



“ In reality it was one of the highest yielding wheats last year. ”

A light in the tunnel

**Technical
Insiders View**

Lighting the way to high yields, RAGT’s new winter wheat candidate variety – RGT Lantern – looks set to shine for all its worth. CPM gets the inside scoop.

By Melanie Jenkins

A high yielding Group 4 candidate variety, RGT Lantern has a lot of promise, but as it’s still new to the field and is relatively unknown, it has a lot to prove.

A KWS Kielder cross Relay variety, its parentage means that RGT Lantern has garnered a lot of interest already, explains Simon Howell of RAGT. “I was a fan of Relay, as it was stable and robust on farm, and its growth habit was massive for blackgrass suppression. Lantern was highest in our trial matrix last year.”

However, David Smith of Agrii points out that having two good parents doesn’t always result in good offspring. “That said, I am quite excited by this variety as it’s the first commercial Relay cross and if it continues to convey the best of traits from both parents,

then RGT Lantern will have a bright future.”

Agrii had the variety in trials last year, fairly extensively across the country, according to Colin Lloyd at Agrii, and again it was parentage that caught his eye. “Relay was a really good, steady variety that performed well in all sorts of situations. We’ll have to watch and see how RGT Lantern performs but in reality it was one of the highest yielding wheats last year.”

Stable yields

RGT Lantern has good, consistent and stable yields, according to Cathy Hooper of RAGT. “It’s come from the Santiago and JB Diego-type mould, so it’s very consistent. It’s also been consistent across regions, over official trials in 2017/18.”

Simon highlights that RGT Lantern will also be a strong second wheat. “It has a score of 108% as a second wheat — the best second wheat position score of any candidate. It’s a son of Relay that’s taken the second wheat ability to the next level.”

Cathy agrees that it’s a strong second wheat. “It’s been the highest yielding second wheat in official trials for the past two years. Despite the drought last year, it did very well and was the highest yielder in our breeder, Célia Bequain’s trials. It has a good headline first and second wheat yields and

Célia Bequain with some of RAGT’s new wheats.

is a variety that is very stable.”

Growers will have the option to plant it reasonably early, according to Simon. “However, early drilling is less fashionable right now.”

It has quite a slow speed of development, which makes it well suited to that earlier drilling position, explains Cathy. ▶



Simon Howell highlights that RGT Lantern will also be a strong second wheat.



RGT Lantern has a good disease resistance profile across the board, says Cathy Hooper.

▶ RGT Lantern has a semi-prostrate growth habit — but is more upright than prostrate. It has broad leaves, tillers well and is a short stiff variety. “It’s a really strong option on land where growers may have lodging concerns,” explains Simon. “Farmers will take a lot of things, but not lodging. A lot of the varieties on the RL are quite leggy, but we haven’t had a lodging year for quite a while now.”

Colin concurs that its straw strength is absolutely fine. “It will want a standard PGR programme, but it’s certainly strong enough. I imagine it will go into our crop competition trials for blackgrass this year with its growth habit. I’d suggest it’ll probably be a pretty good variety but we’ll know more later on in the season. Indications are that it’ll be pretty competitive.”

Cathy highlights that RGT Lantern’s disease resistance has no weaknesses. “It has a 6.2 for septoria and has orange wheat blossom midge resistance. The loss

of chlorothalonil will be an issue in the next few years — but it fits the bill to cope there.”

Inherent weakness

According to Colin, it has shown its strength in terms of disease in Agrii’s own trials. “Its yellow rust is holding out well — we scored it a 7. More interestingly, one thing among wheat varieties that is not good at the moment is brown rust — it seems to be an inherent weakness in varieties, but we scored RGT Lantern as a 7 — so this is a useful attribute to have.

“It’s also decent on septoria — we scored it at 6.2 — so it has all round disease resistance. So far so good,” adds Colin. “It certainly was very noticeable in our trials at Lenham in Kent, which is our main focus site in the country for septoria and brown rust. A lot of growers have walked past and asked what it is. It’s attractive, clean, tidy and has a good canopy, so it naturally caught the eye.” He adds that brown and yellow rust is starting to appear in Agrii’s trial plots, but RGT Lantern is holding itself together nicely so far.

This will be RGT Lantern’s pre-launch year, but the interest already shown in C1 means there should be enough to do 10,000t for planting in 2020, says Simon. “Hopefully after recommendation. It’s key that farmers see it and judge how it can deliver for them.”

Simon thinks it’ll have sold out by harvest, due to the interest RGT have had so far. It’s had a lot of enquiries from those who remember Relay. “We’ve presented it to the seed trade now too and they

received it very well.”

According to Barry Barker of Agrii, there should be 150t of seed available this autumn. “We’ve just started talking to people about it. The majority of the interest has been from Yorks downwards and from people who’ve previously grown Relay.

“If it continues on the path it’s on, with its high yields, OWBM resistance, and its stiffness, it should get 3-5% of the market and could be one of the top four or five varieties out there,” adds Barry. “So far it



RGT Lantern could be a competitive variety against blackgrass because of its growth habit, according to Colin Lloyd.

Strong start for RGT Lantern in Cambs

Michael Brown is growing a crop of RGT Lantern as a seed crop for harvest in 2019. It’s just one of a number of seed crops he has across his farm this year.

Working 600ha at Bottom Farm, Covington, Cambs, Michael has 540ha of cropping, with the rest as permanent pasture or in stewardship. Growing a rotation of wheat, spring barley and herbage seed (ryegrass and fescue), he’s going to add soya to the mix for blackgrass control. He grows first and second wheats, with a lot going for basic seed production. “Breeders like there to be a two-year break from cereals, which I can offer after herbage seed.”

Michael planted 20ha of RGT Lantern on 3 Oct 2018, after three years of fescue grass. “It was drilled with a Horsch Sprinter at 375 seeds/m² and established okay, despite not going into the best seedbed. It’s not on the most

fertile site after the three years of fescue.” The ground was ploughed before drilling, to get rid of the fescue grass seed and was rolled after drilling.

It had a pre-emergence herbicide of Crystal (flufenacet+ pendimethalin) at 4 l/ha on 5 Oct. In the spring it had an application of liquid nitrogen with sulphur at 60kg/ha on 28 Feb.

Michael tries to keep seed crops as clean as possible and therefore is more generous with his fungicide applications. “At T0 it had chlorothalonil and it will get one or two SDHIs. “I am of the opinion that you can’t chase disease, you have to be in front of it. When growing high grade seed, you have to keep it clean.”

The Orange Wheat Blossom Midge resistance is a very appealing characteristic for Michael. “I hate spraying insecticides.”

It had a seed treatment of Redigo Deter (prothioconazole+ clothianidin) and Michael used

AHDB’s monitoring tool to see when it was most at risk from BYVD. “I don’t usually use Deter on commercial wheat.

“It was slow to get going in the spring and had a prostrate growth habit, which is good from a blackgrass point of view,” says Michael. “Though it’s slower than other varieties, it does look healthy.”

Nitrogen wise, Michael plans to put 230kgN/ha on it in four splits and will give it a PGR to ensure quality. “It’s quite short and its lodging score looks okay, but I’m cautious.

In the five years to harvest 2018, the farm averaged a yield of 10.6t/ha across all wheats. “I would hope that it would achieve over 10t/ha as a first wheat,” says Michael. “The assumption is that candidate varieties for the RL will be good and I do like a variety that has a good untreated yield.”

looks interesting and a little bit different.”

Ultimately, Agrii want to see if it will hold onto some of Relay’s traits, says Colin. “It’ll be nice to have a solid variety, and we strongly anticipate that the data will show it to be very good as a second wheat, although this is all subject to confirmation,

The majority of the interest in RGT Lantern has come from previous Relay growers.

but so far, so good.”

It’s shaping up to be an exciting year for RAGT, with a number of varieties up for recommendation besides RGT Lantern. So what can farmers look forward to?

“RAGT has four candidate varieties this year,” explains Simon. “Blossom is a potential quality Group 1, with a yield between Skyfall and Zyatt. The most important thing about Blossom is its yield, to get recommended, it needs to improve on Skyfall to have a chance.” It has bread making potential, a septoria score over 6, is early to mature and suits the main drilling window.

Another candidate is RGT Wasabi — a Revelation/Santiago cross. “It’s a hard feed, with a fast speed of development,” says Simon. “It’ll be good for later drilling and will fit in the slot to follow roots. It’s a typical Santiago working type, with a lovely spring canopy and a rolling flag leaf. It’s a lovely looking variety.” It also has a semi-erect growth habit, OWMB resistance and the Pch1 eyespot resistance gene.

Also in the pipeline is RGT Saki a



relatively short and stiff feed wheat, which has a yield challenging the very best varieties in both treated and untreated situations. This is due to its very strong disease profile including a 6.7 for septoria, a 9 for yellow rust, 8 for brown rust, 7 for mildew, has OWBM resistance and a specific weight of 76kg/hl, explains Simon. “This variety has not yet completed NL trials yet, but it looks to have headline yields in Ireland, Denmark and across Europe because of its disease profile.

“Our programme is looking really good. It will all add to and strengthen our portfolio,” adds Simon. ■

RGT Lantern at a glance

UK treated yield (% control)	104.2
UK untreated yield (% treated control)	81.9
Protein content (%)	11.6
Specific weight (kg/hl)	75.9
Resistance to lodging	5.6
Maturity (days +/- JB Diego)	+1
Height	82.1
Disease resistance	
<i>Septoria tritici</i>	6.2
Mildew	5.1
Yellow rust	6.6
Brown rust	7.0
Eyespot	-
Orange wheat blossom midge	R
<small>Source: AHDB winter wheat Recommended List candidate varieties 2019/20</small>	



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