

Check Sheet for Pesticide Use

Pesticides are unacceptable in drinking water and certain pesticides such as pyrethroid insecticides, can be very toxic to aquatic life. The most frequently detected pesticides in untreated water destined for the public supply are herbicides but others can be a problem. The following questions may aid, or remind, you of practices to help minimise the potential for losses of pesticides to water.

It takes only a small amount of concentrated pesticide to take water over the legal limits. Taking steps to reduce pesticide usage and potential losses will save time, money and preventable contamination events.

PLANNING: Do you, or others influencing such decisions, before applying pesticides on your land, review how to reduce pesticide losses reaching water? In order to do this do you ...

		YES	NO	ACTION
A 1.	Plan cropping for potential for use of integrated crop management and cultural methods of weed, pest and disease control. Consider crop rotation to reduce pesticide use.			
A 2.	Complete an Integrated Pest Management (update annually), consider SFI Scheme IPM options, with your agronomist - plan next steps - refer to www.ipmtool.net and www.gov.uk/guidance/how-to-do-the-sfi-actions-for-integrated-pest-management			
A 3.	Consider any additional Countryside Stewardship (CS), Sustainable Farming Incentive (SFI) and/or voluntary options to protect water, reduce runoff or for problem fields/areas.			
A 4.	Minimise cultivations and retain surface trash to reduce potential soil run off carrying pesticides and losses to water.			
A 5.	Have an up to date sprayer MOT test certificate (National Sprayer Testing Scheme certificate) for all farm sprayers and pellet/granule applicators that will be used, for legislation/ Crop Assurance			
A 6.	Take advice from a BASIS registered adviser on crop planning, pesticide products, application and timing to reduce pesticide losses to water.			
A 7.	Have a plan of the pesticide handling area showing drains and a farm map showing water courses, boreholes and wet ditches where there is higher risk of pesticides reaching water.			

Putting pesticide management strategies into action requires thought and physical examination of the filling and application sites before operations take place. Taking time to consider your actions will always be beneficial.

PREPARING: Before starting any pesticide applications will you or others managing your land.....

		YES	NO	ACTION
B 1.	Assess the need for an application according to pest, weed or disease thresholds and potential financial benefits - take advice from a BASIS registered adviser.			
B 2.	Ensure spray operators are suitably trained, obtain NR0SO points and informed about the farm			
B 3.	Choose formulations and packaging designed to minimise the risk of spills and splashes and ease container cleaning?			
B 4.	Have methods in place for safe storing used, rinsed containers, seals and boxes?			
B 5.	Write & make known your emergency plans for dealing with spills, or other incidents?			
B 6.	Check if there are any nearby water bodies which may be impacted by spray drift? If so, please check wind direction, or slope if vapour drift could occur on a still day			
B 7.	Check that the sprayer is in good working order using the National Sprayer Testing Scheme (NSTS) and Operator Checklist?			
B 8.	Carry out assessment for LERAP, aquatic or arthropod buffers and fit the correct nozzles or observe a no spray zone, as required for the rate, certain choices/products to be used.			
B 9.	Check spray patterns and sprayer calibration frequently using water (not dilute pesticide)			
B 10.	Consult the label, water protection advice sheets (WPAS) in VI H2OK Water Protection booklet and product stewardship guidance on www.voluntaryinitiative.org.uk			
B 11.	Assess whether field conditions and weather are suitable for pesticide application; AVOID SPRAYING/APPLICATIONS WHERE: soils are dry and cracked; field drains are, or likely to, be flowing in next 7 days; heavy rain (i.e. >10-15 mm) is expected within next 48hrs; or, if soils are wet.			

To find out if you are in a drinking water protected area see <https://environment.data.gov.uk/farmers/> and from Interactive maps select 'Drinking Water Protected Areas' and enter your postcode or place name.

Pesticide losses can occur from both filling site and field operations.

FILLING: During sprayer filling operations, do you or other operators...

		YES	NO	ACTION
C 1.	Use a designated area for pesticide mixing and sprayer filling? Never fill within 10m of a watercourse or where contamination could occur e.g. hard surface, drain, track or compacted area?			
C 2.	Fill over a collection pit, bunded concrete area, portable bund or drip tray to contain any spills every time you are filling the sprayer?			
C 3.	Avoid using hard ground or hardcore or unbunded concrete areas to fill sprayer or measure out - if needed, seek advice on alternatives.			
C 4.	Ensure that pesticide washings go to a lined biobed, a bio-filter or are disposed of by a licenced contractor?			
C 5.	Ensure that you DO NOT USE the field entrance as a filling point if it is adjacent to a watercourse or any area, such as a road, track or other feature, which could channel run-off to a watercourse?			
C 6.	Avoid any spills no matter how small? If it happens - Clear up spillage straight away. NEVER wash splashes or spills into drains or allow rainfall to do so later.			
C 7.	Use an induction bowl or closed transfer system where available?			
C 8.	Rinse containers seals and lids until clean (at least 3x) and drain into the induction bowl during filling? Keep any cardboard clean and store empty containers safely and upright after use.			
C 9.	Use stored water, bowser or mains supply with double check valve & an air gap between tank & supply?			
C 10.	Never leave the sprayer unattended whilst filling, even for a phone call on the mobile?			
C 11.	Before leaving the mixing area: Check the sprayer for drips or leaks; and return any unused pesticides to locked store.			

Pesticides can contaminate surrounding areas through over spray, spray drift or drain flow and during washing down. Applications at the wrong time, under the wrong conditions can lead to a waste of money and contamination of sensitive areas with a risk of a fine or the industry losing products due to a ban.

FIELD WORK: during and after spray operations, do you or others on your land...

		YES	NO	ACTION
D 1.	Whenever possible enter the field at the top of any slope and watch for losses from sprayers when travelling or parked?			
D 2.	Avoid spraying if field conditions or heavy rainfall may lead to losses to drains or watercourses?			
D 3.	Ensure that conditions where spray drift can occur are avoided? Use correct pressure, boom height, and low drift nozzles where appropriate			
D 4.	Ensure that overspray of buffer zones, ditches and watercourses is avoided? Take extra care when spraying field corners and on uneven boundaries			
D 5.	Continuously monitor boom height, to help reduce the risk of drift and improve spray efficacy?			
D 6.	Check nozzle flow rates to ensure even application.			
D 7.	Spray headlands last to avoid driving over sprayed area?			
D 8.	Ensure any cleaning activities take place at least 10m away from watercourses and avoid runoff to drains?			
D 9.	Spray tank washings onto the crop?			
D 10.	Wash the outside of the sprayer before leaving the field - not exceeding crop treatment requirements? OR on a wash down area leading to a biobed/biofilter or a tank for disposal?			
D 11.	Keep tyres as clean as possible. Sprayed soil can carry pesticides out of the field.			
D 12.	Store your freshly washed sprayer undercover?			

How good is your pesticide management?

If you have answered substantially more YES answers than NO then you are doing a great deal to protect water and fine tune your crop's performance. Every NO answered has a potential cost, or consequence. Consider what action you can take in these areas to improve pesticide management.

Further information and advice:

Catchment Sensitive Farming

To find out if you are in a CSF catchment and if so, contact your local CSF Adviser: <https://www.gov.uk/guidance/countryside-stewardship-get-funding-to-protect-and-improve-the-land-you-manage> and <https://www.gov.uk/government/collections/sustainable-farming-incentive-guidance>

Voluntary Initiative (VI) - Use **Search** for a range of tools and guidance on pesticide best practice use of biobeds and biofilters: www.voluntaryinitiative.org.uk

BASIS - find a qualified pesticide adviser: www.basis-reg.com

Maps at <https://environment.data.gov.uk/farmers/>
Health and Safety Executive: www.pesticides.gov.uk
and www.hse.gov.uk

Environment Agency: www.environment-agency.gov.uk
National Sprayer Testing Scheme (NSTS): www.nsts.org.uk
National Register of Sprayer Operators (NRoSO): www.nroso.org.uk and www.nsts.org.uk/Portals/1/Images/Banners/Sprayer%20Testing%20leaflet_LR.pdf

Farming Advice Service (FAS) - cross compliance advice, and requirements for water protection and sustainable pesticide use:

<https://www.gov.uk/government/groups/farming-advice-service>

Championing the Farmed Environment: www.cfeonline.org.uk

Catchment Sensitive Farming (CSF) is led by Natural England in partnership with Defra, the Environment Agency and the Forestry Commission.