

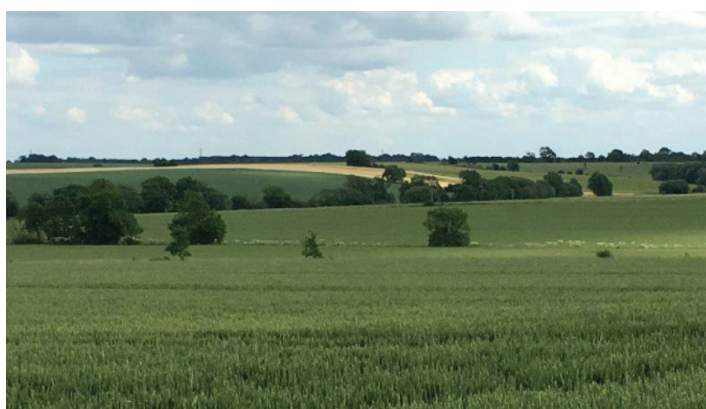


PROCAM
AGRONOMY THAT DELIVERS™

Technical Update July '19

JULY JOURNAL

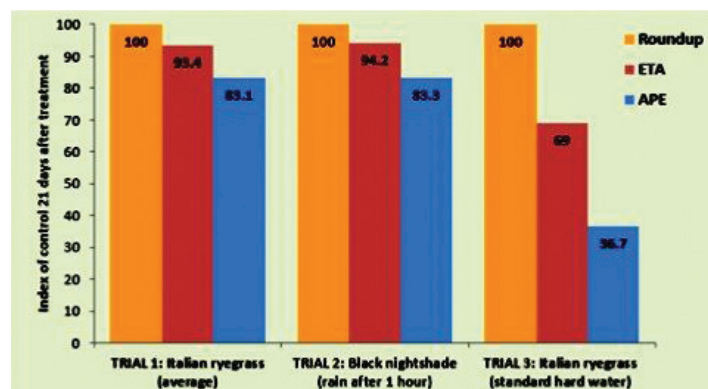
After the 'monsoon' rains earlier in June the higher temperatures at the end of the month have started to accelerate the ripening process and harvest preparations.



Early July will see many looking to desiccate oilseed rape crops and start 'harvest conditioning' in some of the early maturing cereal crops. For the most part this will involve the use of glyphosate with few alternative options.

N.B. sales of diquat have to be completed by 31st July 2019 with a final use up date of 4th February 2020. Product will need to be ordered and on farm shortly, especially if any use is anticipated after the end of July on later maturing crops e.g. linseed et al.

The end of June 2018 marked the official use up period for glyphosate products formulated with tallow amine (ETA) surfactants. All glyphosate products now are formulated with alkyl phosphate ester (APE) surfactants. It is worth



reiterating as the 'desiccation season' approaches that benchmark trials by Monsanto demonstrated that these products performed less well than their predecessors. The trials compared the most advanced glyphosate formulation, Roundup PowerMax, with both ETA and APE glyphosate products.

Simulating rainfall 1 hour after application and using 'hard' water further demonstrated the greater reliability of the Roundup PowerMax formulation compared with both ETA and APE formulations. The results are summarised in the graph below.

The main advantages from using a glyphosate formulation such as Roundup PowerMax are:

- Rainfastness – 1 hour for annuals and 4 hours for perennials
- Speed of uptake and activity
- Improved reliability, in both hot and dry or cool and dry weather conditions
- Less risk of drift

Suggested guidelines to optimise the activity of Roundup PowerMax and other glyphosate formulations include:

- Spray as soon as crop reaches 30% moisture
- Apply Roundup PowerMax early in the day or in conditions of high humidity especially in periods of hot weather. Early leaf wetness provided it is not so wet as to cause run off and conditions are 'drying', will improve uptake. Applications in high light intensity and long days are also preferable to spraying on dull days/evenings
- DO NOT spray crops intended for seed production
- Roundup PowerMax is a low-drift formulation with ammonium sulphate included. Additional surfactants should not be required but in areas of very 'hard' water additional water conditioners could be considered. With alternative glyphosate options the addition of ammonium sulphate based adjuvants and water conditioners will certainly help to improve uptake and speed of activity. These disrupt the leaf wax and facilitate the entry of glyphosate into the plant through the waxy leaf surface

Make sure you are using the appropriate and most effective product to optimise your crop desiccation and pre-harvest weed control this year.

GRAIN STORES

PRE-HARVEST HYGIENE



Good grain store hygiene is an essential foundation for keeping grain insect free. Over 90% of grain stores harbour at least one insect species known to infest grain. Mite and insect feeding results in direct losses but can also have a detrimental effect on the quality of stored grain. Whether intended for milling, malting or feed, infested grain runs the risk of being rejected resulting in major economic losses. A full cleaning procedure should take place; ideally around 6-8 weeks prior to harvest.

The following steps should be followed:

1. Empty the grain store of any old grain and debris. Do the same with grain handling equipment
2. Sweep all surfaces of the store thoroughly and/or use a high pressure airline to clean crevices, then burn the sweepings. Wear appropriate PPE including a dust mask
3. Use an industrial cleaner to clear as much dust as possible. Dust provides breeding sites for mites and insects. Burn the dust
4. Treat the fabric of the store – spray the walls, floors, ducts and handling equipment with an approved insecticide – ideally 4 weeks before harvest via a knapsack or tractor operated spray lance
5. Complete the treating process by using a smoke generating insecticide
6. After the initial clean down check the grain store regularly for insect activity using sticky and pitfall traps. Placing traps every 6 metres or so around the grain store allows for effective monitoring of insect activity. It is a key part of an integrated programme to avoid insect and mite infestations.

There are a limited number of products available to use in grain stores. Chlorpyrifos methyl e.g. Reldan 22 and deltamethrin e.g. K-Obiol are examples of products that can still be used to treat the fabric and walls of grain stores. Pirimiphos methyl e.g. Actellic smoke generators are still available and will form part of the cleaning strategy.

Your ProCam agronomist will have details of all the available products. You may also need to check with your grain buyer whether the proposed treatment is acceptable and conforms to any grain storage protocols.

GLYPHOSATE

STEWARDSHIP 2019



First signs of decreased sensitivity to glyphosate have been detected in several blackgrass field populations in England. The investigations, by Rothamsted Research, also found that decreased sensitivity was more likely in fields where populations had been exposed repeatedly to glyphosate. Although no UK blackgrass populations are classed as resistant (i.e. weeds should still be controlled by well timed applications at the full label recommended rate), the potential for resistance to establish and spread has been established. The project results are a timely reminder to follow the guidelines issued jointly by AHDB and the Weed Resistance Action Group to be found at: ahdb.org.uk/wrag

Key messages to minimise the risk of glyphosate resistance:

1. Prevent survivors: Avoid repeat applications to surviving plants
2. Maximise efficacy: Apply the right dose rate* (reduced rates increase the risk of reduced efficacy), at the right timing, in the right conditions
3. Use alternatives: Use non-chemical options e.g. cultivation, where practical, and use other herbicides in sequence
4. Monitor success: Remove survivors and report potential resistance issues to your agronomist and/or the product manufacturer

*In relation to dose, current guidance states that annual grasses typically require a minimum of 540 g a.i./ha for seedlings up to 6 tillers.

PROCAM NEWS

AGRONOMIST AWARD

Congratulations are due to ProCam Fieldcare South agronomist, Jack Saxby, who has won the highly regarded BASIS 'Paul Singleton Project of the Year Award'.

Jack secured this annual award for his innovative and insightful project on Oilseed Rape Disease Resistance. Jack is pictured having received his award at the Cereals event in June this year. Well done Jack!



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