



Amenity Forum

Guidance Note

Weed, pest and disease control close to water



Introduction

The implementation of the Water Framework Directive and related matters has implications for the control of weeds, pests and diseases close to water especially in terms of pesticide use. This note seeks to summarise what are legal obligations and also good practice.

Follow the Legal Obligations

The Plant Protection Products (Sustainable Use) Regulations 2012 require that any person using, causing or permitting an individual to use a pesticide must ensure that:

- All reasonable precautions are taken to protect the environment
- The amount of any product used and frequency of use must be as low as reasonably practicable where the product is being applied in a WFD protected area, on or along roads, railway lines, very permeable surfaces or other infrastructure close to surface water or groundwater and sealed surfaces with a high risk of run-off to surface water or sewage systems.
- A person who uses, causes or permits an individual to use a pesticide must, so far as is reasonably practicable, use, cause or require the use of products not classified as dangerous for the aquatic environment nor containing priority hazardous substances.

The Water Resources Act 1991 makes it an offence for any person to cause or knowingly allow any poisonous or polluting matter to enter any controlled waters without proper authority. Very small amounts of pesticide concentrate can have a significant effect on water. The residue from the foil seal of a pesticide container could result in 10 million litres of water not complying with the WFD maximum of .1PPB hence the water will have to be treated using carbon filters before being supplied to consumers

The Environmental Permitting Regulations (England and Wales) 2010 makes it necessary to have an environmental permit if you are making a discharge activity which is defined as the discharge or entry to inland freshwaters, coastal waters or relevant territorial waters of any poisonous, noxious or polluting matter, waste matter or trade/ sewage effluent. Pollution prevention guidance notes are available at

<https://www.gov.uk/government/collections/pollution-prevention-guidance-ppg>

Rural organisations need to be particularly aware of pollution from your organisation's facilities.

Understand the Key Issues

- ⦿ Minimise the use of pesticides as part of an Integrated Pest Management approach and at all times consider the risk to water bodies. Are other mechanical, cultural or biological measures possible?
- ⦿ Think about water contamination at all stages of the product life cycle: store products carefully; avoid losses from spills, splashes and washings; think about the weather forecast and local conditions before spraying.
- ⦿ Comply with the product label and follow practices outlined in the relevant Code of Practice as an absolute minimum. Be prepared to adopt a more precautionary approach if suggested by a local assessment of the risks.
- ⦿ Ensure you or your advisor is competent (ideally a member of the BASIS Professional Register) to assess risks and has an up-to-date understanding of legal requirements and best practice guidelines.
- ⦿ Identify whether spray drift, surface run-off or drain flow might result in contamination of water and, if so, take appropriate steps to mitigate. Use of buffer or no-spray zones adjacent to watercourses should always be considered (see below).
- ⦿ Adopt proper storage, handling, transport, cleaning and disposal practice to reduce the risk of pesticides contaminating water.

It is important that pesticides are not applied solely on the basis of information contained on the product label, but that thought is given to particular risks which exist in relation to individual spray operations. At all times, an integrated approach should be adopted considering all possible approaches to control. It is important that users and advisors assess all risks (human health and the environment) and do not afford a disproportionate emphasis to any particular area.

Buffer strips are one of the most effective ways of preventing contamination of water from pesticide use. In order to maximise their effectiveness, think carefully about the type and degree of risk you are seeking to minimise. This will help you decide the size of buffer/no spray zone you may wish to consider and where appropriate that the zone has covering vegetation to reduce the risk of pesticides reaching water whilst increasing food for beneficial insects and other wildlife.

Fully Protect Water Bodies and Routes of Contamination

The most visible water bodies are streams, rivers, lakes, canals, reservoirs and ponds which can be contaminated. However, ground waters may also be at risk especially if the water table is close to the surface or there is thin or sandy soil or cracked limestone bedrock.

Pesticides can reach water in a number of ways:

- ⦿ Spray drift: Contamination can be minimised by taking account of factors such as wind strength, using drift reduction nozzles, suitable spray water volumes and direction and that buffer strips/no-spray zones are utilised.
- ⦿ Run-off. This can happen if pesticides are applied to frozen, wet or compacted ground, especially if it rains soon after application. The pesticide can either be dissolved in run-off water or attached to soil particles carried in the water.

- Drain flow. This can happen if pesticides are applied when soils are hydrophobic, very dry/cracked or very wet. Any rainfall can then flush the pesticide through the soil, either dissolved in water or attached to soil particles

Where groundwater feeds a drinking water supply and pesticides are to be used do not, in general, use persistent and mobile pesticides within any area designated as a Source Protection Zone (SPZ) or within 50m of a spring, well or borehole. If there is a public water supply nearby, it may be necessary to restrict use over a larger area.

Adopt Safe and Correct Procedures for Pesticide Mixing and When Handling

Water can be contaminated either directly or indirectly with pesticides through handling, filling and washing operations. If using pesticides, you should carry out all mixing, filling or loading operations well away from watercourses, ditches or drains. In amenity situations, where work is carried out at a separate location, you may need to mix and load the pesticides where they are being applied, taking all precautions to avoid drips and spillages. Contain any spillage of pesticide or spray solution, dispose of the material safely and legally and never hose down a spill.

Design dedicated mixing and loading areas to minimise the risk of water contamination making sure they:

- are sited where it will not be affected by flooding or cross-contamination such as from vehicle movements
- have an impermeable surface, ideally under cover, from which spills can be cleaned up.
- allow all drainage and run-off to be collected and disposed of using appropriate means and with appropriate authorisation.
- allow drainage and run-off to be collected and disposed of using a licensed waste disposal contractor or equivalent means.

Correctly Dispose of Unused Pesticide Product & Decontaminate Equipment

Wherever possible, decontaminate equipment inside and out within the area treated and avoid using a specialist tank cleaner in a dedicated cleaning area. Make sure that when the washings or unused dilute pesticide are applied to the treated area, the maximum application rate for the pesticide product is not exceeded. Generally, repeated flushings of spraying equipment with low volumes of tank cleaner and water will be as effective as a single rinse using a large volume of water and will create less rinse water. In some circumstances sprayers can be washed, and disposal of surplus spray solution take place, on areas of soil or grass, or drainage from hard surfaces to such areas. However, an appropriate authorisation from the Environment Agency under the Groundwater Regulations must be obtained and each site can only be used once a year in this way.

You should always store sprayers, and other cleaned application equipment, under cover to avoid contaminated rainwater run-off. For the same reason, store empty pesticide containers, rinsed where appropriate, under cover ideally in a chemical safe in a secure area.

Always adopt very best practice when controlling weeds in or near water

There may be times when there is a need to use a pesticide to control weeds in or near water. However aquatic and bank-side plants are an important part of the ecosystem so fully consider all other methods of control as part of an integrated approach before deciding to use a pesticide. Where it is determined that use of a pesticide is the most appropriate method of control:

- Ensure the product label states that it is authorised for use in or near water.
- Before using a product authorised for use in or near water, contact the Environment Agency or Scottish Environment Protection Agency. Local water abstractors may also have to know.
- As a general principle when spraying in or near water, spray in the opposite direction to the main water flow. This will help reduce the maximum concentration of pesticide that could be present at any one point in the watercourse.
- Make sure that the spray tank is not overfilled and that it cannot leak or drip. Do not go through fords at any time and if you have an alternative route, it is best to avoid crossing watercourse at all, including going over bridges.
- Ensure spraying equipment is well maintained and remember that any sprayer that requires the operator to be mounted is legally required to be tested.

By following the guidance and the obligations set out in the Code of Practice, anyone using, causing or permitting anyone to use a pesticide will have a reasonable basis for demonstrating due diligence in meeting their legal obligations. A full set of guidance notes along with a copy of the ten golden rules for weed, pest and disease control is available at www.amenityforum.co.uk