

What makes a growers' favourite OSR?

“The number of varieties gaining at least 10% of the market has declined.”

Technical Oilseed rape

When a top-selling OSR variety isn't even on the AHDB Recommended List, there must be other reasons why it's so popular. CPM investigates why some OSR varieties are so hard to replace.

By Rob Jones and Lucy de la Pasture

Of the 87-mainstream winter oilseed rape varieties commercialised in the UK in the past 15 years, an industry-wide study reveals that less than 10% achieved a level of success over several seasons that would qualify them as grower favourites.

What did they have that the overwhelming majority lacked? This is the sixty-four-thousand-dollar question that would really help growers see the wood for the trees in the forest of varieties vying for their attention these days.

“That's what we wanted to explore by using the data we compile annually on certified seed variety estimates, with inputs from all the main breeders and seedsmen,” explains Agrii seed technical manager, David Leaper, who was responsible for the study.

Introductions accelerated

“Our analysis shows that almost 100 'double low' winter OSR varieties have been introduced and taken-up commercially since 2002. From an average of less than five a year in the first five-year period, the rate of introductions has accelerated markedly in recent years, to now average nine a year.

“Excluding HOLL, HEAR, Clearfield, semi-dwarf and other specialist varieties, just 27/87 varieties achieved a certified seed market share of at least 5%, and 13 a share of at least 10% in one or more years.

“Although some of the newest varieties haven't reached the end of their commercial lives and could achieve greater relative success than this analysis suggests, the number of varieties gaining at least 10% of the market in any year has declined over



David Leaper believes certified seed statistics show growers are basing variety choices on more than just gross output.

the years,” he observes.

“Nine varieties introduced in the five years to 2006/7 achieved this degree of success, compared with just two introduced in the five years to 2011/12 and 2016/17. This is almost certainly due to the larger number of varieties being marketed, not to mention the recent decline in plantings.” ▶

Maximise your OSR success with Clearfield®

With any good outcome, you have to start right. So when developing a solution to OSR's notorious unpredictability, that's exactly where we began – the seed. Hybrid varieties of OSR were developed that work directly with our Clearfield® herbicides. Flexible, fast establishing and effective against the widest range of weeds, it's a system that's produced some remarkable results...

THE TEST

WE TESTED CLEARFIELD WITH

432

GROWERS

OVER 2 YEARS*

THE RESULTS ARE IN

73%

Agronomists recommended the system in 2016**

WEED BY WEED

★★★★★★★★☆☆

8 OUT OF 10 WEED CONTROL RATING FOR

Charlock	Runch
Hedge Mustard	Chickweed

WHAT THEY THOUGHT

“ Excellent establishment, good early growth, excellent weed control.
 Nick Pratt, Farmer, Norfolk

Delivers 100% control of Charlock - we wouldn't be able to grow OSR on certain fields without it.
 Jeff Swift, Farmer, West Midlands

Establishment and vigour have been excellent - I'm really pleased with it.
 Michael Fieldson, Farmer, Lincolnshire ”



To learn more about Clearfield® and OSR profitability visit basfrealresults.co.uk/osr



Clearfield, Cleravo and Clerando are registered trademarks of BASF. Cleravo contains imazamox and quinmerac. Clerando contains imazamox, and metazachlor. Use plant protection products safely. Always read the label and product information before use. The Clearfield varieties have 'CL' as a suffix to their name and have specific tolerance to the herbicides, Clerando and Cleravo. Conventional varieties will not be tolerant to Clerando and Cleravo and will be killed by these herbicides. Clearfield herbicides should only be used on Clearfield varieties. For further product information including warning phrases and symbols, refer to agricentre.basf.co.uk *Clearfield Experience data. **Advisor survey with 48 respondents.



Matthew Clarke says traits can help protect growers against the risks associated with growing OSR.

► Drilling down more deeply into the figures, the Agrii study shows that 20 of the 27 most successful varieties gained a certified seed market share of at least 5% in two or more years, rather than declining, often very rapidly, after a single year of use.

More revealingly, only eight achieved a level of consistent success that would qualify them as clear grower favourites — a market share of at least 5% for four or more years (See chart on p26).

David Leaper accepts that basing the analysis on certified seed figures underestimates the area of pure lines grown each year. However, he sees it as the only fair way to compare all varieties on the same basis.

He also points out that certified seed sales are a better reflection of the actual value growers place on varieties, demonstrating their willingness to continue investing in them rather than merely sticking with them to secure farm-saving economies.

Interestingly, the eight grower favourites that stand out are equally divided between pure lines and hybrids. What's more, they're the ones most of those familiar with OSR over the years would put on their immediate 'top of the crops' list — starting with Winner, Castille and ES Astrid, moving though all-time favourite, Excalibur, then onto DK Cabernet, DK Expower, PR46W21 and most recently DK Extrovert.

Of the three varieties yet to peak in certified seed sales terms, David Leaper identifies DK Exalte as the most likely to join this list given its current position and relative youth in the market.

So what exactly is it that these varieties

Favourite OSR Characteristics

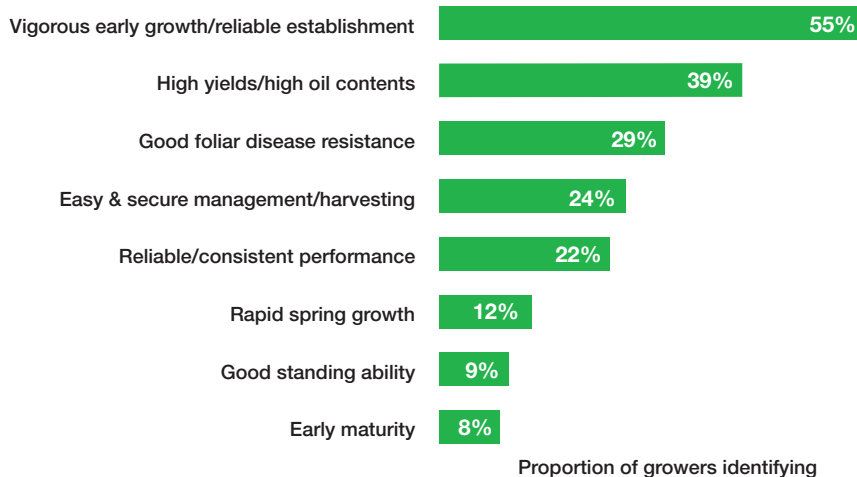
The extent factors other than gross output are being valued by growers is underlined in the Winter OSR Attitudes and Intentions Study undertaken by CPM this spring.

When we asked directly, 'What for you makes a favourite OSR variety', the overwhelming majority of responses we received from the 250-plus participating growers across the UK, listed three or more characters. And high yields and oils were

not the most important.

Top of their priority list by a clear margin ahead of gross output was vigorous early growth and reliable establishment, with disease resistance in third place, just ahead of consistent performance, ease and security of management and harvesting. Other characteristics identified by many were rapid spring growth, good standing ability, early maturity

Characteristics that make an OSR variety a firm favourite



Source: CPM 'Winter OSR Attitudes and Intentions Survey'.

have provided above all the others available over this time? The highest gross output is clearly one factor. However, it's certainly not the only one — or even the most important.

Favourite varieties

Only three of the eight favourite varieties have topped the RL and five have never been in the top three on the RL. The most recent grower favourite — DK Extrovert — has never even been on the List. Nor has the most promising newcomer, DK Exalte.

In contrast, no less than five RL toppers and a host of varieties that have at one time been within the top three on the RL don't figure amongst the clear grower favourites.

"Recommended List testing shows almost every modern variety is well able to deliver high gross outputs in small plot trials," notes David Leaper. "To deliver consistently above average performance under commercial farming conditions, our research underlines the importance of a number of vital traits alongside high output.

"OSR crops have to be resilient enough

to cope with stresses like later sowing, less-than-ideal seedbeds and spray timings, persistent pest problems and extreme weather variations. This means they need to develop rapidly in both the autumn and spring, be as resistant as possible to phoma and LLS, and stand-up well through to harvest with minimal seed shedding.

"In performance terms, the varieties that achieve this invariably come out at or near the top of the large-scale trials we run across the country, under typical farm regimes. They're also proving much more popular and longer-lasting with our growers."

Responsible for no less than five of the eight grower favourites over the past 15 years, this view is shared by Dekalb breeder, Matthew Clarke of Monsanto, who stresses that output is only one of the characters he selects for in his OSR breeding.

"Our breeding programme relies on untreated screening and trials and, as well as employing genetic markers for key traits, we select varieties at a range of sites which put them under particular ►



BENEFITS ABOVE AND BEYOND WITH CLEARFIELD.

Did you know that with the *Clearfield system* you can *minimise your establishment risk* from sulfonylurea residues, control a broad range of cruciferous weeds and improve your oil quality, by reducing the *risk of erucic acid* contamination from *HEAR volunteers*?

DEKALB, your partner in *Clearfield Solutions*.



✓ **DK IMPERIAL CL** ✓ **DK IMPRESSARIO CL** ✓ **DK IMPRESSION CL** ✓ **DK IMAGIS CL**

DEKALB® is a registered trademark of Monsanto Technology LLC

More at www.dekalb.co.uk

30 years
of innovation
in Europe



Hybrid success

Choosing the best varieties that have gone through UK official trials and feature on the RL is key if growers are to improve crop performance, says Dr Cathy Hooper, RAGT's technical seeds manager.

A few years ago, RAGT didn't have a commercial OSR success to its name. But in just two years, their share of the UK winter OSR seed market has jumped from 2% to 10%, as the fruits of its revamped breeding programme kick in.

The turnabout came in 2011 when the company bought French breeding company Serasem, which gave RAGT access to a more competitive germplasm for the maritime area — countries in the north and west of Europe.

"Before then, we'd had varieties that got as far as the candidate stage, but no further. Arazzo was our first success, recommended in 2015, but Windozz and Alizze marked a big step-up in performance the following year," says Cathy Hooper.

RAGT has now built up a strong pipeline in the UK, including the highest yielding East/West Candidate variety, RGT Zeland, which is up for recommendation this autumn, and a dozen lines

in National List 1 and 2.

RGT Zeland scores a 6 for each disease, and is the leading hybrid for gross output. Of the NL varieties, 60% score a 7 or better for LLS and three-quarters of the NL2 varieties score an 8 for phoma, as good as any variety on the RL.

RAGT's OSR breeding programme is based in Premesques in northern France. The 100% hybrid programme uses two systems. The Ogu-INRA system developed by INRA, France's leading agricultural research institute and the MSLeimbke system inherited from the Serasem purchase and the strong collaboration with NPZ Leimbke, to produce a complementary range of genetics.

"Although some conventional varieties have caught up, we still find hybrids work better for us as it's easier to get traits into hybrids through the crossing process of male and female lines. Hybrids also bring stronger vigour at emergence, which may help reduce damage from flea beetle. They have a clear majority on both UK RLs and I don't see that changing."

Oil profiles, including HOLL and HEAR, and an emerging Clearfield programme are also key aims of the breeding programme.



Cathy Hooper points to varieties that are on the Recommended List as reliable options for this autumn.

"Clearfield varieties now account for 35,000ha in the UK and we believe that'll keep increasing. The trait provides flexibility, so you don't have to commit to an expensive herbicide programme before the crop establishes, which is very useful in bad flea-beetle areas."

► environmental pressures," he explains. "That way, we only pick the best performing of the varieties that survive on the basis to take forward.

"As a result, our varieties seldom top official trials and, in some cases, don't even get on the RL (which currently only tests varieties under a high input regime). However, it also means we only bring

forward varieties we are confident have the right genetic balance for the greatest resilience in commercial growing."

Foremost among the traits, other than gross output, that Matthew Clarke considers central to a grower favourite OSR variety are vigorous establishment, phoma stem canker and LLS resistance and resistance to pod shattering.

"Vigorous establishment to four true leaves is a trait we've always prioritised in varieties that suit earlier drilling, as well as those better able to deal with sowing well into Sept," he points out.

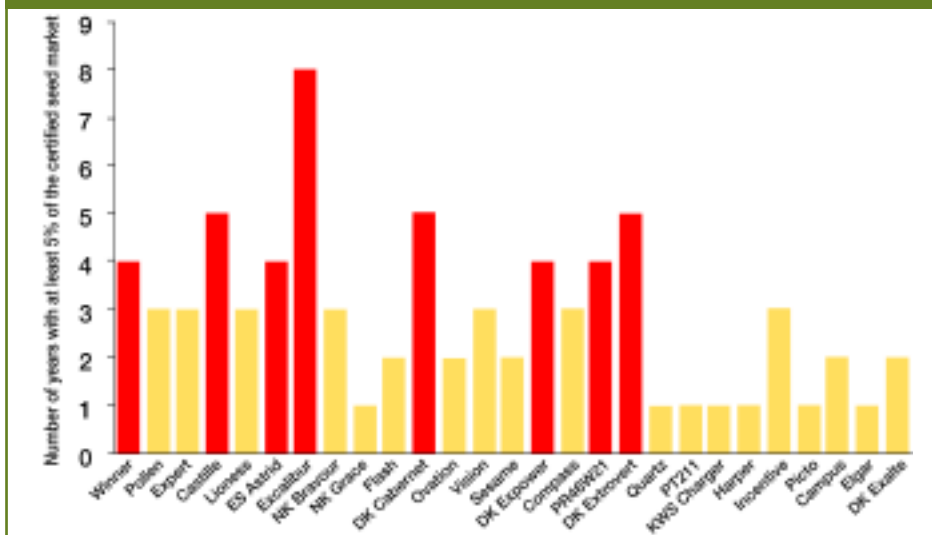
"This makes them better able to deal with difficult seedbeds, lack of moisture and early slug and insect attack, reducing the risk of crop failure under all but the most challenging conditions.

"The RLM7 phoma stem canker resistance gene, supported by high levels of poly-genic resistance, is also important in getting crops through those first few critical months as cost-effectively as possible. And allied to strong LLS resistance, it provides the greatest spraying flexibility, not to mention economy," he says.

"As well as dramatically reducing yield losses from bad weather in the run-up to harvesting, the pod shatter resistance trait that is now incorporated into most of our varieties is giving growers the confidence to delay desiccation to take advantage of the longest possible pod fill and oil accumulation too," adds Matthew Clarke.

"Our traits package is all about improving agronomic flexibility and reducing risk; things growers have clearly been voting for with their feet in their variety choice." ■

Varieties introduced from 2002 achieving a certified seed market share of at least 5% in one or more years



Source: Industry estimates compiled by Agrii 2002/2003- 2016/2017.

Disease resistance 'layering'

A new 'layered' disease resistance approach is the latest development in DSV's Post Neonicotinoid (PNN) initiative to develop a new generation of hybrid OSR varieties, delivering high performance in the absence of neonicotinoid seed treatments.

With new hybrid varieties being introduced, the PNN breeding programme has moved on significantly since its launch last year, says the company's UK managing director, Mike Mann.

"PNN builds on our proven hybrid genetics that have produced such established names as Lioness, Compass and Incentive, by developing varieties that require less agronomic intervention and are able to deliver optimum yield and oil content, without neonicotinoids.

"The genetic foundation of all PNN varieties is based on exceptional vigour for strong establishment, high efficiency photosynthesis to drive spring growth, unique plant architecture for the best pod development and consistent yield performance."

The new disease-resistance approach now adds to this, offering different disease resistance and agronomic profiles so these core characteristics can be matched precisely with individual growing needs, he explains.

"A single-layered PNN variety has multi-gene resistance to light leaf spot (LLS) and phoma stem canker — the

most common diseases of oilseed rape.

"Subsequent layers include resistance to turnip yellow mosaic virus and/or verticillium wilt or non-disease traits like pod shatter. Although the specific characteristics may change between varieties, the more layers — the greater the number of agronomic benefits and disease resistance features there are."

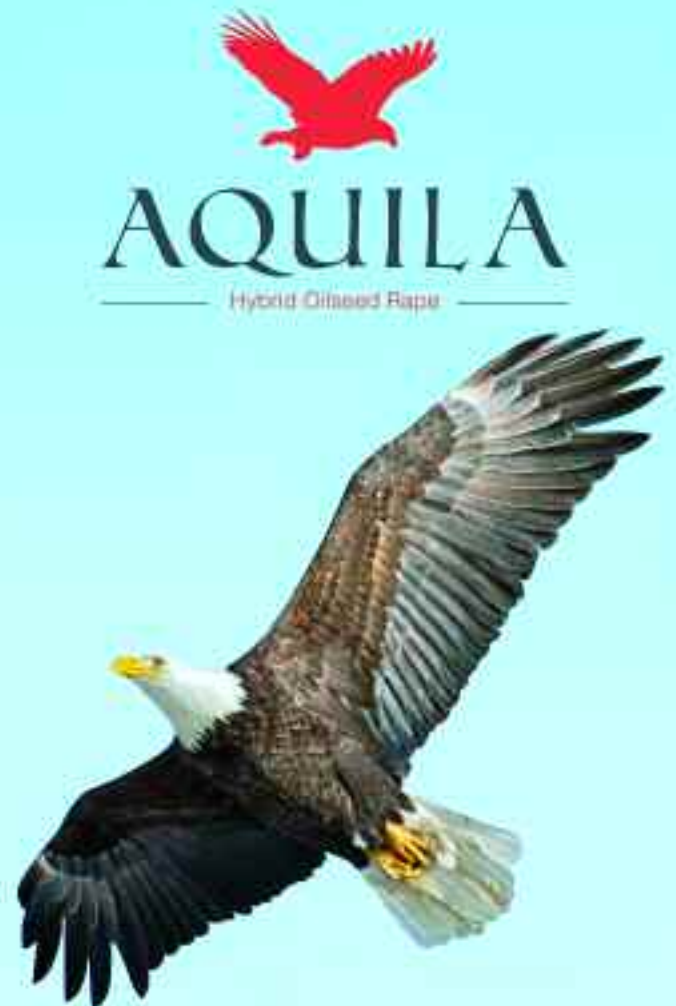
The first of these new generation varieties to be introduced to the UK will be Sparrow 45 — named like the highly successful Incentive 45 for its rapid establishment in the critical first 45 days after drilling.

"Sparrow is a single-layered PNN variety with good LLS and phoma stem canker resistance — 7 for LLS and a 6 for stem canker in the 2017/18 candidate RL."

It also has one of the highest gross outputs on the list with 107% of control and a seed yield of 107% of control too. Oil content is 45.5%, he adds.

"Although ideally drilled in the optimum autumn window, Sparrow's considerable vigour means it can be later drilled if weather conditions dictate. In addition, Sparrow has a prostrate growth habit which quickly produces considerable weed-inhibiting ground cover. This feature also means Sparrow is unlikely to need an autumn PGR."

Mike Mann says DSV are layering traits to produce varieties that are resilient in the post-neonicotinoid era.



The sky's the limit!

- Good autumn vigour and pod shatter resistance
- Very high gross output
- Very good stem canker (RLM7) resistance



Rothwell, Market Rasen,
Lincolnshire, LN7 6DT

Tel: 01472 371471
enquiries@limagrain.co.uk

www.lgseeds.co.uk/aquila

 @lgseedsuk

Limagrain 

