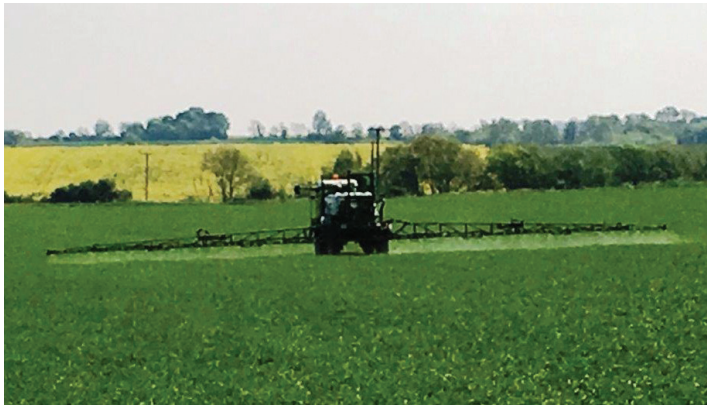
PROCAM
AGRONOMY THAT DELIVERS™

Technical Update
Apr '19

APRIL OUTLOOK

Crop development to date hints at a high yield potential. April is the time for key agronomic inputs to ensure that crop potential is maintained and ultimately achieved.



Despite the arrival of a few named storms, conditions for crop growth and development in March were generally good, in complete contrast to March 2018. There has also been little hindrance to fieldwork. As a result many cereal crops are well advanced and have received their 'T0' fungicide/pgr/nutrient applications – or will do so in early April. Applications of fungicide at 'T0', typically aimed at GS30 are effective at lowering rust and mildew levels and help to suppress septoria tritici. However, due to the levels of infection on even the most resistant and/or late sown variety septoria still remains an ever–present threat. Preparations will need to be in place for fungicide applications at the 'T1' timing in the latter part of April into early May. The T1 timing is targeted at the emergence of leaf 3 and is the critical starting point for effective suppression of septoria. Typically, the emergence of leaf 3 coincides with GS 32 or the second node stage.

N.B. in later sown crops e.g. drilled in late October and November onwards leaf 3 will tend to emerge at the first node or GS31 growth stage.

With the trend for later sowing as part of grass weed control strategy this needs to be factored in when planning fungicide applications. The severity of septoria infection is strongly correlated with rainfall in April and May. However, as most fungicides now have limited curative capability against septoria, any control plan must focus on early, prophylactic applications before disease is established. As the role of the triazoles in controlling septoria is diminishing the focus is on the SDHI group of fungicides. Isolates of Septoria tritici with increased tolerance to the SDHI were found across the UK in 2017. This trend continued in 2018, with a larger proportion of the septoria population found to be less sensitive to SDHIs. The use of mixtures of fungicides with different modes of action and the inclusion of multisite protectant fungicides must be an essential feature of any fungicide programme to maintain efficacy and slow the development of resistance. Good SDHI stewardship is now paramount to ensure that SDHIs remain active for as long as possible. The T1 fungicide application must:

- Target protecting leaf 3 before disease is established
- Include a fungicide mix with different modes of action
- Feature multisite protectant fungicides

As new varieties with higher septoria disease ratings become available the use of SDHIs at both the T1 & T2 timings is being questioned. ProCam's fungicide trials in 2017 produced around an extra 0.5 t/ha where an SDHI was included at both timings compared with a single SDHI at T2. In 2018, a low disease year, the trials again showed the best yields were again achieved where SDHIs were included at both timings; a reminder that SDHIs have physiological benefits in addition to their disease control properties.

The trend for later sowing will, by default, lower the eyespot risk but the majority of wheat varieties on the Recommended List have a rating for eyespot of 5 or less. The T1 timing is the last opportunity for effective intervention on stem base disease and should be remembered when planning the fungicide programme.

Fungicide planning must include an assessment of risk as it is apparent that under use of fungicides in high risk sites/seasons on responsive varieties is much more economically damaging than over use of fungicides in low risk sites/seasons on unresponsive varieties. Your ProCam agronomist will have all the information and fungicide options to provide treatment solutions appropriate to your individual crops and varieties.

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OILSEED RAPE

SCLEROTINIA 2019

Oilseed rape crops are moving rapidly into the flowering phase following the favourable growth conditions through much of March. This is now the period of risk for Sclerotinia infection. Warm (>10°C), moist soils encourage the fruiting bodies or sclerotia in the soil to 'germinate' forming brown spore releasing apothecia. Carried in the wind, the spores can land on OSR, feed on petals and germinate. Even where spores are present, conducive weather is still required for infection to occur. Oilseed rape is at the greatest risk of infection when relative humidity is greater than 80% and air temperatures are at, or above, 7°C for more than 23 hours. Fungicides are only protectant in activity and will need to be applied before an infection alert to achieve good control. The optimum timing for a single spray is, usually, just before midflowering on the main raceme and prior to significant petal fall. Persistence of full dose fungicides is approximately three weeks. If a spray is made earlier or if the flowering period is extended, a second spray may be required to protect the crop, if the weather conditions are conducive for infection. No resistance to fungicides has been reported in the UK for sclerotinia. However, strains with decreased sensitivity to SDHIs have been reported in France. Mixtures of fungicides or co-formulated products with a different mode of action should be used to minimise resistance risks.

To optimise fungicide use and timing AHDB has restarted its sclerotinia infection risk alerts service for 2019. The service, co-funded by BASF will run during the main flowering period and the 'traffic light' system of alerts for infection risk across the UK can be accessed at **ahdb.org.uk/sclerotinia**. At the end of March the infection risk was low but crop flowering stage and forecast weather will need to be monitored closely, particularly for forward crops.

OILSEED RAPE

FLOWERING PESTS 2019

As temperatures rise and oilseed rape crops start to flower pollen beetles cease to be a threat and can actually aid pollination. The pest focus shifts onto seed weevils. These can potentially be active in oilseed rape crops from early flowering. The threshold for economic damage is estimated at between 0.5 – 1 beetle per plant. Typically, their main effect is to provide access points via feeding damage and egg laying scars for the brassica pod midge to lay its eggs. The often numerous pod midge larvae feed within the pod ultimately causing the familiar pod spliting especially noticeable around field edges. There is no effective control option once damage is seen. Crops need to be checked for seed weevil and control measures put in place during the flowering period if thresholds are exceeded.

CEREAL APHIDS

FORECAST SPRING 2019

The AHDB have published their forecasts for cereal aphid activity this spring. Perhaps unsurprisingly following a relatively mild winter aphid flights are predicted to start around 2 weeks early. The forecasts are based on the mean temperature in January and February, because over the last 55 years this shows the strongest correlation with the timing and size of aphid migrations. The temperatures in January and February appear to reset future aphid activity each year with temperatures in November/December or March/April having little apparent impact. Temperatures in January and February were around 1°C above the 30 year average temperature throughout most of Britain. The outlook for this spring is therefore that, unless weather conditions are wildly abnormal during the rest of the spring, aphids will fly around 2 weeks earlier than they would be expected to historically. This could have implications for aphid invasion and BYDV infection in spring cereals.

CEREAL WEEDS

RESISTANCE ISSUES 2019

Herbicide resistance in broad leaved weeds (BLWs) is not as widespread as it is in grass weeds, but it is a slowly growing problem, with populations of poppy, chickweed, and scentless mayweed resistant to ALS herbicides in the UK and across Europe. Resistance in the UK in broad leaved weeds is conferred by ALS gene point mutations. Most commonly this relates to sulphonyl-urea (SU) herbicides but can also involve other related ALS inhibitors e.g. florasulam. To avoid resistance developing and/or where resistance is suspected it is important to use alternative herbicides and mixtures of products with a different mode of action and lower inherent resistance. Fortunately, there are a number of options that are still very effective against the key resistant BLWs. Make sure your herbicide choice and strategy is robust and appropriate to your resistance risk.