

Pesticides Code of Practice for the Republic of Mauritius



This pesticide code of practice has been prepared by the Pesticides Regulatory

Office of the Ministry of Agro Industry and Food Security

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Pesticides Code of Practice

Table of Contents

Section 1. Introduction	1
1.1 Pesticides	1
1.2 Risk of using pesticides	1
1.3 Purpose of using code of practice	2
1.4 Scope	
1.5 Who should use this code?	2
1.6 Responsibility of users of pesticides	3
1.7 Legislations on pesticides	3
1.8 Pesticides residues	3
Section 2. Training	4
2.1. Training on use of pesticides	4
2.2. Training Topics	4
Section 3. Planning and preparation	5
3.1. When to use pesticides?	5
3.2. Effective management of pests	5
3.3. Using pesticides	5
3.4. Pesticide Labels	6
3.5. Safety tips when dealing with pesticides	6
3.6. Pesticides at workplace	6
3.7. Storage of pesticides	7
3.8. Moving pesticides into and out of the store	7
3.9. Pesticide exposure	8
3.10. Route of pesticide entry into the body	8
3.11. Measures to control and prevent exposure to pesticides	8
3.12. Use of Personal Protective Equipment	9
3.13. Maintaining controls to prevent exposure	9
Section 4. Working with pesticides	.11
4.1. Working safely with pesticides	.11
4.2. Transport of pesticides	.11
4.3. Precautions when filling equipment	.12
4.4. Mixing of nesticides	12

Pesticides Code of Practice

4.5. Pesticide application	13
4.6. Application methods and precautions	13
4.6.1. Reduced-volume spraying	13
4.6.2. Fogs, mists and smokes	14
4.6.3. Fumigants	14
4.6.4. Dusts, granules, pellets and baits	14
4.6.5. Using vehicles without cabs for spraying	15
4.6.6. Paved areas and public footpaths	15
4.6.7. Using hand-held equipment	15
4.6.8. Seed treatments	16
4.6.9. Dipping and drenching treatments	16
4.7. Weed control in or near water	16
4.8. Spray drift	17
4.8.1. Measures to avoid spray drift	17
4.9. What to do after pesticide application ?	17
4.10. Health surveillance to monitor exposure	17
4.11. Protecting the public	18
4.12. Protecting the environment and wildlife	18
4.13. Protecting beneficial species	19
4.14. Protecting livestock	19
4.15. Protecting fish and other aquatic life	19
4.16. Preventing pesticides from contaminating surface water and groundwater	19
Section 5. Disposal of Pesticides	21
5.1. Disposing of pesticide wastes	21
5.2. Reduce pesticide waste	21
5.3. Disposal of unwanted pesticide concentrates and ready-to-use formulations	21
5.4. Disposal of waste pesticide containers	22
Section 6. Record Keeping	23
6.1. Storage records	23
6.2. Records of pesticide treatments	23
6.3. Records on environmental risk	24

Pesticides Code of Practice

Section 1. Introduction

The Use of Pesticides Act is being enforced by the Pesticides Regulatory Office of the Ministry of Agro Industry and Food Security since September 2018 to regulate, monitor and control the use of pesticides in agriculture. The main objective of this Act is to effectively manage the use of pesticides for adequate protection of human health and the environment. This includes protection of pesticide users, consumers, the public and crops.

Using pesticides incorrectly or when not necessary, can put people and the environment at risk and can increase the possibility of pests becoming resistant while also damaging the treated area. Hence this code of practice has been devised by the Ministry of Agro Industry and Food Security to maximise the benefits of pesticides for protecting crops whilst reducing the risks associated with their use. This code explains how users of pesticides should use pesticides safely to be in conformity with the legal provisions which cover their use.

1.1. Pesticides

A pesticide is any substance, or mixture of substances of chemicals or biological ingredients intended for repelling, destroying or controlling any pest, or regulating plant growth. Pesticides play key roles in food production by preventing the spread of pests and diseases, and protecting crops and livestock.

A pest is any unwanted plant, harmful creature, or organism that is harmful to plants, or other plant products.

Pesticides may be single substances or mixtures of substances and include bactericides, baits, biological agricultural products, fungicides, herbicides, insecticides, miticides, molluscicides, nematocides, plant growth regulators, post-harvest fruit dips and sprays, repellents and rodenticides

1.2. Risks of using pesticides

Even if pesticides have economic, social, public health and environmental benefits, there are significant risks associated with pesticide use. Many pesticides are toxic to humans and other living things, so their inappropriate use can cause harm. Hence pesticides should be used in a safe way to minimise risks associated with their use.

Risks associated with pesticides include:

- illness or harm to humans who are exposed
- environmental nuisance such as noise and odour
- harm to non-target organisms including native, ornamental and agricultural plants and animals
- pollution of land and water
- development of resistance in pests
- contamination of agricultural produce, leading to trade problems and health risks of consumers.

1.3. Purpose of the code of practice

In Mauritius, pesticides are used by many different types of users. When combined with the hazardous nature of pesticides, there is potential for misuse by users resulting in significant harmful consequences to the environment, people and trade. This code of practice is therefore important to give the proper guidance to users of pesticides to minimise risks associated with their use while providing effective pest control.

1.4. Scope

This Code is relevant to all users of pesticides including householders, pest control operators, professional sprayers and growers. The code provides practical advice and guidance for proper use and management of pesticides for agricultural, commercial and domestic purposes.

1.5. Who should use this code?

This code should be used by people who provide advice or practical support, or sell and supply pesticides and all pesticide users who use pesticides:

- on farms
- in horticulture
- on amenity areas, and sports grounds

in forestry

1.6. Responsibility of users of pesticides

All users of pesticides have the responsibility to ensure that while using pesticides, their actions do not cause harm to the environment, other people or their property, or themselves. Pesticide users also have to comply with the relevant legislations and follow this guideline to minimise all possible risks associated with their actions.

1.7. Legislations on pesticides

It is important to understand and comply with the existing laws governing pesticides to be able to use pesticides safely. The laws apply to safe storage, transport, application and disposal of pesticides.

The existing laws regulating pesticides in Mauritius are:

- (i) The Food Act 1998
- (ii) The Environment Protection Act 2002
- (iii) The Dangerous Chemicals Control Act 2004
- (iv) The Occupational Health and Safety Act 2015
- (v) The Use of Pesticides Act 2018

1.8. Pesticide residues

The use of pesticides to control pests in fruits and vegetables can lead to the presence of pesticide residues. The level of these residues can be kept below the maximum residue limit (MRL) if good agricultural practices are used and if the growers follow the advice provided in this code and on the pesticide labels. Residues exceeding MRLs are a violation to the Food Act and the Use of Pesticides Act and are harmful to health.

Section 2. Training

2.1. Training on use of pesticides

By law, everyone who uses pesticides professionally in agriculture must be trained in using pesticides. Users should have the appropriate skills for handling and using pesticides. This applies to:

- users, pest operators and technicians (including contractors);
- managers;
- employers;
- self-employed people; and
- people who give instructions to others on how to use pesticides.

2.2. Training Topics

Users of pesticides should contact the Food and Agricultural Research and Extension Institute for training on judicious use of pesticides. Users of pesticides should be trained on the following:

- The relevant legislations dealing with pesticides in Mauritius
- Risks associated with pesticides
- Safe working practices to minimise risks of exposure and contamination
- Emergency actions in case of incidents
- Health monitoring
- Record keeping
- Use of equipment for application of pesticides

Section 3. Planning and preparation

3.1. When to use pesticides?

Pesticides should be used only when required and when no other effective control options are available to reduce risks associated with their use.

3.2. Effective management of pests

Careful planning and management will often reduce pest problems, hence implying reduced pesticide use, better quality produce, lower costs and higher profits.

Preventive strategies should be used to reduce the chance of having pest problems. Appropriate early prevention may reduce the frequency and intensity of pest problems and reduce pesticide use.

If pest control is required, non-chemical or a combination of control methods should be used.

3.3. Using pesticides

The policy of the Ministry of Agro Industry and Food Security is to keep pesticide use to the lowest possible level whilst ensuring that pests and diseases are controlled effectively. It is very important to identify any pest problem before deciding which control methods to adopt. In many cases, pests and diseases may effectively be controlled by following good agricultural practices such as cultural or biological control and adopting integrated crop and pest management. These approaches do not only have commercial benefits, but they also have sound environmental outcomes.

The following should be considered when using a pesticide:

- It should be used effectively to minimise any unwanted effects on health and the environment and reduce the risk of build-up of resistance in pests
- Appropriate advice should be sought from Extension Services and pesticide retailers for choosing the right pesticide
- Selective pesticides with low toxicity and having a low residual effect should be used
- Use a pesticide which does not drift, hence reducing the risk of polluting the environment

- Pesticides should have intact labels and should be contained in properly sealed and undamaged containers
- Do not buy and store excessive amount of pesticides

3.4. Pesticide Labels

Pesticide labels provide relevant information on pesticides which are needed to make decisions on how, when and how much product to use. All pesticide users should follow instructions and relevant safety information on the labels prior to use.

3.5. Safety tips when dealing with pesticides

Precautions should be taken to minimise exposure to pesticides since pesticides are toxic and exposure may cause chronic problems in the long term.

The following safety tips should be followed to reduce exposure when dealing with pesticides.

- Users should follow the instructions on the pesticide labels
- Use of Personal protective equipment (PPE). PPE should be clean and undamaged before each use
- Use ear protection when using motorised sprayers
- Use properly fit and well maintained respirators. Replace cartridge or filters at regular intervals for maximum protection
- Remove PPE and wash hands properly with soap prior to eating, drinking, smoking or going to the toilet after working with pesticides
- Clean all PPE and keep them separately and safely after use
- Users of pesticides should be trained on the use and care of safety equipment
- Seek medical advice/care at the earliest in case of exposure to a pesticide

3.6. Pesticides at workplace

All employers are required to consider health and safety issues when using pesticides at work with respect to transport, storage, preparation, application, clean-up and disposal of pesticide products.

The following should be followed when using pesticides:

- Keep a register of all pesticides, including material safety data sheet for each product
- Proper labelling of hazardous chemicals, including hazard symbols
- Identify all employees who are potentially exposed to pesticides and keep appropriate records
- Perform health surveillance for employees
- Use safe operating procedures (SOPs)
- Use control methods to minimise risk of harm to employees
- Provide appropriate training related to safe use of pesticides to employees
- Provide appropriate safety and first aid equipment which include protective clothing, respirators, clean-up and washing facilities, first aid kits, eye wash facilities, safety showers and spill kits

3.7. Storage of pesticides

All pesticides should be stored safely out of reach of children and animals in the original container with the approved pesticide label. All pesticide mixtures should be labelled properly and stored safely and securely. Pesticide stores should have suitable equipment to deal with contamination, spills and fire and pesticide users should know how to use that equipment in case of any emergency situation.

A list of appropriate emergency phone numbers should be kept and clearly displayed.

All those keeping pesticides should follow good store management by:

- Keeping an updated stock record of the pesticides
- Removing all unapproved or unwanted and expired pesticides
- Removing waste and using packaging for safe disposal
- Using the oldest stock of pesticide first
- Checking for damaged containers and taking appropriate actions immediately

3.8. Moving pesticides into and out of the store

All pesticide containers should be moved carefully in and out of the store.

Before moving any container, check for any leakage and ensure that it is properly closed and has intact labels. Any spillage should be tackled immediately and contaminated materials should be disposed of safely.

Pesticide containers should not be left unattended to prevent risks to children, pets, or any other animal.

3.9. Pesticide exposure

People who can be exposed to pesticides fall into two categories:

- **(i) Direct exposure**: Pesticide users who directly handle pesticides during preparation and application and field workers who work in the field during or after spraying such as female labourers performing weeding
- (ii) Indirect exposure: Those who might not be aware that they are being exposed to pesticides such as family members who are exposed to pesticides improperly stored at home or when in contact with contaminated persons; bystanders who are exposed to spray when pesticides are being applied to the crop; neighbours who live close to fields where pesticides are being used; children who may be playing around the house and maybe in or near the fields which have been sprayed or may play with empty containers laying around.

3.10. Route of pesticide entry into the body

Pesticides may enter the body through:

- Skin absorption when the skin gets in contact with a pesticide when handling pesticides or contaminated equipment, and from exposure to spray drift
- Ingestion when pesticides are swallowed accidentally through contaminated food, cigarettes or hands
- Inhalation through breathing of air contaminated with volatile pesticides

3.11. Measures to control and prevent exposure to pesticides

Users of pesticides should adopt the following measures to protect themselves from being exposed to pesticides:

- Use alternative method of pest control
- Use a pesticide with lower toxicity
- Follow the recommended dosage of pesticides
- Plan spraying activities when other workers are not in the field
- Use pesticides which do not require much handling
- Wear protective equipment

- · Use the right equipment which is in proper condition and well maintained
- Clean all pesticide equipment after use
- Inform neighbours about any spraying to be carried out and put appropriate notice after spraying

3.12. Use of Personal Protective Equipment

All users of pesticides must wear personal protective equipment (PPE) if other controls do not give the adequate level of protection. The type of PPE to use is mentioned on the pesticide labels. Protective equipment should be suitable and must fit the user correctly to be effective and to provide appropriate protection.

PPE includes water-proof coveralls with long sleeves and long trousers, protective rubber gloves, rubber boots, respiratory mask, googles and face shields.

PPE should always be used when performing the following activities:

- Entering closed pesticide storage room
- Moving pesticides
- Handling, weighing/measuring pesticides
- Mixing pesticides
- Filling pesticide mixture in spraying equipment
- Applying pesticides

3.13. Maintaining controls to prevent exposure

Growers and pesticide users should continue maintain the control measures for their own safety and that of other workers by:

- Regular checks and inspections for faulty and defective equipment
- Carrying out servicing and repair of all defective equipment
- Not using any faulty equipment or any damaged PPE
- Removing any contaminated PPE as soon as possible to avoid an increased risk of exposure
- Washing of protective gloves inside and out after use while taking care to prevent self- contamination or contamination of the environment and water

- Disposing of contaminated PPE safely
- Cleaning contaminated protective clothing separately and not with domestic or personal items
- Keeping PPE in suitable, well-ventilated, secure and separate storage facilities

Section 4: Working with pesticides

4.1. Working safely with pesticides

All those working with pesticides should take all necessary precautions to protect the health of people, animals and plants and protect the environment.

The most appropriate and safe recommendations when using pesticides are to:

- Read the product label before opening any pesticide container
- Follow the instructions and precautions on the product label
- Wear PPE at all times when handling pesticides or their containers
- Work in a well-ventilated area to avoid any possible build-up of vapours
- Avoid sparks and naked flames as some pesticides are flammable
- Take extra precautions when handling damaged containers
- Contain any spillage immediately and dispose of any contaminated material safely
- Transfer the pesticide with the original label in another container (not food container) if the original container is damaged
- Keep pesticide containers in a secure store
- Keep PPE in the storage room when not using it
- Maintain a high standard of personal hygiene by using washing facilities

Avoid doing the following when working pesticides:

- Suck or blow (by mouth) any nozzle or any device of the spraying equipment
- Continue to work after being contaminated
- Eat, drink, smoke or use the toilet while working with pesticides
- Use damaged or faulty protective equipment

4.2. Transport of pesticides

All those transporting pesticides should follow these guidelines to reduce the risk of spillage or other incidents:

- Take immediate action in case of spillage to prevent contamination of other people, animals or the environment
- Use a bridge and avoid using waterways
- Call the fire and rescue service in case of fire

- Verify leaks or spills from pesticide containers
- Ensure that pesticide holding equipment are not overfilled to prevent spillage during transport
- Ensure that pesticides are not transported with children, animals, farm produce or animal feed
- Ensure that no damage occurs to pesticide containers and associated equipment during loading or unloading
- Clean all equipment and vehicle used for transport of pesticides after use and dispose of washings safely
- Avoid mixing, filling or loading of pesticides near waterways, ditches, drains and boreholes

4.3. Precautions when filling equipment

When mixing and filling equipment with pesticides, users should follow instructions as indicated on the pesticide label.

Precautions to be taken include:

- Use a tray or container to catch any spill and return the product to the container
- Use a funnel when filling a container and pour slowly so that air can enter
- Use suitable measuring device for measuring pesticides accurately, rinse it after use and add rinse water to the sprayer
- Avoid foaming by using appropriate stirring or re-circulating systems
- When mixing two or more pesticides together, add them to water separately in the recommended order
- Handle powder and fine granules in sheltered conditions
- The person applying the pesticide should understand the product label
- Have a spill kit available at all times in case there is a spillage
- Rinse containers three times (each time using a volume of rinse water equivalent to 10% to 20% of the volume of the container)

4.4. Mixing of pesticides

When using more than one pesticide, it is recommended to only mix products which are compatible and to mix them in the following order:

- Water-soluble bags
- Water-dispersible granules (or soluble granules)
- Wettable powders (or soluble powders)
- Suspension concentrates
- Emulsifiable concentrates (or oil in water emulsions)
- Adjuvants

4.5. Pesticide application

Pesticide should be applied in a way so as to prevent contamination of equipment and untreated area. Moreover, people should be able to move in and out of the area safely in emergency cases.

When spraying pesticides, access routes should be treated last and an untreated area should be left for cleaning the equipment and disposing of washing water.

4.6. Application methods and precautions

There are specific precautions which have to be taken when applying pesticides depending on the application methods used. These precautions are found on the pesticide label and should be followed.

Properly calibrated equipment with the right nozzles should be used to produce the right size droplets and deliver the right amount of spray.

4.6.1. Reduced-volume spraying

This refers to pesticide application where the concentrate being sprayed is diluted with a lower volume of water than the minimum volume recommended on the label for that dose. This may result in smaller droplet sizes (depending on the type of nozzle used), which may increase spray drift. It is not recommended to do such type of spraying if the pesticide is toxic and corrosive.

For reduced-volume spraying:

- The concentration of the 'reduced-volume' spray should not exceed more than 10 times the maximum concentration recommended on the label
- The pesticide applicator should know how to control the spray to prevent drift

4.6.2. Fogs, mists and smokes

Fogs, mists and smokes are treatments normally used in enclosed spaces or indoors, where any possible drift is contained. The risk of breathing in the very small particles or droplets associated with these methods is higher.

Guidelines to follow when using fogs, mists or smokes:

- Remove all personal property from the area before treatment
- Clean all unprotected contaminated surfaces after the treatment
- Ensure that there is nobody in the part of the building or structure being treated
- Display adequate notices at all entry points to inform and prevent people from entering the area
- Ensure that all entrances are secured throughout the treatment period
- Verify if any smoke, drifting particles or vapour from the treatment do not enter another part of the building and ensure that nobody enters the building unnecessarily
- Assess the risks to humans and the environment, which might arise from any smoke, particles or vapour escaping
- Ensure that the treated area is adequately ventilated (by using extractors) before anyone re-enters it

4.6.3. Fumigants

Fumigation is a very specialised task which requires proper training to be carried out. Fumigation has to be properly planned to prevent the fumigant spreading beyond the area to be treated.

4.6.4. Dusts, granules, pellets and baits

When handling and applying pesticides in the form of a dust, fine granules or granules that give rise to a dust, special care should be taken to avoid breathing in dust or allowing the skin to become contaminated,

Granules release toxic vapours especially in warm conditions and may be dangerous, particularly in confined spaces. Follow instructions on pesticide labels and use appropriate equipment. Spilt granules or baits should be properly disposed of.

The following should be followed to reduce risk to wildlife and pets when using slug pellets:

- Drill the pellets with seed
- Apply them at the correct rate
- Clear up spillages immediately
- Remove all slug pellets packets after use

All baits should be protected to prevent other species such as pets and birds to feed on them. Baits should be removed after use and dead bodies of pests should be disposed of safely.

Special care should be taken when cleaning equipment used for applying dusts, pellets or granules to prevent contamination of the air.

4.6.5. Using vehicles without cabs for spraying

Spraying from vehicles without cabs may result in a high level of exposure through the skin or by breathing in the spray. Care should be taken to minimise exposure to spray drift and appropriate PPE should be worn.

4.6.6. Paved areas and public footpaths

When applying pesticides on hard surfaces, care should be taken to prevent pesticides from entering drains or waterways which can pollute groundwater.

Precautions to be taken include:

- Use alternative methods of control if the area to be treated is near a borehole
- Prior to using pesticides on a footpath, the relevant authorities should be informed and permission taken
- Choose the appropriate product and method of application to protect people and animal
- Drive the vehicle at the appropriate speed for the safety of people

4.6.7. Using hand-held equipment

The following precautions should be taken when using and filling hand-held equipment:

 Avoid contamination by walking through the crop or area treated, especially in a field with high crops

- Avoid working into the wind when spraying or applying dusts and fine granules
- Use a suitable spray pressure control valve and nozzle cover to prevent drift
- Use a controlled droplet application lance or spot gun
- Avoid overfilling the spray tank
- Replace the filler cap correctly and firmly

4.6.8. Seed treatments

When using seed-treatment equipment, care should be taken:

- During cleaning or brushing to prevent the dust being carried in the air
- To avoid breathing in the dust or contaminating the skin, especially when handling treated seed, setting equipment and cleaning equipment after use
- For safe disposal of seed bags, other contaminated material and unused treated seeds
- All treated seeds should be covered with the appropriate depth of soil during planting.

4.6.9. Dipping and drenching treatments

To reduce high levels of skin contamination from splashes, run-off from the freshly treated material, and contact with contaminated debris when cleaning the equipment and breathing in pesticide vapour when using pesticides in dip and drench the following is recommended:

- Good ventilation for people applying the product, handling the treated material or working in contaminated areas
- Use of appropriate protective equipment to reduce exposure during treatment
- Safe disposal of any used or extra pesticide mixtures

4.7. Weed control in or near water

Only trained people should apply pesticides in or near water. The relevant authorities should be informed and approval obtained before applying pesticides in such areas.

4.8. Spray drift

Spray drift can cause damage to the environment and wildlife (both on land and in water) and results in water pollution. Pesticides applied as dust or fine granules can also drift. To reduce spray drift, the pesticide should be applied correctly in suitable weather conditions with appropriate equipment.

4.8.1. Measures to avoid spray drift

The following measures should be adopted to reduce spray drift:

- Do not apply pesticides in weather conditions which will carry spray droplets or vapour away from the target area
- Use the coarsest appropriate spray quality at all times
- Keep the boom of the sprayer as low as possible to give an even spray pattern at the correct target height
- Reduce the spray pressure and speed of the vehicle When using a sprayer with hydraulic nozzles

4.9. What to do after pesticide application?

The following good practices should be adopted after every pesticide application:

- Clean all equipment used before leaving the treated area
- Dilute any unused spray solution and apply to the treated area
- Safely dispose of unused spray solution and sprayer
- Store the sprayer and other equipment properly
 Return all unused pesticide concentrate to the pesticide store and keep in the original container
- Keep appropriate records for spraying activity
- Remove any warning notice put during spraying
- Inform beekeepers about completion of spraying activity

4.10. Health surveillance to monitor exposure

The following is recommended for all users of pesticides and people in close contact with pesticides:

 Health surveillance for early detection of any harm caused by being constantly exposed to pesticides

- Health surveillance to be carried out by a registered medical practitioner and should include testing of cholinesterase level in the urine and blood and physical examination for signs of unwanted effects on the body
- Seek medical care depending on the nature and severity of the symptoms for anyone who feels sick as a result of being exposed to pesticides
- All those who have been exposed to pesticides and are not medically fit as a
 result of pesticide exposure, should not continue work with pesticides until
 certified by a doctor to do so

4.11. Protecting the public

To protect the public when using pesticides, the following is recommended:

- Use only approved pesticides and follow the instructions on the label
- Take all reasonable precautions to protect the health of people, creatures and plants, and protect the environment
- Pesticides should be targeted at the land, crop or area being treated
- Take all precautionary measures to reduce drifts
- Take additional precautionary measures when applying pesticides near homes, schools, hospitals, environmentally sensitive areas, organic farms or farms which grow ready-to-eat crops
- Apply pesticides preferably when people are not at home or when schools are closed

4.12. Protecting the environment and wildlife

When using pesticides, special precautions should also be taken near hedges, ditches, ponds, wetlands and water margins and grasslands to protect wildlife and wild plants from drift. These include:

- To keep untreated buffer zones around
- To protect plants, aquatic animals, wild birds and mammals, including pets,
 especially from treated seed and from pesticides in granule, pellet or bait form
- To follow precautions and advice on product labels
- To cover treated seeds by soil.
- To avoid granules and pellets to be left on the soil surface
- To protect baits to prevent poisoning of non-target species.

- To use the most appropriate pesticide with less toxicity and high selectivity to protect bees
- To inform beekeepers of any spraying exercise to allow them to take the necessary
- To take special care during flowering of crops since bee activity is more prominent during this period
- To spray in the evening when bees have stopped flying

4.13. Protecting beneficial species

- The following care should be taken to protect beneficial species comprising natural enemies such as ladybirds and lacewings and other species while applying pesticides: Choose the most appropriate pesticide
- Avoid using broad-spectrum pesticides

4.14. Protecting livestock

Livestock should be kept out of treated areas until the weeds have died and completely disappeared.

4.15. Protecting fish and other aquatic life

Always keep an untreated buffer zone between the treated area and the neighbouring waterway to protect fish and other aquatic life.

No pesticide should deliberately be used for killing an animal or a bird.

4.16. Preventing pesticides from contaminating surface water and groundwater

To prevent either direct or indirect contamination of water through spray drift, drainage in the soil with pesticides, the following appropriate precautions should be taken such as:

- Reduce spray drift
- Keep buffer zones
- Do not spray when there is high risk of pesticides getting into drainage systems
- Do not use long-lasting pesticides

•	Protect surface water and groundwater by carrying out all mixing, filling and
	loading of pesticides away from waterways, ditches and drains

Section 5. Disposal of Pesticides

5.1. Disposing of pesticide wastes

This part gives guidance on handling and disposing of pesticide wastes (including concentrates, ready-to-use formulations and pesticide solutions), contaminated material and equipment and pesticide packaging.

Farmers and users of pesticides should follow the guidelines below to dispose of pesticide wastes in a safe way and keep any unwanted effects on the environment or humans as low as possible.

5.2. Reduce pesticide waste

The following measures can be adopted to reduce pesticide wastes:

- Use pesticides only when needed
- Do not buy surplus pesticides to keep in store
- Buy pesticides in suitable pack sizes that are required
- Manage and control the use of pesticides more effectively
- Use soluble packs to reduce packaging waste and reduce the washings

5.3. Disposal of unwanted pesticide concentrates and ready-to-use formulations

- Only use recommended pesticides and keep small stock of pesticides
- Manage pesticide store properly to avoid having to dispose of expired pesticides
- Do not keep pesticides which are no longer recommended or expired
- Damaged packaging/containers should be replaced and disposed of safely
- Proper planning to reduce spray solution left over and pesticide wastes
- Use pesticide left over sprays to treat another site
- Thorough cleaning of all equipment used by using the minimum volume of rinse water repeatedly instead of single rinse with large amount of water after applying pesticides
- Diluted pesticide waste can be disposed of by applying the contaminated water to the treated or untreated crop or area or by disposing it on the soil or grass

5.4. Disposal of waste pesticide containers

Empty pesticide containers should not be reused unless it is used to fill the same pesticide transferred from a damaged container. Many pesticides are filled in biodegradable packaging. Following the guidelines below for proper disposal of pesticide containers:

- Check the pesticide label to know if the container should be rinsed after use
- Before disposing of an empty pesticide container, ensure it is completely empty
- Do not rinse or clean containers for hydrogen cyanide gassing powders or aluminium, magnesium or zinc phosphides
- Rinse other pesticide container thoroughly before proper disposal
- Rinse containers immediately after emptying them
- Triple rinsing is recommended until the container is clear
- Rinse caps and seals and the outside of containers
- Re-use the rinsing water by adding to the spray solution or collecting in a suitable, labelled container, and store in a safe place prior to proper disposal
- Do not rinse containers which are not suitable for rinsing such as paper sacks and cardboard cartons and those containing products which are either readyto-use or not applied as a solution
- Dispose of rinsed pesticide containers in special pesticide cages installed by the Ministry of Agro Industry and Food Security in different localities for this purpose

Section 6. Record Keeping

This section gives guidance on the different types of records to be kept and the reasons for keeping them.

6.1. Storage records

It is a good practice to keep records of all the contents of the pesticide store to:

- Allow for stock rotation and control
- Have an accurate and up-to-date list of the contents in the store in an event of an emergency
- Avoid overstocking
- Ensure that no unapproved or unwanted pesticide products are kept
- Help using the oldest stocks first to avoid deterioration
- It is advisable to keep a copy of the record away from the store itself but somewhere which is readily available

6.2. Records of pesticide treatments

Users of pesticides are advised to keep records of pesticide applied as part of good practice. These records are useful:

- In cases of accidental contamination of people, crops in the next field, other creatures or the environment, or if someone claims that there has been a contamination
- To decide on re-entry time after pesticide application, when to stop application before harvest, intervals between repeat applications or when livestock should not enter a treated area

It is also a good practice to record pesticide treatments close to homes, schools, hospitals and other properties where many people are found.

- Records should include the following:
- date and time of application
- name the pesticide used
- any notice given to neighbours, beekeepers etc.

 Effectiveness of each pesticide treatment which gives information on how the pesticide was applied and any resistance building up

6.3. Records on environmental risk

This record is important to identify possible risks to wildlife and the environment.

6.4. Records of monitoring exposure

These records should contain such information as when and how the monitoring was done and the results.

6.5. Maintenance records

It is a good practice to carry out maintenance of equipment used on a regular basis and keep records for inspections and tests done. The record should include details of any fault found in the equipment, details of any repairs carried out.

6.6. Health surveillance records

Health surveillance records for users of pesticides and field workers include details of health surveillance performed, clinical information and conclusions of the medical practitioner and results.

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