

Best variety for next season?

Winter rape has been severely tested this season — from the day it was sown in many cases. CPM takes an in-depth look at how the variety market might evolve next season.

By Louise Impey

'Excalibur and Flash are likely to fare relatively better than Castille and Es Astrid next season.'

The four winter rape varieties which topped UK plantings last autumn are up against some fierce competition for market share this summer.

"There's no doubt that growers have spent much of this season wondering whether they chose the right rape varieties," says Barry Barker, national seed business manager for Masstock.

"It's certainly been a challenging year," he states. "The difficult conditions last autumn delayed drilling considerably and saw many crops going into fairly poor seedbeds.

"Since then, many have struggled and some have been abandoned altogether. Those that survived had a very dry run up to the flowering period, so their harvest performance will be awaited with much interest.

"Seasons like this are when you really see the varieties which have made the grade."

With hindsight, it's clear that any variety would've struggled when faced with the combination of circumstances that arose on many farms last August and September, admits Barry Barker.

"Autumn 2008 reinforced the importance of hitting the optimum

drilling date — and also the need for good seedbed preparation and rapid establishment. Those basic factors are far more relevant than whether you opt for a hybrid or a conventional variety."

However, he believes hybrids appeared to establish better across a wide range of drilling dates and conditions last autumn. "And there's certainly been a swing to hybrids over the past two seasons — from 8% of the winter crop in 2006, to just under 30% this year.

"But conventional varieties still take the lion's share of UK drillings because of the advantage of being able to farm-save seed, with Castille remaining the most popular variety — currently accounting for 25% of the national winter rape area."

New generation

Behind Castille comes the hybrid, Excalibur, which was the first of the new generation hybrids — taking around 14% of current sowings, continues Barry Barker. "What's interesting for the future is that Excalibur now leads the certified seed market, with a share of 21%." Its early harvesting and reliability seem to be particularly valued by growers, he adds.

Es Astrid and Flash — representing 8% and 7% of total plantings respectively — occupy third and fourth place this season, he notes. "Astrid's long-lasting popularity is down to its ease of management, while Flash has attracted a lot of interest due to its high gross output rating."

Three of the top four varieties are now well-established on the HGCA Recommended List, he notes. ▶



“Seasons like this are when you really see the varieties which have made the grade,” says Barry Barker.

► “However, they face much more of a challenge this coming season. We’ve got new additions to the list which appear to have a better gross output, as well as a huge number of promising candidates.”

That means the variety selection process won’t get any easier, he predicts. “In the east and west region alone, the

breadth of breeding material being assessed means there could be as many as 15 varieties with the potential to outperform Castille.”

So growers could be facing an even

greater array of varieties to select from in future, he predicts. “But it’s good to see improvements coming along. However, there’s still a great deal to be sorted out, and this harvest is going to be very

Autumn vigour

NIAB and Masstock have come to the same conclusion on autumn vigour — it’s all down to the size of the seed.

“The bigger the seed, the faster the vigour,” says Philip Marr, northern technical development manager for Masstock, who’s been investigating oilseed rape establishment for the past eight years.

“Hybrids aren’t the solution to autumn vigour but if they have a high TGW, they will tend to emerge before those with smaller seed.”

He drilled four varieties this season — Hammer, DK Cabernet, Flash and Excel — all on the same day. Both

Hammer and DK Cabernet had a good seed size (with TGWs of 8-9g), while the Flash and Excel seed was significantly smaller (at 3-4g).

“The larger-seeded varieties emerged six days after drilling, and the other two came through three days later.” NIAB has witnessed the same effect in its trials, he adds.

That means conventional varieties performed better than the hybrids last autumn in many cases, notes Philip Marr. “The only downside with big seed is that it needs more moisture to germinate in a dry autumn.”

important. It's certainly going to be a 'proving' year."

Looking ahead, Barry Barker predicts that both Es Astrid and Castille will lose ground this autumn. "They've both been around for a while and growers will be tempted to try some of the newer offerings. But they're vulnerable for that reason alone — not because their performance has been disappointing."

Moreover, he expects Es Astrid to remain popular in the eastern counties due to its combination of low biomass and good stem canker resistance.

"These two qualities are rated particularly highly by growers in the east."

Excalibur and Flash are likely to fare relatively better than Castille and Es Astrid next season, he continues. "There are alternatives in terms of higher gross output now in the case of Excalibur, but it's been a particularly consistent variety and its early maturity is a bonus.

"Flash still has one of the highest gross output ratings on the list and if it performs well this year, it will maintain its market share."

The newly recommended challengers

include the hybrids, PR46W21 and Dimension, with Vision being the only new conventional variety. In the north, Cuillin and Emerson bring excellent light leaf spot resistance to the new regional list.

Kent-based Agrovista agronomist, Ian Turner, has seen a gradual shift away from conventional varieties to hybrid types in his part of the country, although the pace has quickened recently, he says.

"There's been a big change during the past year or so," he says. "Excalibur and Flash have taken much more of ▶

Success with Flash

Flash is being grown for the second year by Somerset farmer, Colin Keevil, after it proved itself "against all the odds in 2007".

He farms a total of 500ha of land over two sites in the north of the county, and chose to drill Flash two years ago when delays with a new tenancy agreement prevented him from gaining access to land at Chapel Farm, East Knoyle until mid-September.

As a result, a block of 31ha of rape had to be drilled on 14 September — around three weeks later than planned.

"We had the added challenge of working with chalky land for the first time," he recalls. "We lost a fair bit of moisture from the soil because I chose to cultivate the ground twice but with hindsight, that was a mistake."

Colin Keevil admits he thought the crop would fail. "But by working with my agronomist, Richard Alcock, we managed to turn things around."

This involved making four separate fertiliser applications, instead of the normal two, and matching the crop's requirement for nutrients to its Green Area Index.

"Once the nutrients were applied, the crop really took off and having a vigorous hybrid

variety really made all the difference." It also seemed to be less palatable to the pigeons, he adds.

A "very respectable" yield of 4.4t/ha was the final result, says Colin Keevil. "We did have to take care of the crop but it proved to be extremely worthwhile."

This year, he is growing 83ha of Flash and says he's very pleased with its appearance.

Richard Alcock notes there were numerous obstacles to achieving a good level of establishment last autumn, with the variety managing to overcome all of them. "Its ability to compensate has been phenomenal — especially on such an exposed site."

About half of his rape area is down to hybrids this year. "We've seen good establishment from the hybrids in what's been a difficult season — they certainly went into the winter in better condition."

He believes it's very important to adopt a canopy management approach with nitrogen when growing a variety like Flash. "It allows us to fine-tune the top dressing inputs accordingly to get the right number of pods."

The total nitrogen requirement can be anywhere between 100-200kgN/ha, he adds.

Excalibur is another hybrid variety which has proved popular in the Somerset/Dorset area, he continues. "It's done well on the light, brashy soils although it doesn't seem to be quite as vigorous as Flash."

Castille and Es Astrid have also been popular, although he says there appears to be less loyalty to the latter now. "It's slipping away a bit but its stem canker resistance has been important."

Virtually all of the winter rape crops in the region are established using min-till methods, reports Richard Alcock. "Plough-based establishment trials show the best yields more or less every time but that's no longer feasible on most commercial farms for workload and financial reasons."

He reckons most growers choose rape varieties mainly on their gross output and disease resistance rankings, but notes their ability to perform in less-than-perfect conditions is becoming more of a key consideration.



"Astrid is bombproof," believes Ian Turner. "Moreover, it can be home-saved — unlike the hybrid alternatives."

► the area, with the former having been particularly consistent and reliable." He adds that Flash has been a strong

performer this season in what has been a difficult year for oilseed rape.

Although this market share adjustment has been at the expense of varieties such as Es Astrid, Ian Turner stresses that the reason isn't because of poor performance.

"Astrid is bombproof," he explains. "For growers looking for a non-hybrid variety which is reliable — with good harvestability, strong phoma resistance and first-class vigour — it remains one of the best choices." Moreover, it can be home-saved unlike the hybrid alternatives, he adds.

The reason farmers have moved over to hybrids is the widespread use of min-till establishment methods, he believes.

"They're looking for a bit of extra vigour since the seed is often being drilled into non-ideal conditions following just one primary cultivation. Seed-to-soil contact may not therefore be as good as it should be, and there's often a higher

level of trash to contend with — so any extra seed vigour is vital.

"If they don't get good crop establishment, everything else goes out of the window."

Autumn is the critical time for the oilseed rape crop, he continues. "But it's important to realise that a hybrid variety won't plug the gap created by a poor seedbed or late drilling date — this season has been the proof of that."

Growers should aim for earlier drilling of oilseed rape wherever possible to get the optimum level of establishment, he advises. "Sowing a bit earlier means the crop will have a better recovery rate when it comes to the battle with pigeons and rabbits later on."

Ian Turner says he'd be surprised if there was a big swing back to conventional varieties this autumn. "In the past, growers have stuck with reliable conventional types — with Apex and Astrid good examples of that. ►

New seed treatment

A new fungicidal-and-insecticidal seed treatment will be available to OSR growers this autumn, with manufacturer Syngenta Crop Protection claiming the product will deliver outstanding crop establishment together with excellent early pest and disease control.

Cruiser osr is based on three active ingredients — thiamethoxam, fludioxanil and metalaxyl — and was first submitted for PSD approval in 2002. "We're confident it will be worth waiting for," says Will Holmes, seed care business manager for the company.

The product offers "broad-spectrum, long-lasting" pest and disease control together with increased plant vigour — leading to improved establishment, higher yields and enhanced gross margins, he claims.

"Cruiser osr gives good control of downy mildew — a disease that was fairly widespread last autumn and which most other seed treatments struggle to cope with." In trials, it has given 100% control of the disease in addition to "excellent" control of seed-borne phoma, *pythium spp.* and *alternaria* — reducing the level of disease inoculum overall, says Will Holmes.

"And on the pest control side, it helps prevent cabbage stem flea beetle and sawfly, as well as mealy aphid and peach potato aphid, which are responsible for transmitting Turnip Yellows Virus

— one of the key yield robbers in rape."

Will Holmes claims Cruiser-use in trials resulted in increased yields of 0.32t/ha — valued at over £80. "Taking into account the cost of the treatment, plus the potential saving of a pyrethroid spray, this would've resulted in an extra margin of £88/ha for the grower."

Syngenta technical manager, Michael Tait, claims Cruiser osr acts as a "vigour trigger" for the crop. "It's been shown to increase the length and mass of the root system — enabling crops to emerge faster and establish better.

"In 30 trials in Germany, the untreated plots had an average root length of 15.19cm, whereas the Cruiser-treated plots had an average root length of 15.68cm. And in 16 trials in the Ukraine, Cruiser-treated crops had 36% more root mass than the untreated."

He claims treated crops are able to establish quicker — coping better with physiological stresses, such as poor nutrition or drought. "The theory is that thiamethoxam has a positive effect on the plant auxins which are responsible for root and shoot growth. By fixing itself to the cell membranes, the thiamethoxam keeps the auxin channels open leading to enhanced rooting.

"Moreover, Cruiser osr appears to perform better than most competitor treatments in preventing Turnip Yellows

Virus (TuYV). In trials in Germany last year, the product reduced TuYV infections from 94% in the untreated plots to 64% where treated." Growers can expect around 6-10 weeks persistence on aphids from the treatment, he adds.

Cruiser osr out-yielded Chinook (beta-cyfluthrin+ imidacloprid) in 70% of trials across Europe (numbering 90 in total), he claims. "On average, it gave an extra 0.13t/ha more yield than Chinook and in 76% of the trials, it also out-yielded Modesto (beta-cyfluthrin+ clothianidin)."

Dr Mark Stevens of Brooms Barn explains that TuYV is a very widespread but largely overlooked problem in the UK and Europe. "This may be because it's so difficult to recognise in the field, being easily confused with physiological or nutritional deficiencies."

TuYV infects the leaves, stems and pods but is generally not seen until after stem extension, he says. "Transmitted by aphids, it has a wide range of host plants including all brassicas and lettuce, plus a range of weeds, such as chickweed and shepherds purse."

Mark Stevens warns that around 7 out of 10 aphids carry the virus, with "blanket infection" south of the River Humber last year. "TuYV can reduce the yield by as much as 26%, so a seed treatment that helps prevent the disease is well worth considering."

► “But hybrids are here to stay — especially with so many growers broadcasting seed from the back of their primary cultivation equipment nowadays.”

His final note of caution is on varietal choice. “There’s a great deal of noise made about certain varieties, some of which still are yet to be proven commercially.”

‘Stick with consistency’

“So make a note of the varieties which have done well on your farm and in your area recently, and stick with the most consistent ones. Moreover, devote more time to planning your cultivation and drilling strategies this summer and autumn.”

Dave Robinson of TAG has had a lot of experience of growing the variety Excalibur, and believes it makes a good choice for both the north and the south of the country.

“If spring vigour is important, hybrids have to be your starting point,” he says. “They seem to be very responsive early in the spring.”

But opting for this extra vigour brings other characteristics too, he points out. “Hybrids tend to be tall, so they need far more management time and extra inputs to get the right canopy. They’re a different plant model to the low biomass types, so you need to be ready for that.”

Excalibur has proved to be the most vigorous variety in the early spring in his own trials. “That’s also been the case nationwide, with growers reporting the same findings at a field level.”

Higher seed costs are a “fact of life” with hybrids — despite the lower seed rates involved, he notes. “For that reason, they need to provide an agronomic advantage.”

But Dave Robinson doesn’t anticipate Excalibur having the hybrid market all to itself next season. “The newly recommended PR46W21 is another strong performer for the south — it’s certainly done very well in our trials.”

For the north, he picks out another newly recommended hybrid, Cuillin, for its high yields and excellent light leaf spot resistance. And Castille is one of his selections for growers wanting to grow a conventional variety. “There are always plenty of farmers who want to home-save seed.”

Castille hasn’t faltered at all over the years, he continues. “It’s been a very consistent variety — growers know and like it, and it has the ease of harvesting

advantage that some require. It’s only 139cm tall and none of the others are anywhere near that.”

However, Vision — which yields 3% above Castille — could also be a good alternative to consider for the autumn, he suggests.

“It looks very handy, performing slightly better than some of the established hybrids and with better disease resistance as well.”

With that in mind, and with the promising potential of some of the candidates, Dave Robinson believes the switch to hybrids could start to be reversed next season. “If a couple of the candidates have as good a year this year — as they have during the past two — we’re going to see some significant changes.” ■



Hybrids need to provide an agronomic advantage because of their higher seed cost, says Dave Robinson.