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MANAGEMENT OF ITALIAN RYEGRASS

Italian ryegrass (*Lolium multiflorum*) is an aggressive weed with the potential to severely impact crop yield, and with herbicide resistance present in UK populations, an integrated approach to this weed is required. Stacking cultural control options will help to reduce the reliance on in-crop herbicides for control.

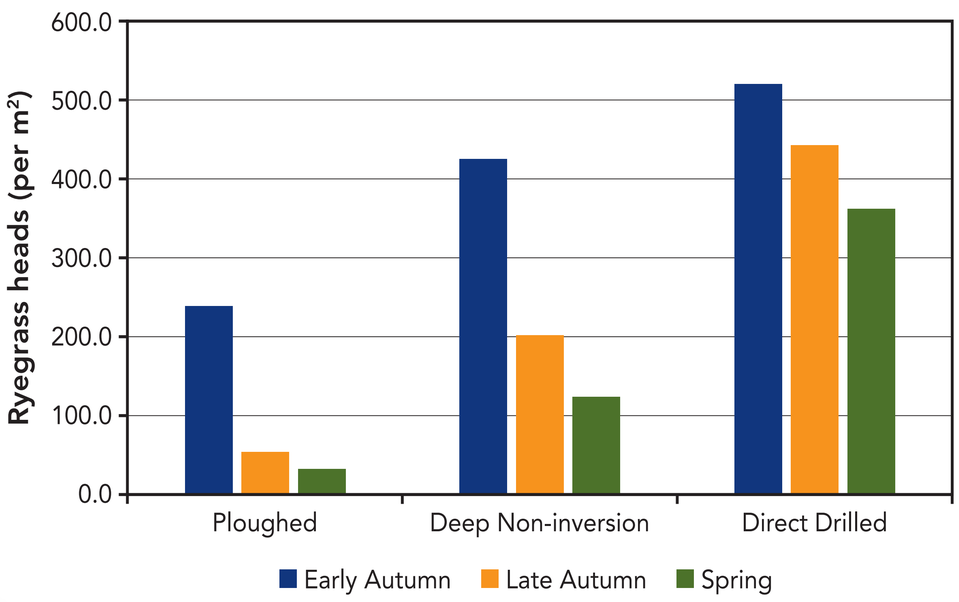
Drilling date

As a predominantly autumn emerging weed, the use of delayed drilling and spring cropping can be an effective measure for reducing the level of in-crop weed.

Cultivations

The messages around cultivations for Italian ryegrass echo those for black-grass control. Ploughing seed down to a depth at which it cannot emerge is particularly effective, especially when used rotationally. In a 2018/19 trial, direct drilling appeared not to be as effective at reducing weed populations when compared to other grassweeds e.g. black-grass, in a single year (Figure 1). If seed return from the previous crop is extremely low, then it is expected that this technique would show greater effectiveness.

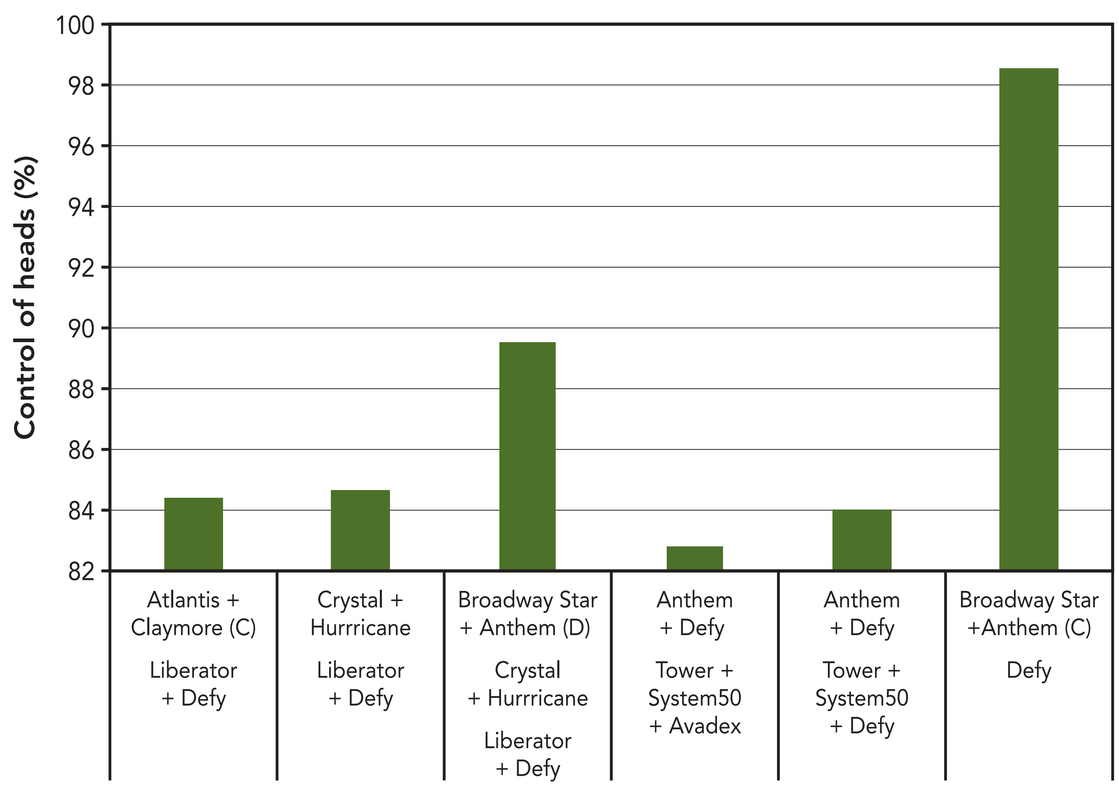
Figure 1. The untreated density of ryegrass heads associated with different cultivations and drilling dates



Herbicides

When using herbicides for the control of Italian ryegrass, greatest control is achieved from an autumn applied sequence of pre-em and post-em (Figure 2). Waiting until the spring to use contact herbicides e.g. Atlantis OD, risks poorer control as the weeds are strong enough to overcome the herbicide.

Figure 2. Comparison of herbicide programmes against Italian ryegrass



Residue management

Unlike black-grass, Italian ryegrass is the perfect target for technologies such as chaff liners, or seed mills, as a higher proportion of seed is retained on the seed head at harvest. The potential application for seed mills against a wide range of weed species is being evaluated as part the IWM PRAISE project that NIAB is a partner.

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IWMPRAISE

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