

Malmesbury Monitor Farm

Meeting 4: Grass weed control in arable rotations

Speaker: Chris Padfield (Gloucestershire farmer and Nuffield Scholar) Stephen Moss (Stephen Moss Consulting)

Date: 6 February 2018

Location: Oaksey Golf Club, Malmesbury SN16 9SB

For more information, visit: cereals.ahdb.org.uk/malmesbury



Meeting summary – key messages

- Since 1956, 41 herbicides with black-grass activity have been introduced, only 23 of those are still available and nothing new has been introduced for 30 years
- There is no silver bullet for black-grass control, consider multiple strategies over a long period
- Rye-grass has the same resistance mechanisms as black-grass but is about 10 years behind, use similar control methods to black-grass to keep ahead.
- Plan drill dates with the variety
- Cover crops and livestock in the rotation can help control weeds

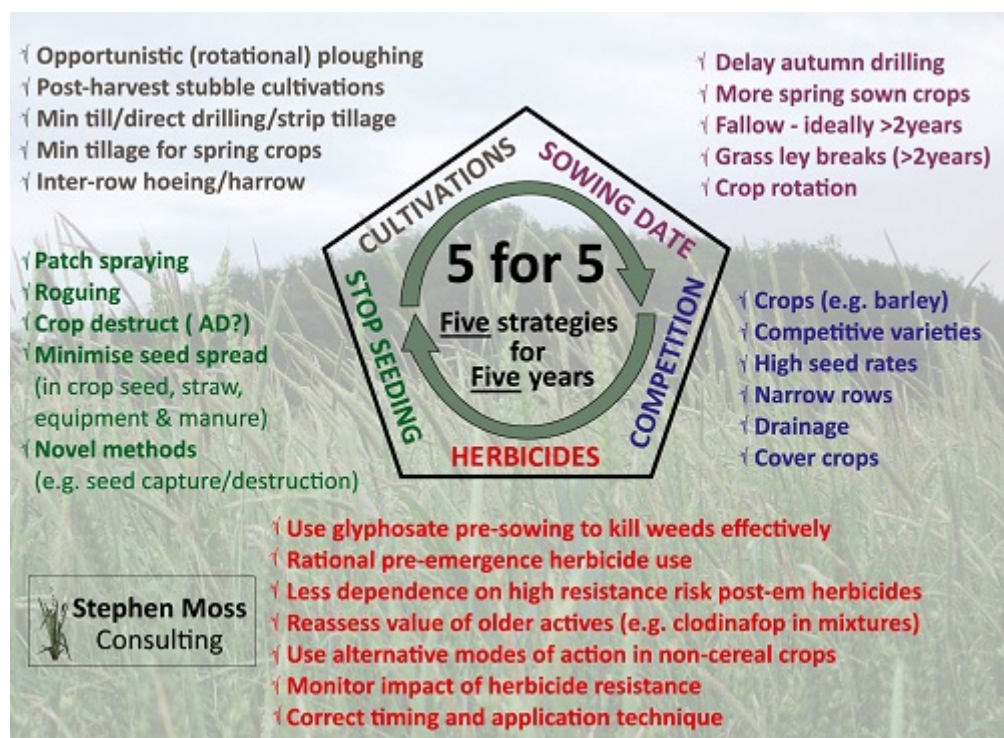
Controlling weeds – Chris Padfield

- Moving less soil provides less opportunity for weed germination – rake where possible
- Planning drill dates with variety is critical
- Delaying drilling from 1 October to 1 November reduces yield 2t/ha but balance this with ability to control weeds in pre-drilling seedbed. Note slug pellets work less well in later colder conditions.
- To help black-grass control, use higher winter wheat seed rates (200kg+) to compensate for less good seedbeds for direct drilling – seed costs less than a second establishment
- Higher seed rates and seedbed N with spring crops help compete blackgrass
- A joint venture bringing livestock into the arable rotation has been a key tool in weed management (along with other benefits) – one strategy for black-grass control is growing barley as whole crop so ‘harvest’ takes place before main seed shedding
- Cover crops have been utilised, only between winter and spring crops and costs are recovered from grazing; aim to kill off as soon as possible in the spring
- On other general farm points, Chris reported:
 - an investment in a weighbridge (to check farm in-goods as well as harvest management, paid for itself in 2 years)
 - he believes combine yield monitors need recalibrating every 100 acres
 - he won’t let anyone bale straw without a chaser – so much ground can be lost to soil compaction from this practice

Black-grass control – Stephen Moss

5 point strategy to black-grass control:

1. Stop the weed seeding – patch spray off and hand rogue before mid-June
2. Use cultivations strategically, taking into account the infestation levels on each field
3. Delay autumn sowing or move to spring cropping
4. Increase competition by increasing seed rates
5. Experiment to find the best pre-emergence herbicide for your own farm



Thought for the future – as we strive to raise organic matter levels in soils for longer term resilience, will the efficacy of pre-emergence herbicides decline?

Ryegrass is thought to be about 10 years behind black-grass but with the same resistance mechanisms. It's twice as competitive as black-grass and produces ten times more seeds per plant. Use similar strategies as black-grass to get ahead.

Find out more – Links to AHDB information sheets or research

[Managing weeds in arable rotations – a guide \(winter 2017\)](#)

[The encyclopaedia of arable weeds](#)

[Minimising the risk of glyphosate resistance](#)

[Weed control in conventional and organic oats](#)

[Herbicide resistance in broad-leaved weeds](#)

[Broad-leaved weed management – video](#)

[Black-grass: solutions to the problem](#)

[Identification and control of brome grasses](#)



For more information on weed control, visit cereals.ahdb.org.uk/weeds

Next meeting

Date: 6 March 2018

Topic: Succession planning (Heather Wildman) ([register to attend](#))

Time: 11:00

Location: The Rectory, Crudwell, Malmesbury SN16 9EP

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To find out more about Farmbench, AHDB's benchmarking tool, contact: David Pett

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