



PROCAM
AGRONOMY THAT DELIVERS™

Technical Update
Apr '20

APRIL OUTLOOK

The wide range of growth stages across many crops this season means that agronomy programmes will have to be flexible and reactive to the individual field situation.



Finally, in the latter part of March a period of high pressure and drier weather allowed some catching up with fieldwork and especially spring drilling. As is so often the case when wet soils dry quickly, it is not long before some light rain is needed to ensure good and rapid crop emergence and availability of both fertilisers and residual herbicides.

Crop development is more widely variable than 'normal'. Some October sown crops will be at GS30 and be receiving or about to receive their T0 growth regulators (PGRs), nutrients and fungicides. Stimulating root development with PGRs +/- biostimulants will be essential this year when rooting is likely to have been restricted in the wet conditions of last autumn/winter. Yellow rust is visibly active in many wheat varieties and Septoria levels are high on lower leaves. Early intervention with a T0 fungicide will also be key to setting up a sound disease control strategy for the season.

Crops sown later through the winter and into early spring will obviously be reaching benchmark growth stages later than is 'typical'. PGR and disease control strategies will have to be flexible and reactive to the individual variety/field situation. As growth accelerates through the spring these later sown crops may be especially vulnerable to rust and mildew infection.

Usually in early April, preparations are being put in place for fungicide applications at the T1 timing, the major intervention

point for control of Septoria Tritici and aimed at protecting the emerging leaf 3. In September and October, sown wheat crops leaf 3 emerges to coincide with GS32 or the second node stage. This often means fungicides are required in mid-late April.

It is important to remember that later sown crops i.e. those drilled from November onwards, will produce fewer tillers and leaves before entering the stem extension phase. Leaf 3 may emerge at the first node or GS31 growth stage, or even earlier growth stages in very late sown crops. Close monitoring of crops will be essential to ensure applications are correctly timed.

Suppression of Septoria is increasingly reliant on the SDHI group of fungicides. Isolates of Septoria Tritici with increased tolerance to the SDHI group continue to be found each year. So, the use of mixtures of fungicides with different modes of action and the inclusion of multi-site protectant fungicides e.g. chlorothalonil, mancozeb or folpet must be essential features of any fungicide programme to maintain efficacy and slow the development of resistance.

N.B. Another reminder this year: All chlorothalonil-containing fungicides must be used by 20th May 2020.

As new varieties with higher Septoria disease ratings become available, the use of SDHIs at both the T1 and T2 timings is being questioned. ProCam's fungicide trials in recent years have typically produced around an additional 0.5 t/ha where SDHIs were used at both the T1 and T2 timings.

SDHIs have physiological benefits similar to those produced by the strobilurin group of fungicides in addition to their disease control properties. In 2019, in dry conditions, the trials suggested the T1 timing was more beneficial than the T2 application.

Fungicide input planning must include an assessment of risk as it is clear that under-use of fungicides on a 'dirty' variety is much more economically damaging than over-use of fungicides on 'cleaner' varieties. Your ProCam agronomist will have all the information and fungicide options to provide treatment solutions appropriate to your individual crops and varieties.

OILSEED RAPE

SCLEROTINIA 2020



As with cereals, oilseed rape crops are showing a wide range of growth stages. Crops range from stem extension/green bud, up to early flowering. As crops start to flower the risk of infection from Sclerotinia will have to be considered.

AHDB is running its Sclerotinia infection risk alerts service again this season to help growers understand the risk from infection and target accurate spray timings for control. Based on observed (past 24 hours) and forecast (next 72 hours) weather data, AHDB are now producing alert maps showing when thresholds, air temperatures above 7°C and relative humidity (RH) above 80%, are exceeded for 23 continuous hours in order for Sclerotinia to infect the crop.

Alerts will be based on a traffic light system with red indicating high risk, amber 'near misses' and green/white low risk. For each region of the UK, charts will show an hour-by-hour breakdown of the observed and forecast Sclerotinia infection risk and whether any infection risk periods have already occurred. More information on the service can be found at the following link:

<https://ahdb.org.uk/sclerotinia>

The dry conditions at the end of March meant that the forecasts showed most areas as low risk. The night time temperatures across most parts of the UK were also too low to allow Sclerotinia infection. However, the risk can change quickly once conducive weather conditions return.

Without reference to forecasts and risk maps, the guidance for optimum timing for Sclerotinia control is a single spray just before mid-flowering on the main raceme and prior to significant petal fall. Persistence of full dose fungicides after application is approximately 3 weeks. If flowering continues for longer than this then a second spray will be required to maintain fungicide cover throughout the flowering period.

No resistance to fungicides has been reported in the UK for Sclerotinia. However, strains with decreased sensitivity to SDHIs and MBCs 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.

For all the obvious focus on Sclerotinia during flowering, it is important not to overlook other foliar diseases e.g. Light Leaf Spot, and potential later infection with Alternaria. Fungicides with activity against these diseases may need to be factored in to the Sclerotinia programme.

CEREAL APHIDS

FORECAST SPRING 2020



The AHDB have published their forecasts for cereal aphid activity this spring. Unsurprisingly, after another relatively mild winter, aphid flights are predicted to start around 1-3 weeks earlier in Scotland and Northern England and about 4 weeks earlier over the rest of England; from The Wash southwards. The forecasts are based on the mean temperature in January and February. Over the last 56 years, this shows the strongest correlation with the timing and size of aphid migrations. Temperatures in January and February were around 0.5-2.5°C above the 30 year average temperature, in a range from north to south. The outlook for this spring is therefore that, unless weather conditions are wildly abnormal during the rest of the spring, aphids will fly around 1-4 weeks earlier than they would be expected to historically. This could have implications for BYDV infection in spring cereals.

CROP NUTRITION

SULPHUR 2020



Sulphur is an essential plant nutrient and has major effects on both the yield and quality of crops. Mineralisation of soil organic sulphur will supply some of the crop requirement, but where this has been depleted after high winter rainfall, yield and quality will be reduced unless additional sulphur is supplied. Crops grown on light textured and sandy soils are at greatest risk of sulphur deficiency. Recent AHDB-funded work has shown that soil texture and over winter rainfall is the best predictor of sulphur deficiency in oilseed rape. Leaf tissue testing was less reliable and topsoil analysis gave no useful indicator of likely yield response to S fertiliser. The sulphur risk matrix (below) is a guide to assess the risk of sulphur deficiency.

	Winter rainfall (Nov-Feb)		
	Low (<175 mm)	Medium (175-375 mm)	High (>375 mm)
Soil texture			
Sandy	High		
Loamy and coarse silty	Moderate	High	
Clay, fine silty or peaty	Low		Moderate

Apply sulphur to all cereal and oilseed rape crops grown on high or moderate risk sites:

Cereals 25-50 kg SO₃/ha

OSR 50-80 kg SO₃/ha