

# On Reflection, it performed



## Features Beat Your Best Yield

Growers across the UK took up Syngenta's Beat Your Best challenge with the high yielding Group 4 wheat Reflection. CPM joins a group who've come together to discuss the results.

By Tom Allen-Stevens

The results are in, harvest figures have been scrutinised and plots pulled apart. On Reflection, the variety's actually performed somewhat better than expected, for most of the growers who'd been looking for it to beat their best yield.

"I've nothing but high praise for Reflection," comments Northumberland grower David Watson. "You'd be hard pushed to beat the phenomenal harvest we had in 2015. But there's no doubting Reflection's done well for us this year."

Near Grantham in Lincs, Keith Challen's crop of Reflection was given a bit of a test. "We nearly wrote the crop off at one point because of the blackgrass, but in the

end it yielded 10.74t/ha — we were astonished."

For Chris Hewis, just south of the Humber, the variety's susceptibility to yellow rust proved a worry. "It was a roller coaster of a year, but I was very pleased with the results, and it was a pleasure to combine."

### High yields

Near Springthorpe in Lincs, Charles Anyan admits the untreated trial plots he'd seen prior to harvest worried him. "But the simple fact is, we put on our usual fungicide programme and it controlled the yellow rust, while Reflection held off the fusarium better than other varieties. It performed well, and I think the variety's been rescued by the high yields."

But not everyone's convinced. "The difficulty for me is that I have 1100ha of wheat to look after and can't afford a variety that could put others under pressure," notes Herts grower Andrew Watts.

"The Reflection performed OK, but it didn't excite, while we had an excellent result from some of our milling wheat."

Likewise, near Stragglethorpe in Notts, Peter Gadd didn't achieve a yield increase. "It cost us more to grow and I can't say that gave it an advantage

over our other feed wheats."

They're among ten #Clubhectare growers, who've taken up the challenge to beat their best yield with Reflection. They've been sharing regular updates throughout the season via Twitter, and picked up expert advice on how to maximise the variety's potential.

The group's come together to discuss harvest results, and are joined by Syngenta's Kathryn Hearn, who brings with her results from AHDB Cereals and Oilseeds Recommended List Harvest 2016 trials, in-house Syngenta trials and from other growers around the UK.

"From a total of 29 trials, drilled between 25 Sept to 27 Nov, the average yield across all varieties was 10.7t/ha. But Reflection yielded 11.02t/ha, or 103%. Most varieties that performed better than Reflection are newer additions to the RL," she reports.

These include Graham — the Group 4 hard feed variety from the same stable as Reflection, added to last year's RL — with a yield of 104% and Syngenta's candidate hard Group 4 type Shabras. With a yield of 106, this early maturing wheat has been added to the 2017 RL, along with Syngenta's soft Group 4 Savello — a strong performer in the North.

“There’s no doubting Reflection’s done well for us this year.”



“We’ve also been collecting harvest results from Twitter, and one of the nice stories we’ve heard is on specific weight. Barley really didn’t have the specific weight this year, and wheats have been variable, especially high yielding feed types. But Reflection has held up well, according to reports, with most in the 76-79.5kg/hl range.”

Earliness and ease of harvest were among other attributes highlighted by growers. “It did harvest easily and the specific weight touched 80kg/hl for us, whereas other varieties didn’t go beyond 77kg/hl,” says Chris Hewis.

“We found the wheats were generally late to ripen, so Reflection’s earliness was valuable, although the grain was fit well before the straw.”

Keith Challen notes that’s a common problem for a crop to which four fungicide sprays are applied.

For Peter Gadd, earliness is one of the top traits he looks for. “Yield is king, but I’m a one-man band who can’t afford to get behind. I can’t have wheat still to harvest when oilseed rape needs to go in the ground during the last week of August.”

But Andrew Watts looks for a range of maturity over his acreage. “The Group 1 ▶

## Early protection key for Reflection potential



*It was the T0 spray that really made the difference to Reflection, notes Kathryn Hearn.*

Provisional findings from the UK Cereals Pathogen Virulence Survey indicate there are potentially two new races of yellow rust that have proved a challenge to around half of the wheat varieties grown in the UK, notes Kathryn Hearn.

There are seven varieties whose ratings have been revised by two points or more (see full story on p10). “That includes Reflection, that’s moved from a 6 for yellow rust to 3,” she reports.

“Each variety has a slightly different mechanism for resistance. What we see with Reflection is that the disease gets in early.”

Results from Syngenta trials show that it was the T0 spray that was key to keeping Reflection clean, she says. “We tried a number of different programmes across a range of varieties at three of our trial sites. Generally speaking, the more applications, the better the

control of rust. But it was the T0 spray that really made the difference to Reflection.”

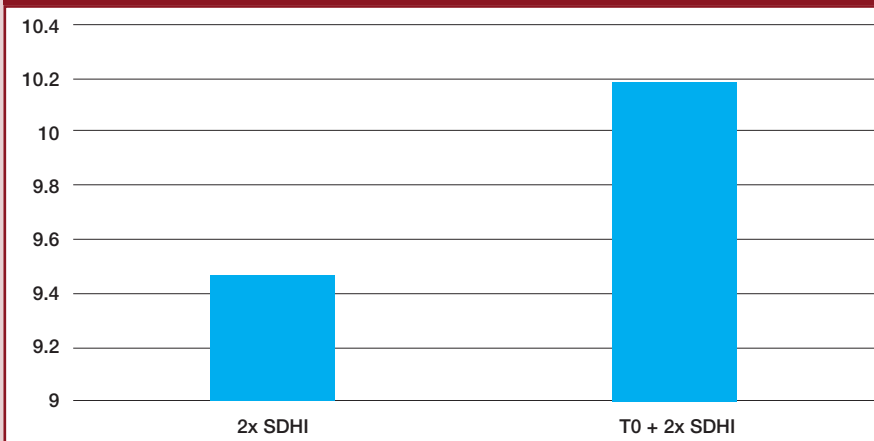
An application of Cherokee (chlorothalonil+ cyproconazole+ propiconazole) at T0 raised the yield by 0.72t/ha, she reveals. “The yield increase was specific to Reflection, so it’s clear the T0 spray really is critical for the variety.”

Keith Challen backs this up. “We used Cherokee at T0 and didn’t have any yellow rust at all.”

That reflects feedback from other growers, notes Kathryn Hearn. “A lot of growers said they had to treat at T0, and the disease was proving difficult at the T1 timing. After that, it was rarely a problem.”

Chris Hewis feels forewarned is forearmed. “We’re treating our 2017 Reflection crop differently. It had a Galmano (fluquinconazole) seed dressing and we’ll definitely be applying a T0, whereas we didn’t this year.”

### Effect of a T0 application on Reflection



*Source: Syngenta internal trials, mean of three locations (Oxford, Newark and Rougham Innovation Centres); T0 spray - Cherokee*

## Who succeeded in beating their best?

Each of the ten #Clubhectare members grew Reflection as a first wheat and submitted data on average wheat yields for the previous three seasons. At least 8ha were grown, with grain trailers taken over a weighbridge to check yield.

**David Watson, Cockle Park, near Newcastle**

**Average wheat yield: 9.1t/ha**

**2016 Reflection: 11.57t/ha**

**Result: 2.6t/ha improvement – 2016 winner**



“It wasn’t our best yield ever, and the 2016 harvest was very variable, with some fields producing just 7t/ha. But this land suits wheat and the crop went in after OSR, so it had every chance.

The run-up to harvest was awful, and we’d cut some terrible crops, but I was told the Reflection would cheer us up and it did. It combined well, and the straw yield was as good as the grain, which is important in our part of the world. Reflection’s not far off being the perfect variety, and we’d be growing it again if we hadn’t had to choose our varieties before harvest and been frightened off it.”

**Charles Anyan, Belle Vue House Farm, Springthorpe, Lincs**

**Average wheat yield: 8.87t/ha**

**2016 Reflection: 11.2t/ha**

**Result: 2.33t/ha improvement**



“For me, it’s how a variety stacks up against others when you put the combine through that matters, and Reflection proved its worth. Chemicals are always a last resort, and it would be nice

to grow varieties that perform brilliantly without them, but they don’t exist. So this crop had our usual programme and it did well for us.”

**Pip Partridge, Westerfield Hall, Ipswich, Suffolk**

**Average wheat yield: 8.32t/ha**

**2016 Reflection: 10.2t/ha**

**Result: 1.88t/ha improvement**

“I was really pleased and impressed with the results, given the season. We did have problems with yellow rust. We put on our standard T0 spray, and in hindsight should



We’re not growing it this year — we’re consciously going for cleaner varieties, so we have some Graham in the ground.”

**Chris Hewis, Grange Farm, Habrough, N Lincs**

**Average wheat yield: 8.76t/ha**

**2016 Reflection: 10.53t/ha**

**Result: 1.77t/ha improvement**



It’s a great result, so I’ve changed my mind and we have it in the ground again.”

**James Stafford, Pickwick Lodge Farm, Corsham, Wilts**

**Average wheat yield: 8.36t/ha**

**2016 Reflection: 10.1t/ha**

**Result: 1.74t/ha improvement**



well. We always apply a T0 spray as we believe the crop needs a strong foundation, and it stayed free of yellow rust, although that’s not really an issue in our area. Once the ear came out, the crop looked a treat, and now it’s in the barn, it’s chalk and cheese alongside the rest of the wheat, with a specific weight of 79kg/hl. We’ve doubled our area of the variety for 2017 harvest.”

have done more — we found ourselves on the back foot for the T1. Having said that, you can’t fault its performance at harvest — it threshed well and was the highest yielder on the farm, with a specific weight of 79kg/hl.

“All year this crop made me nervous — we really struggled to keep the yellow rust out. Because of that I said I’d never grow Reflection again, and look instead for varieties with built-in protection. But then the combine went in and it just yielded.

“I like this variety. It was an absolute pleasure to combine and to grow, and I was pleasantly surprised by the high yield. Other, more disease-resistant varieties didn’t perform nearly as

**Jono Dixon, Sunk Island, Hull, E Yorks**

**Average wheat yield: undisclosed**

**2016 Reflection: 11.96t/ha**

**Result: small improvement**



“Given the year, I was delighted with the results, although this was a first wheat after vining peas, and didn’t have the blackgrass that hit other wheats. We had very little in the way of yellow

rust — there were some of us that were lucky, and I put that down to sea air. We’re growing Reflection again — one variety we’ve decided to keep in a much reduced wheat portfolio. This variety has the potential to yield well, and I feel you can’t dismiss that just because of the chance of yellow rust.”

**Keith Challen, Belvoir Fruit Farms, Grantham, Lincs**

**Average wheat yield: 11.07t/ha**

**2016 Reflection: 10.74t/ha**

**Result: 0.33t/ha decrease**



“Had the field been completely free of blackgrass, we would easily have beaten our best yield. But it wasn’t as clean as I thought, and the blackgrass held

back its potential. Having said that, I like this crop’s competitiveness. As for yellow rust, I’m a great believer in prevention, not cure — start clean and stay clean is my motto. That’s what we did and I walked the crop meticulously and didn’t see any yellow rust. I’m very pleased with the result and we’ll be growing it again.”

**Andrew Watts, Mentley Farm, nr Ware, Herts**

**Average wheat yield: 9.83t/ha**

**2016 Reflection: 9.25t/ha**

**Result: 0.58t/ha decrease**

“The 2015 harvest was our best ever, so that slightly skews results, and it was always going to be an uphill struggle for the Reflection to beat that. Having said that, we had other varieties that out-performed Reflection this year,



without the disease pressure — we don't usually expect to get yellow rust, but had some this year. What's more, an early maturing feed wheat doesn't really suit our portfolio, so we won't be growing Reflection again."

**Peter Gadd, Hollygate Farm, Stragglethorpe, Notts**  
**Average wheat yield: 8.75t/ha**  
**2016 Reflection: 8.31t/ha**  
**Result: 0.44t/ha decrease**



"The field in question wasn't our best, and to be fair the crop never looked its best all year. The T0 spray was a challenge with the weather, but we hit our timings. Yellow rust then came in

with a vengeance between T0 and T1, so we'd have had real problems if we hadn't protected the crop early on. We had two other fields of Reflection that I think yielded better than this one, although I can't verify that. But there are alternative varieties with less risk, so we're going with those."

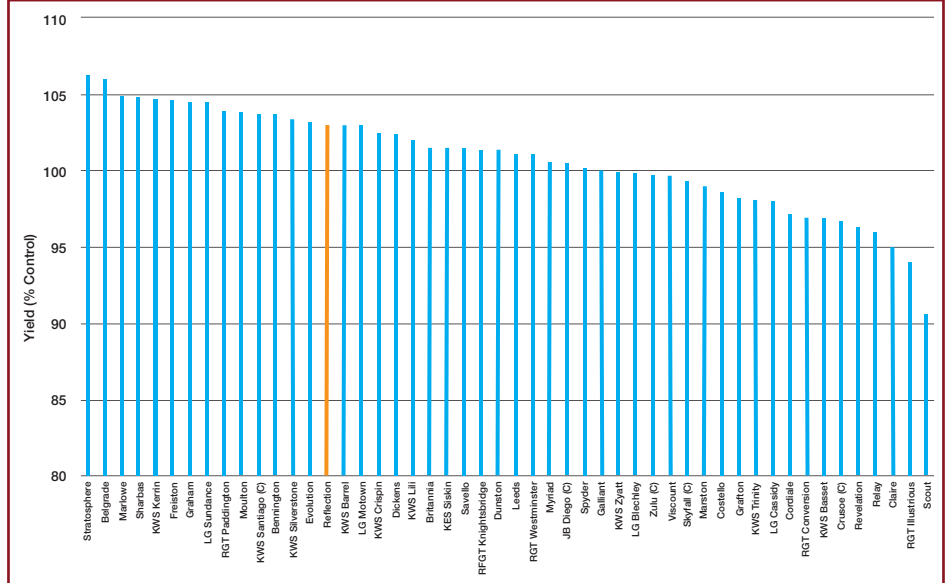
**Andrew Ward, Glebe Farm, Leadenham, Lincs**  
**Average wheat yield: 10.8t/ha**  
**2016 Reflection: 9.6t/ha**  
**Result: 1.2t/ha decrease**



"The Reflection looked well at harvest, but didn't yield as well as I thought it would, although it did have a bold sample and a good specific weight. I was disappointed with its performance,

when compared with other varieties that yielded more. We did get yellow rust, but controlled it easily. We're not growing it again — we've reduced our winter wheat portfolio and are focusing on varieties with good in-bred resistance."

## Winter wheat harvest results



Source: AHDB Cereals and Oilseeds Recommended List 2016 Harvest Results.

► and 2 wheats, going to a premium home, should be the early ones. I need the Group 4s to sit in the field and mature late, as they too are targeted for milling."

So what about prospects for 2017 harvest? Seed sales of Reflection are set to slip to around half last year's figure, reports Kathryn Hearn. But Charles Anyan thinks that's not a true reflection of the variety's area. "I think Syngenta will be pleasantly surprised by farm-saved seed plantings."

Half of the group are growing Reflection again. Chris Hewis has it alongside other varieties, while Charles Anyan is introducing a Group 2 variety into his wheat portfolio,

grown as a feed variety next to Reflection.

Keith Challen has put Graham and Reflection side by side. "Graham was very fast out of the ground, so it'll be interesting to see how it compares. We always like to try new varieties, pitch them against older ones and push them hard."

Kathryn Hearn notes the group's achieved an average yield benefit of 0.81t/ha. "This and other yield data from growers across the UK has shown Reflection has proved its inherent high yield ability in 2016. With proactive management, we're confident it has the potential to fill the barn again next harvest." ■

## Beat Your Best Yield challenge

Growing a new variety for the first time can be a step into the unknown. Those who achieve the best outcome combine knowledge of their own farm with the best agronomy advice and also take the time to visit trials and draw on the experiences of others.

In this sponsored series of articles, *CPM* has teamed up with Syngenta and ten growers of the top-yielding winter wheat Reflection to provide key insights, hints and tips as they get to know this new variety. They've each set a target yield to beat and have shared regular updates via Twitter.

Each article has updated on progress and gets an exclusive, behind-the-scenes look at the Syngenta wheat-breeding programme with agronomy advice on how to make the most of its promising new varieties.

Why not join them and try to 'beat

your best yield'? Find out more at [www.beatyourbestyield.com](http://www.beatyourbestyield.com)

Harvest results from across the UK growers have now been added to the website, so Reflection growers can benchmark their performance at [www.syngenta.co.uk/reflection/yield-map](http://www.syngenta.co.uk/reflection/yield-map)

