoring indicate the burden caused by individual active substances and show either the environmental restrictions established as conditions for the use of the preparations have been adequate or possibly excessive. A separate development project is proposed to establish quality standards for plant protection products. Quality standards also have to be adopted for certain other groups of chemicals that are hazardous to the environment, such as biocides and certain industrial chemicals, when the system for environmental supervision of these chemicals is developed. In this way the development of quality standards for plant protection products leads to harmonisation of the monitoring of different groups of chemicals.

<p>Proposed measures:</p>	<p>Needs-based environmental monitoring of plant protection products is arranged.</p> <p>In the Finnish national action plan it is proposed that environmental quality standards (EQS) are adopted for all plant protection products on the market. Åland Islands follow up the outcome.</p> <p>It is proposed that the favouring of varied crop rotation be included when the conditions for environmental aid are discussed in the programming period starting in 2014.</p> <p>The collection of out-of-date and deregistered plant protection products is organised by the trade and through the collection of problem waste.</p> <p>Work on strengthening the protection of designated drinking water sources continues.</p> <p>Decisions on which areas are groundwater areas and the boundaries of these.</p>
<p>Body responsible:</p>	<p>Provincial Government, Åland Islands Growers Association, waste authorities</p>
<p>Need for investigation:</p>	<p>The Finnish national action plan proposes an investigation into the prospects for moving over to a risk-based model in the establishment of watercourse restrictions for individual preparation. Åland Islands follow up the outcome of this investigation.</p> <p>The Finnish national action plan proposes an investigation into the prospects for reducing spray drift using spraying technology, in order to be able to coordinate the restrictions on the use of plant protection products with the spraying technique used. Åland Islands follow up the outcome of this investigation.</p> <p>The Finnish national action plan proposes an investigation into the principles underpinning the adoption of groundwater restrictions in the other EU Member States: use of plant protection products versus groundwater areas. Åland Islands follow up the outcome of this investigation.</p> <p>The Finnish national action plan proposes an investigation into the prospects of using environmental aid conditions to encourage growers to use permanent buffer zones with vegetation cover in the vicinity of watercourses to reduce the risks posed by plant protection products. In addition, an investigation is proposed in connection with work on the new programming period starting in 2014 on the prospects for</p>

	<p>encouraging growers, through environmental aid, to protect groundwater to a greater extent/in different ways than at present. Åland Islands follow up the outcome of these investigations.</p> <p>The Finnish national action plan proposes an investigation into any plant protection products that are problematic from a national point of view. Comparative assessment is applied to these as far as possible, and the aim is to replace certain substances that are problematic with regard to the environment in the future. Åland Islands follow up the outcome of this investigation.</p> <p>The Finnish national action plan proposes an investigation into development in cultivation techniques (e.g. direct sowing) on the use of plant protection products and the quantities used. Åland Islands follow up the outcome of this investigation.</p> <p>The Finnish national action plan proposes an investigation into various alternative methods for cleaning application equipment for plant protection products (e.g. biobed, cleaning in tower). Åland Islands follow up the outcome of this investigation.</p> <p>The Finnish national action plan proposes an investigation into whether permanent vegetation cover and broad buffer zones reduce the risk posed to aquatic organisms by the use of plant protection products sufficiently effectively. Åland Islands follow up the outcome of this investigation.</p>
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4.4 Reduction of the risks posed by plant protection products in green spaces

The Framework Directive requires the use of plant protection products to be avoided in areas where the public move around, such as parks and public gardens, sports grounds, golf courses, recreational spaces, school yards, playgrounds for children and in the vicinity of the yards of healthcare institutions.

Plant protection products are only used to a small extent on green spaces. Plant protection products are mostly used to control certain alien species and in particular harmful plants. Examples of such plants are mugwort and giant hogweed, both of which are allergenic. In these cases, plant protection products that only cause a small risks should be primarily used and biological, mechanical and thermal control methods should be preferred. Affected parties should also be informed about this use.

The use of plant protection products should be reduced to the absolutely essential amount in the construction and care of parks and green spaces. Plants that are known to thrive in this country and that only require chemical control of diseases and pests in special cases are primarily chosen. FinE plants (Finnish Elite, multiplied from parent plants examined and tested for diseases) are examples of such plants.

Preference is also given in the construction and care of green spaces to methods in which the ground is always covered with ground-cover plants, such as perennials, ground-cover woody plants or cultivated lawns so that the chemical control of weeds is also insignificant or unnecessary after construction. In special cases, such as around trees and shrubs, the ground is covered with a water-permeable fabric covered, for example, with ornamental gravel or bark to keep weeds at bay.

Proposed measures:	<p>Planning of information and training, in particular, for employees in the parks and green spaces sector (see the chapter on training).</p> <p>In selecting plants, hardy plants that tolerate the climate should primarily be chosen. Methods in which the ground is always covered with ground-cover plants should be favoured in the construction and care of green spaces.</p>
Body responsible:	Provincial Government, the municipalities
Need for investigation:	<p>The Finnish national action plan proposes an investigation in Finland of how biological control can be used in the control of harmful alien species, e.g. giant hogweed. The proposals in the strategy for alien species are taken into account. Åland Islands follow up the outcome of this investigation.</p> <p>The Finnish national action plan proposes an investigation into what methods of weed control are effective on green spaces, for example an assessment of various cover materials. Åland Islands follow up the outcome of this investigation.</p> <p>The Finnish national action plan proposes an investigation in Finland on non-chemical alternatives for control. It is particularly important to improve knowledge of the natural enemies of plant pests and to promote the use of these by creating suitable conditions. Åland Islands follow up the outcome of this investigation.</p>

4.5 Communication and awareness-raising

The Framework Directive requires citizens to be informed about the risks in using plant protection products, the impact of these on human health and the environment, and alternative methods of control.

There are large quantities of information about plant protection methods on the Internet. Information is available from the Åland authorities (www.regeringen.ax), the Finnish authorities (www.tukes.fi, www.evira.fi, www.mmm.fi, www.ymparisto.fi, www.tulli.fi), the expert organisations (www.mtt.fi, www.ttl.fi, www.thl.fi), stakeholder groups (www.proagri.fi) and the industry (www.kaste.net) and several companies connected to the plant protection industry.

Information about plant protection products is also disseminated by the authorities and in specialist journals in the horticultural and agricultural sectors. Information is additionally available at trade fairs and agricultural shows.

The aim is for plant protection products intended for use in domestic gardens to pose only a small risk to users and the environment and for the more harmful preparations only to be approved for professional use. Information on non-chemical methods of plant protection is also to be offered to hobby growers.

The information relating to plant protection products is to be disseminated among the public in an understandable form. Communication principally takes place on the Internet. Other channels used are newspaper articles, radio and television, brochures, trade fairs and educational material. Professional users of plant protection products are best reached via the Internet and specialist journals, at trade fairs and training events for professionals as well as training material for educational institutions.

Proposed measures:	<p>A plan for information, instructions, advice and training related to plant protection products is drawn up.</p> <p>The results of the supervision of pesticide residues are made public.</p> <p>Monitoring of product counterfeiting and other illegal plant protection products and information on these.</p> <p>More effective supervision of labelling of origin for plant protection products and information on this.</p>
Body responsible:	Provincial Government, Åland Islands Environmental and Health Protection Agency, ProAgria

4.6 Training

Present-day examinations and training courses

A minimum requirement to be granted environmental aid for agriculture is to have **training in the use of plant protection products**. Since 1998 plant protection products, under the conditions for receipt of aid, have only been allowed to be applied by persons who have undergone training in the use of these products. The training is valid for five years.

The Provincial Government gives clear instructions on the sharing of work in connection with the implementation of the national action plan. More effort is to be put into the training of sales staff in the trading companies and in the green sector, as well as the training of employees at plant nurseries and forestry machine companies.

Training according to the Framework Directive

Under Article 5 of the Framework Directive on sustainable use of pesticides, the Member States have to establish a system for basic and further training for professional users, distributors and advisors. At the same time, they have to set up a system of training certificates in order to be able to ensure that users of pesticides are aware of the possible risks posed by the use of the pesticides to human health and the environment. The users also have to be aware of measures for reducing the risks. The systems for training certificates have to contain requirements and procedures for issuing, renewing and revoking certificates. The provision of training can be focused on various user groups, for example cultivation of agricultural crops, greenhouses, nurseries or forestry. According to the Directive, the training of professional users can be coordinated with the training related to Regulation (EC) No 1698/2005 (environmental aid for agriculture).

The training has to be planned so that professional users, distributors and advisors receive sufficient information about the substances to be included in the training under Annex I to the Framework Directive.

The training is also to take account of the risks posed by possible spray drift of plant protection products to the neighbourhood. Depending on the situation, users of plant protection products have to inform the immediate neighbours of spraying work, for example if bees are kept nearby.

With a training certificate in accordance with the system for training certificates it is to be possible to verify sufficient knowledge of the substances stated in Annex I to the Framework Directive, which have been acquired by professional users, distributors and advisors either through participation in training or in other ways.

The training system in accordance with the Directive has to be ready four years after the Directive has entered into force, that is to say on 26 November 2013.

Proposals for future action

The Åland Provincial Government is responsible for training in the Åland Islands and can authorise various organisations to arrange this training.

Professional users, distributors and advisors can obtain the information either through training or in some other way.

The training in the use of plant protection products for growers does not change to any major extent. Individualised training will be arranged for sales staff in the trade and in the horticultural and green sectors which is planned and implemented in cooperation with organisations in the industry. The aim is to intensify the cooperation between the trade and the authorities.

The training intended for forest nurseries and for example for forestry machinery contractors in the forestry section will be planned and implemented in cooperation with organisations and companies active in the forestry sector.

Training in seed dressing for those who pack seed will be provided in conjunction with training linked to permits for seed packing facilities. The Provincial Government is responsible for the training in the Åland Islands.

Examinations are included in the training. Examinations on the use of plant protection products cover knowledge of appropriate and safe handling and use of plant protection products, integrated pest management, risks associated with the use of plant protection products and how these can be controlled, use, maintenance and servicing of equipment for applying plant protection products and booking of the use of plant protection products. To be able to ensure that the knowledge of users, distributors and advisors is up to date, it is proposed that qualifications should apply for a particular period (five years). Those who pass an examination receive a certificate.

Requirements applicable to sale

Distributors of plant protection products from the autumn of 2013 will have to employ a sufficient number of staff holding certificates attesting to a pass in examinations relating to the use of plant protection products. These persons will have to be available at the time of sale to provide customers with sufficient information on the use and health and environmental risks of and safety instructions for the plant protection product, particularly where plant protection products intended for professional use are concerned.

Sellers have to be able to provide general information to non-professional users on the risks to health and the environment, safe handling and storage and appropriate disposal of packs. Sellers also have to be able to provide information on alternatives that pose only a small risk.

Distributors who only sell products for non-professional use can be exempted from the training if they do not sell plant protection products classified as toxic, very toxic, carcinogenic, mutagenic or toxic for reproduction. Such preparations are not to be approved at all for use in domestic gardens.

The manufacturers of plant protection products who launch preparations on the market have provide distributors/sellers the information referred to above.

Sale of plant protection products intended for professional use

The Framework Directive requires plant protection products intended for professional use only to be allowed to be sold to persons who hold training certificates attesting to a pass in an examination relating to the use of plant protection products. It is ensured in this way that the buyer has sufficient knowledge of appropriate, sustainable and safe use of the plant protection product.

All the requirements applicable to sale also apply to sale on the Internet.

Proposed measures:	<p>Preparation of a training plan and training material for users and sellers of and advisors on plant protection products, taking accounting of the training topics referred to in Annex I to the Framework Directive.</p> <p>Attention is paid to the following issues:</p> <ul style="list-style-type: none">- Training is needed for a larger group than at present and there is a need to differentiate the training with respect to different focuses of production.- Training for the sales personnel:<ul style="list-style-type: none">• Personnel who are available at the time of sale have to provide the customer with sufficient information about use, risks and safety instructions to control the risks.• Everyone who buys plant protection products has to receive information and instructions primarily from the sellers. It also has to be possible at the time of sale to give an account of the risks associated with the use of plant protection products for non-professional users and help them to choose safe preparations or alternative methods. Guidance is also to be provided in online trading.- Planning of tailored training for employees in the parks and green spaces sector.- Ensuring the skills of trainers. Evidence of skills in the form of educational background, qualifications and online instruction material concluding with a test to demonstrate skills.- IPM⁹ is included in the training.- Industrial safety is included in the training aimed at users and sellers of and advisors on plant protection products,- Supervision of training.- The work carried out by testers of spraying equipment is monitored and undergoes quality-audited. This action is to be added to the Provincial Government's supervisory plan.
Body responsible:	Provincial Government, ProAgria, area of responsibility of the Regional State Administrative Agencies for industrial safety

4.7 Handling and storage of plant protection products

Only preparations registered in the Tukes plant protection products register may be used as plant protection products in the Åland Islands. Under Section 3 of the Plant Protection Products Act (1259/2006), applied in the Åland Islands through ÅFS 2012:41, plant protection products that have been removed from the plant protection products register or preparations that have become unusable, for example due to freezing, are problem waste and

⁹ See glossary in Annex 1

Provincial Act 1981:3 on waste management, in particular Chapter 3, Handling of waste, is applicable to them. The aim is to make the provisions of the Waste Act clearer in relation to supervision so that a requirement can be imposed on growers to deal with disposal within the designated time of stored plant protection products that have been taken out of use.

Plant protection products that have been taken out of use must not be mixed with ordinary household waste or be dispersed in the environment and must instead be handed in at a collection and treatment centre for problem waste. ÅFS 2012:41 imposes a requirement on authorised inspectors to inform the Åland Islands Provincial Government if they observe plant protection products for which approval has been revoked.

The handling and storage of plant protection products is covered by the training.

Professional users and distributors of plant protection products have to attach particular importance to

- storage, handling, dilution and mixing of plant protection products before application,
- handling of packs and pesticide residues,
- disposal of liquids remaining in the tank after application.
- cleaning after application of the equipment that has been used,
- storage places have to be built in such a way that no undesirable emissions occur

It is recommended that non-professional uses are offered ready-to-use preparations that are sold in sufficiently small packs and that are as safe as possible for health and the environment.

Information can be found on the Tukes website (www.tukes.fi).

Proposed measures:	It is ensured that the legislation applicable to waste includes provisions requiring operators to hand in plant protection products taken out of use for the collection of problem waste within the designated time. Information campaigns on storage and disposal of plant protection products are conducted regularly. Instructions are drawn up at the same time on how to store plant protection products on farms.
Body responsible:	Provincial Government, ProAgria, Åland Islands Growers Association

4.8 Equipment for application of plant production products and inspection of these products

A system for the function testing of equipment for application of plant protection products has been used in Finland since 1995, and the system has been considered to work well. A tester who has been authorised by the Provincial Government tests the function of tractor sprayers and self-propelled sprayers in accordance with Tukes instructions. The Provincial Government maintains an up-to-date list of authorised testers. The test instructions were updated in the autumn of 2010 on behalf of and with funding from the Agency for Rural Affairs. The updating was done by the measurement and standardisation group (Vakola) in Finland at the Research Centre for Agriculture and Food Economics. The instructions have been prepared in accordance with standard SFS-EN-13790-1.

It is now one of the minimum requirements for environmental aid for agriculture to be paid that new spraying equipment for the application of plant protection products purchased for a farm has to fulfil the requirements of standard series SFS-EN 12761 and that the spraying equipment used on the farm is tested every five years.

There are provisions in the Machine Safety Directive (2006/42/EC) on the placing on the market of equipment for the application of plant protection products. The Machine Safety Directive was published on 9 June 2006 and entered into force on 29 December 2009.

The amendment to the Machine Safety Directive (2009/127/EC) was published on 25 November 2009, a new chapter was added on machines for the application of pesticides. The amended Directive introduces environmental requirements for equipment for the application of plant protection products. The change entered into force at the end of 2010.

Inspection of equipment for application of plant protection products

Equipment for the application of plant protection products in professional use has to be inspected regularly. The equipment has to be inspected at least once before 26 November 2016. The Framework Directive requires the inspections to be carried out at least every five years up to 2020 and then every three years. New equipment has to be inspected at least once within five years after the equipment has been purchased. After that time only equipment that has been inspected as above and been approved may be used professionally.

The inspections are carried out to ensure that the equipment meets the requirements of Annex II to the Framework Directive.

Portable equipment for the application of plant protection products or knapsack sprayers can be exempted from the inspections. The users of this equipment (professional users, advisors, distributors) are in all cases to receive training and have to be aware of the need to maintain the equipment regularly as well as the risks associated with the equipment.

Proposals for future action

A system of inspection of the spraying equipment similar to the present-day system will also be applied in the future, and the system will be specified more closely. The inspectors are authorised for a particular period of time. The aim is for testing in the future to also cover all other spraying equipment in professional use. The responsible authority is the Provincial Government, which authorises testers of spraying equipment and maintains a list of authorised testers.

Examinations for testers of spraying equipment include updated material. Organisations authorised by the Provincial Government can deal with the basic and further training that belong to qualifications and arrange the examinations.

Proposed measures:	<p>As only tractor sprayers and self-propelled sprayers are covered by the environmental aid, it is investigated what sprayers and test methods occur and an inspection programme/procedures are developed for sprayers and test methods.</p> <p>The work carried out by testers of spraying equipment is monitored/quality-audited. This measure is to be added to the Provincial Government's supervisory plan.</p>
Body responsible:	Provincial Government

4.9 Aerial spraying

The basic rule is that aerial spraying is prohibited as it can have substantial harmful consequences for human health and the environment, particularly due to spray drift. It is possible exceptionally to permit aerial spraying if there are no alternatives and if the aerial

spraying may bring clear benefits in comparison with ground-level application of plant protection products.

Each application for a licence for aerial spraying has to be processed and assessed on a case-by-case basis. A licence from the Provincial Government is required for aerial spraying.

The person who carries out the aerial spraying has to have sufficient knowledge of the application of plant protection products by aerial spraying and have the skills needed. This person also has to have access to inspected and approved equipment for aerial spraying.

Proposed measures:	Risk assessment on a case-by-case basis to assess whether aerial spraying is necessary.
Body responsible:	Provincial Government

4.10 Integrated pest management (IPM¹⁰)

Integrated production (IP) has generally been applied in the Åland Islands in fruit and berry cultivation since the 1980s, which in itself has also meant application of integrated pest management for many years. The Framework Directive has required all professional users, not just fruit and berry growers, to adhere to the general principles of integrated pest management (Annex III to the Framework Directive) since 1 January 2014. Professional growers have to use methods that result in the least possible risk to human health and the environment.

Integrated pest management consists of four stages: prevention, monitoring, determination of the need for crop protection and the actual measure that is taken with a method suited to the situation.

IPM (integrated pest management) is a system that supports the decision-making process in crop protection. The system includes the following items:

- 1) Crop protection methods are selected from among a large number of compatible alternatives in IPM.
- 2) When decisions are made on crop protection measures, use is made among other things of advice, monitoring, forecasting methods and maximum limit values.
- 3) IPM takes account of the benefits of crop protection with regard to the grower, society and the environment. The benefits include both financial profit and benefits that are more difficult to convert into money, related to reduced emissions of plant protection products, improved working conditions for employees and higher quality in the end-product due to reduced resistance to plant protection products.
- 4) IPM considers vegetation that is to be protected from the point of view of the community or organisms, as the system takes account at the same time of several types of pests and beneficial organisms.

Use of IPM in cultivation in the Åland Islands has been combined in various ways since the 1980s through:

- 1) planning and preventive work
- 2) identification of problems and checking of these problems
- 3) use of maximum limit values
- 4) combination of different pest control methods in a well thought-out way

¹⁰ See glossary in Annex 1.

Significant results have been achieved in recent decades with biological methods for the control of diseases and pests, particular with regard to greenhouse production. These methods help to make it possible to produce fruit and vegetables in the Åland Islands with very small amounts of plant protection products (e.g. tomatoes, cucumbers, potted vegetables).

Some new and effective methods of cultivation have reduced or even eradicated significant groups of plant pests. Examples of the new solutions that can be mentioned are plant substrates (growbags in plant trugs) in greenhouses, where very few cases of wilt disease, black rot and root nematodes occur.

It is possible to substantially reduce the use of plant protection methods in the control of diseases and pests with hardy, resistant species. There are good examples, such as tomato varieties that resist wilt, currants that resist mildew and cereal varieties that are resistant to disease. Apple varieties resistant to scab will be launched in the near future.

Proposed measures:	<p>IPM is included in training on plant protection products.</p> <p>Local development work focuses on trials with varieties of horticultural and agricultural crops that are resistant to diseases and pests and that are best suited to growing in the Åland Islands.</p>
Body responsible:	ProAgria
Need for investigation:	<p>Follow up instructions for integrated pest management prepared for various groups of plants by updating the instructions for balanced crop protection and informing the growers about these.</p> <p>Follow up research projects in nearby regions focusing on promotion of biological control of pests (see also need for investigation of organic farming).</p> <p>Follow the development of cultivation methods and cultivation systems that reduce the presence of pests, including through the use of their natural enemies (see also need for investigation of organic farming).</p> <p>The Finnish national action plan proposes an investigation into maximum limit values for the control of pests, the usability of forecasts and criteria for decisions on weed control. Åland Islands follow up and evaluates what is relevant to Åland.</p>

4.11 Organic crop protection

The furthest progress in avoiding the use of plant protection products has been attained in organic production. As a growing form of production, organic production is also well placed to further reduce the use of plant protection products. The share of organic production in the whole arable acreage in the Åland Islands is already more than 20 per cent. The development of organic production has also helped agriculture in general to develop more environmentally friendly methods of control.

Organic production is regulated in the EU under common legislation (Council Regulation (EC) No 834/2007 and Commission Regulation (EC) No 889/2008).

The provisions applicable to organic production in the Council Regulation have been implemented in the Åland Islands through the Provincial Act (1995:52) on control of organic production.

Plant protection products permitted organic production

Weeds, plant diseases and pests are mainly controlled in organic production by mechanical, biological and physical methods.

The plant protection products that can be used in organic production if the pesticide limit according to the crop protection instructions is exceeded are named in Annex II to the Commission Regulation. The plant protection product also has to be registered in Finland in the way provided for in the Plant Protection Products Act, for the same purposes as in Annex II.

Growers have to document the use of plant protection products and the principles of use in their plot-based notes.

A list of plant protection products suitable for use in organic production can be found on the Evira website (www.evira.fi).

Proposed measures:	The Finnish national action plan proposes applied research in organic production to ensure the development of organic methods of control for the more severe pest management problems. The research can be used as a basis for obtaining better information on preventive methods of cultivation in organic production. Åland Islands follow up the outcome of the research referred to.
Body responsible:	Provincial Government, ProAgria
Need for investigation:	<p>The Finnish national action plan proposes investigations on options for better harmonisation of the substances in the Plant Protection Products Annex to the Organic Production Decree and the substances in the register of plant protection products in the Baltic Sea area. Åland Islands follow up the outcome of the investigation mentioned.</p> <p>The Finnish national action plan proposes the promotion of research projects focused on biological control of pests (see also need for investigation of IPM). Åland Islands follow up the outcome of the research referred to.</p> <p>The Finnish national action plan proposes a further development of cultivation methods and cultivation systems that have a preventive effect on the occurrence of pests (see also need for investigation of IPM). Åland Islands follow up development.</p>

4.12 Indicators

Risk indicators are used to monitor how work aimed at reducing risks is progressing. The harmonised risk indicators will be strengthened at EU level. Annex IV to the Framework Directive will contain these indicators. The Member States should use these indicators for risk management at national level and for reporting. The Commission should calculate indicators to evaluate progress at EU level. Statistical data collected in accordance with EU legislation on statistics on plant protection products should be used.

In addition to the harmonised common guidelines, the Member States can use national indicators.

Keeping of statistics on sold quantities of plant protection products

Data on sold quantities of plant protection products have been collected since 1953. This can be used as an indicator when assessing the use of plant protection products. According to the sales statistics an average of 0.66 kg of plant protection products per hectare of cultivated land was used in Finland over the period 2000-2008, calculated in kilograms of the active substance. Set-aside fields are also included in this figure. It is also important to develop the collection of data on the use of plant protection products in the Åland Islands for use in the risk assessment in accordance with the Statistics Regulation.

Indicators are currently being developed at EU level that will also start to be used in Finland in the next few years. This forms part of the work of applying the Framework Directive for sustainable use of plant protection products. The authorities in the Åland Islands at present do not have any resources to develop a risk indicator of their own with regard to Åland.

Harmonisation of the indicators at EU level

Projects are in progress within the EU aimed at using risk indicators for plant protection products. The intention is to examine the results in depth, collect knowledge, test and practise the use of and introduce the indicators at Union level after the EU Member States have agreed on which indicators at Union level are most usable. Until then national indicators will be used, including the statistics on sold quantities referred to above.

Information on the environmental impact of plant protection products is also obtained in the form of information on residue levels from the follow-up and cases in which the quality standards are exceeded after the follow-ups have become continuous and quality standards have been adopted. The calculation of indicators is a new authority task that requires special expertise. Sufficient authority resources to accomplish the task must also be ensured in the future. The obligations to report to the EU set forth in the Framework Directive can then be fulfilled.

Statistics on plant protection products in the EU

The Statistics Regulation creates common frameworks for keeping statistics at EU level on placing on the market and use of approved pesticides. Based on the statistics and other related information the Member States can draw up national action programmes in which quantitative targets, measures and timetables are adopted according to which the risks and consequences entailed by the use of pesticides for human health and the environment are to be reduced.

The targets can cover several problem areas, such as protection of employees, environmental protection, residues of plant protection products, use of special technology or use of particular crop plants. Statistics are also used to establish the harmonised indicators referred to in Annex IV to the Framework Directive.

The Statistics Regulation requires data to be collected regularly. The Member States have to collect data needed to determine the specific information enumerated in Annex 1 to the Regulation annually and data needed to determine the specific information enumerated in Annex II every five years.

According to the Statistics Regulation for plant protection products, data on sold quantities have to be reported to the EU for the first time in 2012 and data on use in 2015. The Provincial Government is responsible for the collection of data on quantities sold and data on use.

The Provincial Government is investigating the options for cooperating with Tike (Information Centre of the Ministry of Agriculture and Forestry), which in turn is preparing a system for the collection of data on use on the basis of pilot study, which is sufficiently extensive and partly coincides with other enquiries among growers. This minimises the burden on growers for data collection.

Proposed measures:	The Finnish national action plan proposes an investigation into the possibility of transferring the parcel-specific data of forms on the use of plant protection products to a common database. An investigation of the principles for the right of users to farm-specific data is also proposed. Åland Islands follow up the outcome of the investigation mentioned.
Body responsible:	Provincial Government

5 Resources for proposed measures and investigations

The action plan for sustainable use of plant protection products in the Åland Islands that is now being adopted is the first of its kind. There is no precise idea at present of the level of costs the proposed measures and investigations will have in practice.

Most of the measures and needs for investigations proposed in the action programme can be dealt with in the service and therefore do not cause any direct costs. These include measures related to training, advice and keeping of statistics.

Certain measures and needs for investigations may cause costs and will require special project funding, such as arranging sufficient environmental monitoring of the plant protection products (monitoring of surface water and groundwater).

The action plan for sustainable use of plant protection products in the Åland Islands is implemented within the limits of the Province's budget funds.

6 Timetables, follow-up and reporting

6.1 Timetables and responsibility for measures and needs for investigations

First phase 2012–2014

Subject area	Measure/Investigation	Responsibility
IPM	Instructions for integrated pest management are drawn up for different groups of plants by updating the instructions for balanced crop protection and informing the growers about these.	ProAgria
	Information on non-chemical alternatives to control. It is particularly important to improve knowledge of the natural enemies of plant pests and promote the use of these by creating suitable conditions.	ProAgria
	Follow-up and evaluation of research projects with focus on biological control of crop pests.	ProAgria
	Follow-up and evaluation of the development of cultivation methods and cultivation systems that reduce the occurrence of plant pests, including by using their natural enemies.	ProAgria
	Follow-up and evaluation of the investigation on maximum limit values for the control of plant pests, usability of forecasts and criteria for decisions on weed control.	ProAgria
Training	Preparation of a training plan and training material for user and sellers of and advisors on plant protection products, with consideration given to the training topics stated in Annex I to the Framework Directive.	Provincial Government, ProAgria
	Attention is paid to the following topics: <ul style="list-style-type: none"> - Training is needed for larger group than at present and there is a need to differentiate the training with regard to differing focus of production. 	ProAgria
	<ul style="list-style-type: none"> - Training of sales personnel: <ul style="list-style-type: none"> • Personnel who are available at the time of sale are to give the customer sufficient information on use, risks and safety instructions to check the risks. • Everyone who buys plant protection products is to receive information and instructions primarily from the sellers. At the time of sale it must be possible to describe the risks associated with use of the plant protection products for hobby gardeners and help them to choose safe preparations or alternative methods. Guidance also in online trading. 	ProAgria
	<ul style="list-style-type: none"> - Planning of tailored training for employees in the parks and green spaces sector. 	ProAgria, Provincial Government

	<ul style="list-style-type: none"> - Ensuring of expertise of trainers. Evidence of expertise in the form of educational background, qualifications or online teaching material that concludes with a test to prove expertise. - IPM is included in the training. - Supervision of training. - Industrial safety is included in the training aimed at users and sellers and advisors on plant protection products. - The work carried out by testers of spraying equipment is monitored/quality-audited. The measure is to be added to the supervisory plan of the Provincial Government 	<p>Provincial Government</p> <p>ProAgria Provincial Government AVI/ industrial safety</p> <p>Provincial Government</p>
Spraying technology	<p>The Finnish national action plan proposes an investigation on the options for reducing spray drift with the aid of spraying technology in order to be able to coordinate the restrictions on the use of plant protection products with the spraying technology used. Åland Islands follow up the outcome of the investigation mentioned.</p> <p>The Finnish national action proposes an investigation on the various alternative methods of cleaning spray tanks for plant protection products (e.g. biobed, cleaning in tower). Åland Islands follow up the outcome of the investigation mentioned.</p> <p>As only tractor sprayers and self-propelled sprayers are covered by the environmental aid, it is investigated what sprayers and test methods occur and an inspection programme/procedures are developed for sprayers and test methods.</p>	<p>Provincial Government</p> <p>Provincial Government</p> <p>Provincial Government</p>
Information	<p>Preparation of a plan for information, instructions, advice and training related to plant protection products.</p> <p>Monitoring of product counterfeiting and other unlawful plant protection products and information on these.</p> <p>More effective supervision of the marking of origin of plant protection products and information on this.</p> <p>Collection of out-of-date and deregistered plant protection products is arranged by the trade and the cleansing authorities,</p> <p>Information campaigns on storage and disposal of plant protection products is carried regularly. Instructions are drawn up at the same time on how plant protection products are to be stored on farms.</p> <p>The results of supervision of pesticide residues are published.</p>	<p>Provincial Government, ProAgria Provincial Government</p> <p>Provincial Government</p> <p>Åland Growers Association, waste authorities</p> <p>Åland Growers Association, ProAgria, Provincial Government</p> <p>Åland Environmental</p>

		and Health Protection Agency
Protection of employees and users	Assessment of the exposure of amateur growers is combined with the assessment of the exposure of professional users. Only preparations that require minimal protective equipment are to be approved for amateur use.	Provincial Government
Environmental protection	<p>Sufficient environmental monitoring of plant protection products is arranged.</p> <p>Decisions on which areas are groundwater areas and the boundaries of these.</p> <p>Work on strengthening protection for designated water sources continues.</p> <p>In the Finnish national action plan it is proposed that environmental quality standards (EQS) are adopted for all plant protection products on the market. Åland Islands follow up the outcome.</p> <p>The Finnish national action plan proposes an investigation into the prospects for moving over to a risk-based model in the establishment of watercourse restrictions for individual preparations. Åland Islands follow up the outcome of this investigation.</p>	<p>Provincial Government</p> <p>Provincial Government</p> <p>Provincial Government</p> <p>Provincial Government</p> <p>Provincial Government</p>
Environmental aid	<p>The prospects of using environmental aid conditions to encourage growers to use permanent buffer zones with vegetation cover in the vicinity of watercourses to reduce the risks posed by plant protection products are investigated. In addition, the prospects for encouraging growers, through environmental aid, to protect groundwater to a greater extent/in different ways than at present in conjunction with the work on preparing the new programming period starting in 2014 is investigated.</p> <p>The Finnish national action plan proposes an investigation on whether permanent vegetation cover and wide buffer areas reduce sufficiently effectively the risk poses by use of plant protection products for aquatic organisms. Åland Islands follow up the outcome of the investigation.</p> <p>The prospects of encouraging a varied crop rotation in conjunction with work on preparing the new programming period starting in 2014 are investigated.</p>	<p>Provincial Government</p> <p>Provincial Government</p> <p>Provincial Government</p>

The second phase 2015-2017

Subject area	Measure/Investigation	Responsibility
Organic production	<p>The Finnish national action plan proposes applied research in organic production to ensure the development of organic methods of control for the more severe pest management problems. The research can be used as a basis for obtaining better information on preventive methods of cultivation in organic production. Åland Islands follow up the outcome of the research referred to.</p> <p>The Finnish national action plan proposes investigations on options for better harmonisation of the substances in the Plant Protection Products Annex to the Organic Production Decree and the substances in the register of plant protection products in the Baltic Sea area. Åland Islands follow up the outcome of the investigation mentioned.</p>	<p>Provincial Government, ProAgria</p> <p>Provincial Government</p>
Environmental protection	<p>Sufficient environmental monitoring of plant protection products.</p> <p>The Finnish national action plan proposes an investigation into any plant protection products that are problematic from a national point of view. Comparative assessment is applied to these as far as possible, and the aim is to replace certain substances that are problematic with regard to the environment in the future. Åland Islands follow up the outcome of this investigation.</p> <p>The Finnish national action plan proposes an investigation into development in cultivation techniques (e.g. direct sowing) on the use of plant protection products and the quantities used. Åland Islands follow up the outcome of this investigation.</p>	<p>Provincial Government</p> <p>Provincial Government</p> <p>Provincial Government</p>

The third phase 2018–2020

Subject area	Measure/Investigation	Responsibility
Indicators	<p>The Finnish national action plan proposes an investigation into the possibility of transferring the parcel-specific data of forms on the use of plant protection products to a common database. An investigation of the principles for the right of users to farm-specific data is also proposed. Åland Islands follow up the outcome of the investigation mentioned.</p> <p>Åland familiarises itself with and prepares to start using the risk indicators developed in the EU. The risk indicators start to be used after agreement has been reached in the EU on which indicators are most usable at Union level.</p>	<p>Provincial Government</p> <p>Provincial Government</p>
Protection of employees and users	<p>An investigation into ways of collecting information on acute cases of poisoning associated with plant protection products and, as far as possible, also on chronic cases of poisoning.</p> <p>The Finnish national action plan proposes an investigation to develop techniques relating to the use of plant protection products (dilution of plant protection product, refilling of spray tanks and application of the preparations). Åland Islands follow up the outcome of this investigation.</p>	<p>Provincial Government, AVI industrial safety</p> <p>Provincial Government</p>
Green spaces	<p>The Finnish national action plan proposes an investigation in Finland of how biological control can be used in the control of harmful alien species, e.g. giant hogweed. Åland Islands follow up the outcome of this investigation.</p> <p>The Finnish national action plan proposes an investigation into what methods of weed control are effective on green spaces, for example an assessment of various cover materials. Åland Islands follow up the outcome of this investigation.</p>	<p>Provincial Government</p> <p>Provincial Government</p>
Environmental protection	<p>Needs-based environmental monitoring of plant protection products is arranged.</p> <p>The Finnish national action plan proposes an investigation into the principles underpinning the adoption of groundwater restrictions in the other EU Member States: use of plant protection products versus groundwater areas. Åland Islands follow up the outcome of this investigation.</p>	<p>Provincial Government</p> <p>Provincial Government</p>

6.2 Reporting nationally and to the Commission and the other Member States

The implementation and results of the national action programmes and the experience gained from these are regularly reported nationally and to the Commission and the other Member States. The intention is for the first national action programme for sustainable use of plant protection products to be implemented by 2021.

The implementation of measures and the follow-up of investigations proposed in the action plan are evaluated annually together by the bodies responsible mentioned in the action programme for sustainable use of plant protection products in the Åland Islands.

How well the objectives of the Åland Islands action plan have been attained is examined in writing at least every five years, and all changes to the contents of the programme are reported directly to the Commission. A mid-term evaluation of the programme is carried out and on the basis of this the programme is updated and the targets specified for 2016.

The Åland Islands Provincial Government is responsible for drawing up the mid-term evaluation and the final report.

The Commission submits reports to the European Parliament and the Council based on the data from the Member States and, if required, presents necessary legislative proposals.

7 Sanctions

The Provincial Act on Application in the Province of the Åland Islands of the Plant Protection Products Decree (ÅFS 2012:41) contains provisions relating to sanctions for contraventions.

Annexes

1 GLOSSARY

AOEL	Acceptable Operator Exposure Level for an employee
Pesticide	<p>Pesticide is understood to mean</p> <p>a) a <i>plant protection product</i> as defined in Regulation (EC) No 1107/2009,</p> <p>b) a <i>biocidal product</i> as defined in Directive 98/8/EC of the European Parliament and of the Council of 16 February 1998 concerning the placing of biocidal products on the market</p>
Biological control	<p>Biological control is understood to mean the control of plant pests or weeds or restriction of growth using natural methods without industrially produced chemical pesticides.</p> <p>Biological control methods include the use of the natural pathogens of pests, such as viruses, bacteria and parasites, and what are known as pheromone traps, which attract the pests using pheromones, i.e. chemical compounds that the animals secrete for various purposes. The natural enemies of the pests can also be used in biological control, for example in cucumber cultivation greenhouse spider mites are generally controlled with predatory mites.</p> <p>The biological control of plant diseases is largely based on the use of microorganisms, such as bacteria, fungi and actinomycetes. They generally act as antibiotics or substantially worsen the viability of the pathogens by competing with them.</p>
Biocidal product	A pesticide that contains one or more active substances and is used for purposes other than plant production. The product has the form supplied to the user and destroys, fights or renders harmless harmful organisms <i>chemically or biologically</i> , counteracts their effect or in other ways limits their occurrence.
CLP Regulation	Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (Classification, Labelling and Packaging of substances and mixtures).
Drinking Water Directive	Council Directive 98/83/EC of 3 November 1998 on the quality of water intended for human consumption
EVIRA	The Finnish food safety agency Evira
Aerial spraying	Aerial spraying is understood to mean the application of pesticides using an aeroplane or helicopter
Pesticide Residues Regulation	Regulation (EC) No 396/2005 of the European Parliament and of the Council on maximum residue levels of pesticides in or on food and feed of plant and animal origin and amending Council Directive 91/414/EEC.

Non-chemical alternatives	Non-chemical alternatives are understood to mean alternative methods to chemical plant protection products and pesticides against pests based for instance on the cultivation methods referred to in point 1 of Annex III to the Framework Directive or on physical, mechanical or biological control methods.
Integrated Production (IP)	Integrated Production (IP) is a quality and environmental standard for foods. IP is based on a comprehensive view of how cultivation and production affect the environment and the quality of the products.
Integrated Pest Management (IPM)	Integrated pest management means that all control methods that are possible and are suitable for a particular situation are considered and that these are coordinated in order to prevent populations of plant pests multiplying. In integrated pest management the use of pesticides and other plant protection methods are kept to a level that is economically justified and the risks poses by use to human health and the environment are minimised. Integrated pest management emphasises the production of healthy crop plants so that the crop ecosystem is disturbed as little as possible, while natural methods for limiting the multiplication of the crop pests are used to as great an extent as possible (FAO 2002).
Chemical control	The plant protection products used in chemical control of weeds are known as herbicides. The products used in the control of animal pests are known as insecticides and those used in the control of plant diseases are known as fungicides. Only plant protection products that have been registered in Finland may be used in chemical plant protection measures.
LR	Åland Provincial Government
Environmental Quality Standard (EQS)	Environmental Quality Standard. Conditions that have been set by an environmental authority with regard to the chemical, physical or biological properties the environment must fulfil.
Framework Directive	Directive 2009/128/EC of the European Parliament and of the Council of 21 October 2009 establishing a framework for Community action to achieve the sustainable use of pesticides
Water Framework Directive	Directive 2000/60/EC of the European Parliament and of the Council establishing a framework for the Community action in the field of water policy
RASFF	R apid A lert S ystem for F ood and F eed
REACH	The REACH Regulation is the Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals which entered into force on 1 June 2007. The abbreviation REACH stands for E valuation, A uthorisation and R estriction of C hemicals.

Risk indicator	Risk indicator is understood to mean a calculated result used to assess the risk that use of a pesticide poses to human health and/or the environment.
Statistics Regulation	Regulation (EC) No 1185/2009 of the European Parliament and of the Council of 25 November 2009 concerning statistics on pesticides
Tike	The Information Service Centre of the Ministry of Agriculture and Forestry
Tukes	Finnish Safety and Chemicals Agency
Plant protection product	<p>A preparation that contains one or more active substances and is used in plant production. The preparation has the form supplied to the user, and the purpose is to:</p> <ul style="list-style-type: none"> a) protect plants and plant products against plant pests, b) influence the life processes of plants other than through nutrients, c) influence the shelf life of plant products unless special provisions on food additives are applied to these substances and preparations, d) destroy harmful plants or e) destroy parts of the plant or prevent harmful growth.
Plant Protection Products Regulation	Regulation (EC) No 1107/2009 of the European Parliament and of the Council of 21 October 2009 concerning the placing of plant protection products on the market
Machine Safety Amending Directive	Directive 2009/127/EC of the European Parliament and of the Council of 21 October 2009 amending Directive 2006/42/EC with regard to machinery for pesticide application
ÅMHM	Åland Islands Environmental and Health Protection Agency