



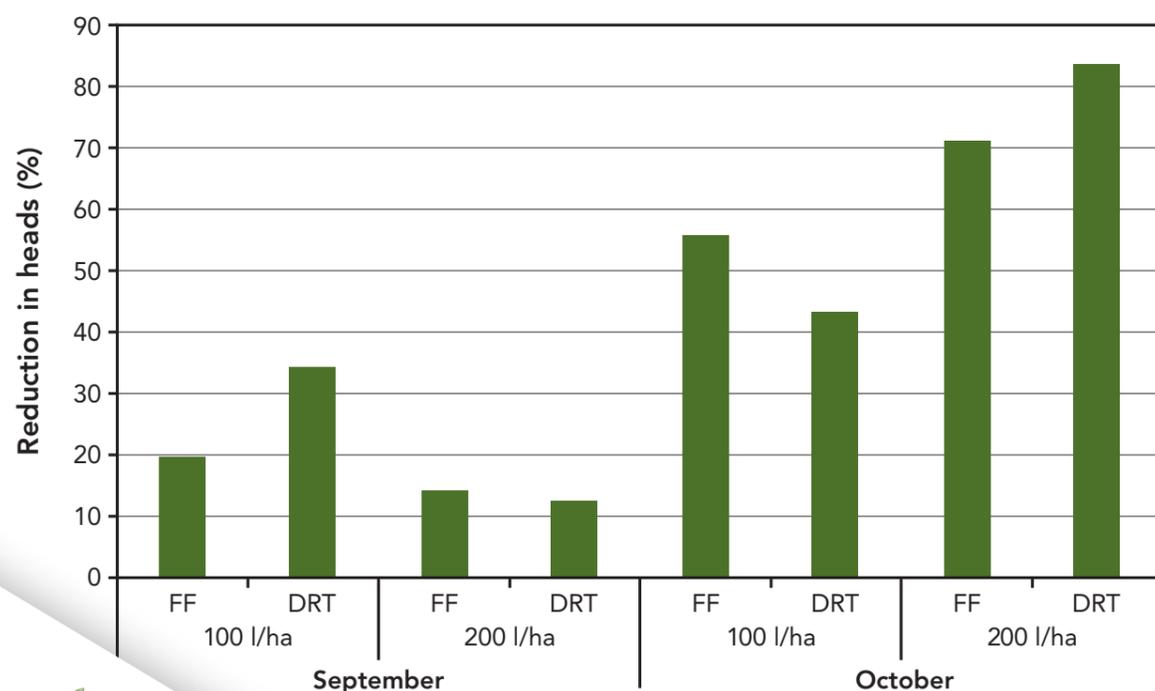
## THE ROLE OF APPLICATION TECHNOLOGY IN ENHANCING BLACK-GRASS CONTROL

NIAB TAG has undertaken a series of trials to re-evaluate the role that nozzle choice and water volume can alter the results of a pre-emergence application. This work has demonstrated that there is no simple answer as application technique is heavily impacted by the active ingredients and soil conditions at the time of application.

### Over-riding interactions

- Delaying drilling is the biggest driver of successful black-grass management
- Higher water volumes can be more effective at later drilling dates
- When used in conjunction with higher water volumes, a nozzle with Drift Reduction Technology may help to improve observed control

**Figure 1. Control of black-grass heads from contrasting water volumes and nozzles at two drilling dates**



### Product choice

Our work confirms that an aggressive strategy of high-water volumes and coarse droplet nozzles is suitable for Defy (a.i. prosulfocarb) is used, either solo, or as part of a tank mix with Liberator (a.i. flufenacet + diflufenican) (Figure 2). However, with alternative products, or tank mixes where Defy was absent, control was enhanced with lower water volumes and finer droplet pattern.

### Stewardship and timeliness

These results must be observed with an aim to improve stewardship. The use of DRT nozzles and higher water volumes are associated with lower pesticide drift and should be used where overall performance is not reduced. Performance of herbicides is strongly driven by timing of application, so it is more important to get 100% of the cropped area sprayed at a lower water volume at a true pre-em timing, rather than compromise control with a delayed application.

**Figure 2. Control of black-grass heads from a range of products, applied in two contrasting ways**

