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Technical Update
Jun '21

JUNE JOTTINGS

June is typically the month for final agronomic inputs to combinable crops. These last decisions carry significant impact to optimise crop yields and quality.

If a cold, wet May brings 'plenty of corn and hay' as the old adage goes, yield expectations should be high this year. While the rain was welcome initially to allow crops to access applied fertiliser, the cool temperatures following the coldest April on record, have meant that many crop growth stages are somewhat behind typical benchmark timings. In many cases the 'T2' fungicide applications in both winter wheat and barley were delayed well into the latter part of May. A late surge of weed and crop growth has also required some focus on herbicide and late PGR applications.

Warmer weather at the end of May will have started to put things back on track, but will also mean that plans need to be quickly lined up for a 'T3' or ear fungicide in wheat crops. Most grain fill occurs post-anthesis or 'flowering' so maintaining a healthy crop canopy from ear emergence onwards is critical to optimise yield performance and grain quality. Yield is laid down at an approximate rate of 0.2 t/ha/day and the ear alone contributes around 20% to the final yield. So, these agronomic inputs, post-ear emergence, can be critical for optimum performance.

The focus at 'T3' is typically to limit the 'ear blight' complex of disease that can seriously affect yields, but more importantly, impact grain quality and ultimate marketability. For effective suppression of the 'ear blights' fungicides need to be applied at or just before flowering. As temperatures continue to improve in early June, this may mean the interval between a 'T2' and the optimum 'T3' timing can be little more than a week.

A combination of warmer temperatures with high humidity around the flowering period are key factors to encourage high levels of ear blight infection. These largely fusarium species can directly affect grain yield and quality, but more importantly, produce toxic metabolites known as mycotoxins which reduce quality and marketability; especially in varieties destined for the milling market. The only way of reducing the mycotoxin risk is through appropriate fungicide application. Triazole fungicides based around prothioconazole, tebuconazole, bromuconazole and metconazole are effective options at a minimum 50% dose. In high disease pressure, total fungicide loading will need to be increased.

Including adjuvants such as F16 or Mica with the 'T3' fungicide will improve the efficacy and persistence of the applied products. These adjuvants increase the fungicide coverage of the ear and upper leaves, but essentially reduce losses of active ingredients from 'wash-off' and breakdown in UV light.

The 'T3' timing is also the last opportunity to effectively impact and fine-tune crop nutrition. Critical thresholds have been identified for eight key nutrients. Ideally, grain should be above these critical thresholds for nutrient content. Independent analysis of grain post-harvest in 2020 showed that 80% of crops were deficient in at least one nutrient and over 50% showed two or more deficiencies. More deficiencies were found on high pH soils. Lack of fully optimal supplies of nutrients will limit crop yield and financial performance.

Tissue analysis could identify nutrient shortages and guide applications of foliar nutrient and biostimulant products to correct potential deficiencies. Check with your ProCam agronomist for the appropriate nutrient strategies and ensure you give your crops the best opportunity to optimise grain-fill, grain quality and financial return this season.

GRASS WEEDS

GRASS WEED CONTROL STRATEGY

Greater emphasis on cultural control combined with herbicide 'stacks' have reduced grass weed burdens in many fields, but where control is less than ideal, June is the time to start next season's grass weed control.

Sterile brome, along with its various relatives is becoming an increasing issue. The reduced use of post-emergence ALS herbicides against blackgrass in the spring which gave incidental control of bromes has helped them to thrive, notably in field margins.

Heads of bromes, blackgrass and ryegrass are now in evidence in crops and the levels of infestation should be assessed and mapped to gauge the required treatment options. Grass weed seeds will rarely be viable before the end of May, but will quickly become viable from around mid-June and, if possible, should be removed to limit seed return and infestation in the following crop.

If feasible, at low weed levels, consider rogueing to remove grass weeds from the field.

Where distinct dense patches of bromes or blackgrass occur e.g. on headlands etc., spray these out with glyphosate as soon as possible and before seeds become viable. Ensure a minimum dose of at least 540g ai/ha to limit the risk of developing resistance to glyphosate.

More severe and general field infestations will require planned cultural control methods, or a rotational change and/or spring cropping. Cultural control starts at harvest. Machinery can move weed seeds from 'dirty' to 'clean' fields. Make sure combines and balers are cleaned when moving between fields.

WINTER WHEAT

INSECT RISKS 2021

Unsurprisingly perhaps, aphid numbers caught in the Rothamsted suction traps to date have been very low. As and if temperatures rise, be prepared to react quickly if numbers surge and more than 50% of tillers become infested.

Orange Wheat Blossom Midge were caught in traps in Essex in late May. Adults emerge if the soil is warm (>13°C) and moist. Less of a problem now with so many resistant varieties available, but certain key milling varieties in Groups 1 & 2 are susceptible and monitoring will be required as ears start to emerge up to the onset of flowering.

SPRING BARLEY

T2 FUNGICIDES 2021

Many spring barley crops struggled to get going through the dry conditions of late March and April, but growth has surged following the rains in May. Decisions will need to be made on the need for late growth regulators and fungicides soon.

Ramularia is an increasing threat under current conditions. The first symptoms of Ramularia appear as small irregular brown 'pepper-pot' like lesions on the leaf surface, on lower leaves during tillering or on the top leaves at the onset of flowering. These lesions can often be mistaken for physiological spotting, but in Ramularia the lesions go through the leaf and are visible on the underside. Physiological spotting only appears on the upper side of the leaf where it is exposed to sunlight. Minimising crop stress and maintaining optimum plant health are key to help reduce the impact of Ramularia.

With the loss of chlorothalonil, effective suppression of Ramularia is more challenging as resistance has been found to many of the current fungicide options. The 'new' triazole mefentrifluconazole in combination with the SDHI fluxapyroxad e.g. Lentyma has shown good Ramularia activity in trials. Including multisite actives such as folpet and or sulphur in the mix adds to the activity on Ramularia and is a good anti-resistance strategy.

PROCAM NEWS

AGRONOMIST AWARD

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Congratulations are due to ProCam agronomist, Jodie Littleford who has won the highly prestigious Barrie Orme Shield.

This award is given annually to the most outstanding candidate passing the BASIS Certificate in Crop Protection and Integrated Pest Management. Jodie has been working as Trials Officer with ProCam for the last 3 years, but has now moved to further utilise and develop her crop expertise as an agronomist in East Yorkshire. We wish her every success in her future career.