

Chasing profits, not rainbows

“ Although establishment is fundamental to the success of the crop, it’s only one component of its development phases. ”

De-risking OSR

At the end of the rainbow lies a crock of gold, black gold. The trouble is chasing rainbows is a notoriously risky business. CPM investigates how to achieve something that in recent years has seemed increasingly impossible for many growers.

By Lucy de la Pasture

Oilseed rape has had a real change in fortunes over the past two seasons. The nightmarish infestation of cabbage stem flea beetle (CSFB) larvae, that put paid to a large number of OSR crops in the spring of 2018, didn’t prove to be the death knell for the crop it was anticipated to be.

At that time, many felt that growing OSR really did fall into the chasing rainbows category. But those who kept the faith have since been rewarded with rapeseed prices on an upward trajectory.

Recent world events have combined to ensure that prices for OSR aren’t likely to take a dive any time soon. Supplies of sunflower oil are already practically exhausted in the UK and no exports likely from Ukraine — which, together with Russia, grows 60% of the world crop. Beyond the present situation, there’s great

uncertainty about the sunflower crop in the longer term. All of a sudden OSR has become a more attractive proposition, not least because vegetable oil is in very short supply.

Establishment problems and yield instability have dogged the crop for the 40 years it’s been a mainstay of British rotations, but growing OSR can be de-risked, according to Bayer commercial technical manager, Ben Frost. He believes that risk mitigation starts at the planning stage, not just for the OSR crop but for the one preceding it in the rotation.

Biggest threat

“There’s little doubt that the biggest threat to OSR is currently CSFB. One of the best ways to get a crop established seems to be to drill increasingly early, which means the crop it will follow has to be cleared in time to achieve this.”

Ben highlights that getting the timing of harvest right for the preceding crop is one of the most fundamental decisions when placing OSR in the rotation.

Agrii agronomist, Todd Jex also believes the risk from CSFB can be reduced by good planning. “Winter barley provides the best entry for OSR, it’s easy to cut stubble at a decent height and that offers the most effective disguise for the newly planted crop.”

That’s a strategy Ben agrees with. “Long stubble seems to have a deterrent effect and I’d ideally chop the straw so the drill can follow in right behind the combine if conditions are favourable, rather than risk them deteriorating while waiting for the straw to be cleared.”

Where crops are situated spatially on the farm throughout the course of the rotation also matters, suggests Todd. “Where possible, block the cropping within the rotation — which should be a minimum of four years — and make sure that the current season’s OSR is nowhere near the fields planned for the next season.”

Drawing on his previous experience as an agronomist at Velcourt, Ben suggests herbicide choice in the spring should also be thought through if OSR is the following crop.

“There’s evidence that where some sulfonylureas (SU) are applied to cereals in the spring, young OSR plants can take longer to get going in the autumn. That means that spring applications of Hatra (mesosulfuron+ iodosulfuron) or Pacifica ▶



Todd Jex recommends carefully considering the rotation, making sure fields to be planted in OSR are nowhere near last year’s crop.



Take Control with CRF

Agromaster[®]
Agroblen[®]
Agrocote[®]

Controlled Release Fertilisers (CRF) supply nutrients which match the plants growth cycle.

- Just one application needed
- Improve NUE by over 40%
- Reduce fertiliser use
- Optimise yield & quality
- Up to 50% less leaching*



Scan here for more info

ICL

* Numbers based on independent research with ICL CRF technologies



Many growers are drilling earlier so plants have reached a size where they can withstand CSFB damage when the pest migrates into the crop.

► Plus (mesosulfuron+ iodiosulfuron+ amidosulfuron) should be applied at the earliest opportunity, which will give the best results anyway as the target weeds will be small."

It's not just herbicides aimed primarily at grassweeds that may make a difference, broadleaf herbicide selection also requires a considered approach, suggests Ben. Todd agrees, having noticed that some spring-applied SUs used in cereals before direct drilling OSR in the autumn definitely slow the development of young OSR, especially if soils are dry.

"Herbicide selection becomes even more crucial when direct drilling, a light pass with a stubble rake isn't going to be enough to avoid possible problems from SU residues," adds Ben.

Variety choice is a personal thing, but many hybrids offer a stack of traits to reduce risks of

diseases, such as phoma, club root and TuVY, but also pod shatter resistance. Both Todd and Ben suggest good autumn and spring vigour helps crops grow away from CSFB damage too.

In Ben's experience, direct drilling provides more consistent establishment for OSR. "It's often dry at the time of drilling so no-till minimises soil moisture losses, increasing the amount of water and nutrients available to the crop."

Todd emphasises that getting the seed into moisture is crucial for good establishment and he favours direct drilling into a companion crop of buckwheat to help deter CSFB.

The general consensus is that moisture conservation trumps tillage in a dry season, adds Ben, particularly as CSFB seem to be attracted to a green crop on brown soil.

ADAS crop physiologist, Sarah Kendall is also of the



Growing varieties with pod shatter resistance helps mitigate the risk of late season seed losses.

opinion that planning plays a key role in de-risking OSR. “Although establishment is fundamental to the success of the crop, it’s only one component of its development phases. Understanding the implications establishment decisions will have for the duration of the season is equally significant,” she says.

That’s particularly important when it comes to drilling earlier than the norm, right on the heels of the combine. “It’s important not to just think about how to establish the crop, but how to do this and produce one that’s going to be resilient, so it’s able to cope with the challenges that then will come throughout the season.”

Crops drilled outside of the normal drilling window require different management, she highlights. “Drilling the crop really early (July) may help it establish well, but you’ve got to make sure you manage it accordingly. It’ll be a very different crop to one drilled in the normal window.”

Sarah gives the example that a very early drilled crop may have such rapid development it leads to stem extension before Christmas. “You’re opening the crop up to more risks as you go through the season, so I think managing it is a balancing act.”

Sarah suggests that seed rates is an area where many of the risks to OSR beyond its establishment phase could be mitigated. “Seed rates and plant population are hugely relevant to a successful crop. We’re currently looking at the hypothesis that crops which have less plants, but consequently thicker stems and more lateral branching, have more tolerance to CSFB larvae in spring in an AHDB/industry funded CSFB project.

“That means that more resilient crops are associated with lower seed rates. And resilience mitigates risk, meaning the crop can meet the challenges of the season.”

Todd has found that he’s had to adjust seed rates to allow for extra mortality from CSFB and increased slug pressure where direct drilling. “All the things you can do to mitigate against flea beetle damage tend to make slug problems much worse,” he adds.

One thing to bear in mind with early drilled crops is that canopy management is key, says Sarah. “Crops may require a PGR in autumn and spring so assessing the canopy biomass is really important, both for growth regulation and for planning N applications.

“Some crops have such big canopies this spring that they could achieve 3.5t/ha without additional N applications, so be aware that you may not need as much N as you think.”

One of the most devastating situations for OSR growers is when, after doing everything right, yield is robbed towards the end of the season. One of the reasons for this can be when the weather comes dry and plants can’t access the water for seed fill, she says.

Paying attention to field selection can help mitigate this risk, particularly avoiding ones that are prone to water-logging over the winter, suggests Sarah.

“My advice is to give the crop the best chance possible by being realistic about the quality of a field or block of land. If the drainage isn’t good and it’s prone to waterlogging, then the crop’s root structure will be compromised which impacts on its ability to capture water and nutrients.”

Weather events

At a time when extreme weather events are becoming all-too-common, there’s an increased likelihood OSR crops will have to endure either a wet winter, a droughty spring/early summer or a combination of wet and drought, which all have implications for seed set or seed filling.

“In a droughty soil or waterlogged soil, the highest risk is falling at the final hurdle if crops run out of water later in the season.

“We have to set the crop up to be able to ride these stresses. If it can’t and experiences waterlogging, late frosts or drought, then there can be consequences for yield. That takes us back full circle to planning,” she says.

The oilseed YEN has helped identify characteristics that have associations with yield, adds Sarah. “We’ve noted that it’s biomass on a per plant basis, rather than overall crop biomass per se, that’s associated with higher yields. Again, fewer plants/m² leads to a higher individual biomass and each plant sets more seed. It’s going back to basics.”

High yields within YEN are also associated with longer periods between harvesting and desiccation and this is where fungicides can also have an important role to play, adds Ben.

“Light leaf spot (LLS) comes a close second to CSFB as an agronomic risk to the crop. Obviously selecting varieties with good disease resistance is the starting point. But I’d say that the second part of mitigating disease threats in OSR starts by assessing the crops for disease.

“Before I joined Bayer, as an agronomist I used SpotCheck — which is a service facilitated by Bayer in partnership with ADAS, where you pick leaves, send them off for analysis and get a report back telling you levels of phoma, light leaf spot, downy and



Seed rate plays a very important part in risk mitigation, with the aim being to produce more biomass per plant than per m², says Sarah Kendall.

powdery mildew. And that allowed me to make more informed decisions regarding fungicide choice.

“SpotCheck should be targeted in the autumn, before any fungicide applications, and again in the spring before the main fungicide application. In the autumn phoma is the likely target and the timing of any spray should be reactive. SpotCheck helps get the timing right, rather than just applying it when you have to go through with a propyzamide-based product.

“For LLS it’s infection going into spring that’s a bigger issue. And ultimately LLS is the more damaging disease now,” he says.

“The problem with LLS is that it’s very hard to identify, requiring incubation before symptoms can be seen in the early stages, which is where SpotCheck comes in. Even when you get symptoms, it can look like frost damage or fertiliser scorch so it’s a difficult disease to assess visually.

“When it comes to fungicides, it’s all about using the right products at the right time to de-risk growing the crop,” he says. ▶



Adopting Aviator XPro is a good resistance management strategy and provides useful physiological benefits, keeping the crop greener for longer.



Ben Frost recommends SpotCheck as a diagnostic tool to refine fungicide programmes and timings.

► Ben believes there's a benefit to be had from using Aviator (bixafen+ prothioconazole) in the autumn, where a fungicide is necessary, and that using two effective actives from different MoA groups is a good anti-resistance strategy.

"As well as offering a second mode of action, bixafen gives an uplift in LLS control and has some physiological

De-Risking OSR

OSR looks a much more attractive proposition this autumn, with rapeseed prices set to remain firm and CSFB possibly less of an issue than it has been. Following on from last season's *Battling the beetle* series, which explored strategies to combat the threat of CSFB, CPM has again teamed-up with Bayer to take a more holistic look at removing some of the undoubted risks associated with growing OSR — through agronomy, genetics and marketing.

Part of Bayer's role is providing trusted support to OSR growers and their agronomists that goes well beyond the robust and dependable varieties that have always been the Dekalb trademark. It's Bayer's hope this helps everyone improve the reliability of their cropping to take the greatest possible advantage of the excellent opportunities for OSR in the rotation.



benefits. So, Aviator gives good phoma activity and really good LLS activity which will give you protection through to the start of stem extension.

"And that's when you can start to see the symptoms of LLS take off again. Aviator can only be used twice in the crop, so if you've used it in the autumn then that leaves just one application in the spring. If you're not targeting early LLS in the spring, then you could use your Aviator as a flowering spray for sclerotinia, topping up LLS protection at the same time," he suggests.

In Bayer Forward Farming trials, Aviator has prolonged the flowering period and

produced an average 0.3t/ha yield increase over the market standard, he adds. "It's a product which is nicely covering all the bases and giving physiological benefits. So, you're really protecting yourself."

All are in agreement that measuring is the best way to manage the crop, whether that's using NDVI imagery, utilising digital platforms or SAP testing for nutritional requirements.

"There's huge potential to improve this aspect of crop management in-season and make justified decisions to help de-risk growing the crop," concludes Sarah. ■

MAXIMISE YOUR OILSEED RAPE YIELDS THIS SPRING.

With our range of reliable fungicides targeting yield damaging diseases.

CLAYTON
PLANT PROTECTION

Clayton Tuskar®

Clayton Navaro®

Azofin® Plus

Find out more at claytonpp.com
or scan this QR code.

