

# ENVIRONMENT

June 2020

## GLAS dates for your diary

Edited by  
**Catherine Keena,**  
Countryside  
Management Specialist

### July 1:

- traditional hay meadow can be cut for hay after July 1 – if bad weather occurs, silage can be made, provided it is turned twice; and,
- low-input permanent pasture can be topped after July 1.

The maximum amount of nitrogen (N) allowed on traditional hay meadow and low-input permanent pasture is 40kg/ha/year (32 units/acre), with phosphorus (P), potassium (K), lime and slurry allowed based on soil test result. However, be careful as fertiliser will encourage ryegrass at the expense of traditional grasses and wildflowers. Traditional hay meadow must have at least three grass species (other than ryegrass), with less than 50% of the sward ryegrass. Low-input permanent pasture must have at least four grass species (other than ryegrass), with less than 30% of the sward ryegrass, and at least three non-grass species.

Rushes can be controlled by topping after July 1. Spraying of rushes is not permitted on low-input permanent pasture or traditional hay meadow, but spot treatment is permitted. Boom spraying with herbicides damages grassland plant species present, which could result in a penalty under cross compliance and the Green Low-carbon Agri-environment Scheme (GLAS). Spraying is not permitted in any special area of conservation (SAC).



*Ragged robin.*

## Sustainable use of grassland herbicides

It is essential for farmers to take great care and follow best-practice procedures when using pesticides, in particular grassland herbicides.

### Herbicides and water quality

Monitoring of drinking water in Ireland continues (**Table 1**) to detect exceedances above the standard (0.1mg/L) for certain herbicides. Although trends in annual results are positive, showing a reduction in exceedances and supplies affected, efforts by all must continue.

The chemicals causing the greatest problems are: MCPA (e.g., Agritox, Agroxone 50, M50, Mortone, NU46); and, 2-D, 4-D (e.g., Bandox EW, D50, Mortox 50).

These compounds known as phenoxy acids are highly soluble in water, more persistent in the environment and widely used.

Two other herbicides with high usage and causing increasing concern are fluroxypyr (e.g., Galaxy, Hurler, Doxstar Pro), and glyphosate (e.g., Roundup, Gallup).

These four grassland herbicides accounted for over 84% of exceedances in 2019.

A single drop of MCPA can contaminate a stream for more than 30km.

Herbicides can contaminate surface or ground water by point sources or diffuse sources.

Point sources are losses in the farmyard: leaks from storage and spills from handling (mixing, filling and washing). Diffuse sources are losses in the field due to spray drift, surface run-off and drainage.

**Table 1: Exceedances in drinking water supplies (Environmental Protection Agency (EPA)).**

	No. of exceedances	No. of supplies
2019	82	27
2018	85	34
2017	150	49
2016	137	44

**A single drop of MCPA can contaminate a stream for more than 30km.**



*Herbicides can contaminate water by point sources or diffuse sources.*

## Consider non-spraying methods first

Frequent topping, timely fertilisation, application of lime and good drainage will help limit rushes spreading. Having a fertile soil with adequate levels of N, P and K, along with a suitable pH for grass growth is critical. Avoid poaching, over grazing or damage to grass swards. These are important principles of integrated pest management (IPM), a key requirement of the Sustainable Use Directive (SUD).

Implement best management practice at the risky stages of handling and using herbicides:

- the applicator must be a trained professional pesticide user;
- application equipment must be well maintained, regularly calibrated and tested every three years – weed lickers and smaller boom sprayers (<3m) will be included in the testing regulation by end of 2020;
- use appropriate personal protective equipment (PPE) – check safety data sheet;
- minimise transport risks from retailer to farm and from farm to field – avoid accidents;
- read and follow label instructions (correct use, correct rate, correct time);
- use the approved application method (e.g., MCPA is not licensed for use in a weed licker/wiper or knapsack);
- choose the lowest-risk strategy where water bodies are at risk, e.g., weed licking rushes with glyphosate or reducing the volume of chemical by spot spraying;
- avoid spills, especially when handling the concentrated product – have a containment system in place to catch spills, e.g., drip tray;
- foil lids from MCPA containers should be put back into the triple-rinsed containers and the cap screwed tightly on with the rinsate added to the sprayer;
- spray the tank washings (internal rinsing) and clean down the external parts of the sprayer in the field – don't discard sprayer washings on a yard or gravel area, as they can potentially enter a water body;
- never fill the sprayer directly from a watercourse;
- fill sprayers where losses to water bodies cannot occur;
- be aware of the location of water bodies on the farm – take note of the buffer zone for the chemical and comply with the specified unsprayed strip (distance on label: generally 1-5m and dependent on sprayer nozzles used) – MCPA is a minimum of 5m;
- comply with safeguard zones for protection of groundwater/drinking water abstractions (up to 200m);
- spray when conditions are suitable: on a calm day, vegetation dry, no heavy rainfall for more than two days, land reasonably dry (no tyre marks), and a young crop of healthy weeds;
- do not apply on waterlogged or poorly draining soils that slope steeply towards a water body, or any other vulnerable area leading directly to surface or groundwater (e.g., karst);
- avoid band spraying within 5m of field drains filled towards the surface with stone (high-risk pathway) – spot spraying is a safer option; and,
- use a wetting/sticking agent if possible to improve herbicide uptake.

## EIP UPDATE



### BRIDE Project

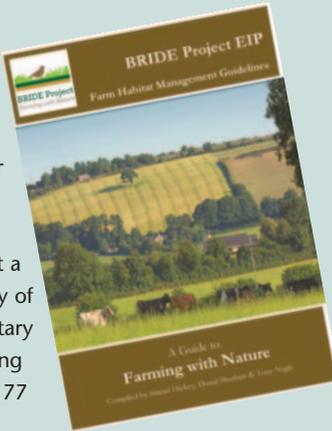
The Biodiversity Regeneration In a Dairying Environment (BRIDE) project was set up to improve biodiversity in the Bride River valley of east Cork and west Waterford. A total of 44 farmers were selected to participate in the project, all of whom have plans to carry out environmental improvements on their farms. Several mini-woodlands and BRIDE mix hedgerows have been planted. Farm-specific bird boxes were erected, including boxes for owls, house sparrows, starlings, kestrels, swifts, stock doves, and spotted flycatchers.

A BRIDE Habitat Management Guidelines booklet is available at: [www.thebrideproject.ie/wp-content/uploads/2020/04/BRIDE-Project-Farm-Habitat-Management-Guidelines.pdf](http://www.thebrideproject.ie/wp-content/uploads/2020/04/BRIDE-Project-Farm-Habitat-Management-Guidelines.pdf)

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#### Bee scrape

One example from this booklet is a bee scrape. Pollinator surveys in the Bride valley in 2018, found that a lack of availability of nest sites for solitary bees was a limiting factor. There are 77 solitary Irish bee species, many of whom nest on bare soil. Bee scrapes can be created on sunny earthen banks. Remove excess vegetation from a south-facing bank and create a sheer face using a shovel, mini-digger or loader bucket to hinder plant growth. Keep the scrape clear of vegetation, being careful not to disturb nesting bees. Avoid pesticides.



Bee scrape. (Credit: S. Hickey)



Many bees nest on bare soil. (Credit: S. Hickey)