IForUT Environmental and Social Risk Assessment (ESRA) - Acetamiprid

Date	16th April 2020	Review Date: 26th June 2026	
Country	Ireland		
Proposed chemical pesticide[1]	Acetamiprid	**Purpose of use (protection of vegetation, logs, human health, livestock, native species, seeds or seedlings, weed control, others)**	Control of the Large Pine weevil (*Hylobius abietis*)

ESRA Summary for Acetamiprid

Acetamiprid is a systemic neonicotinoid. This active ingredient is used in agriculture and horticulture for the control of aphids. This active ingredient has been introduced in recent years for use in forestry for the control of the Large pine weevil (*Hylobius abietis*) to replace cypermethrin. The Large pine weevil is the most significant pest of young plants when they are transplanted in reforestation sites. Acetamiprid for use in forestry is for professional use only. Acetamiprid is classified under FSC pesticide policy as a Restricted Highly Hazardous Pesticide (HHP). Its use must be justified and implemented in accordance with FSC-POL-30-001a V1-1 (2024) and any current FSC requirements in force at time of use.

This ESRA has been prepared and designed to assist IForUT in the Risk Assessment of the active ingredient Acetamiprid where its use is proposed within their portfolio.

Products containing the active ingredient Acetamiprid must be verified as currently approved for use in Ireland on the PRCD database prior to use. Product names and PCS numbers may change and must not be relied upon without verification.

Acetamiprid is considered 'Harmful if swallowed' and is considered 'Very toxic to Aquatic Life with Long Lasting Effect'. Acetamiprid is listed as Approved until 28/02/2033 in the EU in the EU Pesticides Database.

Where the decision making process has identified justifiable use of Acetamiprid, care should be taken when using this pesticide.

Mitigating measures should include:

- adhering to industry best practice and health & safety regulations
- using trained operators
- following the instructions on the product label
- use of Personal Protective Equipment (PPE)
- observing buffer zones in aquatic and sensitive areas in adherence with DAFM environmental guidelines and requirements
- using only the minimum effective quantities of active ingredient required
- using targeted applications (spot applications)
- suitable weather conditions
- and warning the public of areas where this active ingredient has been sprayed.

All chemical use must comply with both PRCD approval requirements and FSC pesticide policy requirements. Approval status must be verified prior to use.

It is IForUT Policy to adhere to industry best practice and health & safety regulations **as detailed in its Integrated Pest Management Strategy (IPMS) and associated policy and procedural documents and operation contracts**, see also Section 4 Guidance Note at the end of this ESRA.

[1] The term 'pesticides' is commonly used as a synonym for plant protection products
[2] Current PRCD records should be consulted to confirm approved products and valid PCS numbers at time of use.

Background Information

Regulation

In Ireland pesticides are regulated by the Pesticide Registration & Controls Divisions (PRCD), formerly Pesticide Control Services (PCS), of the Department of Agriculture, Food and the Marine (DAFM). http://www.pcs.agriculture.gov.ie/ Approval status must be verified prior to use, including confirmation of product authorisation and conditions of use.

The Pesticide Registration & Controls Divisions (PRCD) is responsible for implementing the regulatory system for plant protection and biocidal products. PRCD is also responsible for the national regulations controlling pesticide use. All of their regulatory work is based on scientific evidence to ensure that controls on the sale, supply and use of pesticides are effective.

As part of this ESRA the labels and Material Safety Datasheet (MSDS) [3] for products containing Acetamiprid approved by PRCD were reviewed. Off-Label Extension of Authorisation[4] for Minor Uses (EAMU) approvals apply to the use of Acetamiprid products in forestry. All conditions of the relevant EAMU must be complied with.

The MSDS is used to communicate information vital to the safe use and handling of each chemical or product. MSDS provide information on hazardous ingredients, physical and chemical properties, accompanying hazards, primary routes of entry, exposure limits, precautions for safe handling and use, emergency first aid procedures, and responsible party contacts. Most pesticide manufacturers also elect to include on the MSDS additional information which may be useful to those handling the material along the supply chain.

Pesticide labels provide specific directions and precautions and safety instructions directed to the end user. Specific wording is required and must be approved by PRCD on all pesticide labels. All approved pesticides are assigned a PCS number, which can be found on the PRCD website and on the product label.

The Signal words 'Warning' or 'Danger' are used to warn the user that the chemical is hazardous to human health. Where one of these signal words is used, it is generally accompanied by the following pictogram:



This pictogram means one or more of the following:

- Acutely toxic (harmful)
- Causes skin sensitisation, skin and eye irritation
- Respiratory irritant
- Narcotic, causes drowsiness or dizziness
- Hazardous to the ozone layer

Where a particular active ingredients is harmful to the environment, this is generally indicated by the following pictogram:



This pictogram warns that a substance is hazardous to the environment and causes aquatic toxicity.

[3] At the time of this review, only the Label information was available for Forge (PCS 06721).
[4] https://www.pcs.agriculture.gov.ie/media/pesticides/content/products/Off-label%20Extension%20of%20Authorisation%20for%20Minor%20Uses%20(EAMU)%20-%20Non-

Food%20Crops%20-%20February%202025.pdf

Large Pine Weevil

The Large pine weevil (*Hylobius abietis*) is a serious pest of reforestation across northern Europe. Weevils develop in the stumps of recently felled coniferous trees and emerging adults feed on the bark of newly planted trees. Weevil damage can kill these young trees.
Numerous trials of alternative non-chemical control methods have been developed and tested; however, to date no consistently reliable, efficient or cost-effective controls have been identified under Irish conditions. Without protection, large numbers of conifer restock plants are vulnerable. Once weevil populations meet endemic levels, mortality will range from 30-100%.
It is a particular problem in the UK and Ireland and other parts of Europe during the first five years after restocking (replanting) of commercial conifer forests, and occasionally also of recently restocked broadleaved forests. It is especially destructive of seedlings of pine and spruce (Picea genus), some of the species which are widely grown in the UK and Ireland for the softwood timber market.

Traditionally, the only effective method of preventing pine weevil damage was to spray or dip young transplants in insecticides prior to planting. An additional top-up spray was often required in the second year following planting.
There are now very few chemicals available to protect transplants against pine weevil feeding. Furthermore, as part of the commitment to Sustainable Forest Management, European Member States have agreed to reduce the use of chemicals and increase biodiversity in forests.

Biological Control
Research into biological control in ongoing. In Ireland research is being undertaken in NUIM in the use of nematodes (BIOCOMES). Results to date are promising and have shown that Entomopathogenic nematodes (EPN) applied to stumps can reduce numbers of emerging adults and this strategy has a place in integrated pest management of pine weevil.
EPN have shown efficacy against the large pine weevil where soil and weather conditions are optimal, and have a place in an integrated management programme against this pest. Further development of application strategies may be required to extend the range of sites where use of EPN would be recommended.

Studies undertaken in the UK also show that Insect killing nematodes are the most promising environmentally sustainable way of reducing the number of adult pine weevils emerging onto a site. Studies show that the nematode *Steinernema carpocapsae* has been successfully used against the large pine weevil in the UK for a number of years. Whether the more virulent species *Heterorhabditis downesi* can be developed commercially is still under investigation.
Combined with delayed planting and the use of robust planting stock, nematodes may offer a realistic affordable alternative to chemical insecticides as a means of controlling pine weevil populations in the future.

Feeding Barriers
There has been some success with physical protection products or feeding barriers in Sweden, but from studies undertaken in the UK and Ireland, these were found to be less effective here, as weevil population levels here are often significantly higher than those found on forest sites in Sweden. Feeding barriers tested here include the following flexible stem coatings applied before planting:- wax (Kjvaae Wax); polysaccharide stem coating (Flexcoat); and a sand and glue based stem coating treatment (Conniflex). In addition, the following physical barriers were also tested and found to be generally ineffective in the UK and Ireland unless Hylobius population levels are low:- custom made plastic weevil guards (MultiPro, and Biosleeve) fitted on site after planting; and lightweight plastic nets (WeeNets) fitted around the root plug and lower stem of the nursery tree.

Ongoing Research

IForUT are currently co-funding a 4-year PhD research study that is being undertaken by Waterford Institute of Technology (WIT) into the potential use of seaweed extracts as pesticides in forestry. The bioactive formulations of seaweed extractions will be tested as a potential biopesticide against the Large pine weevil (Hylobius abietis), a potentially devastating pest to replanted conifer plantations and also as a potential replacement of commonly used herbicides in forestry. This PhD research programme started in September 2019.

Acetamiprid

Acetamiprid is a systemic neonicotinoid. This active ingredient is used in agriculture and horticulture for the control of aphids. This active ingredient has been introduced in recent years for use in forestry for the control of the Large pine weevil (*Hylobius abietis*) to replace the active ingredient Cypermethrin. The Large pine weevil is the most significant pest of young plants when they are transplanted in reforestation sites. Acetamiprid for use in forestry is for professional use only.

Products containing the active ingredient Acetamiprid must be verified as currently approved for use in Ireland on the PRCD database prior to use.

Acetamiprid is classified as a Restricted Highly Hazardous Pesticide (HHP) under FSC-POL-30-001a V1-1 (2024). This classification must be verified against the current FSC list prior to use.

A FSC Restricted Highly Hazardous Pesticide (HHP) is defined as a chemical pesticide presenting one or more of the following hazards: acute toxicity, chronic toxicity and environmental toxicity.

It is classified in this list as:

Acute Toxicity 2.1b – Acute Toxicity Mammals and Birds LD_{50} < 200 mg/kg body weight.

Acute toxicity refers to serious adverse health effects (i.e. lethality) occurring after a single or short-term oral, dermal or inhalation exposure to a substance or mixture.
Acute toxicity values are expressed as (approximate) LD_{50} (oral,dermal) or LC_{50} (inhalation) values or as acute toxicity estimates (ATE).
LD_{50} is the dose level that is expected to cause the death of 50% of the test animals.

Current status EU Approval of Acetamiprid
The European Food Safety Authority (EFSA) established that Acetamiprid posed a low risk to bees. It stated that a ban or further restrictions of this substance is therefore neither scientifically nor legally appropriate. The Regulation renewing the approval until 28 February 2033 has been published in the Official Journal of the European Union.

Toxicity: the levels quoted in the MSDS for Gazelle SG for Acute toxicity are as follows:
Gazelle: LD_{50} 1065 mg/kg body weight, indicating a lower acute toxicity relative to some previously used forestry insecticides; however, FSC classification is based on defined hazard thresholds and must be adhered to.

Forest Research UK guidance note[5] on 'Management of Hylobius abietis' states that Acetamiprid is around 500 times less toxic to aquatic life than cypermethrin.

The Gazelle SG, CETA SG and FORGE labels contain the Signal word **Warning** and the following Pictograms:





The labels also contain the following Risk & Safety information:

Harmful if swallowed.
Very toxic to Aquatic Life with Long Lasting Effect

[5] 'Interim guidance on the integrated management of Hylobius abietis in UK forestry'
See https://www.forestresearch.gov.uk/tools-and-resources/pest-and-disease-resources/large-pine-weevil-hylobius-abietis/

It is critical when using chemicals to have proper procedures in place to ensure that health & safety standards are being met and best practice is being observed when handling chemicals and that DAFM environmental and water guidelines and requirements are being adhered to.
IForUT have robust procedures in place which address best practice in this regard including forest management and policy documents, IPMS, Environmental Impact Assessments and other procedural documents, including this ESRA.

Dose of Active Ingredients used
In general, the amount of chemicals used in forestry is very low and represents only a small fraction of the amounts used in other sectors.

Products containing Acetamiprid are typically formulated with an active ingredient concentration of approximately 20% w/w. Product labels for approved formulations currently do not specify detailed application rates for forestry use for spot application in the treatment of pine weevil, as these products are authorised under Off-Label Extension of Authorisation for Minor Uses (EAMU) for non-food crops.

As Acetamiprid has only relatively recently been approved for use in forestry in Ireland, information on practical use in forestry has been informed by research and guidance developed in the UK. The Forest Research UK guidance note[6] on "Management of *Hylobius abietis*" quotes an application rate of approximately 80 g of active ingredient per hectare[7].

According to this guidance, products containing Acetamiprid at 20% w/w may be applied as a 10–20 ml spray of an appropriately diluted solution using a handheld knapsack sprayer, spot gun or equivalent fitted with a suitable nozzle (e.g. adjustable cone nozzle). This results in a targeted application rate per tree of a low quantity of active ingredient, consistent with best practice in forestry.

Equivalent application approaches are reflected in PRCD Off-Label Extension (EAMU) documentation, which generally provide for targeted application with a maximum of one application per annum.
All application rates must comply with the specific product label and EAMU conditions in force at the time of use.

Weather conditions
The application of chemicals is subject to weather conditions being suitable to this operation to avoid drift.

Spraying must not be undertaken in conditions that may result in spray drift, including windy conditions.

Treatment must take place during dry weather. The deposit becomes rain fast once dry. Applications should be timed such that a minimum rain free period of at least 1 hour, and preferably 6 hours, occurs after spraying.

The DAFM /Teagasc / EPA publication 'Protecting Drinking Water from Pesticides - Advice for Farmers and Other Professional Users' generic recommendation for pesticide spraying is that no spraying is undertaken if the target area is wet or if heavy rain is forecast within 48 hours after application.

Many of the mitigating measures recommended in this ESRA are already described in the Integrated Pest Management Strategy and associated Forest Management Policies implemented by the Irish Forestry Unit Trust (IForUT).

[6] 'Interim guidance on the integrated management of Hylobius abietis in UK forestry'
See https://www.forestresearch.gov.uk/tools-and-resources/pest-and-disease-resources/large-pine-weevil-

hylobius-abietis/

[7] Compared to recommended application rates of active ingredient for agriculture/horticulture of 250g/Ha (Aphids) and 500g/Ha (White fly).

IForUT Policy

IForUT is committed to sustainably managing their forest resource and only subscribe to chemical use as a last resort.

It is IForUT policy to:

- Assess each site on an individual needs basis and have a clear rationale to justify chemical usage as opposed to non-chemical alternatives.
- When chemical control is deemed necessary, only use chemicals which are fully approved as safe to use in forestry in Ireland by the DAFM's Pesticide Registration and Control Division (PRCD).
- When chemical control is deemed necessary, comply with the FSC® Pesticide Policy.
- Record usage and monitor effectiveness of chemical applications.
- Comply with statutory legislation on health and safety and environmental and water protection.
- Only use operators who are fully trained in safe handling and use of chemical pesticides, health and safety and environmental aspects of the use of chemicals.
- Reduce chemical usage as a long-term goal.
- Continue to investigate and review non-chemical alternative weed control methods, as part of IForUT's commitment to sustainable management of their forest estate.
- Employ mitigating measures as outlined in this ESRA and in its Integrated Pest Management Strategy (IPMS) and associated policy and procedural documents and operation contracts.
- Keep records of all site visits to monitor/supervise operations.

Non-Pesticide Strategy for Weevil Control

Presently the pressure for pesticide usage is on restock sites, in particular large pine weevil control on conifer sites.

Based on the population dynamics of large pine weevil, it is IForUT policy to replant restock sites immediately after felling and to use improved nursery stock for quicker tree establishment. Larger planting stock is used to encourage quicker tree growth.

To pre-empt weevil mortalities in year 1, 10%-15% higher tree numbers are planted to absorb initial weevil mortalities.

Where there has been recent weevil activity in surrounding areas, planting with dipped plants will be considered to protect the young plants against weevil attack.

Replanted sites will be regularly monitored for weevil activity to provide data on whether further weevil control measures are required.

In years 2 & 3 it has been found to be cost beneficial to beat up 10%-15% mortality rates as opposed to annual treatments of acetamiprid.

In year 4 the weevil population cycle is typically declining and restock trees have grown to a size less susceptible to weevil damage. At this stage the weevil risk is viewed as having past.

Where chemical control is deemed warranted, it is IForUT policy to always manually apply chemicals carefully and directly to the targeted plant (spot application). Buffer zones (setbacks) are strictly observed and no chemicals are applied near watercourses or abstraction points for public or private water supplies, or other sensitive natural features. If spraying is required, it should occur as close to the peak of the weevil activity as possible (generally April and July).

The IForUT Integrated Pest Management Strategy (IPMS) also outlines its strategy in this regard and outlines steps that will be undertaken in first instance to prevent any unnecessary action to be undertaken, to identify and monitor pests to ascertain whether any action will have to be undertaken and to identify whether alternatives such as mechanical or biological methods can be used.

It is IForUT policy to erect notices in the forest area, prior to the application of chemicals, to inform the public where and when chemicals are being sprayed.

Waste Management

The product labels for pesticide products contain information for the disposal of empty containers including triple rinsing containers and not re-using empty product containers. The IForUT waste policy with recommendations for responsible waste management in accordance with EPA and PRCD[8] guidelines is included in its IPMS and associated policy and procedural documents and operation contracts. Disposal of empty containers through a registered waste disposal service[9] is recommended. All spent oil, machine parts and refuse generated by the operation should also be removed from site after forestry operation has ceased.

[8] Good Practice Guide for Empty Pesticide Containers https://www.pcs.agriculture.gov.ie/media/pesticides/content/sud/Good_Practice_Guide_for_empty_pesticide_containers.pdf

[9] Example of farm plastics recycling facility: https://www.farmplastics.ie/

ESRA - Environmental and Social Risk Assessment

This ESRA takes into account the potential risks associated with Acetamiprid to:

1. Worker Health & Safety
2. The Environment
3. Social risk and the wider public

and outlines mitigating measures to be undertaken

1. Worker Health & Safety

As is evident from the Signal word and Pictograms on the Label, Acetamiprid is a hazardous chemical. To avoid risks to human health, the operator must comply with the instructions for use on the product label including the use of **gloves**, as well as recommended for use of any chemical:

- Care should be taken when handling.
- Contact with skin and eyes should be avoided
- The use of protective clothing is mandatory.
- Care should be taken not to breathe spray.
- Workers should not eat, drink or smoke while working with chemicals.
- Chemicals should be kept away from foodstuffs and beverages.
- All protective clothing should be washed thoroughly after use, especially the insides of gloves.
- Hands and exposed skin should be washed thoroughly before eating and drinking/smoking/after work.
- Chemicals should be kept away from children
- Chemicals should be kept only in the original container

The above precautions should be universally applied when using chemicals and it is assumed that trained operators are aware of these precautions. (See also FISA Safety Guide 202 'Application of pesticides by hand-held equipment')

Contractors will be expected to follow the instructions on the pesticide product label including those related to Personal Protective Equipment (PPE), application rates and equipment suitability.

Mitigating Measures:
It is IForUT Policy that best practice will be followed for all forestry operations, which includes adherence with the suite of DAFM environmental and water guidelines and requirements.

Application of chemicals is subject to weather conditions being suitable to this operation to avoid drift. The Forest Manager and Operator will agree on a suitable day(s) for spraying based on the weather forecast and in accordance to the suitable conditions specified on the product label.

Prior to any chemical application, it is IForUT policy to undertake Operational Planning, including EIAs and Health & Safety checklists, and all operations require signed contracts and are supervised by the Forestry Works Manager.

Operators must have:

- Appropriate training certificate for Pesticide Application
- Appropriate PPE (PPE should be worn at all times)
- First Aid Certificate
- First Aid Kit on site (containing sufficient eye wash for emergency use)
- Spill Kit on site containing a supply of absorbent material to deal with accidental spillage
- Public Liability & Employer Liability Insurance
- Suitable equipment which is in good working order

Operators will be provided by the Forest Manager with

- FISA Safety Guide 202 'Application of pesticides by hand-held equipment'
- Hazard and Sensitivities Map
- Pollution Control Plan
- Emergency Response Details and Contact Numbers
- Site Risk Assessment/Site Environmental Impact Assessment
- Operation Contract to be agreed and signed before commencement of work
- Signage to be erected to inform the Public of Spraying operations
- Chemical Usage Record for completion (containing section for reporting ill effects)

Monitoring & Control Measures:

Forest Managers will undertake (and record) supervision visits to check that:

- Health & Safety procedures are followed
- risk assessment controls are being adhered to
- industry best practice guidelines is being applied
- all site sensitivities are protected
- no ill-effects are being reported

Forest Managers will:

- Collect/complete chemical usage record
- Check all works are completed to specification and contract.
- Check all waste material and storage containers are removed from site and disposed of appropriately.
- Follow up on any ill-effects as soon as reported

2. The Environment

As is evident from the Pictograms on the product labels, Acetamiprid is hazardous to the environment. It is classified as **Very toxic to Aquatic Life with Long Lasting Effect.**

The product labels indicate that an unsprayed buffer zone of 5m from surface water bodies should be observed.

Acetamiprid, like any chemical, shall be used in minimum effective quantities, and with strict observation of controls and regulations relating to use.

Mitigating Measures:

It is IForUT Policy that best practice will be followed for all forestry operations, which includes adherence with the suite of DAFM environmental guidelines and requirements.

Application of chemicals is subject to weather conditions being suitable to this operation to avoid drift. Forest Manager and Operator will agree on a suitable day(s) for spraying based on the weather forecast and in accordance to the suitable conditions specified on the product label.

If flowing watercourses are present, the Forest Managers shall:

- Ensure that the site operatives observe all buffer zones (set backs) in relation to any of the watercourses present.
- Make sure that site operatives are in possession of risk assessment, pollution control plan, emergency contact numbers and site hazards and sensitivities map.
- Ensure that contractors have suitable facilities for preparation, cleaning and maintenance such that any spillage or run off will be prevented from entering watercourses.
- Check that site operatives fully understand the site hazards and sensitivities map and can easily identify such features on the ground.
- Familiarise him/herself with catchment and weather forecasts for the duration of operations.
- Stop operations, if at any point the mitigation measures identified are not proving adequate protection and
- Carry out emergency remedial works, if required, including monitoring water quality if required.

Operators must have:

- Appropriate training certificate for Pesticide Application
- Appropriate PPE (PPE should be worn at all times)
- First Aid Certificate
- First Aid Kit on site (containing sufficient eye wash for emergency use)
- Spill Kit on site containing a supply of absorbent material to deal with accidental spillage
- Public Liability & Employer Liability Insurance
- Suitable equipment which is in good working order

Operators must ensure that:

- Any washings be used as part of the application programme and that water for the programme is not abstracted[10] on site unless it is put in an intermediate container or the sprayer is fitted with a device preventing back siphoning.
- Preparation, cleaning and maintenance is only undertaken at suitable sites such that any spillage or run off will be prevented from entering watercourses
- Only the required amount of diluted spray is prepared for the areas to be treated.

Operators will be provided by the Forest Manager with:

- FISA Safety Guide 202 'Application of pesticides by hand-held equipment'
- Hazard and Sensitivities Map
- Pollution Control Plan
- Emergency Response Details and Contact Numbers
- Site Risk Assessment/Site Environmental Impact Assessment
  (Including Risk Assessment on storage of chemicals in original manufacturer containers on site in locked containers during work hours. No chemicals will be stored on site outside work hours.)
- Operation Contract to be agreed and signed before commencement of work
- Signage to be erected to inform the Public of Spraying operations
- Chemical Usage Record for completion

Monitoring & Control Measures:

The Forest Manager will undertake (and record) supervision visits to check that:

- Health & Safety procedures are followed
- risk assessment controls are being adhered
- industry best practice guidelines is being applied
- all site sensitivities are protected

The Forest Manager will:

- Collect/complete pesticide application record
- Check all works are completed to specification and contract
- Check all waste material and storage containers are removed from site and disposed of appropriately

[10] Taking water from a surface source (such as a river, stream or canal)

3. Social risk and the wider public

Forests near urban areas are more likely to be used for recreation (e.g. hiking, walking, dog walking, cycling) and some forests may be used for foraging for herbs, berries or mushrooms. Some forests may have third party rights, such as rights of way, shooting or fishing rights. These type of access will be taken into consideration in the decision making process when choosing weed control measures.

Mitigating Measures:

It is IForUT Policy that best practice will be followed for all forestry operations, which includes adherence with the suite of DAFM environmental guidelines and requirements.

Chemical pesticides shall be used in minimum effective quantities, and with strict observation of controls and regulations relating to use and confined to the intended target area by using appropriate application equipment to prevent spray drift and run-off. All products should always be applied in accordance with the product label and care should be taken to select the most appropriate pesticide for the target and situation.

In public areas such as roads, railways and other areas used by the general public, the use of any pesticides should be avoided or strictly limited and the amount of pesticide and the frequency of use should be kept to the minimum required to achieve effective control. Careful consideration should be given to product selection, appropriate application rates and dosage frequency.

It is IForUT policy to always manually apply chemicals carefully and directly to the targeted weed (spot application).

Where access to the forest is provided to the public, access to routes leading to work sites will be closed off and dated notices shall be posted to inform the public of chemical pesticide use.

These notices act to advise the public to:

- keep to the roads and tracks
- keep dogs on the lead
- not gather plant materials

All chemical applications will be stopped if an unauthorised person enters the work site.

Local caretakers, immediate neighbours, and people with third party access rights will be informed in advance of any chemical spraying.

The labels and MSDS for Acetamiprid do not specifically mention toxicity to honeybees. Although the active ingredient itself can clearly be toxic to invertebrates, the UK Health and Safety Directorate have judged that the product formulation will not be harmful to bees when used as directed. European Commission toxicology and environmental impacts studies show that, if used as directed, it is significantly less harmful to bees and aquatic life respectively than cypermethrin. Engagement with local beekeepers would be recommended in the Operational Planning stage as a mitigating measure to avoid spray application during the flowering periods of crops and weeds in the area and local beekeepers should be informed prior to undertaking any spraying with Acetamiprid.

All other mitigations as listed under point 1 and 2 also apply.

4. Guidance Note

This ESRA should be read in conjunction with the following IForUT FMM documents:

3. Health & Safety Policy
3.0 Health & Safety Policy Statement

4. Management Planning
4.1.16 Pesticide Usage Policy

4.8 IForUT Integrated Pest Management Strategy

5. Operational Procedures
5.13 Chemical Application Procedure
5.19 Monitoring Plan
5.22 Water Quality Monitoring

6. Contract Documentation
6.1 Hazard Identification & Risk Assessment (HIRA)
6.4 Emergency Contact Details
6.5 Pollution Plan & Site Safety Rules
6.8 General Operations Contract
6.12 Pesticide Usage Record
6.18 ESRA Operational Checklist

Best Practice Guidance
FISA Guide 202 'Application of pesticides by hand-held equipment'
DAFM Good Plant Protection Practice[11]

This ESRA contains requirements designed to control, and mitigate against, the risks associated with the application of chemicals to operators, the environment and the wider public and represents best practice in the use of pesticides.

The above suite of documents are designed to assist the Forest Manager in implementing the controls and mitigating measures outlined in this ESRA in practice at FMU level, through the use of pre-commencement checklists, monitoring of operations and detailed record keeping when the operations have been completed.
The monitoring intensity is determined by the scale and intensity of the operation, the level of experience of the contactors and the risks imposed.

11 https://www.pcs.agriculture.gov.ie/media/pesticides/content/sud/professional/Good%20Plant%20Protection%20PracticeGPPP040624MLU050624.pdf