

# Real Results Pioneers

**BASF**  
We create chemistry



## Spring crop route

**Changing the rotation on a Yorkshire farm has proven to be a solid base for getting blackgrass control back on track. CPM reports.**

*By Mike Abram*

**A constant battle with blackgrass on a Yorkshire farm comes with the familiar backstory of a rotation dominated by wheat and oilseed rape, September drilling, reliance on selective herbicides and a move away from ploughing.**

"They've all contributed towards producing a weed which we've found difficult to control and can't be achieved out of a spray can," acknowledges Nigel Durdy, who farms 1100ha with his brother Adrian just outside of Doncaster in South Yorkshire.

"So yes, we're in the same boat with blackgrass as everybody else, albeit perhaps not as bad as further south where it was a problem before spreading up to our part of the country."

Around 15 years ago Nigel recognised

blackgrass was becoming an issue across the business, which consists of two owned farms plus contract farming agreements on seven others. "I remember taking on a farm in 2006 that to begin with didn't have a blackgrass issue, but four or five years later it did. I've also seen land that was grass for 50 years, ploughed for wheat production, and again within five years had resistant blackgrass."

### Seed shed

"So a lot of it was due to farming practices. It was also being spread with machinery — the combine is probably the worst, and then balers, but it can also be on pea viners and even cultivation equipment and sprayers. The seed can ride anywhere — you can desiccate OSR with a high clearance sprayer and look underneath and find seed stuck under the chassis. It has to fall off somewhere."

According to Nigel, there was a certain amount of burying heads in the sand. "I don't think any of us faced up to it properly," he admits. "We carried on growing wheat and OSR and wouldn't entertain spring cropping as it didn't look profitable."

"We probably dug our own grave as we pushed on too long, letting the seed-bank

*“ We make a lot of effort to ensure our cultivations are right – all of our operators know it's important so it isn't a case of covering the ground quickly. ”*

build up. Then it became a fire engine job when you had a second wheat that was 75% blackgrass and 25% wheat. You get to the point where it beats the crop you're growing and you decide you have to do something about it."

Eighty percent of the farmed area is within a four-mile radius of the home farm, with the other 20% on a unit 16 miles away. Across the business there's a wide variation of soil types ranging from heavy clay, silty loams, peats to sands. Blackgrass is an issue on virtually all of the area to some degree, even on the predominately sandy soil types, but



*In terms of blackgrass management, Nigel Durdy believes there had been a certain amount of burying heads in the sand.*

not surprisingly tends to be worst on wetter areas.

Like most farms, regaining control of blackgrass has been a mixture of tactics for Nigel, but spring cropping has been an integral part. "A lot of people used to say you couldn't grow spring barley on strong land but we've had to learn to do it because we required something to beat blackgrass."

As well as spring barley, he also grows spring beans and maize, and rents out land for vining peas, sugar beet and potatoes. "Slowly but surely, we've virtually eliminated growing OSR," he says. "It's not a good option for blackgrass — you drill it early [so little chance of getting a stale seedbed], and if you only get half a crop because of poor germination or flea beetle

damage, the blackgrass sees the light and becomes a problem."

At one point in the farm's history he was growing as much as 400ha of OSR; in the coming season it'll be none after just 30ha in the recently harvested season. "There's been a lot of interest in people wanting to grow vining peas, sugar beet, potatoes and beetroot, so rather than growing OSR, we're using that to gain a break crop.

"In some cases, we're renting the land out, in others it's a shared asset, but it's relieving me from trying to grow a profitable break crop."

## Rotation optimisation

The other newer crop in the rotation is winter rye which he grows for anaerobic digestion locally. "They whole crop it in early July and probably take 90% of the blackgrass seed away with the whole crop before it's viable."

In worst case scenarios, the rotation starts with a spring barley followed by a break crop, a winter wheat, possibly winter rye, before going back into spring barley. Second wheats are an option if blackgrass control in the previous season has been good enough, he says.

With first wheats topping out at around 10t/ha and second wheats capable of 8.75t/ha, it remains the farm's most important crop and key to overall profitability, adds Nigel. "We try to grow as many as we think we profitably can, while introducing other crops in between. But we proved to ourselves it's possible to grow more wheats when we're in control."



*Wheat remains the farm's most important crop and is key to overall profitability, says Nigel Durdy, pictured with his daughter Ellie.*

For example, he's managed four continuous wheats on the block of land that had previously grown spring barley followed by a spring break because of a blackgrass problem getting out of hand, he says.

However, changes to the rotation and increasing the proportion of spring cropping aren't enough in isolation to beat blackgrass, he stresses. "You have to employ other tactics as well."

Stale seedbeds are used ahead of virtually all crops in some form. A primary cultivation using a Simba Solo is typically employed to subsoil, usually to a depth of 25-30cm, while also shallow cultivating the surface with discs soon after harvest. That's left for 2-3 days to dry before coming back with a Simba Cultipress to 8-10cm depth to ▶

## Spring barley trials

A Real Results strip trial comparison of Luximo-based treatments against older chemistry in spring barley showed little difference between the two in grassweed control, says Nigel. "I think that was probably due to our strategy for drilling spring barley as late as possible."

Seedbeds for spring barley are prepared in the same way as for autumn crops — a pass with the Simba Solo soon after harvest followed by the Simba Cultipress. An autumn and a spring glyphosate spray follows before drilling with the Rapid well into April, explains Nigel.

"The only difference is we don't use the front discs on the Rapid — we literally slot the seed in using the drilling disc at a high seed rate of around 350kg/ha or 600 seeds/m<sup>2</sup>.

"In my situation, I think older chemistry is adequate and I would prefer to save my Luximo use for winter wheat. The more we use it, the less reliable it is likely to become — at least that's

what we've seen with other chemistry."

The one disappointing result on the farm was against Italian ryegrass — a growing threat for Nigel. "We have it on some fields now and I was quite disappointed with control. But speaking with weed control experts from BASF and other companies, I think it might be the culture of ryegrass to germinate later and at different stages. We might not have been in the right window for control."

Managing ryegrass pressure is more difficult, acknowledges BASF's Aliona Jones. "It keeps coming and with the dry weather last autumn germination was delayed. There were instances where growers used peri-em or even post-emergence sprays and saw better results."

While pre-emergence treatments were more variable with Luximo last season, Aliona stresses Luximo performance against ryegrass is very strong compared with other residual herbicides.



*Aliona Jones says managing ryegrass pressure is difficult and with the dry weather last autumn, germination was delayed.*

"On average across our trials, Luximo has given an additional 29 percentage points in control versus flufenacet," she says. "And with a wetter summer this year we'd expect to see better control this autumn from pre-emergence treatments."





*The farm has gradually eliminated OSR from the rotation, which was being grown up to 400ha a season.*

► form a weather-tight seedbed, he says. “We make a lot of effort to ensure our cultivations are right — all of our operators know it’s important, so it isn’t a case of covering the ground quickly, blacking it over. We’re looking for good passes because that’s our seedbed, even for spring barley — we’ll still do those operations in the autumn.”

Those passes also improve field drainage, he adds, which is why he prefers that system to shallower cultivations. “If we don’t create drainage we’ll have standing water, and then every chance we’ll only have half a crop and more blackgrass.”

“So one of the reasons we go deeper is to create the drainage — there aren’t many fields we employ the system on where we have standing water over winter, unless the drainage on the field itself is wrong. But if we just tickle the surface, we found nine times out of 10 we run into trouble.”

How deep that initial subsoiling cultivation is depends on conditions. “In some years, 25cm is plenty deep enough, while last year in the very hot and dry conditions we couldn’t go very deep as it would have smashed the equipment to pieces. So we went much shallower — only 10-12cm.”

“But I think Mother Nature did the rest for us as some of the cracks in the soil were up to a metre deep, so we just cultivated the surface to make a seedbed and hoped there was enough drainage lower down.”

“This autumn, as wet as it is currently, hopefully we’ll be able to go 25-30cm deep. Again, if it’s too wet we won’t do it, but I don’t think it will be. I expect there’ll be a window where we can achieve what we want to.”

After cultivating, the seedbed is left to green up before spraying off with glyphosate. “We try to keep it to just one application no more than seven days in front of the drill.”

The main exceptions are where cultivations have been very early, or when the farm was growing OSR and volunteers were shielding the blackgrass while creating perfect conditions for slugs. In that case, a second spray around 24 hours ahead of drilling would be used following the earlier application.

## Drilling

Autumn crops are drilled with a Väderstad Rapid into the stale seedbed without further separate cultivations. “The Rapid has two sets of cross discs at the front which give a little cultivation ahead of the drilling disc and the rubber tyre packer. The only thing that’ll follow that, if it’s dry enough, is the Cambridge roll.”

With around 400ha of winter wheat to drill and a 40ha/day drill capacity, he’s looking for around 10 days between 25 September and 5 November to work the area. Only a few fields of wheat along with hybrid winter barley and winter rye will be drilled in the late September window, with the bulk planted in mid-October. The worst blackgrass fields will be held back until early November.

On around 70% of the area, Avadex (tri-alleate) granules are applied using a Biodrill fitted to the drill, Nigel says. “Ideally, we wouldn’t put them on with the drill, rather do it as a separate pass with the Cambridge rolls, but we know there’ll be years where that won’t be possible, so we came up with the option to do it with the drill.”

In past seasons, that’s been backed up by a flufenacet-based pre-emergence but last season, after seeing trials at BASF open days, most of his wheat area received a Luxinum Plus-based treatment (cinmethylin), to which he either added diflufenican or on the toughest challenges, a half rate of

flufenacet+ diflufenican.

“There are really only two choices going forward — Liberator (flufenacet+ diflufenican) plus Proclus (aclonifen) from Bayer, and Luxinum Plus/Luximo from BASF. I made the choice last year that Luximo looked strong. Yes, it’s a bit more expensive, but if you’re going to do the job, you have to do it properly.”

While he mostly used Luximo, he did compare it with the Liberator plus Proclus. “They’re both pretty good,” he says. “Luximo definitely had the tougher fields but it did a brilliant job.”

In particular, he was impressed by its performance on a later drilled field where he was unable to apply it as intended as a pre-emergence because of the weather. “By the time we were on, it was post-emergence of the wheat and early germinated blackgrass. We applied Luximo with a three-quarter rate flufenacet+ diflufenican, but I did shrug my shoulders and thought we might have lost the battle with this one.”

“But amazingly the Luximo treatment did its job, controlled the germinated blackgrass and kept everything else at bay too. I thought that was pretty impressive.”

BASF agronomy manager Aliona Jones suggests that result could partly be attributed to the overall strategy. “Luximo doesn’t cancel any of the integrated weed management techniques that we’ve learned work over the years,” she stresses.

The pre-emergence timing remains most effective for Luximo, as proven over trials and commercial field results. “On farms that use delayed drilling, good timing and applications of strong pre-emergence and post-emergence chemistry, it’s the programmed approach that works best,” she concludes. ■



*Nigel Durdy has been using Luxinum Plus and says although it’s more expensive, if you’re going to do the job, you have to do it properly.*



# RGT GROUSE

Season-long control against BYDV and OWBM

- Group 4 hard feed
- Resistant to BYDV & Orange Wheat Blossom Midge
- Highly suited to earlier sowings
- Prostrate autumn/winter growth
- High tillering capacity and retention



## Genserus

Genserus is a high performance variety such as RGT Grouse which is resistant to both **BYDV** and **OWBM** offering the very best prospect of insecticide-free wheat. Genserus simplifies managing crop pests. It's the sustainable way that limits the impact of pesticides, while improving water and soil quality and increasing biodiversity.

*Insecticide-free wheat, think Genserus think RAGT.*

+ Call us on 01799 533700 or visit us at [ragt.uk](http://ragt.uk)



think  
**SOLUTIONS**  
think RAGT