

Irish National Action Plan

for the

Sustainable Use of Pesticides **(Plant Protection Products)**

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**An Roinn Talmhaíochta,
Bia agus Mara**
Department of Agriculture,
Food and the Marine

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Executive Summary

Directive 2009/128/EC of the European Parliament and of the Council of 21 October 2009 (Sustainable Use Directive) established a framework for Community action to achieve the sustainable use of pesticides and this Directive was transposed into Irish law by Statutory Instrument No. 155 of 2012, European Communities (Sustainable Use of Pesticides) Regulations 2012.

Article 4 of the Sustainable Use Directive (SUD) requires each MS to develop a National Action Plan (NAP) which shall be reviewed at least every 5 years. The first Irish plan (2013) set out a national strategy to achieve a sustainable use of pesticides, establishing objectives, targets, measures, and timeframes to reduce the risks and impacts associated with the use of pesticides on human health and the environment and to encourage the development and introduction of Integrated Pest Management (IPM). This review (2018) builds on the original NAP and consolidates the objectives set out in that document. In maintaining and reviewing the NAP, each MS must take account of the social, economic and environmental impacts of the measures, as well as the health of its citizens.

The approach used is a combination of statutory measures and voluntary industry-led initiatives. The NAP consists of 5 broad areas, as follows:

- 1. Training, Education, Information Exchange and Data Gathering:**
 - a) Training and Education: requirements for advisors, distributors and professional users and the establishment and management of registers of all such individuals.
 - b) Information exchange for amateur users and general public.
 - c) Data Gathering.
- 2. Controls on Application Equipment:**
 - a) Testing and certification of Pesticide Application Equipment (PAE).
 - b) Establish and manage a register of inspectors of application equipment.
- 3. Controls on Storage, Supply & Disposal of PPPs:**
 - a) Storage of PPPs.
 - b) Supply of PPPs.
 - c) Disposal of PPPs.
- 4. Controls on use of PPPs in Specified Areas:**
 - a) Aerial application.
 - b) Spray trains.
 - c) Reduction of risk in sensitive areas.
 - d) Protection of water.
- 5. Integrated Pest Management (IPM):**
 - a) Implementing the principles of IPM.
 - b) Monitoring of harmful organisms.
 - c) Availability of Decision Support Systems (DSS).

The plan aims to achieve a balance between ensuring human and environmental safety while maintaining continued viability of the farming and amenity sectors. Particular emphasis is being placed on protecting our drinking water from pesticides.

It is foreseen that State Agencies and other stakeholders will continue to contribute significantly to the implementation of the plan and some will have a critical role in the success of specific projects.

The NAP will be under continual review but, at a minimum will be reviewed every 5 years, taking account of the social, economic and environmental impacts of the measures. Where necessary, an expert group can be set up to consider particular issues which may arise.

The Department of Agriculture, Food and the Marine, (DAFM), undertook a comprehensive consultation of stakeholders prior to transposing the Sustainable Use Directive into Irish law. The consultation drew comments from interested individuals, industry, representative bodies, government agencies, county councils, non-governmental organisations, etc. This feedback was used to help design and draft the new Irish legislation in this area.

In reviewing the NAP, commentary was sought on the draft review document which was posted on the DAFM website.



Introduction

The term 'pesticide' describes a broad group of products that are used as plant protection products (PPPs) and/or biocidal products. It has been agreed at EU level that, for the present, only plant protection products should be included within the scope of the actions proposed in the Sustainable Use Directive. PPPs are used to protect plants from diseases or pests or to control the growth of plants in agriculture, horticulture, forestry, amenity, home/garden and non-crop areas. PPPs are, by their nature, biologically active and are designed to control organisms which are harmful to crops, e.g., weeds, insects, plant pathogens which are injurious to the health and integrity of the plant or plant product.

The main objective of the National Action Plan remains to reduce the risks and impacts of pesticide use on human health and the environment and to encourage the development and introduction of IPM and alternative non chemical approaches. There is a need to recognise that implementation of the SUD must take into account actions under other Community legislation that impact on the use of pesticides, e.g. Birds and Habitats and the Water Framework Directives.

The NAP consists of 5 broad areas:

1. Training, Education, Information Exchange and Data Gathering;
2. Controls on Application Equipment;
3. Controls on Storage, Supply & Disposal of PPPs;
4. Control on use of PPPs in Specified Areas;
5. Integrated Pest Management (IPM).

The approach used is a combination of statutory measures and voluntary initiatives. The DAFM, as the Competent Authority for the implementation of the NAP, is mindful of the need to minimise, as much as is practicable, the additional regulatory burden and costs to be placed on industry.



Legislative Background

Pesticide Legislation

Regulation (EC) No. 1107/2009

This regulation concerns the placing of plant protection products on the market throughout the EU. A harmonised approach applies to the rules surrounding the authorisation of plant protection products within the European Community.

The national regulations giving effect to the SUD place restrictions on the use of pesticides in areas used by the general public or by vulnerable groups as defined in Article 3 of Regulation (EC) No. 1107/2009.

This Regulation has been implemented in Ireland by Statutory Instrument No. 159 of 2012.

Sustainable Use Directive 2009/128/EC

The SUD establishes a framework for community action to achieve the sustainable use of pesticides. It sets minimum rules for the use of pesticides in the Community, so as to reduce the risks to human health and the environment and also promotes the use of integrated pest management.

This Directive has been implemented in Ireland by Statutory Instrument No. 155 of 2012.

Regulation (EC) No. 1185/2009

This regulation obliges Member States to collect statistics on pesticide use. While this regulation has no additional impact on most users of pesticides, users are obliged to make all records of PPP use available to the competent authorities, when requested. The information that is provided by users, for the purpose of collation of statistics, is treated as confidential.

This Regulation has been implemented in Ireland by Statutory Instrument No. 159 of 2012.

Directive 2009/127/EC

This legislation amends an earlier Directive on farm machinery and facilitates the inclusion of PAE into the Directive. Its primary focus is to harmonise manufacturing standards for new equipment for applying PPPs before the equipment may be placed on the market by the manufacturer.

This Directive has been implemented in Ireland by Statutory Instrument No. 310 of 2011.

Regulation (EC) No. 396/2005

This regulation provides a harmonised system of setting Maximum Residue Levels (MRLs) for all foods treated with pesticides. MRLs reflect the largest amount of pesticide that would be expected to be found in a crop which has been treated in line with good agricultural practice.

This Regulation has been implemented in Ireland by Statutory Instrument No. 565 of 2008 (as amended).

Other Legislation

Birds and Natural Habitats Directives 2009/147/EC and 92/43/EEC

The national regulations giving effect to the SUD place restrictions on the use of pesticides in a European site within the meaning of Regulation 2 of the European Communities (Birds and Habitats) Regulation 2011.

These Directives have been implemented in Ireland by Statutory Instrument No. 477 of 2011.

Water Framework Directive 2000/60/EC

This Directive commits EU MS to achieving good qualitative and quantitative status of all water bodies and to establishing a framework for Community action in the field of water policy.

This Directive has been implemented in Ireland by Statutory Instrument No. 722 of 2003.



The National Action Plan for the Sustainable Use of Pesticides in Ireland

1. Training, Education, Information Exchange and Data Gathering

1a: Training and Education

Objective

To ensure that all individuals, involved at every level in the PPP industry, are trained in a manner that is appropriate to their particular role and responsibility, in order to reduce the risks and impacts of pesticide use on human health and the environment (with particular emphasis on the protection of water) and to encourage the development and introduction of IPM and alternative non chemical approaches to pest management in all sectors of the industry.

Advisors

The initial training requirements for DAFM-registered pesticide advisors (PAs) are designed to ensure that those who are certified as having complied with the prescribed standard, have a sound scientific background to act as a foundation to support a more specific education in IPM and the sustainable use of pesticides. Specific training has been developed both for general PAs and for PAs who only advise in grassland situations. Closely scrutinised Continuing Professional Education (CPE) ensures that all PAs maintain their expertise to an acceptably high standard which allows them to remain on the DAFM register of approved PAs.

Such education coupled with an individual's experience in the field and a requirement to maintain CPE will ensure that crop protection solutions are science based, contemporary, ecologically sound and economically viable.

Targets

1. To ensure that all advisors joining the register who are involved in the dissemination of advice on the use of PPPs are educated to a sound scientific standard and trained in the practicalities of up to date crop protection in Ireland, with a focus on IPM.
2. To improve and enhance the quality of advice given to professional users of PPPs through mandatory CPE of all registered PAs.
3. To ensure that up to date crop protection methods, including information on IPM, as disseminated by registered PAs, become an integral part of crop protection strategies practised by all farmers.

Actions

1. It is a statutory requirement for advisors to have a minimum level of training and education. This training is made up of "initial training" and "additional training" (CPE).
2. Initial training for general PAs is delivered by UCD as an NFQ Level 7 professional diploma in IPM and the Sustainable Use of Pesticides, while the specific grassland PA IPM training is delivered by Teagasc as a part online/part contact course over a period of 12 weeks. The requirement for additional training will be satisfied by achieving required standards of continuous professional education, as determined by DAFM.
3. DAFM consider, on a case-by-case basis, training and qualifications obtained outside the above mentioned framework.
4. Since 26th November 2013 DAFM, as the competent authority, has overseen the approval of all PAs and this will continue to be the case.

5. The CPE status of every DAFM-registered PA is checked annually in order to establish his/her suitability for continued listing.
6. Where previously registered PAs fall short of the required CPE, they are required either to achieve extra CPE credits or undergo initial training (as described above) before being readmitted to the DAFM register.
7. A register of suitably qualified PAs is maintained by DAFM.

Indicator of Progress

1. The numbers of DAFM-approved PAs remaining on the published list at year end i.e. having taken account of those who have been revoked due to non-compliance with the CPE requirement. This results in an accurate, live record of the number of appropriately trained PAs.
2. Compliance in this area is also recorded during voluntary quality assurance audits (in particular the Bord Bia horticultural scheme) that are carried out every 18 months.
3. The successful communication of up to date crop protection methods to the end user, focusing on IPM, will be evident at the inspections of the pesticide application records of the end user that are carried out by DAFM and Bord Bia auditors.

Distributors

The training requirements for pesticide distributors (PDs) are designed to ensure that people involved in the sale and/or distribution of PPPs (wholesalers, retailers, vendors, distributors and suppliers) are appropriately trained to cope with situations that may arise during the PPP distribution phase. Specific training has been developed both for PDs who are involved in the sale of professional use products and for PDs who are only involved in the sale of non-professional use products. Closely scrutinised CPE ensures that PDs maintain their expertise to an acceptably high standard which allows them to remain on the DAFM register of approved PDs. Such situations may include container handling issues, handling of spillages, store and stock management and providing general PPP information to customers.

Targets

1. To ensure that all those who are involved in the sale and supply of PPPs are educated to a minimum agreed standard.
2. To ensure that every business involved in selling PPPs has an appropriately trained person available at all times at the point of sale or supply, to facilitate the dissemination of appropriate information.
3. To ensure that appropriate records are maintained by all distributors.

Actions

1. It is a statutory requirement for distributors to have a minimum level of training and education. This training is made up of “initial training” and “additional training” (CPE).
2. The initial training requirement for PDs who are involved in the sale or supply of professional use products is satisfied by completing an NFQ Level 5 qualification in the Handling and Distribution of Pesticides which is delivered by training providers who are accredited to Quality and Qualifications Ireland (QQI). The initial training requirement for PDs who are only involved in the sale of non-professional use products is delivered as an online course.

The requirement for additional training will be satisfied by achieving required standards of CPE.

3. DAFM will consider on a case-by-case basis training and qualifications obtained outside the above mentioned framework.
4. Since 26th November 2015 DAFM, as the competent authority, has overseen the approval of all PDs and this will continue to be the case.
5. The CPE status of every DAFM-registered PD (professional use products) is checked annually in order to establish their suitability for continued listing.

The requirement for additional training for DAFM-registered PDs (non-professional use products) will be satisfied by CPE in the form of technical bulletins which may issue periodically from DAFM.

6. Where previously registered PDs fall short of the required CPE, they are required either to achieve extra CPE credits or undergo initial training (as described above) before being readmitted to the DAFM register.
7. A register of suitably qualified PDs is maintained by DAFM.

Indicator of Progress

1. The numbers of DAFM-approved PDs remaining on the register at year end i.e. after taking account of those who are revoked due to non-compliance with the CPE requirement. This results in an accurate, live record of the number of appropriately trained PDs.
2. Recording the numbers of distribution premises that have a registered PD available at the time of inspection by DAFM.
3. Compliance in this area is recorded during DAFM inspections of wholesaler and retailer records and also as part of voluntary quality assurance audits (in particular the Bord Bia schemes) that are carried out every 18 months.

Professional users

The training requirements for professional users (PUs) of PPPs are designed to ensure that those individuals who are certified as having complied with the prescribed standard, are sufficiently skilled to ensure that the application of PPPs is done in a manner that will minimise the risks and impacts associated with the use of pesticides on human health and the environment.

Targets

1. To ensure that all registered PUs are educated and trained to the minimum agreed standard.
2. To ensure that only trained and registered professional users apply professional PPPs.
3. To ensure that all PPPs are applied in accordance with Good Plant Protection Practice.

Actions

1. It is a statutory requirement for professional users to have a minimum level of training. This training is made up of “initial training” and “additional training” (CPE).
2. The initial training requirement is satisfied by completing an NFQ Level 5/City & Guilds/Lantra course(s) in Pesticide Application, or equivalent. The requirement for additional training will be satisfied by CPE, in the form of technical bulletins which may issue periodically from DAFM.

3. DAFM will consider, on a case-by-case basis, training and qualifications obtained outside the above mentioned framework.
4. Since 26th November 2015 DAFM, as the competent authority, has overseen the approval of all PUs and this will continue to be the case.
5. A register of suitably qualified PUs is maintained by DAFM.

Indicator of Progress

1. The number of DAFM-registered PUs.
2. Recording the numbers of PUs who are trained and registered at the time of inspection by DAFM.
3. Compliance in this area is recorded during DAFM inspections of end user records and also as part of voluntary quality assurance audits (Bord Bia and Irish Grain Assurance Schemes).

1b: Information exchange

Objective

To ensure that distributors make available the required information to their customers, at the point of sale, and also to ensure that DAFM, as the Competent Authority, makes use of their website to facilitate the dissemination of relevant, up to date information to all interested parties, in order to reduce the risks and impacts of pesticide use on human health and the environment (with particular emphasis on the protection of water) and to encourage the use of IPM and alternative non chemical approaches.

Background

There is a requirement to make information available to amateur users and the general public on a range of PPP related topics. There is also a need to communicate and provide information to a number of other audiences, such as, advisors, distributors, professional users, other Government Departments and Agencies, Local Authorities and the Industry sector. Topics considered relevant include risks associated with PPP use to the user and the environment and information on safe storage and safe disposal of obsolete PPP and safe disposal of PPP packaging.

The flow of information from one individual to another or from one organisation to another (or any such combination) is seen as playing an important role in the success of the NAP. Similarly, if the NAP is to develop to address the issues that arise in the future or if the NAP needs to be amended to address current or evolving issues not remedied by the current NAP, an efficient means of harvesting feedback from all players and stakeholders is needed.

Targets

1. To ensure that amateur users and members of the general public have sufficient access to general information, at the point of sale, on risks and benefits associated with PPP use. The risks should include those posed to the user and bystander, the environment and non-target organisms. Information on safe storage, exposure, hazards and safe disposal of PPPs and PPP packaging should also be included.
2. To increase the knowledge base of interested individuals to ensure that they are better educated to make decisions appropriate to their particular use, with due consideration to users and bystanders, non-target organisms and the environment, through continuing education of PDs

3. To have appropriately topical, up-to-date and balanced information on pesticides available to the general public and 'other' identified audiences on the DAFM/Pesticide Control Service (PCS) website.
4. To ensure that DAFM has a constant and visible presence at relevant trade shows, open days and any other suitable fora that would facilitate the effective dissemination of information on the sustainable use of pesticides.

Actions

1. It is a statutory requirement for distributors/retailers of non-professional use PPPs to have, at all times, a trained individual at the point of sale or supply.
2. There is a requirement on companies to provide information displays, pamphlets and leaflets for distribution through the non-professional use PPP supply chain.
3. Convene meetings on particular issues as the need arises, between DAFM and relevant stakeholders.
4. Continual development of the functionality of the DAFM/PCS website in relation to pesticides:
 - Access to a searchable PPP database;
 - Availability of information on registration, classification and labelling, "off-label" instructions etc.;
 - Information on residue monitoring and control programmes;
 - Latest news section;
 - General information and guidance, e.g. guidance on Safety Data Sheets, Good Plant Protection Practice, container disposal etc.;
 - Include links to useful information sources.
 - Enhance the availability of general pesticides information e.g. training and registration requirements of the various categories under the provisions of the SUD, record keeping templates, IPM guidance, protection of pollinators, food safety etc.
5. Ensure a DAFM presence at relevant trade shows, open days and any other suitable fora that would facilitate the effective dissemination of information on the sustainable use of pesticides.

Indicator of Progress

1. Recording the numbers of distribution premises that have a registered PD available at the time of inspection by DAFM. These PDs would be in a position to disseminate the required general information to customers.
2. The availability and accessibility of appropriate information on the sustainable use of pesticides to all interested parties at retail level and relevant information for all stakeholders must also be accessible on the DAFM/PCS website.
3. DAFM continues to maintain a constant and visible presence at relevant trade shows, open days and any other suitable fora.

1c: Data Gathering

Objective

The publication of annual statistics on the sales and usage of PPPs on the DAFM/PCS website is an important means of ensuring that information that is collected concerning the sales, usage of and the poisoning by PPPs is made available in a transparent fashion to the consumer and public at large.

Sales, Usage and IPM

Data on the sale of pesticides is collected annually as is data on pesticide usage, on a sector by sector basis, in accordance with Regulation (EC) No 1185/2009.

Additionally, information is gathered at farm level on the implementation of IPM practices through a bolt-on survey that is carried out during the pesticide usage survey.

Information on the adoption and practice of IPM techniques at farm level has been gathered as part of a research project conducted by Teagasc, the Irish Agriculture and Food Development authority.

Acute Poisoning

Acute poisoning statistics are analysed annually from data collected by the National Poisons Information Centre, which is based at Beaumont Hospital in Dublin.

Chronic Poisoning

Breaches of MRLs in food, identified through analyses conducted as part of the national monitoring programme for pesticide residues, are scrutinised. Over time, trends concerning adverse health effect, should they exist, can be identified.

Similarly, the recording of all exceedances in drinking water standards allows any potential risks to human health from the use of pesticides over time to be monitored.

Targets

1. To ensure timely collection, collation and submission to Eurostat of all sales and usage data, as required.
2. To ensure that all acute poisoning incidents are reported to the National Poisons Information Centre (NPIC), which is based at Beaumont Hospital in Dublin.
3. To ensure that all MRL breaches identified during the national monitoring programme for pesticide residues, are scrutinised. This will facilitate the identification of any trends concerning adverse health effect, should they exist.
4. To ensure that all pesticide exceedances in drinking water standards are scrutinised for their potential risks to human health from the use of pesticides over time.

Actions

1. Systems are in place to ensure the collection and collation of pesticide sales and pesticide usage data.
2. Systems are in place so that data from the NPIC is analysed annually.

3. Systems are in place to ensure that all MRL exceedances from the residue monitoring programme are recorded and human health and eco-toxicological risk assessments are carried out.
4. All pesticides exceedances recorded in drinking water are notified to DAFM and are scrutinised.

Indicator of Progress

1. Timely transmission of all data to Eurostat is recorded.
2. Up to date sales and usage (of pesticides) data is published on the DAFM/PCS website annually.
3. Annual analysis of acute poisoning incidents is recorded so that trends can be monitored.
4. All MRL exceedances from the residue monitoring programme are recorded and trends over time are monitored.
5. All pesticides exceedances recorded in drinking water are analysed and trends over time are monitored.

2. Controls on Application Equipment

Objective

To ensure that all Pesticide Application Equipment (PAE) is tested by appropriately trained inspectors, thus reducing the risks and impacts of pesticide use on human health (operators and bystanders) and the environment (with particular emphasis on the protection of water).

2a: Testing and Certification of Application Equipment

In the first NAP, there was a requirement for all boom sprayers (>3m width) and all blast/orchard sprayers to be tested. This requirement will be extended to all types of Pesticide Application Equipment.

In addition to statutory testing of application equipment, which must be conducted by DAFM-approved and registered Equipment Inspectors (EIs), PUs must conduct regular calibrations and technical checks of all PPP application equipment being used.

It is estimated that approximately 20% of the tractor-mounted or trailed sprayers in the country are found on arable farms and are operated on a frequent basis; the remainder (those found on grassland farms) are operated less regularly. Knapsack sprayers are excluded from testing.

Targets

1. To ensure that all PAE more than 5 years old has been tested and certified in accordance with an appropriate standard, as determined by DAFM, during the lifetime of this reviewed NAP.
2. To ensure that all sub-standard PAE more than 5 years old is either decommissioned or repaired to the required standard, as determined by DAFM.

Actions

1. It is a statutory requirement for Equipment Inspectors (EIs) to have a minimum level of training. This training is made up of “initial training” and “additional training” (CPE). The initial training requirement is satisfied by completing a dedicated Teagasc EI training course. The requirement for additional training will be satisfied by CPE, as determined by DAFM. This must be satisfied in order to remain on the DAFM-approved list of EIs.
2. DAFM, as the competent authority, oversees the training, registration and approval of all EIs to ensure a consistently high standard of inspection.
3. DAFM, as the competent authority, has in place an online system for recording and maintaining all inspection reports carried out by registered EIs and this system will be re-developed to facilitate a higher level of risk associated supervision.
4. A register of suitably qualified EIs is maintained by DAFM, taking account of those who are revoked due to non-compliance with the CPE requirement. This results in an accurate, live record of the number of appropriately trained EIs.
5. The DAFM will continue to carry out inspections to ensure that equipment used has been tested and certified by a DAFM registered EI.
6. The DAFM carry out inspections to ensure that EIs are carrying out testing and certification to the required standard.
7. A schedule of testing requirements for all PAE will be published on the DAFM/PCS website during 2019.

Indicator of Progress

1. The number of pieces of PAE recorded as complying with the specified standard, at the time of inspection by DAFM.
2. The number of EIs that are carrying out testing and certification to the required standard at the time of inspection by DAFM.
3. Compliance in this area is recorded during voluntary quality assurance audits (in particular the Bord Bia schemes) that are carried out every 18 months.

2b: Establish and manage register of Equipment Inspectors (EIs)

The initial training requirements for DAFM-registered EIs are designed to ensure that those who are approved by DAFM are sufficiently skilled to carry out independent inspections on a range of PAE. Specific training has been developed to ensure that EIs operate to a high standard, in accordance with those determined by DAFM.

Continuing Professional Education (CPE) ensures that EIs maintain their expertise to an acceptably high standard which allows them to remain on the DAFM register of approved EIs.

Targets

1. To ensure that those who are involved in the inspection of PAE are educated to the agreed standard.
2. To ensure that the quality of inspections reflect the highest standards in the industry.

Actions

1. It is a statutory requirement for DAFM-registered inspectors to have a minimum level of training. This training is made up of “initial training” and “additional training” (CPE).
2. Initial training is delivered by Teagasc, in the form of a 2 day course in combination with a practical assessment in on-farm situations.
3. Since 26th November 2013 DAFM, as the competent authority, has overseen the approval of all EIs and this will continue to be the case.
4. The CPE status of every DAFM-registered EI is checked, as required, in order to establish his/her suitability for continued listing.
5. A register of suitably qualified EIs is maintained by DAFM.

Indicator of Progress

1. The quality of inspectors (post-training) will be monitored and documented through the supervision carried out by DAFM.
2. The quality of inspections carried out will be monitored and documented through the supervision carried out by DAFM.

3. Controls on Storage, Supply & Disposal of PPPs

Objective

In requiring adequate facilities to be put in place for the appropriate storage of PPPs by all individuals who hold PPPs on their premises, a significant contribution can be made to reducing the risk of contamination of operators and bystanders and also the potential for damage to be caused to the environment.

To ensure that product that is placed on the market has been authorised and is appropriately packaged and labelled, thus reducing the risk to both the users and the environment. To ensure that effective disposal of remnants is facilitated in order to protect both users and the environment.

3a: Storage of PPPs

The handling and storage of plant protection products has been regulated at professional user level since 2006. However, until the implementation of the SUD, it had not been legislated for at distributor level (wholesalers and retailers).

Distributor Level

Targets

1. All premises to have implemented the agreed storage and sales/display standards for distributors of professional and amateur products.
2. All pesticide products will be appropriately stored in all premises.
3. That every premises involved in the sale or supply of PPPs (professional and amateur products) has an appropriately trained PD, familiar with the required storage and display requirements, available at all times.

Actions

1. Regarding professional use products, the storage standards that have been agreed and adopted reflect the risks associated with the materials being stored, as well as the location of the storage facility and its proximity to various landscape features, public spaces, etc. These standards take into account the size, extent and scale of the business.
2. Regarding amateur use products, the standards that have been agreed and adopted take into account issues such as the types of products on display, accessibility of products to children, proximity to other products being retailed (animal feed, food, etc.). These standards take account of the relatively dilute nature of most of the plant protection products concerned and the less hazardous nature of these products.
3. There is a requirement on all Distributors to provide details to DAFM of any premises they use for the sale and/or supply of PPPs.
4. There is a requirement for every business involved in selling PPPs (professional and amateur products) to have an appropriately trained person available at all times at the point of sale or supply.

Indicator of Progress

1. The number of distributor premises notified to the DAFM will be recorded.
2. The number of stores, at distributor level, that have been certified as complying with the specific standard at the time of inspection by DAFM will be recorded.

3. Compliance in this area is recorded during DAFM inspections and also as part of voluntary quality assurance audits (in particular the Bord Bia schemes) that are carried out every 18 months.

Professional User Level

Targets

1. All users will have put in place appropriate PPP storage that meets the agreed storage standards for users of professional products.
2. All pesticide products will be appropriately stored in all premises.

Actions

1. The storage standards that have been agreed and adopted reflect the risks associated with the materials being stored, as well as the size, extent and scale of the business. Standards are broadly similar to those previously included in legislation and are proportionate, so as to reflect the relative risk associated with the amounts being stored.
2. It is a requirement to have all PPPs stored under appropriate conditions.

Indicator of Progress

1. The percentage of stores, at professional user level, in compliance with the specific standard at the time of inspection by DAFM will be recorded.
2. Compliance in this area is recorded during DAFM inspections of end users and also as part of voluntary quality assurance audits (Bord Bia and Irish Grain Assurance Schemes).

Amateur User Level

The overall amounts of PPPs stored at amateur user level are estimated to be quite small. Consequently, no specific provisions have been applied to this area. Guidance on container disposal and on protection of drinking water from pesticides are available at retail outlets and on the DAFM/PCS website.

3b: Supply of PPPs

Existing measures require that only authorised products, appropriately packaged and labelled, may be sold or supplied. The packaging for pesticides is aimed at protecting both the users and the environment. It prescribes that the product cannot be altered, substituted or otherwise adulterated before supply to the user. The pack size should be appropriate to the proposed scale of use.

Statutory labelling measures are aimed at informing the user of the inherent hazards associated with the product, so that the appropriate steps may be taken to minimise the risk.

Additional measures to permit traceability in the supply chain have been introduced.

Data on quantities of PPPs placed on the market are gathered annually in accordance with Regulation (EC) No 1185/2009.

Targets

1. All professional PPPs are appropriately packaged and labelled.
2. All sales of professional PPPs are accurately documented by wholesalers and retailers.

Actions

1. All wholesalers and retailers of professional PPPs must record details, as determined by DAFM, of the sale and/or supply of all pesticide products to PUs.
2. A template for required records and guidance on same has been developed and is available on the DAFM/PCS website.
3. All wholesalers and retailers of professional PPPs must retain such records for a period of at least 5 years.

Indicator of Progress

1. The percentage of PPPs in compliance with packaging and labelling requirements at the time of inspection by DAFM will be recorded.
2. The numbers of wholesalers and retailers of professional PPPs in compliance with record keeping requirements at the time of inspection by DAFM will be recorded.

3c: Disposal of PPPs

The disposal of all waste (in the form of unused PPPs and empty PPP containers) was identified as an area where improvements needed to be made. DAFM, in conjunction with other state agencies, local authorities and farming bodies, participated in the development of an organised method of collection and disposal of such waste at national level.

Targets

1. All PPP remnants and empty containers are appropriately disposed of, in an environmentally friendly way that is convenient for the public, through the promotion of farm hazardous waste initiatives and distribution of information concerning triple rinsing.

Actions

1. The further development and promotion of industry-funded farm hazardous waste bring centres to ensure appropriate disposal of hazardous waste resulting from the use of PPPs.
2. The promotion of Irish Farm Film Producers Group "Bring Centres" amongst farmers as an approved method of disposing of non-hazardous waste resulting from the use of PPPs.
3. Schedules of collections are made available on the DAFM/PCS website.
4. To explore the feasibility of extending the "Bring Centre" initiative to placing the onus on the supplier/distributor to accept and correctly dispose of unused product.

Indicator of Progress

1. The recording of the quantity of waste disposed of in an appropriate fashion.

4. Controls on Use of PPPs in Specified Areas

Objective

By controlling the use of pesticides under circumstances that could result in the unnecessary exposure of users, bystanders or non-target organisms, risk reduction to human health and the environment from the impacts of pesticides can be achieved. A particular focus is on the protection of drinking water from contamination by pesticides.

4a: Aerial Application

Directive 2009/128/EC prohibits aerial spraying, except in circumstances where it is deemed to be absolutely necessary.

The use of aircraft to apply PPPs has been very infrequent in Ireland in the past and has been largely restricted to the control of bracken and other woody weeds on lands owned by the Department of Defence.

Currently, there are no aircraft based in Ireland with the capacity to apply PPPs; there is no history of aerial application of PPPs in Ireland and there is no intention for this situation to change in the future.

4b: Spray Trains

Application of PPPs on equipment mounted on trains has long been considered to be problematic due to the scale and volume of use. Hence, it was identified as a priority with regard to the SUD.

Targets

1. All spray trains on Irish railways will be replaced by a system that uses photographic weed identification technology and a low drift, low water volume system, hence drastically reducing the amount of PPP (and water) used.

Actions

1. To promote and encourage the adoption of a more environmentally-friendly method of spray train operation.

Indicator of Progress

1. From PPP records, the reduction in quantities of PPPs used can be recorded.

4c: Reduction of risk in Sensitive Areas

National legislation (S.I. No. 155 of 2012) provides for restricted use of PPPs in certain designated areas:

- a) Areas used by the general public or vulnerable groups (public parks, hospitals, public schools, public playgrounds etc.).
- b) Areas designated as "Special Protection Areas" under the wild birds directive.
- c) Areas designated as "Special Areas of Conservation" under the habitats directive.

Targets

1. To ensure that a full and proper risk assessment is carried out before using PPPs in any of the listed areas.

Actions

1. Legislation states that PPPs can only be used in areas a) to c) above under strictly controlled conditions and only where deemed absolutely necessary.
2. Guidance documents on Best Practice/Responsible Pesticide use in all public areas have been produced by DAFM and are available on the DAFM/PCS website.
3. Encouragement, wherever possible, to use low risk or biological PPPs.
4. Different aspects of the All-Ireland Pollinator Plan and other topics relevant to this area can be accessed through the 'Pollinators' link on the DAFM/PCS homepage. This provides information that is relevant to both the professional and amateur user.

Indicator of Progress

1. Examination of sales and use (including documented risk assessments) records (at retail and user levels respectively) during DAFM inspections will allow quantification of types of PPPs used in specific areas to be recorded.

4d: Protection of Water

Ireland has a range of measures in place to protect water from the impact of pesticide use and is introducing additional measures to protect drinking water quality. The regulatory approval process for products involves an in-depth assessment of the potential for exposure of groundwater and surface water bodies that could result from intended uses and a detailed risk assessment to ensure an acceptable margin of safety for aquatic organisms.

Targets

1. To minimise potential impacts of pesticide use on the aquatic environment and drinking water sources.

Actions

1. Conservative assumptions are employed to account for uncertainty and variability in the exposure and aquatic effects assessments.
2. Where risks are identified and quantified, risk mitigation measures, such as the use of buffer zones, may be required to facilitate the safe use of the product in the field.
3. Where a product label makes reference to an aquatic buffer zone, there is a legal requirement that the product shall not be applied within the prescribed distance from the water course.
4. Where the label does not prescribe a specific buffer zone, a minimum distance of 1 m of untreated area must be maintained between the treated area and the water course.
5. In 2015, in order to further address and reduce the potential impact of pesticide spray drift on the aquatic environment, Ireland introduced the STRIPE initiative (Surface water Tool for Reducing the Impact of Pesticides in the Environment), which facilitates the use of approved drift-reducing nozzles in conjunction with appropriate sized buffer zones.¹

6. Training on best practice measures (e.g. prohibition on filling PAE directly from a water course, and also prohibition on mixing, loading or other handling operations immediately adjacent to a water course) is included in programmes that PAs are required to undertake.
7. A legal obligation on PUs to observe Good Plant Protection Practices (GPPP), which includes important measures to protect water.
8. Establishment of a *National Pesticides and Drinking Water Action Group*, the purpose of which is to support the achievement of compliance with the Drinking Water Directive pesticide standards at the point of abstraction and in treated water. It does this by: enhancing collaboration, including linkages with other national groups, raising awareness, ¹<http://www.pcs.agriculture.gov.ie/plantprotectionproducts/useofplantprotectionproducts/srip e- surfacewatertoolforreducingtheimpactofpesticidesintheenvironment/> tracking progress and activities by relevant stakeholders, serving as a forum for escalating particular problems/constraints, identifying policy and implementation gaps, information sharing and by ensuring appropriate measures are taken in the River Basin Management Plan and standardisation of health advice.
9. A plan to focus on areas of particular concern has been put in place. This plan identifies priority catchment areas where actions to protect drinking water quality can be targeted. Such actions may include the provision of information and advice, catchment monitoring, changes to product application rates and/or conditions of use, and restrictions or prohibitions on use in specified areas within catchments. Catchment monitoring indicating the scale and extent of impacts of pesticide use will play a role in identifying appropriate measures to use and the specific areas where such measures should be targeted.
10. Drinking water abstracted from groundwater sources is protected by a key measure specified in S.I. No.155 of 2012 (as amended), which provides for default no-use zones around those sources. Alternative sizes of no-use zones can be approved, if necessary, based on a reasoned argument, supported by scientific evidence.
11. S.I. No.155 of 2012 (as amended) also stipulates that there shall be no use of pesticides within 50 m of exposed cavernous or karstified limestone features (such as swallow-holes and collapse features), unless an alternative distance, based on a reasoned argument and supported by scientific evidence, has been approved by the Minister. The Minister may specify additional measures to restrict or prohibit pesticide use in defined areas within areas of extreme groundwater vulnerability, as identified on maps compiled by the Geological Survey of Ireland.

Indicator of Progress

1. Compliance in this area is recorded during DAFM inspections of end user records and also as part of voluntary quality assurance audits (in particular the Bord Bia schemes) that are carried out every 18 months.
2. Evidence of water quality meeting statutory quality standards with regard to pesticides will be recorded.

5. Integrated Pest Management

Objective

To achieve widespread adoption of IPM practices amongst end users through education and raising awareness.

5a: Implementing the Principles of Integrated Pest Management

The SUD requires that the NAP should have a specific focus on the implementation and promotion of Integrated Pest Management (IPM), since it is recognised that sustainable use of pesticides is best achieved by use of all appropriate pest management options.

Targets

1. To ensure that IPM is the primary focus of all PAs.
2. To ensure that PUs are familiar with relevant IPM practices available to them, through advice from PAs and also direct dissemination of information.

Actions

1. Dedicated training for PAs which focuses on the IPM approach to crop protection is a requirement for DAFM registration.
2. Adaptation of research and development programmes to obtain the maximum output from specifically tailored input programmes.
3. Development, modification and adjustment, as appropriate, of integrated control techniques to facilitate their application to Irish production conditions.
4. Introduction of guidance for PUs of PPPs that takes account of relevant social, political and economic issues, while maintaining a strong focus on environmental sustainability.
5. Mandatory recording of the application of the principles of IPM by all professional users.
6. Information is gathered at farm level on the implementation of IPM practices through a bolt-on survey that is carried out during the pesticide usage survey.
7. Information on the adoption and practice of IPM techniques at farm level is being gathered as part of a research project conducted by Teagasc, the Irish Agriculture and Food Development authority.
8. Incentivise the adoption of crop specific guidelines for IPM.
9. Incentivise the adoption of low risk and biological PPPs.

Indicator of Progress

1. The success of these measures will be gauged by recording the number of professional users who follow the principles of IPM, as observed during DAFM inspection of end users.
2. IPM implementation can be measured from IPM survey results.
3. Data collected during the Pesticide Usage Survey will reveal the trends in usage of different PPPs e.g. lower risk PPPs and non-chemical methods.

5b: Monitoring of Harmful Organisms

Targets

1. To gain insight into and quantify the levels of infestation experienced by growers throughout the growing season and prior to actions being taken (i.e. the application of pesticides).

Actions

1. Information regarding the levels of infestation experienced prior to spraying will be gathered using an additional survey (an infestation record) carried out during the pesticide usage survey. PA's will provide additional information to this record regarding the level of infestation where feasible.
2. Information derived from the above record (regarding the perceived level of infestation necessary to justify spraying) will be analysed for trends.

Indicator of progress

1. The data collected will quantify the extent to which infestations are monitored by growers, as well as quantifying the perceived level of risk required in order to justify application of PPP's.

5c: Availability of Decision Support Systems (DSS).

Targets

1. To ensure that all relevant stakeholders are made aware of both nationwide warning systems and commercial DSS, where applicable.

Actions

1. An up-to-date list of all DSS commercial and non-commercial offerings will be collated/updated at the beginning of each year and distributed to growers along with their pesticide usage survey.

Indicator of progress

1. The success of this measure will be gauged by recording the number of professional users who implement a decision support system to aid in their decision-making processes regarding control of pest organisms (as observed during DAFM inspection of end users).