

This information note highlights the recently introduced requirement to have all orchard and blast sprayers, and all boom sprayers greater than 3m boom width, tested by a Department of Agriculture Food and the Marine (Department) registered tester. It also again stresses the risk posed to drinking water supplies from contamination by pesticides – especially grassland herbicides such as those containing MCPA (Mortone, Agroxone 50, M50 etc.).

Sprayer testing

Since November of 2016, it has been a legal requirement that; i) all orchard and blast sprayers, ii) all boom sprayers greater than 3m boom width, be tested by a Department registered Equipment Inspector (EI). New sprayers are exempt from this requirement until they are 5 years of age. From 2020, the requirement will be that all sprayers must be tested every 3 years. A list of registered EI's is available at <http://www.pcs.agriculture.gov.ie/sud/equipmentinspectors/> - there is at least one tester in each county. If a sprayer has not passed the test, then it should not be used until such times as this requirement has been met. [Note that 3m+ boom sprayers fitted to the back of quad bikes are subject to the testing requirement, but weed wipers/lickers or knapsack sprayers are currently exempt]

The rationale behind this regulation is that if your sprayer is not fit for purpose, you are either applying too much pesticide, or alternatively not enough. Either way it is costing you the operator money, potentially harming the environment, and may be facilitating the development of resistance strategies in the target organism.

The service provided by EI's varies – some EI's will come to your yard, test your sprayer(s), and sort most of the minor problems as they are encountered, e.g. leaky nozzles, perished pipes, damaged gauges etc. Other testers require that the sprayer is brought to their facility for testing, and they may or may not fix problems as they are encountered. Shop around and pick the EI that provides the service you want. For many individuals with old sprayers (10+ years) give some consideration to availing of the services of a local contractor, who should be operating a machine that has been tested and is ready to go. If you opt for this approach, make sure that any individual applying sprays on your holding is registered with the Department as a Professional User (PU), and that the sprayer being used has been tested, and PASSED! All sprayers that have been tested and passed should have a 'Tested Sprayer' sticker affixed to the sprayer – see sample below.

Farmers should be aware that the Department will be checking on compliance with the sprayer testing requirement during the 2017 Cross Compliance Inspection program, and where untested sprayers are found to have been used on a holding, may leave the herd owner subject to a Fixed Penalty Notice of €250 or a Class A fine.

MCPA and drinking water contamination

The detection of MCPA residues in drinking water supplies is a subject that has featured in this series of articles previously, and continues to give rise for concern. Last year the Environmental Protection Agency (EPA) published a *Drinking Water Report for Public Water Supplies 2015*, which reported 61 schemes affected by pesticide exceedances in 2015, compared to 28 in 2014. Residues of MCPA were detected in 41 of these supplies. None of the breaches gave rise to any health concerns.

The legally permissible limit for MCPA and other pesticides is effectively zero (1 part in 10 billion), and is so low that a single drop or foil seal from a pesticide container could potentially cause an exceedance along a small stream for a distance of 30km. Whilst the increased trend of detections in recent years may be partly due to the more thorough monitoring that is now required, the data reflects the extensive use of pesticides in circumstances where they can get into water courses.

Farmers are not exclusive users of plant protection products (consider gardeners, amenity/landscape users, golf clubs etc.), but information from the catchments which figured prominently in follow-up investigations in 2015 and 2016 suggests that use by farmers was the most likely source, in particular with respect to detections of MCPA. MCPA is the active substance in a number of herbicides predominantly used by grassland farmers to control rushes. In many locations the problem with rushes will have been exacerbated by the recent sequence of wet summers which has further restricted control opportunities.

Recent findings from an award winning project at the recent BT Young Scientist Exhibition, found that a large number of farmers using plant protection products do not know the active substance(s) the product contains. **How many of you reading this article could name one or two products which contain MCPA?** – (see Table 1 below). If you don't know what's in the products you are using, how do you know if this article refers to you? The same survey indicated that many users did not know what a buffer zone is – do you? The user of a plant protection product must shoulder some responsibility for this state of affairs; all relevant information to comply with GPPP is contained on the label, and THIS SHOULD ALWAYS BE READ. IF THERE IS SOMETHING ON THE LABEL THAT YOU ARE UNSURE ABOUT, ASK.

Given the very low level of contamination which can result in a breach, it is essential that the very highest of standards are employed by all individuals applying MCPA products. The following should be noted and acted upon by all users of plant protection products in order to ensure the quality of Irish water courses, and to reduce in particular the levels of MCPA detected;

- ALWAYS read and follow label instructions
- Be aware of the location of nearby water bodies and their proximity to the intended treatment area. **A buffer zone of 5 m from watercourses must be maintained when spraying MCPA based products**
- Find out the location of any nearby drinking water abstraction points and ensure compliance with safeguard zones
- Ensure application equipment is properly maintained and calibrated

- NEVER fill sprayers directly from a water course
- Perform handling operations well away from a water course and drains
- Take great care to avoid spills
- Minimise water volumes (rain and washings) on handling area
- Don't spray if the grass is wet or if heavy rain is forecast within 48 hours after application
- Don't spray during windy conditions
- Clean and wash down sprayer afterwards

Farmers should be aware that if they fail to adhere to the code of Good Plant Protection Practice (GPPP), in many instances it is their own drinking water supply that they are contaminating!

Table 1. Recently reregistered 'straight' MCPA products bearing significantly revised application rates

Product	PCS No.	Conc. of active substance (g/l)	Max. rate of use L/ha
Mortone	03529	300	4.5
Hempacide 30	03531	300	4.5
Bandon MCPA 30	03751	300	4.5
Agritox	05498	500	2.7
Agritox 500	05499	500	2.7
Agroxone 50	05500	500	2.7
Mastercrop MCPA 50	05510	500	2.7
NU46	05501	500	2.7
M50	05505	500	2.7
Pol-MCPA 500 SL	05494	500	2.7
Easel	05502	750	1.8

IF YOU ARE USING ANY PLANT PROTECTION PRODUCT, READ THE LABEL AND FOLLOW ALL GUIDELINES. TAKE SPECIAL CARE TO AVOID CONTAMINATION OF WATER COURSES. REMEMBER, IF YOU DO NOT USE THESE PRODUCTS APPROPRIATELY, THE ULTIMATE SANCTION IS THAT THEY WILL BE PROHIBITED, AND AN IMPORTANT, COST EFFECTIVE CONTROL MEASURE WILL BE LOST.