PROCAM
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Technical Update
Jul '21

JULY JOURNAL

As July starts, the preparations for combinable crop harvest are beginning after another challenging season. Already though, actions are needed for the season in prospect.

Cool, wet weather in late June has meant that most oilseed rape desiccation will start in July this year, contrasting with the earlier timings in 2020. With the loss of diquat, pre-harvest conditioning is even more reliant on glyphosate. In addition to preparing crops for harvest an application of glyphosate is an opportunity for effective weed control in both oilseed rape and cereals.

Currently there are no glyphosate-resistant weeds in the UK, but increased tolerances have been observed in some species, notably bromes, sowthistles and annual meadow grass. It is an obvious concern to keep glyphosate within the weed control toolbox for as long as possible. Following a 5-year study the Weed Resistance Action Group (WRAG) has published updated guidelines on glyphosate application. These focus on ensuring that glyphosate is applied at the right dose rate, at the right time and in the right conditions.

Full details of the latest recommendations can be found at: https://ahdb.org.uk/wrag

Using the more advanced glyphosate formulations e.g. Roundup PowerMax at desiccation timing gives greater reliability and consistency in performance in all weather conditions. 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 'standard' glyphosate formulations include:

- Spray as soon as crop reaches 30% moisture
- Use water volumes of 200–250 litres/ha in thick or leaning crops and/or use angled nozzles to increase spray penetration into the canopy.
- When spraying tall crops pre-harvest there is increased risk of drift damage to hedgerows and glyphosate-sensitive crops. Follow spraying Best Practice, choose low drift nozzles and adjust the boom height to ensure the best spray pattern coverage of the whole crop.
- 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 (especially important with oilseed rape) and the ammonium ions 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 guidelines outlined below 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, motorised 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. Deltamethrin e.g. K-Obiol and cypermethrin as Talisma 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 also 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.

FERTILISER STRATEGY

P&K BALANCES

The latest British Survey of Fertiliser Practice shows a continuing trend for more negative P&K balances. On fields where fertiliser was applied the levels of input and offtake are more or less matched, implying that application rates are appropriate for crop requirements. However, the overall negative picture confirms that a large number of fields are not receiving any P&K inputs, unless from organic manures.

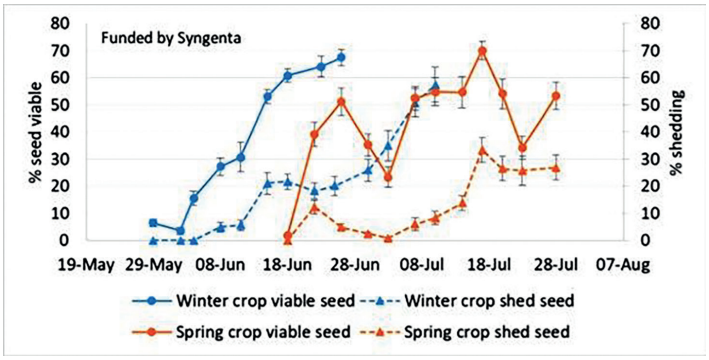
While some fields may be at or above target indices where no applications are justified, a large proportion of the fields with no fertiliser applied will be below target indices. These are in danger of running down soil reserves to below sub-optimal levels. This can have implications for effective crop establishment, plant water regulation and overall fertiliser use efficiency, particularly with regard to nitrogen.

July is an appropriate time to review your farm's fertiliser strategy. Identifying and selecting fields for some soil analysis post-harvest is a good starting point to assess your P&K balances and check that soil levels are optimal for crop growth, yield and financial returns.

GRASS WEEDS

WEED MAPPING/RECORDING

July is also an appropriate time to record and map weed patches as an aide memoire for action this autumn and/or to amend cropping e.g. introduce a spring crop for effective cultural control. Recent work by ADAS, in conjunction with Syngenta, confirmed that most blackgrass seed was viable by mid/late June in winter crops.



This reinforces the message that grass weed patches need to be sprayed off by early June. The picture is more varied in spring crops, but typically, once heads are seen above the crop it's time for action, or accept the problem for control within the rotation.

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