



PROCAM
AGRONOMY THAT DELIVERS™

Technical Update
Sept '18

NEW SEASON POINTERS

A relatively early and generally uninterrupted harvest this year has provided the opportunity to get next season's crops and cultivations started in good conditions.



Useful rains in the latter half of August in some parts of the country gave confidence to start drilling oilseed rape. Where seed was put into warm soils with moisture, crops have emerged rapidly and evenly.

Getting the crop off to a vigorous start is critical to making it tolerant of potential pest and disease problems. Foremost amongst them is cabbage stem flea beetle (CSFB). Typically CSFB enter into a diapause (resting stage) in August returning to cause the familiar grazing and shot holing in late August to early September. Although largely focused in the east, CSFB damage has spread further north and west in recent years. Early nutrition including bio-stimulants are essential inputs to ensure the crop is well established and able to tolerate adult CSFB activity.

Insecticide options to control all stages of CSFB are limited. Increasing resistance to pyrethroid insecticides is restricting their effectiveness against CSFB adults and larvae, however development work by ProCam has highlighted ways to optimise the performance of these products. Any control programme should start with pyrethroids before considering the other limited alternatives. Try not to spray until absolutely necessary to avoid driving further resistance. Your ProCam Agronomist will have the latest information on the insecticides available for CSFB suppression and the options to improve and optimise their efficiency.

While a lot of the focus is on CSFB, other pest issues need to be borne in mind.

Turnip sawfly is a sporadic pest, particularly in mild autumns,

typically transferring from other brassica crops, e.g. stubble turnips. The black caterpillar larvae can cause severe and dramatic defoliation in localised areas, but occasionally across the entire crop. Fortunately pyrethroid insecticides are still a very effective option on this pest.

Sowing oilseed rape early to combat CSFB can increase the risk of infestation by cabbage root fly. The third generation of the pest usually appears from mid-August onwards.

Crops are most at risk if they establish rapidly, producing true leaves by the end of August, and if mild conditions occur in September, as this extends the period of adult activity and egg-laying.

Also problematic is aphid control, notably *myzus persicae*, the vector for the yield robbing turnip yellows virus (TuYV). These aphids are resistant to both pyrethroids and pirimicarb (Aphox) and require alternative insecticides, e.g. pymetrozine (Plenum) or thiacloprid (Biscaya), for effective control. Treatments should be applied as soon as aphids are found in crops and especially if this occurs in the early stages (4-5 leaf) of crop development. TuYV has been shown in trials to have the potential to reduce yields by up to 30%. Symptoms of infection are not easily diagnosed and can be confused with many other oilseed rape deficiencies and disorders.

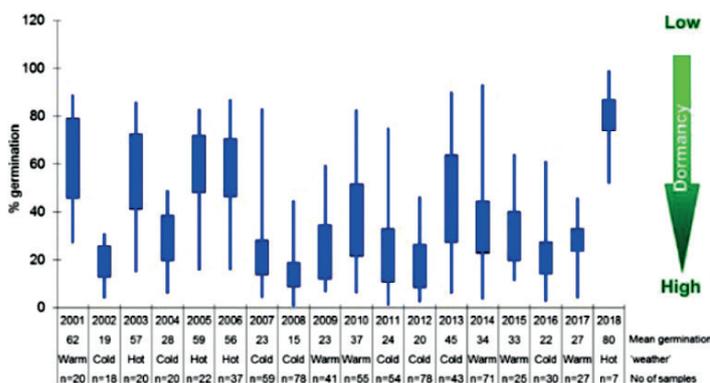
The first consideration for autumn disease control in oilseed rape will focus on phoma. The release of infecting spores from volunteer plants or crop debris occurs when there has been 20 days with significant rain from the 1st of August. The familiar leaf spots tend to occur once 120 day degrees have been accumulated after the infecting spore has landed on a leaf. These weather criteria mean that the timing of the appearance of phoma in oilseed rape crops, and appropriate fungicide application, varies widely from season-to-season. Fungicides against phoma are largely protectant and need to be applied as soon as 10% of plants in a crop are showing the leaf spot symptoms.

SEEDBED PREPARATION

AUTUMN 2018



The assessment of blackgrass seed dormancy this year shows it to be very low - as low as it has been for many years. Blackgrass dormancy is determined by the weather conditions during seed maturation. The hot, dry conditions in late June to early July has determined that dormancy is low in 2018.



N.B. The assessment of dormancy, carried out by ADAS, only applies to seed shed this summer. Seed already in the ground from previous seasons will have no dormancy.

The overall effect of this is that, given adequate moisture, blackgrass seed should germinate and emerge quickly. This could have implications for this year's approach to cultivations and could well improve the value of 'stale seedbeds'.

Although it may seem counter-intuitive, not rushing to cultivate fields, especially in low dormancy years, can aid weed control. Leaving stubble uncultivated allows seed to germinate and be eaten by birds and other predators. Cultivations will bury seed, limiting predation, and can induce deeper dormancy.

Keeping cultivations shallow and avoiding non-inversion tillage will hold weed seed in the top 5 cm of the soil where it is more likely to germinate. Consolidation with rolls or a press after the primary cultivation will further improve germination. Promoting a vigorous flush of blackgrass optimises the opportunity to reduce the weed burden with glyphosate before drilling. It is important to maintain a correct dose (minimum of 540 gms glyphosate per hectare) to reduce the risk of developing weed resistance to glyphosate.

Ultimately, the key factor in the cultural control of grass weeds is delayed drilling. Time of sowing will depend obviously on seedbed conditions and impending weather threats, but also on the potential grass weed population. Where high numbers are anticipated, i.e. >400 plants/m², drilling should be delayed into the latter half of October. Earlier drilling, i.e. early October, should only be contemplated where lower populations are likely.

Later drilling allows more time for blackgrass to emerge predrilling and reduces weed vigour. More importantly, it is more likely to provide better conditions, i.e. cooler, wetter soils, to allow soil acting residual herbicides to work to their optimum. Any residual herbicides should be applied within 24-48 hours of drilling and certainly pre-emergence of crop and grass weeds.

NUTRIENT PLANNING

P&K OFFTAKES 2018



This season's prolonged dry spell during the build up to harvest encouraged some crops to senesce prematurely. Although it is far from an exact science, the result may have implications for residual nutrient levels in straw. Although there is little work available to quantify the variations over seasons, it can be assumed that dry seasons will lead to higher nutrient concentrations in crop residues.

Where crops mature quickly not all the natural plant processes are completed. Peak potash uptake in crops is reached around flowering, after which the levels begin to fall. Late in the season potassium is required to transport carbohydrates to the grain during grain fill. In years where the grain fill period is shortened and grains do not fill to their full potential, e.g. this year, elevated potash levels remain in the straw at harvest.

High straw prices over the last 12 months may have encouraged many to bale and remove more straw than originally planned. This could lead to higher nutrient off take than anticipated using average RB209 estimated figures.

This year, greater thought needs to be given to fertiliser strategies and calculations of replacement values. Check with your ProCam Agronomist about ProCam's nutrient management planning options, based on accurate soil sampling and analysis and ensure your soil nutrient levels are not being depleted.