tukes
Turvallisuus- ja kemikaalivirasto

The Finnish National Action Plan on the Sustainable Use of Plant Protection Products for 2018-2022

Reg. No. 3406/00.03.02/2018

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Contents

Glossary

AVI	Regional State Administrative Agencies
CAP	Common Agricultural Policy
CLP	Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures.
ELY Centres	Centres for Economic Development, Transport and the Environment
EU	European Union
Evira	Finnish Food Safety Authority
KASTE	Finnish Crop Protection Association
KSS	Finnish Plant Protection Society
Luke	Natural Resources Institute Finland
Mavi	Agency for Rural Affairs
MMM	Ministry of Agriculture and Forestry
MTK	Central Union of Agricultural Producers and Forest Owners
NAP	National Action Plan
REACH	Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals
SLC	Central Union of Swedish-speaking Agricultural Producers in Finland
SML	Finnish Beekeepers' Association
STYL	Association of Finnish Suppliers of Labor Safety Equipment and Services
SYKE	Finnish Environment Institute
THL	National Institute for Health and Welfare
TTL	Finnish Institute of Occupational Health
Tukes	Finnish Safety and Chemicals Agency
VTT	VTT Technical Research Centre of Finland
YM	Ministry of the Environment

1. Introduction

The objective of the National Action Plan on the Sustainable Use of Plant Protection Products is to reduce the risks of the use of plant protection products ('PPPs') to human health and the environment. This new Finnish National Action Plan on the Sustainable use of Plant Protection Products (hereinafter 'the National Action Plan' or 'the NAP') covers the years 2018-2022. The first NAP[1] was published as a working group memorandum of the Ministry of Agriculture and Forestry in March 2011. It was intended to remain in force until 2021, but during the drafting of the related interim report, it became clear that there was already a need to draft a completely new NAP.

The obligation to prepare a NAP is set out in the Sustainable Use Directive[2], which has been implemented in Finland through the Act on plant protection products[3]. The Finnish Safety and Chemicals Agency Tukes is responsible for the drafting and implementation of the NAP in collaboration with industry operators and other authorities.

This new NAP specifies the new measures planned for the years 2018-2022 and updates some previously initiated measures. The measures specified in the first NAP and implementation thereof were evaluated in the interim report published on 28 February 2018[4]. The interim report covers the implementation of the requirements set out in the Sustainable Use Directive in Finland until 2017. The actions already implemented are briefly discussed in this new NAP under each article of the Sustainable Use Directive. The actions are also listed in Appendix 1.

Some of the measures specified concern suggestions for investigations that could be utilised, for example, when drafting new guidelines or restrictions concerning the use of PPPs. When performing such investigations, the health, societal, economic, and environmental impacts of the measures should be evaluated and regional and local conditions taken into account. Relevant stakeholder groups are also invited to participate in the drafting of possible guidelines and restrictions.

This new NAP was edited by Pauliina Laitinen from the Finnish Safety and Chemicals Agency Tukes. The working group was composed of the members of the NAP steering group: Tove Jern, Ministry of Agriculture and Forestry (MMM); Eeva Nurmi, Ministry of the Environment (YM); Jari Poutanen, Finnish Food Safety Authority Evira; Sari Autio, Finnish Organic Research Institute (FORI); Marja Jalli, Pasi Mattila and Marja Poteri, Natural Resources Institute Finland (Luke); Hanna Ketomäki, Agency for Rural Affairs (Mavi); Katri Siimes, Finnish Environment Institute (SYKE); Milja Koponen, Finnish Institute of Occupational Health (TTL); Sari Peltonen, ProAgria Association of Rural Advisory Centres; Mika Virtanen and Antti Lavonen, Central Union of Agricultural Producers and Forest Owners (MTK); Rikard Korkman, Central Union of Swedish-speaking Agricultural Producers in Finland (SLC); Mari Raininko, Finnish Crop Protection Association KASTE; Asmo Saarinen (Pertti Rajala), Finnish Plant Protection Society (KSS); Soile Prokkola, Finnish Association for Organic Farming (Luomuliitto); Hanna Skogster, Central Organisation for Finnish Horticulture (Puutarhaliitto); Eija-Leena Hynninen, Lotta Kaila, Kaija Kallio-Mannila, Pauliina Laitinen and Satu Rantala, Tukes. In connection with the completion of the interim report and the new NAP, representatives of the Finnish Commerce Federation and the University of Helsinki were also invited as members to the steering group.

In addition to the members of the steering group, numerous staff members at Luke, Tukes, TTL, SCL, and plant protection training providers have contributed to the drafting of the NAP. The draft programme was circulated for

[1] Ministry of Agriculture and Forestry 2011: Finnish National Action Plan on the Sustainable Use of Plant Protection Products. Working group memorandum mmm 2011:4. Helsinki 2011. http://mmm.fi/documents/1410837/1724539/trm2011_4.pdf/30affcf0-bea1-4689-8a77-050a76a53347

[2] 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. http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:309:0071:0086:FI:PDF

[3] Act on plant protection products (laki kasvinsuojeluaineista) 1563/2011. http://www.finlex.fi/fi/laki/ajantasa/2011/20111563

[4] Finnish Safety and Chemicals Agency Tukes 2018: Finnish National Action Plan on the Sustainable Use of Plant Protection Products. Interim Report 2011-2017. http://www.tukes.fi/Tiedostot/Kestava_kasvinsuojelu/Valiraportti.pdf 52 pages.

comments and comments were submitted by: the area of occupational safety and health at the Regional State Administrative Agency (AVI) for Eastern Finland; Finnish Food Safety Authority Evira; Finnish Crop Protection Association KASTE; Finnish Commerce Federation; Finnish Glasshouse Growers' Association; Finnish Transport Agency; Finnish Association for Organic Farming (Luomuliitto); Ministry of Agriculture and Forestry; Natural Resources Institute Finland (Luke); Central Union of Agricultural Producers and Forest Owners (MTK); Central Organisation for Finnish Horticulture (Puutarhaliitto); Finnish Beekeepers' Association (SML); Central Union of Swedish-speaking Agricultural Producers in Finland (SLC); Finnish Institute of Occupational Health (TTL); Finnish Association of Landscape Industries (VYL); and the Ministry of the Environment. The comments have been taken into consideration as far as possible. Thank you all for your valuable comments!

2. Plant protection in Finland

'Plant protection products' (or 'PPPs') refers to products used, for example, to control weeds, animal pests or plant diseases. PPPs are intentionally applied on crops grown for food and in their environment. The use of PPPs may involve risks to human health and the environment.

To reduce these risks, PPPs must pass a comprehensive health and environmental risk assessment before they can be sold or marketed in Finland. Only products whose health and environmental risks remain at an acceptable level may be approved for use. Using PPPs in accordance with their instructions for use ensures that the related hazards and risks can be kept under control. Controlling of the sales and use of PPPs helps to ensure that only authorised products are available on the market and that the authorised products are used in accordance with their instructions for use.

Statistics have been compiled on PPP sales figures in Finland since 1953[5]. Tukes is responsible for gathering information on the annual PPP sales volumes. The sales volumes of active substances intended for agricultural and horticultural use have remained in the range of 1 500 tonnes per year for the past decade. The best-selling active substance is glyphosate, which is intended for the control of weeds. Glyphosate accounts for more than half of the total sales volumes of active substances.

Luke compiles statistics on the use of PPPs at five year intervals[6]. The greatest total amounts of PPPs relative to the area under cultivation were applied on sugar beet, potatoes, outdoor vegetables, strawberries and apples. For fodder grass, the amounts of PPPs used and the area treated with PPPs were clearly smaller than for other crops. The first statistics were compiled in 2013.

The levels of PPP residues are monitored in food, animal feed and surface and groundwater. The levels of residues in food and feed products produced in Finland are the lowest in Europe[7]. PPP concentrations exceeding the relevant environmental quality standards (EQSs) are rarely observed in surface or groundwater.[8, 9]

Only minor irregularities have been observed in the controls of use, residue controls and environmental monitoring activities, indicating that the use of PPPs in Finland is at a safe level. PPP users have a great responsibility in this, and they play a key role in the reduction of the risks of PPP use. The objective to reduce the health and environmental risks involved in PPPs can also be achieved in the future, for example,

[5] Finnish Safety and Chemicals Agency Tukes 2018: Sales statistics. http://tukes.fi/en/Branches/Chemicals-biocides-plant-protection-products/Plant-protection-products/Sales-statisitics/
[6] Natural Resources Institute of Finland 2014: Use of pesticides in agriculture. http://stat.luke.fi/en/tilasto/4083
[7] European Food Safety Authority 2017: The 2015 European Union report on pesticide residues in food. http://onlinelibrary.wiley.com/doi/10.2903/j.efsa.2017.4791/epdf
[8] Karjalainen A.K., Siimes K., Leppänen M.T. and Mannio J. 2014: Maa- ja metsätalouden kuormittamien pintavesien haitta-aineseuranta Suomessa. Seurannan tulokset 2007–2012 [Monitoring of contaminants in Finnish surface waters affected by agriculture and forestry – Monitoring results from 2007-2012]. Reports of the Finnish Environment Institute 38/2014. https://helda.helsinki.fi/handle/10138/153152
[9] Juvonen J., Hentilä H. and Aroviita J. 2017: Maa- ja metsätalouden kuormittamien pohjavesien MaaMet-seuranta - Torjunta-aineet ja ravinteet 2007–2015 [Monitoring of groundwater bodies affected by agriculture and forestry (MaaMet) – Pesticides and nutrients 2007-2015]. Reports of the Finnish Environment Institute 15/2017. http://hdl.handle.net/10138/192749

by providing sufficient training for PPP users and by raising their awareness of the safe use of PPPs. Another individual measure with significant impacts in terms of achieving the objectives of the NAP is the inspection of application equipment.

In the future, the number of active substances available on the market could be reduced due to the enforcement of provisions laid down in the PPP legislation and PPP policy changes. Significant changes in the range of active substances and PPPs available to users also pose challenges to the Finnish cropping system. In terms of sustainable plant protection, it is important to have access to a sufficiently extensive range of control methods and PPPs. An extensive range of active substances enables ensuring the effectiveness of the active substances against pests and keeping the Finnish plant production industry competitive.

3. Legal basis and applicable legislation

The EU's Thematic Strategy on the Sustainable Use of Pesticides[10] was published in 2006 in accordance with the Sixth Community Environment Action Programme[11]. The strategy refers to pesticides, while the subsequent Sustainable Use Directive[2] was restricted to only apply to plant protection products. The term 'pesticides' covers both plant protection products and biocidal products.

One of the objectives of the thematic strategy is to introduce measures to reduce the impact of pesticides on human health and the environment while still ensuring appropriate protection of crops. The proposed measures principally concern the use of PPPs, as well as increasing the related control and research efforts and training and information provided to users. All the measures concerning the use of PPPs specified in the strategy are covered in the Sustainable Use Directive[2].

Other EU provisions have also been adopted to implement the objectives of the strategy. The PPP Regulation[12] covers, for example, the PPP authorisation procedures. PPP use and sales statistics are compiled in accordance with the Pesticide Statistics Regulation[13], and the Directive amending the Machinery Directive[14] lays down new environmental requirements for PPP application equipment.

Other EU legislation

The CLP Regulation[15] concerning the classification and labelling of chemicals and the REACH Regulation[16] covering, for example, the safety data sheet requirements also apply to PPPs. Provisions on the maximum residue levels of pesticides in or on food and feed are laid down in the Pesticide Residue Regulation[17].

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[10] Commission of the European Communities 2006: A Thematic Strategy on the Sustainable Use of Pesticides. Commission Communication COM(2006) 372 final. http://ec.europa.eu/transparency/regdoc/rep/1/2006/EN/1-2006-372-EN-F1-1.Pdf [11] Decision No 1600/2002/EC of the European Parliament and of the Council laying down the Sixth Community Environment Action Programme. https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32002D1600

[12] Regulation (EC) No 1107/2009 of the European Parliament and of the Council concerning the placing of plant protection products on the market. http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32009R1107&from=EN

[13] Regulation (EC) No 1185/2009 of the European Parliament and of the Council concerning statistics on pesticides. http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:324:0001:0022:EN:PDF

[14] Directive 2009/127/EC of the European Parliament and of the Council amending Directive 2006/42/EC with regard to machinery for pesticide application. http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32009L0127&from=EN

[15] Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures. https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32008R1272

[16] Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) http://eur-lex.europa.eu/legal-content/en/TXT/?uri=CELEX:32006R1907

[17] 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. http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32005R0396

The Water Framework Directive[18] and the Groundwater Directive[19] also protect surface and groundwater from PPPs, and the use of PPPs may not endanger the species and habitats protected under the Birds Directive or the Natural Habitats Directive[20, 21]. PPPs are also covered in the legislation concerning, for example, occupational health and safety[22]. PPPs approved for use in organic production are listed in an annex to the Implementing Regulation concerning organic production[23].

The measures of the EU's Common Agricultural Policy (CAP) are incorporated in the Rural Development Programme for Mainland Finland[24]. The Rural Development Programme supports Finnish agriculture through a variety of different measures. Measures related to PPPs in the programme concern, for example, environment payments, organic production, and advisory services. The effectiveness of the plant protection measures included in the Rural Development Programme have been evaluated in the environmental evaluation of the Rural Development Programme carried out by Luke[25]. Additional opportunities and incentives promoting the use of alternative plant protection methods (mechanical, biological and cultivation technique-based control methods) are needed for a variety of arable crops. As the majority of all PPPs currently in use are intended for the control of weeds, new alternative weed control measures should be developed.

National Programme on Dangerous Chemicals

The National Programme on Dangerous Chemicals[26] specifies several measures concerning PPPs. The objective of the Chemicals Programme is to raise awareness of the exposure of members of the public to chemicals and to enhance the environmental monitoring of harmful substances and monitoring of emissions. Another aim is to reduce exposure to chemicals that involve health risks to workers, as well as exposure to sensitising substances among all population groups.

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[18] Directive 2000/60/EC of the European Parliament and of the Council establishing a framework for Community action in the field of water policy. http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32000L0060

[19] Directive 2006/118/EC of the European Parliament and of the Council on the protection of groundwater against pollution and deterioration. http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:32006L0118

[20] Directive 2009/147/EC of the European Parliament and of the Council on the conservation of wild birds. http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A32009L0147

[21] Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora. http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A31992L0043

[22] European Agency for Safety and Health at Work: European directives on safety and health at work. https://osha.europa.eu/en/safety-and-health-legislation/european-directives

[23] Commission Regulation (EC) No 889/2008 laying down detailed rules for the implementation of Council Regulation (EC) No 834/2007 on organic production and labelling of organic products with regard to organic production, labelling and control. http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32008R0889&from=FI

[24] Rural.fi 2018: Rural Development Programme for Mainland Finland 2014–2020. https://www.maaseutu.fi/en/the-rural-network/rural-development-program/

[25] Yli-Viikari A. and Aakkula J. (eds) 2017: Maaseutuohjelman ympäristöarviointi [Environmental evaluation of the Rural Development Programme]. Natural Resources and Bioeconomy Studies 54/2017. http://jukuri.luke.fi/handle/10024/540249

[26] Ministry of the Environment 2017: National Programme on Dangerous Chemicals. http://www.ym.fi/en-US/The_environment/Environmental_hazards_of_chemicals/National_Programme_on_Dangerous_Chemicals

4. Objectives and measures

The objective of the NAP is to reduce the risks of PPP use to human and animal health and the environment. The NAP also aims to advance the introduction of integrated pest management and alternative control methods. Furthermore, the purpose is to reduce dependency on PPPs to the extent justified in terms of the health and environmental risks involved in the use of PPPs.

The NAP discusses the requirements set out in the Sustainable Use Directive[2] for each article separately. The majority of the obligations are already implemented in Finland through the Act on plant protection products[3] and during the previous NAP in 2011-2017. The new NAP makes reference only briefly to the regulatory requirements already implemented and actions completed during the previous NAP period, as these were already discussed in detail in the interim report concerning the first NAP[4].

Under each article of the Sustainable Use Directive, first, quantitative and/or qualitative objectives are specified. Actions already implemented are then discussed in brief, and new measures are specified for implementation according to observed needs. Finally, each section lists the indicators created to facilitate monitoring.

4.1. The NAP and monitoring of active substances of particular concern (Article 4)

Objective: Reduced risks and impacts of PPP use on human health and the environment.

Objective: Reduced risks arising from the use of active substances of particular concern by targeting the use exclusively to necessary areas.

Objective: All of the 65 measures specified in the NAP are completed.

CONTINUING MEASURES
Implementation of the NAP and reporting on the actions taken. The steering group convenes regularly to monitor the implementation of the NAP. Performing of PPP risk assessments and making related decisions; participating in the development of risk assessment practices at the EU level.

MEASURE	DESCRIPTION	TIMETABLE AND RESPONSIBLE PARTIES
Identification of active substances of particular concern	Active substances of particular concern in Finland will be identified and named and the use, sales and presence in the environment of such substances will be monitored. Active substances of particular concern may include, for example, substances that are used in large quantities, substances whose health and environmental risks may be higher than normal, or substances that are the subject of public criticism/debate more than is typical. To the extent possible, concentrations of active substances should be monitored among individuals exposed to high quantities of such substances in their work, as well as among particularly vulnerable population groups (pregnant women, breast-feeding infants and children).	Tukes, Luke (use statistics), TTL 2018-2022
Reducing risks arising from the use of active substances of particular concern and controlling the use of such substances	Particular attention will be paid to the monitoring of authorisation decisions, instructions for use and restrictions on use concerning active substances of particular concern. The controls will be focused on the use of such substances, and restrictions on use will be imposed, as necessary. Where required, the assessment procedures and timetables concerning these activities should be prioritised. Information on changes made and on the introduction of new risk reduction measures will be actively disseminated.	Tukes 2018-2022

Indicators

The share of the measures completed of all the measures specified in the NAP.

The number of active substances of particular concern, the number of samples taken, and the levels of concentrations observed in the environment or in humans.

The number of steering activities and restrictions targeted at the control and use of active substances of particular concern.

4.2. Plant protection training (Article 5)

Objective: The plant protection training helps to raise awareness of the safe use of PPPs and reduce the risks of PPP use.

Objective: All individuals using PPPs in the course of their professional activities hold a valid plant protection certificate.

Objective: All providers of plant protection training or certification participate in the continuing training arranged by Tukes.

CONTINUING MEASURES
Arranging of basic plant protection training events for professional PPP users, PPP distributors, and plant protection advisers.
The certification requirement applies to all professional users and distributors of PPPs. Plant protection certificates issued in other EU Member States are also recognised in Finland.

MEASURE	DESCRIPTION	TIMETABLE AND RESPONSIBLE PARTIES
New training for plant protection training and certification providers	The continuing training for training providers will be planned and implemented together with trainers and other collaborators. When planning the contents, attention should be paid to the experiences and motivation of training providers and those who have passed the certification exam to ensure the achievement of the risk reduction objectives.	Tukes, training providers, other collaborators 2018
Exchanging information and collective learning among trainers	Experimental online discussion events on topical subjects will be organised in addition to conventional email correspondence. A conference should be arranged for training providers, if necessary.	Tukes, NAP steering group, training providers 2018-2022
Continuing training for professional PPP users in Finnish and in Swedish	Planning and implementation of the continuing training for professional PPP users and updating of the certification system. Access to information on good spraying practices and protection of workers should be ensured.	Tukes, training providers, the AVIs' occupational health and safety departments 2018
Updating of the online training materials provided by Tukes and expanding them with a module about biocides	Minor adjustments will be made to the existing online basic training materials. A module covering the topic of sustainable use of biocides will be added to the online materials.	Tukes 2018
Controlling of the training and certification services aimed at professional users	Risk-based planning and implementation of the controls.	Tukes 2018-2022
Expanding of the plant protection training and certification system with a training and certification system targeted at staff members of farm advisory services	All staff members providing advisory services for farms on the use of PPPs will be required to undergo training organised by Mavi and pass the related certification exam prior to being accepted as advisers. Mavi, Tukes and MMM will review existing practices to avoid creating overlapping certification schemes.	Tukes, Mavi, MMM 2018

Indicators

The number certificate holders.

The number of users of online training materials per year.

The number of companies with deficiencies concerning the certification requirements observed in PPP use controls relative to all controlled companies.
The number of people who have attended continuing training arranged by Tukes and the number of the certification providers.
The number of controls carried out on training and certification events, and the number of observed irregularities relative to the total number of controls carried out.

4.3. Requirements for sales of PPPs (Article 6)

Objective: All retailers of products approved for professional use have sufficient staff in their employment holding a certificate.
Objective: Retailers of products approved for professional use check each time that the buyer holds a valid plant protection certificate.

CONTINUING MEASURES
Retailers of products approved for professional use must always have at least one staff member in their employment holding a certificate.
The certification requirement is not applied to retailers who are selling only products approved for consumer use.

MEASURE	DESCRIPTION	TIMETABLE AND RESPONSIBLE PARTIES
Obligation to inform distributors and producers of products approved for consumer use	Distributors and producers of products approved for consumer use will be required to provide general information about the health and environmental risks of PPPs. The adequacy of the existing measures will be investigated and, if necessary, a recommendation on the contents of instructions for use will be prepared.	Tukes, KASTE 2019-2022
Public information service on individuals holding a plant protection certificate	Drafting of a legislative amendment to the Act on plant protection products to enable publishing the name and other necessary identification details of individuals holding a plant protection certificate on a public information service. This would enable PPP retailers to check whether the buyer has a valid plant protection certificate.	Tukes, MMM 2019

Indicators
The number of controlled retailers selling products approved for professional use with sufficient staff in their employment holding a certificate.
Irregularities concerning checking whether the buyer holds a certificate observed during retail controls.

4.4. Information and awareness raising (Article 7)

Objective: Raised awareness among consumers and professional PPP users on the benefits, risks, impacts on human health and the environment involved in the use of PPPs.

Objective: Raised awareness among consumers on the low level of residues in food and feed produced in Finland.

Objective: Food and feed produced in Finland are among the cleanest in the EU.

Objective: PPP product labels are clearer and easier to understand.

Objective: Zero acute or chronic PPP poisoning incidents.

CONTINUING MEASURES
Information about the safe use of PPPs is actively disseminated to the general public. Information is gathered on acute and chronic poisoning incidents.
The controls of the levels of PPP residues in food and feed are continued. Professional users are informed of the risks involved in counterfeit products and counterfeit products are controlled.
Restrictions on use of PPPs are imposed where necessary.

MEASURE	DESCRIPTION	TIMETABLE AND RESPONSIBLE PARTIES
Informing the general public of PPPs	Measures will be taken to inform the general public on the safe use and health and environmental risks of PPPs. Disseminating information on the growth of organic production and on organic production methods that can be used to substitute the use of harmful chemicals. Disseminating information through a variety of different communication channels. The steering group plans and implements a new communications theme for each year.	Tukes, NAP steering group, Luomuliitto 2018-2022
Informing non-professional users of PPPs	Measures will be taken to inform non-professional users of alternative control measures and about the safe use of PPPs. For example, the integrated pest management instructions intended for vegetable producers could be modified into online instructions targeted at non-professional users. Attitudes of consumers and non-professional users towards chemical control methods should be investigated.	Tukes, Luke, FORI 2018-2020
Arranging training for operators on the requirements of the reformed plant protection legislation	The 2019 reform of the plant protection legislation will increase the accountability of operators. Evira will develop training services aiming to enhance the know-how of operators regarding, for example, monitoring of dangerous pests and preventing them spreading.	Evira 2018-2022
Acute and chronic poisoning incidents	An investigation will be performed of the existing monitoring practices of acute and chronic PPP poisoning incidents and of the observed acute and chronic poisoning cases. Should the investigation reveal any deficiencies in instructions for use of PPPs, these must be corrected and notified to users. Updating of the monitoring guidelines prepared by TTL for occupational health care providers according to the PPPs currently available on the market.	Tukes, TTL 2019-2020

Development of PPP biomonitoring methods	PPPs for which it is necessary to develop new biomonitoring methods should be identified. Funding will be applied for to develop biomonitoring methods and to implement them within the limits of the funds acquired. PPP users will be informed of the related results and risk management needs.	TTL, Tukes 2018-2022
Exposure of tractor drivers during spraying	Funding will be applied for to implement a project investigating the level of exposure to PPPs of operators of tractor-mounted sprayers during spraying. Investigating the indoor air quality of tractors and preparing a related report. Informing operators of tractor-mounted sprayers of the results, and utilising the results to the extent possible in the assessment and management of PPP risks.	TTL, Tukes 2018-2022
Revising of PPP product labels to better serve users	PPP product labels will be made easier to understand for users; for example, the instructions on PPE requirements, intended uses and resistance and risk management will be clarified and harmonised. The changes will be implemented in a centralised manner in connection with the reform of the PPP Register. Stakeholder groups will be informed of the progress of the work.	Tukes, TTL 2018-2019
Reforming the PPP Register and implementing a Swedish-language version of the Register	The PPP Register will be reformed and a Swedish-language version of the Register will be implemented. Prior to the reform, user needs will be investigated. The reform will also enable utilising the data in the Register in the development of related applications via APIs.	Tukes 2018-2020
Biological control in glasshouses – exposure, allergies and prevention thereof	The exposure to biological control agents, allergies caused by these and prevention of related health detriments should be investigated. Where required, the related instruction should be clarified and notified to users. The measure will be implemented according to available funds.	TTL 2018-2020
Commission's guidance on monitoring of impacts on human health and the environment[27]	The required health and environment impact monitoring measures will be implemented.	Tukes, SYKE, TTL, THL 2018-2022

Indicators

The volume and sales figures of active substances deemed potentially problematic based on poisoning incidents, and the number of notifications published due to changes made to the instructions for use of such products.

The number of allergy incidents caused by biological control agents, the number of potentially problematic products and the number of notifications published on account of these.

The number of brochures, press releases and articles published, the number of visitors at exhibitions and contacts by members of the public, and feedback received.

[27] European Commission 2017: Guidance on monitoring and surveying of impacts of pesticide use on human health and the environment under Article 7(3) of Directive 2009/128/EC establishing a framework for Community action to achieve the sustainable use of pesticides (referred to as the Sustainable Use Directive). https://ec.europa.eu/food/sites/food/files/plant/docs/pesticides_sup_monitoring-guidance_en.pdf Accessed on 12 October 2017.

The shares of samples remaining below and exceeding the maximum threshold values for residues in the control of the levels of residues in food and, where required, animal feed produced in Finland (Finnish Customs, Evira and Valvira – the National Supervisory Authority for Welfare and Health).
The number of food and animal feed recalls made due to PPPs.
The number of acute and chronic poisoning incidents.

4.5. Inspection of spraying equipment (Article 8)

Objective: Professional users carry out regular checks to ensure that their sprayers do not pose any threat to human health and the environment.
Objective: All sprayers in professional use are inspected.
Objective: The operations of all sprayer inspectors are controlled at least once by 2022.

CONTINUING MEASURES
All sprayers in professional use must be inspected. The inspection must be carried out by an inspector authorised by Tukes.
Inspections of sprayers performed in other EU Member States are also recognised in Finland.
Exceptional inspection timetables and exemptions from inspection have been specified for certain types of sprayers[28] (Appendix 2).

MEASURE	DESCRIPTION	TIMETABLE AND RESPONSIBLE PARTIES
Regular checks and calibration of sprayers	Drafting of guidelines and notifying users of the obligation to check and calibrate application equipment at regular intervals. Instructions on the maintenance of knapsack sprayers should also be included in the guidelines.	Tukes, MMM 2018-2022
Control of application equipment inspection activities	Risk-based planning and implementation of the control of application equipment inspection activities. The controls may be carried out as a documentary check, by attending an inspection, or by visiting the inspector's facilities.	Tukes 2018-2022

Indicators
The share of uninspected application equipment of all application equipment checked in connection with the controls.
Results of the controls of inspection activities; the number of controls relative to the number of inspectors; deficiencies / 'all clear'.

[28] Decree of the Ministry of Agriculture and Forestry on the amendment of Annex II to the Decree of the Ministry of Agriculture and Forestry on the requirements set for plant protection product application equipment, testing of application equipment and risk assessment concerning application equipment (maa- ja metsätalousministeriön asetus kasvinsuojeluaineiden levitysvälineille asetettavista vaatimuksista, levitysvälineiden testauksesta ja levitysvälineitä koskevasta riskien arvioinnista annetun maa- ja metsätalousministeriön asetuksen liitteen II muuttamisesta) *8/2017.*
www.finlex.fi/data/normit/43363/17008fi.pdf

4.6. Aerial spraying (Article 9)

Objective: Aerial spraying of PPPs is only allowed in special cases.

CONTINUING MEASURES
Aerial spraying of PPPs is prohibited. Aerial spraying is allowed only in special cases.
Guidelines have been issued on the notification requirements in the event of aerial spraying, as well as on other requirements of the Sustainable Use Directive[29].

MEASURE	DESCRIPTION	TIMETABLE AND RESPONSIBLE PARTIES
Aerial spraying of PPPs using drones	Drafting of a legislative amendment to the plant protection legislation to enable issuing special permit to carry out aerial spraying of PPPs using a remotely piloted aircraft, i.e. a drone. Where required, spraying using drones could be limited to experimental and research purposes.	Tukes, MMM 2018-2019

Indicators: The size of the area treated by means of aerial spraying and the number of treatments performed.

4.7. Informing the public of PPP treatments (Article 10)

Objective: The risks arising from the use of PPPs to neighbours and bystanders is minimised. Objective: Guidelines on informing bystanders are completed within the planned timetable.

CONTINUING MEASURES
Taking the neighbours into consideration is part of the good plant protection practice.
Green areas treated with PPPs should be marked.

MEASURE	DESCRIPTION	TIMETABLE AND RESPONSIBLE PARTIES
Buffer distance to neighbours	The possibility to apply buffer distance requirements to protect yards and neighbours will be investigated. The assessment should take account of the existing practices, operating conditions in different sectors, possible residues and damage to edible plants grown in home gardens, and exposure of bystanders to spray drift. Where required, buffer distances should be incorporated in product instructions for use.	Tukes 2018-2019
Guidelines on informing bystanders	Drafting of clear recommendations and guidelines on how the user of PPPs should inform bystanders of the treatment, and actively communicating these guidelines to users. The guidelines should take account of the operating conditions and requirements of different sectors, such as railway safety. Supervisory authorities could also inform professional PPP users of these guidelines. The guidelines should emphasise the fact that moving on fields during growing seasons is not allowed.	Tukes, ELY Centres, NAP steering group 2019

[29] Decree of the Ministry of Agriculture and Forestry on aerial spraying (maa- ja metsätalousministeriön asetus lentolevityksestä) 8/2012. .www.finlex.fi/data/normit/39162/12008fi.pdf

Indicators

The number of products requiring the use of buffer distances to protect neighbours and bystanders in the PPP Register, and the related sales and use volumes.

Estimated circulation figures of the guidelines on informing bystanders. Feedback received from members of the public.

4.8. Specific measures to protect the aquatic environment and drinking water (Article 11)

Objective: Achieving and maintaining a good chemical and ecological status in surface waters and groundwater in terms of PPPs, and preventing any deterioration in the status.

Objective: The maximum threshold values or EQSs for PPP residues are not exceeded in surface waters or groundwater.

CONTINUING MEASURES
The protection of groundwater areas and surface waters is taken into account in the PPP risk assessment. Water bodies are protected by using risk-based buffer distances and technical solutions that reduce spray drift.
A buffer distance has also been specified to prevent run-off.
Run-off to water bodies is prevented with the help of untreated plant-covered (10 m wide) buffer strips.
Ensuring organisation of sufficient environmental monitoring of PPPs.

MEASURE	DESCRIPTION	TIMETABLE AND RESPONSIBLE PARTIES
Use of PPPs in surface and groundwater areas used for the abstraction of drinking water	The Sustainable Use Directive requires establishing safeguard zones for surface and groundwater used for the abstraction of drinking water, where PPPs must not be used or stored. The adequacy of existing measures and necessity of new measures will be assessed. The impacts of potential new use and storing restrictions will be investigated. The investigation should pay attention to the operating conditions and competitive ability of the different users who use PPPs in the course of their professional activities. Where required, the results of the investigation should be used to make the necessary amendments to product authorisation decisions, instructions for use and restrictions on use.	Tukes, YM, Luke, Mavi (Finnish Food Authority) 2018-2022
Buffer distances to wells and springs	The possibility to apply buffer distances to protect wells and springs is to be investigated. Where required, the results of the investigation should be used to make the necessary amendments to product authorisation decisions, instructions for use and restrictions on use. Users are to be informed of the possible changes and new practices, such as any new practices concerning notifying the location of a well or spring.	Tukes 2018-2019
Reducing the use of PPPs in specific areas with a high risk of run-off into surface or groundwater	The potential need to restrict PPP use on or along roads, railway lines, very permeable surfaces or other areas with a high risk of run-off into surface or groundwater or sewage systems should be investigated. Where possible, alternative control methods should be used in these areas to reduce the risks arising from the use of PPPs. The measure will be promoted through collaboration and communication.	Tukes, KSS, Transport Safety Agency, Puutarhaliitto, VYL 2018-2022

Evaluation of the appropriateness of environmental restrictions	A Master's thesis on the topic will be utilised to carry out the evaluation of the appropriateness of environmental restrictions. Where required, the results of the evaluation should be used to make the necessary changes to environmental restrictions.	Tukes 2018-2019
Setting of environmental quality standards for all active substances	Setting of environmental quality standards for any active substance currently lacking one. Drafting an action plan for situations where the EQS is exceeded.	Tukes, SYKE 2021-2022

Indicators

The shares of samples remaining below and exceeding the maximum threshold values specified in the Drinking Water Directive for residues in the control of the levels of residues in surface and groundwater.

The number of new restrictions and changes implemented on the basis of the relevant investigations.

The trend in the number of permanent plant-covered buffer strips within the environment payment scheme.

Potential exceedances of EQSs observed in the course of environmental monitoring or concentrations within the same range. Where possible, the concentrations should be monitored regionally and by authorised uses.

4.9. Reduction of PPP use or risks in specific areas (Article 12)

Objective: Professional PPP use in green areas complies with regulatory requirements aiming to reduce health and environmental risks.

Objective: Alternative control measures, basic substances and low-risk substances are preferred in green areas.

CONTINUING MEASURES

The risk assessment takes account of the potential exposure of bystanders in recreational areas. Based on the risk assessment, a re-entry period is specified for workers.

MEASURE	DESCRIPTION	TIMETABLE AND RESPONSIBLE PARTIES
Use of PPPs in nature conservation (Natura) areas	Funding will be applied for to implement a project to investigate the extent of arable farming in nature conservation areas (the Birds Directive, the Natural Habitats Directive) and the impacts of potential restrictions on use on those areas. The adequacy of existing measures will be assessed, as well as the impacts of possible new restrictions on different business sectors and railway safety. Where required, the necessary amendments should be made to PPP authorisation decisions, instructions for use and restrictions on use and users should be informed of the changes made.	Tukes, YM, Luke, Mavi (Finnish Food Authority) 2018-2019
Recommendation on the reduction of PPP use in specific areas	Drafting a recommendation for landscape workers on the reduction of PPP use, for example, on playgrounds and in the vicinity of retirement homes, residential care homes, schools, health centres, and hospitals. Special attention should be paid to the protection of particularly vulnerable population groups (pregnant women, breast-feeding infants and children). Implementing information measures on safe PPPs and control methods.	Tukes, KSS, VYL, Finnish Real Estate Federation (FREF) 2019

Communication on re-entry periods	Drafting of a guide on the significance of re-entry periods in the protection of workers and communicating it to users.	Tukes, Finnish Glasshouse Growers' Association, VYL, TTL 2018-2022
Sensitising substances[26]	Highlighting the importance of the information concerning sensitising substances in the training of plant protection training providers and professional PPP users. When updating the PPE instructions, attention should also be paid to sensitising substances. Communicating on sensitising substances, for example, through press releases and at exhibitions.	Tukes, TTL 2018-2022

Indicators

The share of controlled areas with issues observed in the controls of green areas relative to those controlled areas with (1) no issues at all, (2) only minor deficiencies and (3) major deficiencies.

4.10. Handling and storage of PPPs and treatment of their packaging and remnants (Article 13)

Objective: The PPE instructions indicated in PPP instructions for use are easy to understand and protect the user sufficiently.

Objective: PPP stocks do not pose any threat to humans or the environment. Objective: No expired PPPs are stored.

CONTINUING MEASURES

The plant protection training gives instruction on the safe handling and storage of PPPs and treatment of their remnants and packaging.

The instructions also cover the appropriate storage of PPPs to prevent environmental releases. The products are classified into those intended for professional use or for consumer use.

Only products involving a low risk to consumers are approved for consumer use. Buyers of products approved for professional use are required to acquire plant protection certification.

MEASURE	DESCRIPTION	TIMETABLE AND RESPONSIBLE PARTIES
Revision of the PPE instructions	The PPE instructions indicated on product labels will be updated so that wearing PPEs can ensure the safety of the user. The updated instructions should inform the user on the appropriate protection in different work stages.	Tukes, TTL, STYL, the area of occupational safety and health at the AVI 2018-2019
Biobeds	Drafting of a guide on how to appropriately build a biobed or similar construction intended for the washing of application equipment and treatment of minimal PPP residues. The guide should be handed out to professional users at training events, via advisory services, at exhibitions, etc.	Tukes 2020-2022
Promoting the collection of PPP waste	Measures to inform users of the appropriate handling of hazardous waste and empty and washed PPP packaging will be implemented. The possibility to organise the collection of hazardous waste together with the Finnish Commerce Federation and Ekokem, for example, at agricultural exhibitions will be investigated. The restrictions concerning the transport of hazardous waste must be taken into account.	KASTE, Tukes, MTK, SLC 2019-2022

Measures to inform operators of the sale and use periods for expired products will be taken when a product's authorisation is withdrawn.	The authorisation withdrawal decision now indicates the time limits in accordance with the PPP Regulation for the sale and distribution of the product (six months at most) and for the disposal, storage and use of existing stocks of the PPP concerned (18 months at most). These time limits should be communicated to the operator with the withdrawal decision. Municipal environment protection authorities will be informed of the storage time limits.	Tukes 2018-2022

Indicators

The share of updated PPE instructions of all PPE instructions indicated on products.

The share of controlled PPP stocks meeting the relevant requirements relative to all controlled stocks.

The number of notifications submitted to municipal environmental protection authorities regarding expired PPPs.

4.11. Promotion of integrated and organic pest management (Article 14)

Objective: Reducing the risks of PPP use by promoting the authorisation of low-risk products.

Objective: Introducing comparative assessment enables substituting the most harmful substances with less harmful products or control methods, to the extent possible.

Objective: The dependency on the use of PPPs will be reduced through promoting the development and introduction of IPM and alternative control methods and techniques.

Objective: Professional users start to use control methods and products that enable reducing the risks to health and the environment.

Objective: Updated plant species- or plant group-specific IPM instructions are actively utilised by all professional farmers.

Objective: The objective for IPM is raised from meeting the minimum regulatory requirements to a higher cropping system level.

CONTINUING MEASURES

Farmers are informed of IPM methods at plant protection training events. The advisory services for farms provide advice on IPM and organic production.

IPM and organic research is carried out at research institutes. IPM guidelines are already prepared for certain plant species and plant groups.

Alternative methods to control invasive alien species and weeds in green areas are being investigated.

MEASURE	DESCRIPTION	TIMETABLE AND RESPONSIBLE PARTIES
Low-risk substances	The practices and measures required to promote the authorisation of low-risk products are to be investigated. The authorisation processes and timetables for low-risk substances should be prioritised. Users are actively informed of authorisation decisions of new, low-risk products at training events, via advisory services and during controls.	Tukes 2018-2022

Basic substances	Promoting the use of basic substances as referred to in the PPP Regulation by implementing communication measures. A substance which is not predominantly used for plant protection purposes but nevertheless is useful in plant protection can be approved as a basic substance. Good examples of such products are using whey in the control of mildew and beer to catch slugs. The use of foods of a plant or animal origin accepted as a basic substance as PPPs is allowed in organic production to control pests and plant disease, but not to control weeds. Evira is responsible for maintaining a record of the basic details of basic products authorised for use in organic production.	Tukes, Evira 2018-2022
Active substances that are candidates for substitution and comparative assessment	Practices to perform a comparative assessment of the most harmful substance in connection with the product authorisation process are to be developed. The assessment should take into account the economic and practical factors related to plant protection, such as the management of resistance risk. The assessment and decision-making procedures and timetables concerning active substances that are candidates for substitution will be prioritised. The users will be informed of which substances are candidates for substitution.	Tukes 2018-2022
Risk assessments concerning new pests	Evira performs risk assessments the aim of which is to prevent the entry of new pests into Finland and consequently to reduce the need to increase the use of PPPs.	Evira 2018-2022
Controls of propagation materials	Evira is responsible for controlling the quality of propagation materials. The need for the use of PPPs can be reduced by using healthy seedlings.	Evira, Ely Centres 2018-2022
INTEGRATED PEST MANAGEMENT LEVEL I SPECIFYING THE REQUIREMENTS ON THE USE OF PPPS		
Promotion of pest monitoring methods	Specifying of the instructions and threshold values for the most important monitoring methods in an electronic format (accessible, e.g., via the KasKas application).	Luke 2018-2022
Pest prediction models and threshold values	Developing of the pest prediction models to support decision-making and related mobile applications in collaboration with research and advisory organisations.	Luke, advisory organisations 2018-2022
Resistance to PPPs	In the product authorisation process, attention is paid to the management of resistance risks so that the range of effective active substances can be maintained sufficiently wide. Access to a sufficiently wide range of active substances is particularly important in groundwater areas, in which the use of active substances is restricted. Alternative control methods are promoted.	Tukes, Luke, advisory organisations 2018-2022
INTEGRATED PEST MANAGEMENT LEVEL II REPLACING CHEMICAL CONTROL METHODS WITH ALTERNATIVE METHODS		
Plant species- and plant group-specific IPM guidelines	IPM guidelines specified for the main plant species are updated where necessary and they are integrated as part of the cropping guidelines.	Luke, KSS 2018-2022

Alternative control methods to glyphosate	Promoting and developing of alternative control methods to the use of glyphosate. Glyphosate is the most used active substance in Finland. Alternative methods to control weeds are needed to replace the use of glyphosate.	Luke, Finnish Transport Agency 2018-2022
Non-chemical control methods	Producing of scientific information on non-chemical control methods and promoting the introduction of such methods. Promoting of the authorisation of new biological control agents. Verifying of the effectiveness of alternative control methods and investigating their impacts on human and animal health and the environment. In particular, additional opportunities and incentives are required to promote the adoption of alternative plant protection methods for a variety of arable crops. The majority of the PPPs used in Finland are herbicides, so the introduction of alternative methods to control weeds affecting arable crops could be an effective way to reduce the dependency on chemical PPPs.	Luke, universities, universities of applied sciences, VTT, advisory organisations, Evira 2018-2022
Certified seeds and resilient varieties	Developing of pest-resistant varieties and promoting of the use thereof. The use of disease-resistant varieties could have significant impacts on crop health. The use of high-quality certified seeds can reduce the need for PPPs. Healthy seeds do not spread plant diseases, and need-based seed treatment can reduce the need for PPP spraying.	Luke, universities, Evira, advisory organisations, Nordic collaboration in the area of plant breeding, companies in the industry 2018-2022
INTEGRATED PEST MANAGEMENT LEVEL III REDESIGN OF THE CROPPING SYSTEM		
Research on cropping systems	Promoting of research on cropping systems in IPM and organic production (e.g. crop rotation research, research on functional biodiversity), because the level of cropping system forms the infrastructure for plant protection and acts as the cornerstone of sustainable production.	Luke, FORI, Luomuliitto, SYKE, universities 2018-2022
Actions promoting the use of pollinators and natural enemies of pests	Information is to be produced on actions promoting the use of pollinators and natural enemies of pests. Ensuring that farmers have sufficient knowledge on how to apply the relevant procedures and that the environment support conditions and other provisions enable the use of such procedures at the level of farms.	Luke, universities, MMM, companies in the industry 2018-2022
PLANT PROTECTION IN ORGANIC PRODUCTION		
Promotion of organic research	The advancement of national basic and applied research into organic production in order to develop sufficiently reliable organic protection methods to address more challenging plant protection problems and to advance current knowledge of preventive methods in organic production.	FORI, Luke 2018-2022

Biological efficiency of products approved for use in organic production	Gathering of scientific information about the efficiency of products approved for use in organic production and, where necessary, applying for funding to implement a product efficiency study. The interest in products approved for use in organic production can be enhanced by demonstrating the effect of such products. The aim is to increase the range of products approved for organic production available in Finland.	Luomuliitto, FORI 2018-2022
INTEGRATED AND ORGANIC PEST MANAGEMENT COLLECTIVE LEARNING		
Information exchange conference on IPM and organic production	Arranging an information exchange conference, where farmers, advisory organisations, research organisations and authorities convene to review the best practices on farms, discuss results and impacts of studies implemented, and create a new research roadmap for the coming years of the programming period.	Luke, FORI, Luomuliitto, universities, KSS, farmers, Tukes 2019-2020
Identifying good practices	Identifying and adopting good practices that enable the risks to human health and the environment to be reduced.	Tukes, NAP steering group, Luke, advisory organisations 2018-2022
Network coordination	Developing of the plant protection industry by committing the members of operator networks to common objectives. Establishing a national plant protection knowledge system to coordinate, steer and develop the knowledge, competence and innovation processes of the industry operators. Where required, the need for new roles and resources should be determined. Collaboration between the producers of information is enhanced and operators are committed to participate in the development of IPM practices.	Luke, universities, universities of applied sciences, advisory organisations, Tukes 2018-2022
Implementing innovations for use by farms and in collaboration with farms	Research projects should include the organisation of on-site farm events and other advisory and training events to disseminate information on innovations and to encourage collective innovation. The aim is to disseminate new scientific information, exchange experiences with farmers and learn new good practices.	Luke, advisory organisations, Tukes, farmers 2018-2022

Indicators

The number of authorised low-risk products and basic substances.

The number of comparative assessments performed and the number and authorised uses, and where available the sales and use volumes, of substituted products.

The number of active substances of particular concern and, where available, the related sales and use volumes.

The number of plant species- and plant group-specific IPM guides.

The number of pest prediction models developed and adopted.

The share of farms controlled in connection with PPP use controls with deficiencies in the introduction of IPM.

The number and total funding of research projects on IPM and organic production.

4.12. Indicators (Article 15)

Objective: A downward trend in the indicators measuring the risks involved in the use of PPPs.
Objective: A downward trend in the use of certain identified active substances.

CONTINUING MEASURES
Monitoring of the development of the harmonised risk indicators.
Developing of a national risk indicator to measure the environmental load of PPPs.

MEASURE	DESCRIPTION	TIMETABLE AND RESPONSIBLE PARTIES
Harmonised indicators	Monitoring of the measures concerning the harmonised risk indicators developed by the European Commission and adopting them once they are completed.	Tukes, Luke, MMM 2018-2022
Trends in the use of certain active substances	Monitoring trends in the use of active substances of particular concern, in particular, and reporting the related results to the Commission and other Member States.	Tukes 2018-2022
Identifying issues requiring special attention	Identifying which active substances, plants, areas or uses require special attention and reporting of these to the Commission and other Member States.	Tukes, NAP steering group 2018-2022
Updating the risk indicator measuring the environmental load of PPPs	Updating and development of the national environmental load risk indicator, which is based on the PPP sales statistics, and communicating the results.	Tukes 2019-2022
Catchment area-specific risk indicator measuring the environmental load of PPPs	The work to develop a catchment area-specific risk indicator measuring the environmental load of PPPs will be continued. Informing the public of the adoption and results of the indicator.	SYKE, Luke, Tukes 2018-2022
PPP use statistics	Compilation of PPP use statistics and publication of the related results.	Luke 2018
Parcel-specific PPP use data	The availability of parcel-specific PPP use data from farms should be investigated. The planned data gathering project should be coordinated to prevent overlapping work.	MTK, Tukes, ProAgria 2018-2022

5. Communications

Information on the NAP will be actively and extensively disseminated to different stakeholder groups, PPP users and consumers. Tukes will draft together with the NAP steering group an annual communications plan, which should include a sufficient number of objectives and communication measures. Information on the measures, investigations and guidelines planned for the NAP will be published during the drafting stage and once the measures are completed. The indicators created for the NAP should be utilised when communicating about the NAP.

Where required, events and workshops on the implementation and evaluation of the NAP should be arranged for different stakeholder groups. In these events, data should also be gathered on the knowledge and views of stakeholders and consumers regarding the implementation of the NAP.

6. Monitoring and reporting

The steering group monitors the progress and results of the NAP on an annual basis. The results are reported and discussed at the annual meeting of the advisory committee on plant protection established by the Ministry of Agriculture and Forestry. The planned indicators, exchange of information between operators and meetings of the steering group should be utilised in the monitoring. Tukes is responsible for notifying the Commission and other Member States of the progress of the NAP at the Sustainable Use Directive working group meetings and through other means, if necessary. Tukes is also responsible for notifying the Commission of any changes to the contents of the NAP.

The implementation and achievement of the objectives of the NAP will be reviewed in the final report to be published in 2022. The findings of the final report will be used to update the NAP and to readjust the objectives. The findings will also be communicated to the general public. Tukes is responsible for the drafting of the final report and, if necessary, a new NAP.

Appendix 1 Actions taken under the 2011–2017 NAP and continuing measures

Art. 4	• Implementation of the NAP and reporting on the actions taken. • The steering group convenes regularly to monitor the implementation of the NAP. • Performing of PPP risk assessments and making related decisions; participating in the development of risk assessment practices at the EU level.
Art. 5	• Arranging the basic plant protection training for professional PPP users, PPP distributors and plant protection advisers. • The certification requirement applies to all professional users and distributors of PPPs. • Plant protection certificates issued in other EU Member States are also recognised in Finland.
Art. 6	• Retailers of products approved for professional use must always have at least one staff member in their employment holding a certificate. • The certification requirement is not applied to retailers who are selling only products approved for consumer use.
Art. 7	• Information about the safe use of PPPs is actively disseminated to the general public. • Information is gathered on acute and chronic poisoning incidents. • The controls of the levels of PPP residues in food and feed are continued. • Professional users are informed of the risks involved in counterfeit products and counterfeit products are controlled. • Restrictions on use of PPPs are imposed where necessary.
Art. 8	All sprayers in professional use must be inspected. • The inspection must be carried out by an inspector authorised by Tukes. • Inspections of sprayers performed in other EU Member States are also recognised in Finland. • Exceptional inspection timetables and exemptions from inspection have been specified for certain types of sprayers[28] (Appendix 2)
Art. 9	• Aerial spraying of PPPs is prohibited. • Aerial spraying is allowed only in special cases. • Guidelines have been issued for aerial spraying on the notification requirements and requirements of the Sustainable Use Directive[29].
Art. 10	• Taking neighbours into consideration is part of the good plant protection practice. • Green areas treated with PPPs should be marked.
Art. 11	• The protection of groundwater areas and surface waters is taken into account in the PPP risk assessment. • Water bodies are protected by using risk-based buffer distances and technical solutions that reduce spray drift. • A buffer distance has also been specified to prevent run-off. • Run-off to water bodies is prevented with the help of untreated plant-covered (10 metres wide) buffer strips. • Ensuring organisation of sufficient environmental monitoring of PPPs.
Art. 12	• The risk assessment takes account of the potential exposure of bystanders in recreational areas. • Based on the risk assessment, a re-entry period is specified for workers.
Art. 13	• The plant protection training instructs on the safe handling and storage of PPPs and treatment of their remnants and packaging. • The instructions also cover the appropriate storage of PPPs to prevent environmental releases. • The products are classified into those intended for professional use or for consumer use. • Only products involving a low risk to consumers are approved for consumer use. • Buyers of products approved for professional use are required to acquire plant protection certification.
Art. 14	• Farmers are informed of IPM methods at plant protection training events. • The advisory services for farms provide advice on IPM and organic production. • IPM and organic research is carried out at research institutes. • IPM guidelines are already prepared for certain plant species and plant groups. • Alternative methods to control invasive alien species and weeds in green areas are being investigated.
Art. 15	• Monitoring of the development of the harmonised risk indicators. • Developing of a national risk indicator to measure the environmental load of PPPs.

APPENDIX 2 Exceptional timetables and exemptions specified for inspection activities

The Decrees 4/2016[30] and 8/2017[28] of the Ministry of Agriculture and Forestry concerning the inspection of application equipment list the equipment types for which exceptional inspection timetables have been specified or which have been exempted from the inspection requirement. New application equipment in category H to M acquired after 26 November 2026 and which fulfil the requirements set out in section II of Annex I to the Decree 4/2016 must be inspected for the first time within ten years of the date of purchase.

APPLICATION EQUIPMENT WITH AN EXCEPTIONAL INSPECTION TIMETABLE. FIRST INSPECTION BY 26 NOVEMBER 2026 (INSPECTION INTERVAL 10 YEARS)	
H	Horizontal boom sprayers, including strip sprayers, with a boom of > 3 m
I	Fixed and semi-mobile sprayers, with a tank of ≥ 25 l, working pressure ≥ 15 bar and boom > 3 m
J	Cold/thermal atomisers intended for local use, excluding portable and handheld equipment
K	Seed treatment equipment (powder-based) mounted on seed distributors
L	Industrial seed treatment equipment
M	Wiping equipment, excluding portable and knapsack-type wiping equipment

APPLICATION EQUIPMENT EXEMPTED FROM INSPECTION	
N	Portable application equipment and knapsack sprayers
O	Seed treatment equipment mounted on grain spiral conveyors
P	Potato seed treatment equipment in storages or mounted on planters, excluding boom sprayer-type equipment
R	Application equipment used to spray root rot control agent or similar pesticides in forests

[30] Decree of the Ministry of Agriculture and Forestry on the requirements set for plant protection product application equipment, testing of application equipment and risk assessment concerning application equipment (maa- ja metsätalousministeriön asetus kasvinsuojeluaineiden levitysvälineille asetettavista vaatimuksista, levitysvälineiden testauksesta ja levitysvälineitä koskevasta riskien arvioinnista) 4/2016. www.finlex.fi/data/normit/42535-16004.fi.pdf