

The name Maverick might forever elicit the Top Gun theme tune, but could the latest oilseed rape variety of the same name take the crop out of the danger zone by helping growers spread risk on farm while achieving strong yields? CPM debriefs.

By Melanie Jenkins

A maverick might mean to be somewhat unorthodox, but in relation to NPZ UK's (formerly LSPB) oilseed rape iteration it suits this definition so far as it's kitted out with both the RIm7 and RImS phoma resistance genes, along with turnip yellows virus resistance in one neatly packaged high output hybrid.

An AHDB candidate variety, Maverick already looks set to offer growers potential for the coming season, with NPZ UK's Chris Guest highlighting that not only is it one of the highest gross output varieties coming to the market at 108%, it also offers a rounded agronomic package.

One thing Chris notes is that Maverick's yield performance in the North region isn't as high as had been hoped, currently at 103% of control, but he also highlights that there's limited data available so far.

"Maverick amalgamates TuYV and phoma resistance with a strong seed yield and oil content which combine for a high gross output. The variety really stood out last year when its late season stem health was very noticeable, with strong green plants that didn't show signs of premature senescence."

Genetic promise

Hutchinsons' David Bouch is encouraged by Maverick's gross output and oil content, along with its disease resistance which he believes looks promising. "This variety provides not just a different set of genetics, but genetics with a favourable array of good agronomics to help growers spread risk on farm."

The variety has demonstrated consistent performance in trials across the UK, France, Germany, Switzerland and Denmark, says Chris. "It's done well over the past few seasons which have all had very different climatic conditions which is reassuring as we don't know what crops will face one season to the next."

One of the variety's key attributes is its overall disease resistance portfolio, says Chris. "Maverick's a game changer because it's the first variety we've brought to the market with both the RIm7 and RImS genes, alongside other sources of resistance. This double phoma resistance aspect is becoming really important as we've seen a slippage in Rlm7's effectiveness following a change in the phoma population, as well as greater focus on maintaining stem health."

Although the performance of RIm7 has started to weaken, it's certainly not a thing of the past, observes David. "The

resistance is being challenged so it's particularly beneficial that Maverick also has RImS present in its genetic profile."

According to ADAS' Dr Faye Ritchie, in later drilled crops where plants tend to be smaller, phoma is more of a risk so this is where there's the greatest benefit from better disease resistance. "Having both resistance genes is far more beneficial for genetic resistance management as it means we aren't reliant on a single gene.

"We also know that there are strains of the phoma pathogen which is virulent against RIm7 in the UK," she explains. "So this is another reason why it's important to not rely on one single major resistance gene because this can increase the speed at which its effectiveness is lost, whereas combinations of major genes can greatly increase durability of resistance. Growers



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Insider's View: OSR

have options to spread their risk by planting a mix of genetic backgrounds on farm which should help to prolong the longevity of growing OSR varieties. Having strong disease resistance can also provide flexibility for fungicide applications and timings."

Additionally, Maverick scores 7 against light leaf spot and in NPZ yield versus disease resistance trials in Switzerland. Maverick came out on top with the highest scores for LLS and phoma, adds Chris.

Faye notes that the tendency for growers to drill earlier to get crops away from cabbage stem flea beetle can result in a greater prevalence of LLS, meaning the variety's resistance score is important. "It's also notable that Maverick has TuYV resistance as this removes a further risk when growing the crop."

However, because Maverick has come from NPZ UK's MSL breeding programme this means that it doesn't have the pod shatter resistance gene, says the firm's breeder, Craig Padley. "Despite this, it came through Harvest 2023 very well and at our Wisbech trial site in Cambridgeshire, where there was a lot of seed loss, Maverick held onto its seed as well as the Ogura-bred hybrids we had in trial. This has been backed up by the main harvest



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trial in Germany where one plot was harvested at the right time, and another was purposefully delayed by up to 10 days without yield loss."

David says he prefers varieties to have pod shatter resistance but acknowledges it's possible to manage varieties without it. "In an ideal world it'd be great if all varieties had it, but as 25-30% of the market consists of conventional varieties, none of which have pod shatter resistance, this means plenty of growers are applying Pod-Stik to take crops through to harvest.

"Other than not having this trait, Maverick looks strong and growers can utilise it to spread their risk among varieties that do have pod shatter but may be weaker elsewhere."

And Chris believes the variety's verticillium tolerance will outweigh having pod shatter in more seasons than not. "The way that genetics work, we'd potentially lose out on another attribute if we had pod shatter resistance, and verticillium is an important disease to consider especially when opting to drill early."

Agreeing with Chris, David acknowledges how damaging verticillium can be. "I don't think the disease is considered as important as it should be but it can cause significant >





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NPZ UK believes Maverick can work in an early drilling slot.

► damage that can polish a crop off. It's reassuring to see that Maverick has some useful tolerance against it as this will assist growers with their management of the crop."

Craig points out that the combined resistances of LLS

and phoma as well as verticillium tolerance means the variety has very good stem health. "We've seen in varieties susceptible to verticillium that they can senesce two weeks early, meaning small pod seed size and reduced overall yield.

Top class rehearsal

Maverick is in the process of proving itself on Ben Cannon's farm in Hertfordshire. Hyde Hall Farm consists of 250ha owned and another 500ha contract farmed land with a mostly arable focus. Ben grows spring barley after cover crops, winter beans as a soil conditioner, as well as spring beans, soft wheats and has persisted with oilseed rape while others have moved away from the crop.

Although Ben is growing Maverick for NPZ UK, the crop isn't for seed but instead acts as a farm-scale field trial. "We farm it just as we would if it wasn't a trial, but we use drones to photograph it weekly to plot its development against other varieties, and use yield mapping via the combine so we can accurately see the results come harvest.

"I have 45ha in the ground at the moment, of which around 10ha is Maverick, that was direct drilled the first week of August into stubble without base fertiliser or a pre-emergence.

"We try to grow OSR on a low-risk basis as there's potential from cabbage stem flea beetle damage, but we've been very fortunate and never had to write a crop off. Growing hybrids over the past few years has certainly helped as they're more vigorous at growing away from the pest," explains Ben.

He also believes that by introducing digestate as a fertiliser, it's helped to deter adult CSFB from the crop. "This is only based on anecdotal evidence, but it appears that the smells puts them off."

One aspect he finds quite daunting with hybrid varieties is drilling at such a low seed rate. "We drilled Maverick at 3.5kg/ha but other varieties went in as low as 2kg/ha which is way down on the 6kg/ha that we would have drilled with conventional varieties."

Maverick has been a noticeably vigorous variety, with plants looking strong going into the winter, says Ben. "We didn't have any trouble with pigeons and once the crop was up we applied digestate with Bortrac (foliar boron) and Astrokerb (aminopyralid+ propyzamide) in February, followed by a universal biological and nutrient feed in April.

"The crop is very even throughout all of the fields," observes Ben. "Usually, we get sketchy growth on the headlands but the wet autumn has resulted in the crop being really even."

Ben used Propulse (carboxamide+

But we've trialled Maverick at our Cambridge and Wisbech sites which suffers with high pressure from the disease and it's shown good tolerance to it."

Maverick is a stiff strawed variety, reducing the risk of it lodging or being weak, notes David. "It has stronger straw than some of the other varieties on the AHDB's Recommended List, meaning it ticks a lot of boxes."

Hybrid breeding programmes have allowed for advances such as the combined phoma resistance, but breeders are constantly trying to overcome other threats faced by OSR, says Craig. "It's a big challenge trying to breed varieties capable of mitigating the impacts of climate change;



David Bouch is encouraged by Maverick's gross output and oil content, along with its disease resistance which he believes looks promising.



Maverick has been a noticeably vigorous variety with plants looking strong going into the winter at Hyde Hall Farm in Hertfordshire. Photo: Charlie Cannon.

triazolinthione) at mid-flowering to round off pesticide applications and notes that he hasn't had to spend a lot on it as it's looked very clean. "Also, because Maverick has been vigorous, and the canopy's been so thick it seems to have stifled the grassweeds."

In terms of fertiliser, the crop received 250kg/ha of ammonium sulphate and 300kg/ha of urea, which takes the total amount of nitrogen applied to 190kgN/ha.

"I've pushed it hard in this respect because the crop has looked well. Although I go for a low-risk approach, if a crop appears to have potential then I'll apply inputs accordingly."

He hasn't used foliar N due to having tried it in the past and not seen any yield benefits. "I also don't use Pod-Stik but have insurance against thunderstorms and hail instead as we lost the entire crop to that five years ago."

If Maverick can achieve a yield of 3.5t/ha Ben will be pleased with its performance. "We hit a yield ceiling on farm some time back, so anything above that is great and if Maverick can average this then I'll be happy."





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Source: AHDB Recommended List (EAV) 2024/25





Faye Ritchie notes that the tendency for growers to drill earlier to get crops away from cabbage stem flea beetle can result in a greater prevalence of LLS, meaning Maverick's resistance score is important.

varieties that can cope with droughts and higher temperatures, or prolonged cold and wet periods.

"We're also pushing to add the pod shatter resistance gene to our material and to find tolerances to help with the CSFB issue, such as finding varieties that can better withstand the larval load, and we're also evaluating several new clubroot resistances.

"Our internal trials run on a reduced fungicide programme, and we think this has helped improve our selection of more robust and tolerant hybrids which is evident in the disease resistance figures of varieties such as Maverick," he adds.

Looking at Maverick's sowing date, Chris believes it can work well in the earlier drilling slot. "Early drilled varieties are in the ground longer, so having a strong disease resistance profile, such as in Maverick, is even more important. We have later drilled trial plots in the ground at the moment and these are looking very promising, so we hope to see the visual condition translated into gross output."

David has seen September drilled plots of Maverick which he says appears to be in really

good shape. "It's looking promising and demonstrates you can grow OSR at different points of the drilling window and it'll still do well, meaning date is less of an issue than conditions."

Maverick is a vigorous variety producing a high biomass, explains Chris. "In our late sown trials in Wisbech this year we noticed Maverick's growth has been significantly stronger than the other material being grown."

Chris also points out that it's vital to produce OSR varieties that are going to work for growers amid the difficulties the crop has faced. "We have optimism for the coming season and there'll be a good amount of Maverick seed available for growers."

This new addition from NPZ UK is of interest to David as he likes to see new material enter the market. "From a grower's perspective, it's really important to have different genetics from varying breeders available as this helps with risk management," he concludes. ■

Maverick at a glance

Gross output (% treated

controls)	
UK treated	108.1
East/West region	110.6
North region treated	102.9
Oil content, fungicide treated (%)	46.1
Agronomics	
Resistance to lodging	8.5
Stem stiffness	8.2
Earliness of flowering	5.6
Earliness of maturity	5.4
Pod shatter resistance	-
Disease resistance	
Light leaf spot	7
Phoma stem canker	9
Verticillium	-

Source: AHDB Candidate List, winter oilseed rape 2024/54 - [] = limited data.

TuYV