

“It’s going to be important to consider product restrictions on sequences.”

Technical Weed control

Mind the gap

Knowing the weaknesses of spring herbicides is as important as knowing their strengths in order to plug the gaps and avoid any nasty surprises. *CPM* gets some tips from boots on the ground.

By Lucy de la Pasture

Spring 2020 looks like being anything but a normal season, with a big drop in autumn planting, late drilling and little or no residual herbicides applied. Kieran Walsh, agronomist for Velcourt Advisory Services, reckons just 62% of the planned winter wheat area is in the ground on his patch in the Cotswolds and surrounding counties. Winter barley figures are even more depressed, with just 35% of the crop planted.

“Around 85% of the wheat received a pre-emergence residual herbicide and where it was applied, we had no crop damage. Getting an even seed depth was tricky last autumn so we were very careful not to go spraying residuals if any rain was forecast in the days following application,” he says.

Once the wet weather became entrenched in late autumn, all chances of stacking residual for blackgrass control

went out of the window and Kieran confirms none of his crops received a peri-emergence herbicide.

In spite of the lack of residual herbicide applied, it’s broadleaf weeds that are looking to be the most pressing problem to tackle this spring, says Kieran, particularly where no pre-em was applied.

Extra flush

“Drilling was 2-4 weeks later than normal so we had an extra flush of blackgrass out of the way before planting the crop, which may account for the lower than expected levels in crops. The moist soils have also meant the pre-em’s worked well last autumn,” he explains.

Many of the broadleaf weeds that are present this spring are usually taken care of with residuals in the autumn, so the spectrum of weeds for spring control is much broader than is generally the case.

“I’m seeing plenty of chickweed, poppy, groundsel, ivy-leaved speedwell, shepherd’s purse and cleavers in crops. Where no pre-em went on at all, the broadleaf weeds are taking over in places.”

The very competitive nature of some of these species, combined with the fact crops are slow-growing, means Kieran will go in as soon as possible to tackle broadleaf weeds where no residual has been applied.

For early control he favours one of the Arylex Active-containing herbicides (halauxifen-methyl) because of their broad

spectrum and activity in cool conditions. He accepts he’ll have to come back in with a post-emergence herbicide for blackgrass control in some fields and may also have some late-spring germinating broadleaf weeds to clear up.

When it comes to tackling the blackgrass, Kieran says he’s not keen on putting down any residual now because the crops are shallow rooted and not very growthy. That means they don’t need any added stress and by hitting blackgrass hard in early spring, more harm may be done than good, he believes.

Kieran’s keen not to rely on post-em chemistry in the spring to clean up blackgrass survivors. Instead he’s been looking at cultural control using an ▶



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control of a range of broad-leaved weeds in spring wheat.



Weed control



Chris Bean emphasises that it's as important to be mindful of the weaknesses of specific actives as well as their strengths.

► inter-row hoe with one of his growers. Last year it was used to good effect to remove blackgrass without having to resort to a post-em herbicide in the spring. "Hoing during March can be really effective if the weather conditions are

right. It removes blackgrass and broadleaf weeds between the rows and then we can go back in later to take out any remaining competitive weeds, such as cleavers.

"You can stack residuals and still get an unacceptable level of blackgrass in crops, and control using post-em herbicides really isn't very good, so cultural measures have a useful role to play." (for more on inter-row hoes, see article on p70).

Where broadleaf weed control isn't a desperate measure, Kieran will look at all the herbicide options in the toolkit and believes it'll be a complicated spring, with agronomy decisions very much tailored on a field-by-field basis because of the huge variations in planting dates and growth.

"Every field has a unique set of problems this spring which will require an individual approach. Overall, the herbicide spend for many growers will be less than normal but with much more reliance on post-em.

"Where these are for grassweed control, eg Pacifica Plus (mesosulfuron-methyl+ iodosulfuron-methyl+ amidosulfuron), Atlantis



Volunteer OSR needs to be nailed at every opportunity and isn't very well controlled by Pixaro but is a speciality of sulfonylureas.

OD (mesosulfuron+ iodosulfuron) and Monolith (mesosulfuron+ propoxycarbazone), it's going to be important to consider product restrictions on sequences and following products. Monolith has label conditions which are particularly restrictive in this respect," he cautions. ►

Spring cereals switch demands herbicide strategy rethink

Farmers abandoning winter cereals after the wet autumn and switching to spring wheat and barley are advised that close attention to broadleaf weed control can help prevent significantly reduced yields..

Alister McRobbie, cereal herbicide product manager at Corteva Agriscience, notes that for many arable farms, fieldwork taking place over the next few weeks will have more of a focus on spring cropping than it has done for many years.

"The very wet autumn and winter has led many growers to abandon the remainder of their winter cereal drilling and opt for spring-sown crops instead. We saw about 900,000ha of spring barley planted in 2013 but we could see as much as one million go in the ground this year if the switch is as profound as some predict.

"Where spring cereals aren't the norm, different weed control strategies are required. Broadleaf weed species are more likely to pose a threat to yield and a problem at harvest than grassweeds."

Where annual meadowgrass is a problem, farmers often use tried and tested residual herbicides. But these won't control all the key broadleaf weeds and a number of important species, such as cleavers, cranesbill, poppy, fat hen, black bindweed and fumitory will come through a residual application, says Alistair. He advises a follow-up with a contact herbicide,

depending on the weed species present.

"Crops established with shallow disc cultivations before drilling in early spring could transplant large, over-wintered weeds into crop rows, which will readily re-establish. These larger weeds will be much harder to control as they are unaffected by any residual herbicides used, so a contact product will be required.

"Fluctuating temperatures in early spring means SU chemistry may struggle to achieve good control of some weed species, especially larger poppy plants and those exhibiting ALS resistance.

"That's where Zypar, which contains Arylex Active, can prove very useful. Zypar works well at low and fluctuating temperatures giving good control of poppy, including ALS-resistant populations. It's also robust on cleavers, cranesbill, chickweed, mayweed, fat hen, fumitory and charlock. In spring cereals Zypar can be applied from 1 Feb to 30 June, up to and including GS45 of the crop."

Where a mix of broadleaf weeds and grassweeds need controlling in spring cereals, growers could use Arylex-based products, Pixaro or Zypar, plus Broadway Star to control wild oats and a wide range of broadleaved weeds.

In late-sown winter cereals, Pixaro at 0.375 l/ha plus Broadway Star can be used to control both grassweeds and broadleaf weeds from 1 Feb to GS23.

"Tank-mixing with plant growth regulators,



Alister McRobbie suggests an Arylex-containing herbicide is ideal when temperatures are fluctuating in early spring.

fungicides and trace elements will help reduce the number of sprays applied to crops in the busy spring period. This will be especially helpful with the expected increase in spring drilling work.

"In Scotland, Broadway Star is likely to be the contact herbicide of choice on either winter or spring cereals, due to its effective control of ryegrass, brome, oats, and range of broadleaf weeds," he adds.

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Where umbelliferous weeds are a problem, Adam Espir suggests March use of a sulfonylurea.

► Where the need for post-em grassweed control hasn't limited the options, sulfonyl-ureas (SUs) will often form the backbone of many broadleaf weed herbicide programmes in his part of the country, believes Zantra technical director, Chris Bean.

"All the reasons for using SUs are still valid, but there are some weeds which

they struggle on and are better controlled by the new halauxifen-containing products. In many situations both types of chemistry have a part to play — their activity is very complementary."

Chris looks after the agronomy on farms in Kent and South Essex, some with potatoes or vegetable crops in the rotation.

Volunteer beans

"Changing rotations in recent years has seen an increase in the pulse area. In spring 2019 I found Zypar (halauxifen-methyl+ florasulam) was highly effective for control of volunteer beans.

"Other weeds that often need control in spring are the polygonums — especially redshank, knotgrass and black bindweed — but these are a big gap in the Arylex armoury. Polygonums tend to emerge as pendimethalin, prosulfocarb and DFF run out of steam and where winter frosts have broken the residual layer on our soils.

"An SU-containing tribenuron or thifensulfuron will pick these up and, for a number of years, I have used Ratio (thifensulfuron-methyl+ tribenuron-methyl) to control them," he says.

Fumitory is a weed that thrives on the

Kentish chalk downland soils and it is only partially controlled by residuals. It was a major reason Chris edged towards using Pixarro (halauxifen-methyl+ fluroxypyr), which has good activity on the weed.

Where polygonums and other SU weeds, such as volunteer oilseed rape, are present as well as fumitory then he'd mix the two chemistries to get the best of both worlds.

Mayweed is another weed that can be a problem and it's also a relative weakness of the Arylex products, he points out.

"It's a weed that can be well controlled by autumn residuals, but it can come back in the early spring, especially following a wet winter."

"Volunteer OSR needs to be nailed at every opportunity because of close rotations and its link with high erucic acid in rapeseed. It's not very well controlled by Pixarro but OSR is a speciality of SUs, particularly metsulfuron, thifensulfuron and tribenuron-containing products," he adds.

For other weeds some florasulam in the mix can be the best option, according to Chris. "We have a lot of poppy on our high pH soils which appear to be resistant to SUs. In this circumstance florasulam is very effective and when there's a mixed



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population with sterile or meadow brome, Broadway Star (pyroxsulam+ florasulam) is a useful option.”

Groundsel is another weed which is on the increase because it comes through the widely used autumn residuals, pendimethalin and prosulfocarb. Florasulam again is very effective, he adds.

Changes to rotations and particularly tillage regimes are changing the weed spectrum on farms, believes Chris, with direct drilling, in particular, providing new weed challenges.

“Weed control is a constantly changing picture. We’re starting to see weeds in arable fields where there’s been no soil disturbance that used to be a problem in perennial fruit crops, such as fleabane and rosebay willow herb. Both are well controlled by metsulfuron-methyl products.

“Umbellifers are a problem in places, with bur chervil a major issue in some parts of Kent and in the West. In other areas hemlock is more of a problem and this needs a multi-targeted approach with SUs, but it’s not a one year hit and needs working at,” he says.

Fortunately hemlock still isn’t that common but where it does occur, it’s a

real problem — not just because of its competitive effect but because it’s poisonous, so straw can’t be used for livestock. In response to reports of increasing incidences in arable crops, FMC conducted some field trials in Gloucestershire in 2019 to look specifically at hemlock control.

Hemlock trial

“The trial looked at full rates of Jubilee (metsulfuron-methyl), Ally Max (metsulfuron-methyl+ tribenuron) and Harmony M (thifensulfuron-methyl+ metsulfuron-methyl), as well as Harmony M with the addition of either Fortune adjuvant, 0.5 l/ha fluroxypyr or 1.0 l/ha CMPP,” explains FMC’s Adam Espir.

The application was made in April 2019 to an open crop of winter wheat, in warm conditions when the hemlock plants were 20cm tall, possibly bigger than ideal, he explains.

“The results showed Harmony M gave the best performance of the SUs with 90% control, assessed six weeks after application. This was boosted by 5% where the adjuvant was added, and 8% where fluroxypyr or CMPP were tank mixed.”

Understanding the gaps in different herbicides’ weed spectrum is as important



Populations of brome can be tackled using Broadway Star, which also covers a useful range of broadleaf weeds.

as understanding their strengths and underpins good weed control strategies, highlights Chris.

“Arylex is a highly effective and very good active but it’s important to remember what’s not controlled and therefore what it needs mixing with. It’s tempting to switch to something new and sexier, but you could find you end up with a weed problem that you didn’t know you had because you’d previously been happily controlling it with an SU.

“SUs are still very much centre stage. It’s what you build around them that’s important and knowing how best to use them,” he says. ■



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