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Technical Update
April '17

APRIL OUTLOOK

High disease potential in winter cereals puts the focus on planning fungicide programmes this month along with strategies for getting spring crops off to a flying start.

The latter part of March saw generally improving temperatures and conditions for cereal crop growth and development. Even later sown crops were at or approaching GS30, the so-called 'T0' timing for early fungicide and growth regulator inputs around the end of March. A key feature in many wheat crops this year has been the presence of yellow rust. Even varieties with apparent high ratings for rust resistance are showing rust foci developing. It is feasible that many varieties often show levels of yellow rust in the tillering stages which diminishes when 'adult plant resistance' kicks in during the stem extension phase. However, the races of yellow rust are continually evolving and currently appear to be particularly virulent meaning that there is no room for complacency when planning fungicide programmes with any variety. Many crops will have received a T0 fungicide that will have suppressed the early infection but plans will need to be in place for the next 'T1' fungicide to maintain the disease protection.

With the current races of yellow rust intervals between fungicide inputs should be no longer than 3 weeks.

The 'T1' timing is also the key starting point for effective suppression of septoria. This should be targeted to coincide with the emergence of leaf 3 – typically around the second node or GS32 stage. N.B. for late 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. Strains of septoria have developed increased tolerance to certain triazole fungicides to the extent that their curative/eradicant activity is compromised. Isolates of septoria with increased tolerance to the new SDHI group of fungicides have been found at various sites across the UK. This all means that the T1 disease control strategies must:

- Be aimed at protecting leaf 3 before disease is established
- Include mixtures of products with different modes of action
- Feature multisite protectant fungicides such as chlorothalonil, folpet or mancozeb
- Offer effective yellow rust activity.

An addition to the fungicide range in 2017 is a new SDHI from Syngenta under the generic brand name 'Solatenol'. It does offer a high level of activity on septoria and both yellow and brown rusts. In ProCam trials it has shown itself to be particularly effective when used at the T1 timing although it can also feature as a later T2 option. Used always in combination with a triazole and multisite inhibitor in 2016 'Solatenol' outperformed the previous best 'T1' fungicide option. It also showed a significant yield advantage when used at T1 compared with the Untreated Solatenol T1 T2 timing. Disease potential is high for 2016. Final infection levels will depend on rainfall through April and May. Early and robust intervention will allow the flexibility to amend and adapt later fungicide applications to the crop/variety situation and overall disease pressure. Your ProCam agronomist will have full details of all the available fungicide option to provide treatment solutions appropriate to your individual crops and varieties.

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SPRING CEREALS

NUTRITION SPRING 2017

Cropping patterns are changing as more spring crops are introduced to combat grass weeds. Winter frosts this season have helped create a 'frost tilth' and spring crops generally have been sown into good seedbeds. With a short growing season there is a need to ensure rapid and uninterrupted crop development, particularly to establish an effective root system. Spring barley will only root to around 80-90 cm compared with winter crops that can send roots down to 1-2 m depending on the soil type. In spring crops root assimilate production is relatively short and quickly diverted to canopy development. The more extensive and earlier roots are developed the better the plant is buffered against climate extremes. Studies by ProCam at Nottingham University have identified nutrient and growth promoting products that clearly improve root and shoot development in the early stages of spring barley growth. Applications of, for example, Universal Bio and Hadron – offering combinations of plant nutrients and growth promoters – gave statistically significant increases in root and shoot growth when applied in addition to standard fertilisers. Check with your ProCam agronomist for details of the appropriate products to give your spring crops a head start.

OILSEED RAPE

SCLEROTINIA 2017

Forward oilseed rape crops are already at the yellow bud/ early flower stage and the Sclerotinia risk will need to beclosely monitored. Germination of the fruiting bodies of Sclerotinia – the sclerotia buried in the soil – has already been seen in late March at monitoring sites in Devon and Herefordshire run by ADAS on behalf of BASF.

The warm weather spell at the end of March has resulted in a number of early weather-based infection alerts, in both northern and southern sites. While the current risk of infection is relatively low there is a need to start monitoring for Sclerotinia and planning fungicide strategy. Even with close monitoring, final Sclerotinia impact is notoriously difficult to predict. To reduce the risk fungicide cover is needed throughout the flowering period. The available fungicides for Sclerotinia are largely protectant in activity and give effective cover for around 3 weeks. Where the flowering period is likely to extend beyond 3 weeks a 2-spray approach is often required. Applications should start from the yellow bud/early flower crop stage. A yellow bud spray will give direct coverage of lower leaves and effective protection against early Sclerotinia infection. Light leaf spot is still very active in many crops and varieties. For all the focus on Sclerotinia, Light Leaf Spot is still the major yield-robbing disease in oilseed rape. If the disease is still active on leaves at the onset of flowering, fungicides with Light Leaf Spot activity need to be factored in to the Sclerotinia programme.

CEREAL APHIDS

SPRING 2017

The AHDB have published their forecasts for aphid activity this spring. Winter 2016/17 was colder than 2015/16 with more frosts. However, temperatures in January and February 2017 were still 0.5°C above the long-term average in south and east England. Temperatures in the north and west were nearer 1.0°C above the long-term average. The forecasts are based on the mean temperature in January and February because over the last 50 years or so, this shows the strongest correlation with the timing and size of aphid migrations. It indicates that for 2017, if spring weather is 'average' aphids will be flying a little earlier than normal, especially in the north and west. This has implications for early emerging spring crops which could be vulnerable to aphid invasion.

OILSEED RAPE

FLOWERING PESTS 2017

As temperatures rise and crops start to flower the risk of damage from pollen beetle recedes and should focus on 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 splitting 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.

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