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Controlling rushes

Recent wet winters and summers have provided ideal growing conditions for Common (Soft) Rush, severely limiting the opportunities to control infestations.

A 15% rush infestation can reduce a field's productivity by 1.25t dry matter (DM)/ha/year (51t/acre/year). If the field is cut for big bale silage on upland in-bye fields, the value of this lost production could be as high as £192/ha (£78/acre).

Common rush seeds can lie dormant in soils for up to 60 years. Dormancy may be broken allowing germination to occur after surface disturbance during cultivation, or after poaching by livestock in wet weather.

A single rush seed head can produce up to 8,500 seeds a year, which are light and easily dispersed in the wind. It is very important to take action quickly to prevent rapid infestation.



Prevention

- Avoid damaging grass swards by overgrazing, which can lead to bare patches where rush seeds can establish
- Maintain good drainage and remove soil compaction at the surface or within the soil profile
- Maintain soil fertility and soil pH to encourage good grass growth
- Sow grass seed mixtures which are persistent and tiller aggressively providing competition to the rush seedlings

Treatments



- **Topping:** Topping with a rotary or flail mower before the rush plants produce seed can help slow the rate of spread of infestation. It can also be useful in encouraging leafy growth before chemical treatment. Topping should take place before the seed produced that year becomes viable, ie in late spring or early summer
- **Mowing:** Drum or disk mowing is preferable over topping for heavy infestations, to avoid the creation a thick mulch of dead rush plants. This is possible on flat, stone-free land and the cut material can be baled and removed
- **Chemical spraying:** Glyphosate can be applied through a weed wiper, where rush plants are actively

growing and stand higher than the surrounding grass, eg after cattle or sheep have been removed. In particularly dense infestations, wiping in two directions may be required to achieve effective control

- **Re-seeding:** In some circumstances, ploughing, drainage and reseeding offers the best long-term solution. Deep ploughing helps to bury rush seeds beyond germination depth, which is at least 250mm below the surface, creating a clean seedbed for sowing grass. A well established, competitive grass sward which is well managed, will prevent significant rush re-infestation.

Grazing management

Good grazing management is key to prolonging the life of grass swards and prevent weed infestation. The aim is to avoid excessive winter grazing, but to graze hard, topping if necessary, in late spring and summer.

Less selective grazing animals, such as cattle, will help prevent re-infestation, because of how they graze and the trampling effect they have on young rush plants.

Some of the above suggestions may conflict with environmental scheme options, so farmers should check what they can do within the rules of the programme before starting.



Management and Control of Common (Soft) Rush



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Key messages

- + Long term control of common rush can only be achieved by addressing underlying soil problems such as drainage, soil acidity and soil fertility.
- + Mechanical topping can have a key role in rush management by either removing rush cover to allow further treatment, or for annual control of light infestations.
- + Well-timed application of glyphosate through a weed wiper can be an important part of a control strategy. It is particularly effective when applied to green rush regrowth after topping or mowing.
- + Competition from grass and clover will help reduce re-infestation in a productive sward after the initial rush control programme has been carried out.
- + Grazing management has a significant effect on rush competition. Grazing during the late spring and early summer will help control its spread. However, heavy grazing during late autumn and winter may cause poaching and compaction, encouraging the germination of dormant rush seeds the following spring.
- + The control strategy adopted on individual farms must focus on priority production areas and should take account of agri-environmental scheme and wildlife requirements.

Keywords:

Common rush, soft rush, rush control, *Juncus effusus*

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For more information, including a case study describing one couple's on-going battle with common rush on their farm in Cumbria, download the [EBLEX BRP+ document on Rush Management](#)