

 **NICKERSON**
The Original Seed Specialists

OILSEED RAPE

Variety Guide



**Essential information to help you
select the right OSR variety**

CONTENTS

Welcome to our essential guide to winter oilseed rape variety selection.

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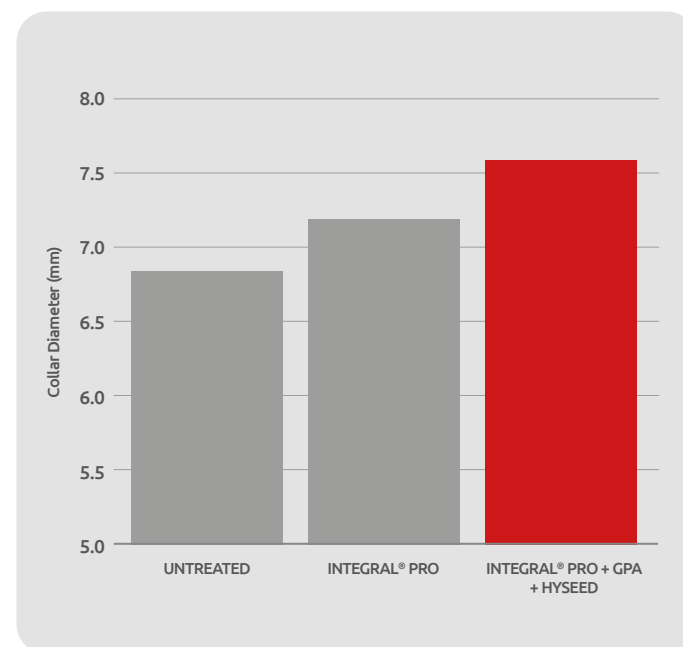
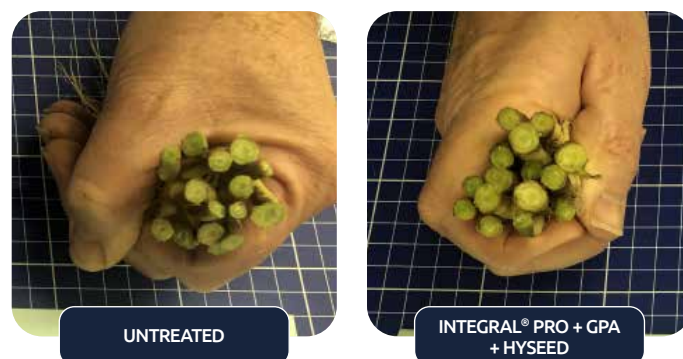
OSR is extremely vulnerable during its early phase of establishment, which is why all Nickerson OSR seed comes treated with a blend of our GPA and Hy-Seed nutrient seed treatment. These are coupled with our seed film coating and Integral Pro as standard, to ensure the best possible start for your crop.

Supplying the very best varieties direct from plant breeder Limagrain, we ensure that all seed is as pure and of the highest possible quality.

NICKERSON GPA

GPA (Growth Promoting Agent) is a researched blend of nutrients essential for plant growth. These stimulate seedling germination, particularly under stress conditions and also encourage larger root systems, enabling the plants to absorb soil nutrients more efficiently.

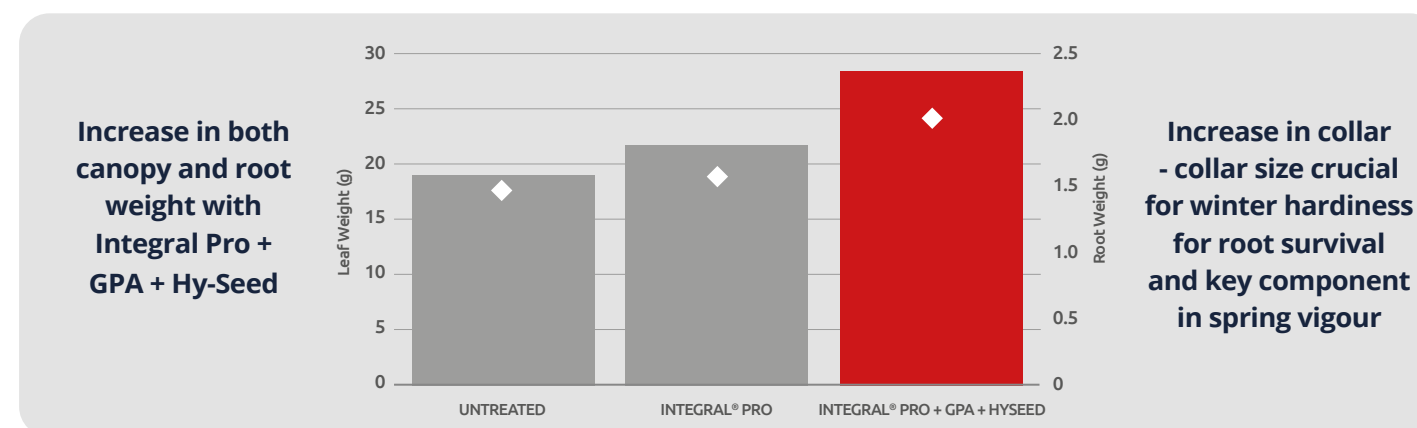
GPA consists primarily of Phosphite and Potash. Phosphite is important in early plant growth, influencing emergence and establishment by improving root development and tillering. Our GPA supplements this, giving increased root and shoot biomass. This enables the young plant to source nutrients from the soil more effectively and get established away from pest attacks.



ENHANCED SEED TREATMENTS AS STANDARD

HY-SEED

Hy-Seed is an advanced nutrient based seed treatment, further providing the seed with targeted nutrient to stimulate both root and shoot development. This ensures rapid plant establishment, especially during the most vulnerable stages of seedling growth. Hy-Seed contains NPK with trace elements Zinc and Manganese and plant extract amino acids.



SEED FILM COATING

Seed Film Coating was developed by Nickerson as a technique to carry seed treatments on the seed accurately, reducing the phytotoxic effect of pesticides on germination and vigour.

By improving drill flow, it allows the grower to accurately drill a manageable plant population with even establishment. The incorporation of GPA, Hyseed and Integral® Pro enhances the benefits of Seed Film Coating, resulting in stronger plant establishment.

INTEGRAL® PRO

Integral® Pro is a biological seed treatment for winter oilseed rape, used to provide a useful reduction in stem canker and for stimulation of natural plant defence mechanisms.

Integral® Pro contains Bacillus amyloliquefaciens (BAA) Biological Fungicide which also provides a useful Phoma lingam reduction, helps stimulates plant growth during establishment and gives better vigour after winter. Integral® Pro also provides a reduction of Verticillium symptoms, Rhizoctonia and Alternaria disease.

Benefits include:

- Precise and even application of chemical to seed
- Accurate drilling and even establishment
- Controlled release of chemical prevents phytotoxic effects on plant growth
- Higher yield





POD SHATTER RESISTANCE

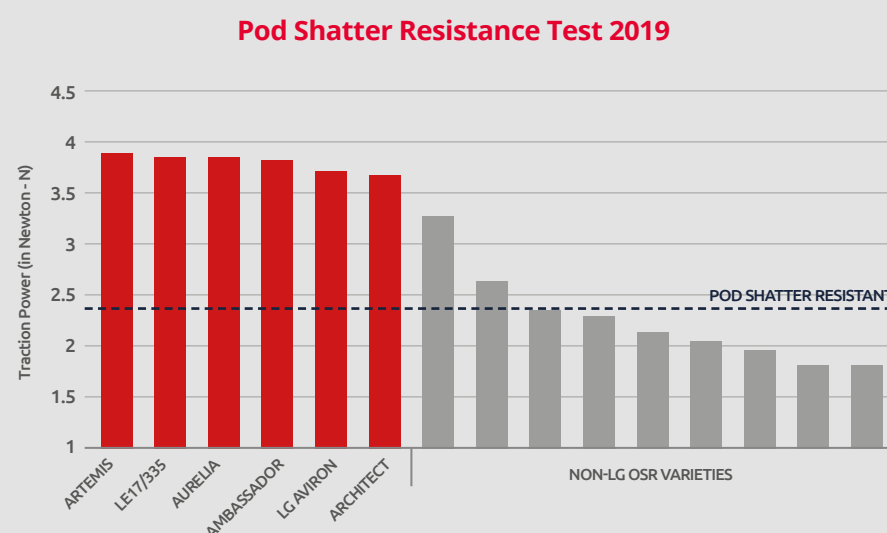


What is Pod Shatter?

- A natural process that enables seed dispersion
- Tensions on the pod caused by repeated wetting and drying during wet harvests can cause pods to shatter
- Random and untimely pod shatter in a commercial crop results in high seed losses
- The POSH resistance trait was introduced into OSR together with the restorer gene from radish
- Not all Ogura restored hybrids have POSH resistance, but the LG breeding programme ensures it is in all our fully loaded hybrids

Quantifying Pod Shatter

- Pod shatter can be quantified as the force required to break a ripe pod
- As with all of our traits; LG is continually monitoring the efficacy of our pod shatter resistance against other commercial varieties



Advantages of Pod Shatter

- Reduce harvest losses, due to;
 - Hailstorms or adverse weather causing damage
 - Combine passing through crop
- Security around delayed harvest
- Crop more resilient to repeated drying and wetting if rain occurs during harvest
- Reduce volunteers in the following crop



N-FLEX

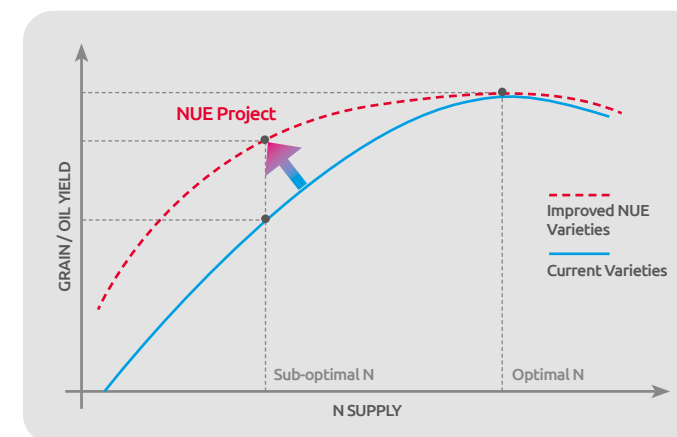


N-flex is a breeding characteristic identified in some of our elite hybrid lines. These varieties have been shown through extensive trialling to have a greater flexibility around Nitrogen application. N-Flex varieties have been shown to have a flatter response curve to nitrogen, therefore yield penalties for sub optimal yield applications are lower than with other varieties.

What does N-Flex offer?

N-Flex offers security to growers. The advice from Limagrain is not to consciously reduce nitrogen rates. N should still be applied according to crop canopy and aimed at delivering optimal nitrogen for the highest yields. However, optimal nitrogen is difficult to achieve, and timings in the spring are dictated more by prevailing conditions than crop growth stages.

With varieties highlighted as having 'N-flex' we should still be aiming for the same optimal nitrogen application however more of the yield potential is conserved when it is applied sub optimally.



TURNIP YELLOWS VIRUS (TuYV)



What is TuYV?

- Turnip Yellows Virus (TuYV) is a virus transmitted by Myzus Persicae (peach potato aphid)
- In severe cases can cause up to 30% yield reductions
- Infection can occur in both the autumn and spring
- Symptoms not normally seen until the spring and often misdiagnosed as stress or deficiency

What is TuYV resistance?

- TuYV resistance is based on a single major gene
- Resistance prevents the multiplication and spread of the virus through the plant after being infected by the aphid
- First introduced from stubble turnips using a conventional crossing method
- First made commercially available by Limagrain in the variety Amalie in 2015 and is now a major breeding target in both our European and UK breeding programmes
- Considering widespread resistance to insecticides TuYV should be the foundation of any IPM strategy

LG continued monitoring

- Limagrain are the first breeding company to establish a Europe wide monitoring platform for TuYV
- Since 2015 Limagrain have analysed an average of 600 fields per year



TuYV Monitoring in UK Spring 2021

Average TuYV incidence (%) in non-resistant varieties

- Very heavy incidence (>81-100%)
- Heavy incidence (>66-80%)
- Medium incidence (>36-65%)
- Low incidence (>11-35%)
- Very low incidence (<10%)





Stem health has long been a breeding target for Limagrain. As breeders' disease resistance is key and maintaining green/ clean stems in oilseed rape for as long as possible allows for greater yield potential and increased oil percentage through the prolonged period that nutrients and water can be translocated around the plant.

Limagrain has long established stem health screening platforms across the UK and Europe allowing us to select against the most prevalent stem based diseases; phoma stem canker, light leaf spot (cylindrosporium) and verticillium stem stripe.

These light leafspot stem symptoms in our trials have shown discrepancy with AHDB LLS ratings with wide variation in stem-based symptoms for varieties with similar AHDB scores. LG screen varieties and new generation hybrids show a step forward in encompassing stem health as a whole.



AMBASSADOR
(UK SITE)



COMPARATOR HYBRID
RL LLS SCORE 7



ADDITIONAL TRAITS

RLM 7



RLM7 is gene-specific resistance to phoma stem canker. LG combine gene-specific resistances along with quantitative resistance to offer maximum security against symptoms of phoma stem canker.

Phoma is one of the biggest yield-robbing diseases in oilseed rape with the AHDB oilseed management guide claiming that a typical reduction of 0.5 t/h yield reduction in susceptible varieties.

Phoma first appears on the leaves as near-harmless lesions, however if this infection spreads to the petioles or stem they can cause cankers. For this reason, phoma is more of a risk in

smaller crops where infection can reach these critical points sooner. Cankers in the stem can increase the likelihood of lodging and impact on nutrient and water supply to the rest of the plant, severely impacting yield.

Selecting a variety with high resistance to phoma allows fungicide treatments to be delayed until a higher threshold of symptoms can be seen, however in seasons with high phoma pressure, fungicide treatment should still be considered.



CLUBROOT



Clubroot is a soilborne fungal disease which can affect all brassica crops. It can be hosted by cruciferous weeds such as shepherd's purse and charlock.

Symptoms of Clubroot appear first as galls with the roots appearing clubbed. These plants can appear stunted and where severe symptoms are present, total plant loss can occur.

Risk factors

Clubroot can often be localised to parts of a field. Considerable risk factors for clubroot developing include rotations where brassicas are grown closer than 1 in 5, and acidic soils prone to waterlogging. Soil testing can be carried out to determine the presence of clubroot, however as it can be localised, it is not always detected.

Clubroot resistant varieties such as LG Anarion combine TuYV, pod shatter and RLM7 resistance to help mitigate the risk of growing oilseed rape in clubroot prone areas.

CLEARFIELD



Clearfield® oilseed rape varieties are intended to be used in conjunction with BASF post emergence herbicides Cleravo and Cleranda. Clearfield® varieties are tolerant to these herbicides which would otherwise cause catastrophic crop failure in a conventional oilseed rape crop.



The Clearfield® system was designed to allow growers to wait until they had a crop established before investing in a full herbicide programme.

Clearfield® herbicides are effective against otherwise difficult to manage weeds in OSR, such as charlock, hedge mustard and runc. They also allow the control of volunteer OSR from previous cropping, which can cause increases in erucic acid levels, if taken to harvest.



WOSR VARIETY SELECTION GUIDE

FULLY LOADED HYBRIDS

ANYTHING BUT CONVENTIONAL

NICKERSON		ATTICA	AMBASSADOR	AURELIA	LG CONSTRUCTOR CL	ACACIA	ANNIKA	AMARONE	ASPIRE
GROSS OUTPUT	Data source	AHDB RL 2023/24	AHDB RL 2023/24	AHDB RL 2023/24	AHDB RL 2023/24	AHDB RL 2023/24	AHDB RL 2023/24	AHDB RL 2023/24	AHDB RL 2023/24
	Variety type	Restored Hybrid	Restored Hybrid	Restored Hybrid	Restored Hybrid	Conventional	Conventional	Conventional	Conventional
	Status	Recommended	Recommended	Recommended	Recommended	Recommended	Recommended	Recommended	Recommended
	Scope of Recommendation	UK	UK	UK	UK	UK	UK	North Region	UK
VIGOUR	Gross output - UK (% controls)	107	105	105	95	102	101	99	98
	Gross output - East/West region (% controls)	107	105	105	96	102	101	98	98
	Gross output - North region (% controls)	107	103	104	92	102	101	102	99
AGRONOMIC CHARACTERS	Spring vigour *	8.5	8.5	8	7.5	6	5	6.5	4.5
	Autumn vigour *	8	7.5	7	7.5	6	6	6.5	4.5
	Resistance to lodging (1-9)	8	8	8	8	8	8	8	8
SEED QUALITY	Stem stiffness (1-9)	8	9	8	8	9	9	8	9
	Shortness of stem (1-9)	6	6	6	6	7	6	7	7
	Plant height (cm)	149	148	145	143	141	143	138	136
DISEASE RESISTANCE	Earliness of flowering (1-9)	7	7	7	6	6	6	7	7
	Earliness of maturity (1-9)	5	6	5	6	5	4	5	5
	Oil content, fungicide treated (%)	45.3%	44.8%	44.9%	44.2%	45.0%	45.0%	44.8%	45.2%
SPECIAL TRAITS	Glucosinolate (µmoles/g of seed)	12	10.9	10.2	15.8	8.1	11.6	11.9	9.9
	Light leaf spot (1-9)	7	7	7	6	6	7	7	7
	Stem canker (1-9)	7	7	6	6	6	6	6	6
VARIETY COMMENT	N-FLEX	-	Y	-	-	-	-	-	-
	Pod Shatter Resistance	Y	Y	Y	Y	-	-	-	-
	TuYV	Y	Y	Y	Y	-	Y	Y	Y
	RLM7	Y	Y	Y	-	-	-	-	-
	Clearfield®	-	-	-	Y	-	-	-	-
		Attica is a newly recommended fully loaded hybrid with full UK recommendation. It joins the recommended list as the highest yielding variety to combine stable high yields with the genetic security of TuYV and pod shatter resistance. Attica has a strong autumn growth habit offering growers a wide drilling window and offers a very good disease resistance package.	Ambassador remains one of the highest yielding varieties on the 2023/24 Recommended list and demonstrated this performance across all regions of the UK. Ambassador is a fully loaded hybrid with TuYV and Pod Shatter traits which have proven their value on farm across several years.	Aurelia is once again the most popular variety to be sold in the UK, built on the back of its on farm and trial performance. The 2022 harvest suited Aurelia with numerous on farm reports of 6t/ha + as well as coming 3rd in the AHDB 1-year results and topping NIAB trials. It has a robust disease resistance package its tried and tested performance offers superb consistency across regions and seasons.	LG Constructor CL is the first hybrid from Limagrain to combine Clearfield herbicide tolerance, pod shatter and TuYV resistance. LG Constructor CL has high yields compared to the older generations of CL varieties with yields that are approaching those of the mainstream varieties. It is a short variety and has the best stem stiffness rating out of the Clearfield sector. It has a strong disease package with 6s for both LLS and Phoma stem canker.	Acacia remains the UKs most popular open pollinated variety, for those who prefer not to grow hybrids it is a variety which offers high yields and consistency across seasons and regions. With key agronomic characteristics of strong autumn growth and good spring vigour, solid disease resistance and short, stiff straw, combined with a high oil content.	Annika is an open pollinated conventional variety. Well suited to the early drilling window, it has genetic resistance to TuYV, later maturity and excellent disease resistance.	Amarone is a conventional variety boasting the TuYV resistance trait that gained recommendation for the north region. It is a short stiff stemmed variety with an excellent disease resistance with 7 for light leaf spot and a 6 for phoma stem canker. The variety has strong autumn dynamic growth profile and strong spring vigour.	Aspire is an open pollinated variety with crucial TuYV resistance. Aspire is a short robust plant type with very good straw characteristics. A solid disease and TuYV resistance means Aspire fits the early drilling option perfectly with its slower speed of development.

All data from the AHDB Winter Oilseed Rape Recommended Lists 2023/24 or AHDB Winter Oilseed Rape Trials Harvest 2022.

R = Resistant. () = limited data. On the 1-9 scales, high figures indicate that a variety shows the character to a high degree (e.g. high resistance). Agronomic features marked with * are breeders perspective. Y = variety possesses trait



AMBASSADOR

BREEDERS REFERENCE: LE16/319
TRIAL STATUS: RECOMMENDED UK

TRIED AND TESTED VARIETY ON FARM, OFFERING HIGH YIELDS AND FANTASTIC VIGOUR.

FULLY LOADED HYBRID

KEY STRENGTHS

Very good autumn and spring vigour

Wide sowing window offers flexibility on farm

Fully loaded hybrid N-Flex, RLM7+, POSH, TuYV

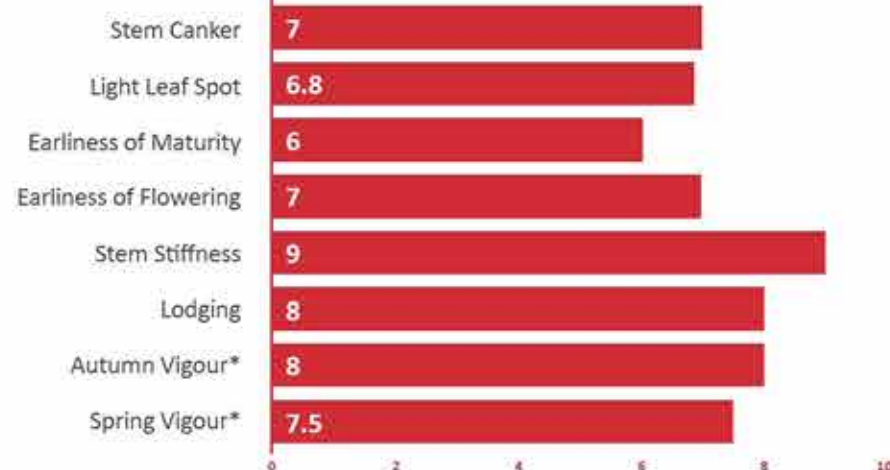
N-Flex offers yield security associated with sub-optimal Nitrogen

Robust hybrid with proven performance across seasons and regions, both in trial and on farm



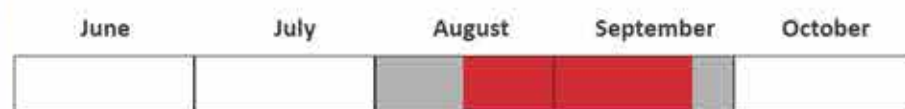
AGRONOMIC PROFILE

Agronomic Profile



Data from the AHDB Oilseed Rape Recommended List 2023/24. On the 1-9 scales, high figures indicate that a variety shows the character to a high degree (e.g. high resistance). [] = limited data. Agronomic features marked with * are breeders perspective.

SOWING WINDOW



Recommended sowing period
Potential sowing period depending on seasonal conditions



NOTES

AURELIA

BREEDERS REFERENCE: LE16/321 TRIAL STATUS: RECOMMENDED UK

FULLY LOADED HYBRID WITH PROVEN PERFORMANCE ACROSS ALL REGIONS, HIGH AUTUMN VIGOUR AND ROBUST DISEASE RESISTANCE.

FULLY LOADED HYBRID

KEY STRENGTHS

Exceptional autumn and spring vigour

Solid disease resistance

High yielding variety across all regions of the UK

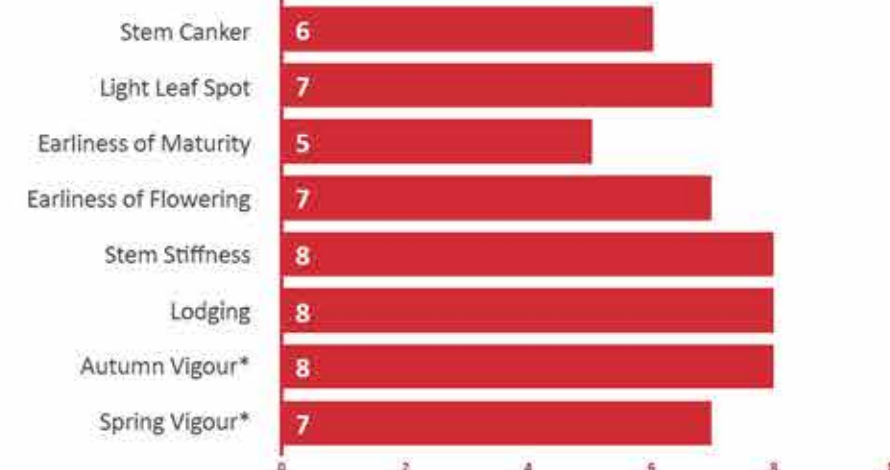
Fully loaded hybrid with RLM7, POSH, TuYV

Proven on farm and trial performance across a number of years



AGRONOMIC PROFILE

Agronomic Profile



Data from the AHDB Oilseed Rape Recommended List 2023/24. On the 1-9 scales, high figures indicate that a variety shows the character to a high degree (e.g. high resistance). [] = limited data. Agronomic features marked with * are breeders perspective.

SOWING WINDOW



Recommended sowing period
Potential sowing period depending on seasonal conditions



NOTES



ATTICA

BREEDERS REFERENCE: LE19/419
TRIAL STATUS: RECOMMENDED UK

ATTICA IS THE HIGHEST YIELDING VARIETY TO COMBINE STABLE HIGH YIELDS
WITH THE GENETIC SECURITY OF TUYV AND POD SHATTER RESISTANCE

FULLY LOADED HYBRID

KEY STRENGTHS

Highest yielding LG variety

Reliable performance across regions

Fully loaded hybrid with RLM7, POSH & TuYV

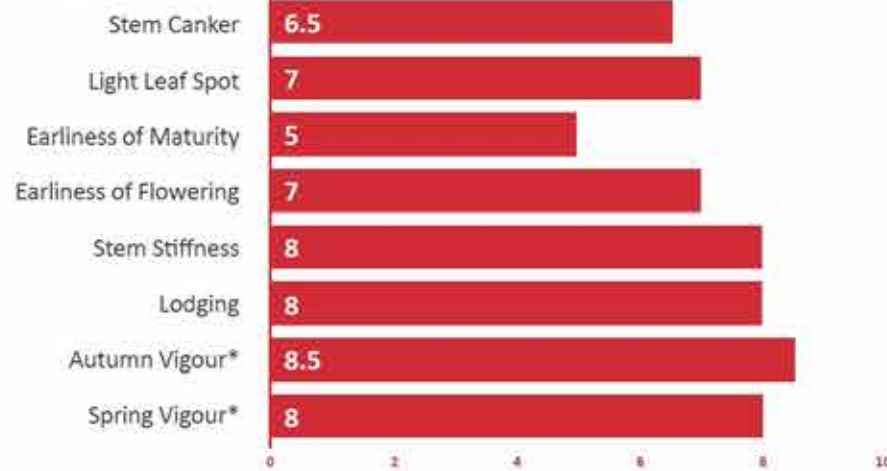
Excellent resistance to Phoma stem canker, light leaf spot & verticillium

Testing shows consistent high performance



AGRONOMIC PROFILE

Agronomic Profile



Data from the AHDB Oilseed Rape Recommended List 2023/24. On the 1-9 scales, high figures indicate that a variety shows the character to a high degree (e.g. high resistance). [] = limited data. Agronomic features marked with * are breeders perspective.

SOWING WINDOW



Recommended sowing period
Potential sowing period depending on seasonal conditions



NOTES

LG ANARION

BREEDERS REFERENCE: LE16/340 TRIAL STATUS: NATIONAL LISTED

FULLY LOADED CLUBROOT RESISTANT HYBRID WITH HIGH YIELD POTENTIAL
AND ROBUST DISEASE RESISTANCE

FULLY LOADED HYBRID

KEY STRENGTHS

High yielding fully loaded clubroot resistant variety

Short robust plant type with good standing

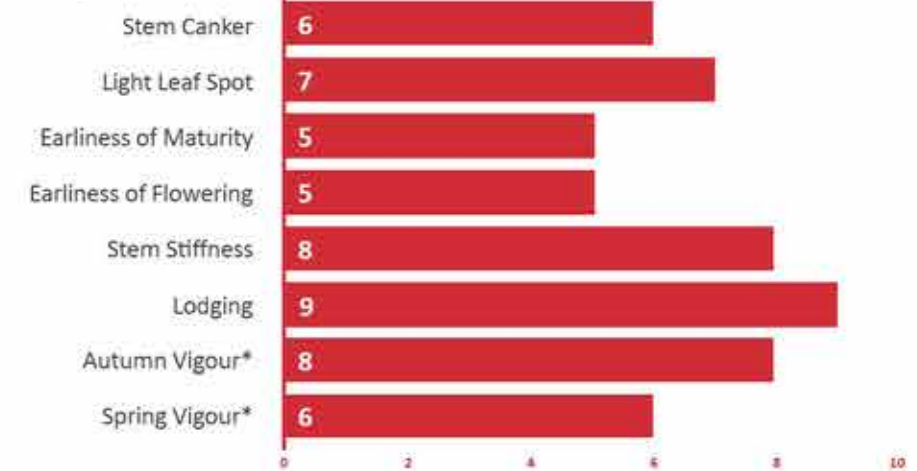
Very good disease resistance package with particularly good LLS resistance

Rapid autumn growth

Very good winter hardiness

AGRONOMIC PROFILE

Agronomic Profile



Data from the AHDB Oilseed Rape Recommended List 2023/24. On the 1-9 scales, high figures indicate that a variety shows the character to a high degree (e.g. high resistance). [] = limited data. Agronomic features marked with * are breeders perspective.

SOWING WINDOW



Recommended sowing period
Potential sowing period depending on seasonal conditions



NOTES



LG CONSTRUCTOR CL

BREEDERS REFERENCE: LE17/335
TRIAL STATUS: RECOMMENDED UK

A SHORT, STIFF STEM HYBRID VARIETY. TOLERANT TO CLEARFIELD HERBICIDES
AND WITH THE ADDED SECURITY OF TUYV AND POD SHATTER RESISTANCE

FULLY LOADED HYBRID

KEY STRENGTHS

Tolerant to clearfield herbicides

Useful where late or strong applications of ALS herbicides applied to previous crops

Shorter than traditional clearfield varieties with good standing

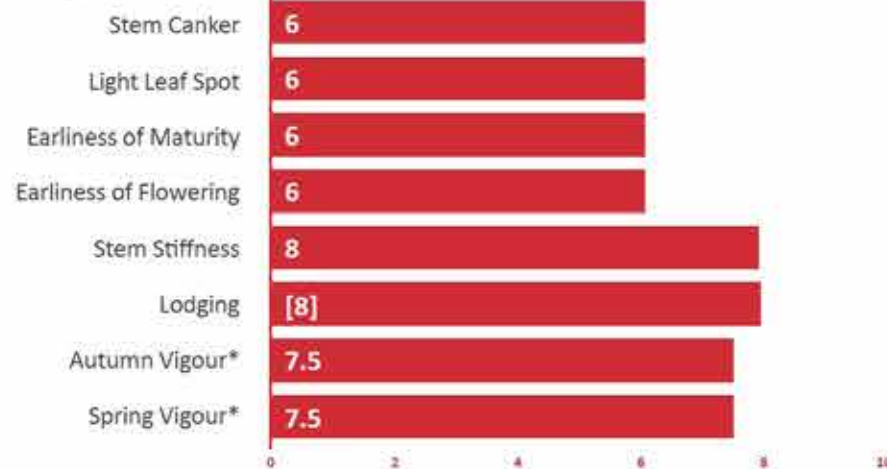
Solid disease resistance profile

Strong autumn growth habit

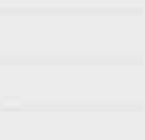
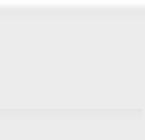


AGRONOMIC PROFILE

Agronomic Profile



Data from the AHDB Oilseed Rape Recommended List 2023/24. On the 1-9 scales, high figures indicate that a variety shows the character to a high degree (e.g. high resistance). [] = limited data. Agronomic features marked with * are breeders perspective.



SOWING WINDOW



Recommended sowing period
Potential sowing period depending on seasonal conditions



NOTES

ACACIA

BREEDERS REFERENCE: LE16/326 TRIAL STATUS: RECOMMENDED UK

ACACIA REMAINS THE MOST POPULAR UK OPEN POLLINATED VARIETY.
OFFERING HIGH YIELDS AND CONSISTENCY ACROSS SEASONS AND REGIONS

ANYTHING BUT CONVENTIONAL

KEY STRENGTHS

The biggest conventional variety in the market

Robust plant type with good straw strength

Wide sowing window

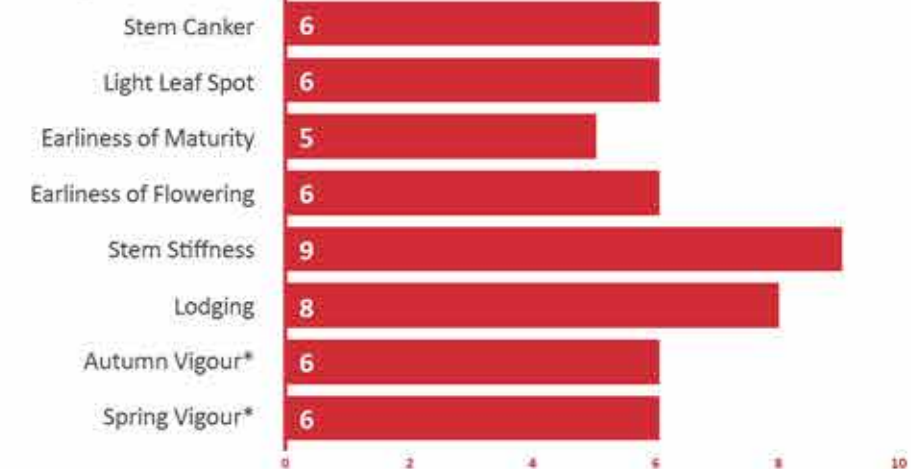
Solid disease resistance profile

Proven on farm and trial performance across a number of years

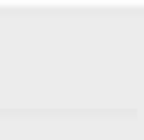


AGRONOMIC PROFILE

Agronomic Profile



Data from the AHDB Oilseed Rape Recommended List 2023/24. On the 1-9 scales, high figures indicate that a variety shows the character to a high degree (e.g. high resistance). [] = limited data. Agronomic features marked with * are breeders perspective.



SOWING WINDOW



Recommended sowing period
Potential sowing period depending on seasonal conditions

NOTES



ASPIRE

BREEDERS REFERENCE: LEL15/309 TRIAL STATUS: RECOMMENDED UK

A ROBUST CONVENTIONAL VARIETY WITH TUYV RESISTANCE & CONSISTENT PERFORMANCE IN BOTH TRIALS AND ON FARM

ANYTHING BUT CONVENTIONAL

KEY STRENGTHS

Conventional with TuYV

Robust and resilient plant type

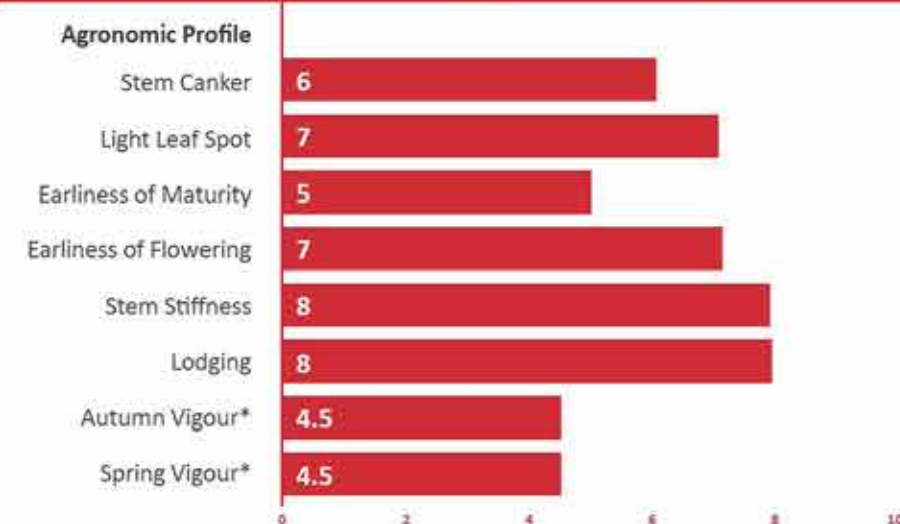
Ideally suited to early drilling

Slower speed of development

Consistent performance across all regions of the UK



AGRONOMIC PROFILE



Data from the AHDB Oilseed Rape Recommended List 2023/24. On the 1-9 scales, high figures indicate that a variety shows the character to a high degree (e.g. high resistance). [] = limited data. Agonomic features marked with * are breeders perspective.

SOWING WINDOW



Recommended sowing period

Potential sowing period depending on seasonal conditions

NOTES

AMARONE

BREEDERS REFERENCE: LEL18/416 TRIAL STATUS: RECOMMENDED UK NORTH REGION

A HIGH YIELDING TUYV RESISTANT CONVENTIONAL WITH STRONG AUTUMN AND SPRING VIGOUR AND EARLIER MATURITY

ANYTHING BUT CONVENTIONAL

KEY STRENGTHS

TuYV resistance

Very high yield potential

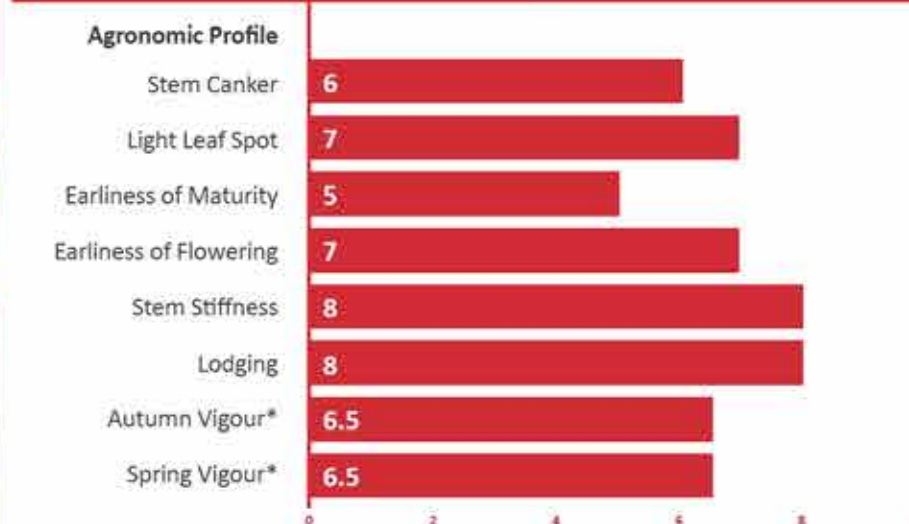
Good autumn and spring vigour

Shorter, compact plant type

Consistently high performance across regions



AGRONOMIC PROFILE



Data from the AHDB Oilseed Rape Recommended List 2023/24. On the 1-9 scales, high figures indicate that a variety shows the character to a high degree (e.g. high resistance). [] = limited data. Agonomic features marked with * are breeders perspective.

SOWING WINDOW



Recommended sowing period

Potential sowing period depending on seasonal conditions

NOTES



CONTACTS AND UK DEMONSTRATION SITES

For technical advice and to contact your local Seed Specialist:

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4



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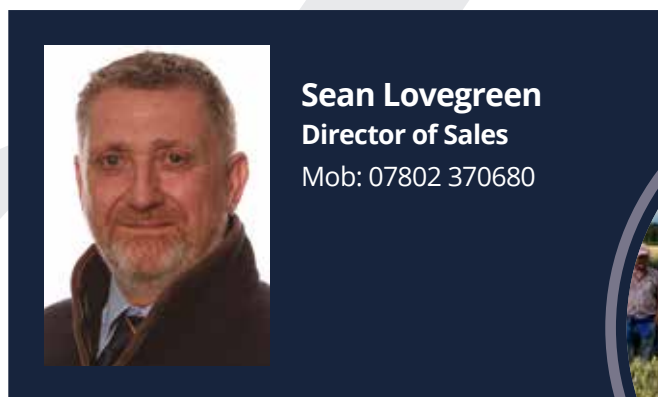


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14



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SUMMER CEREALS TRIAL DATES

LG OSR expertise on hand

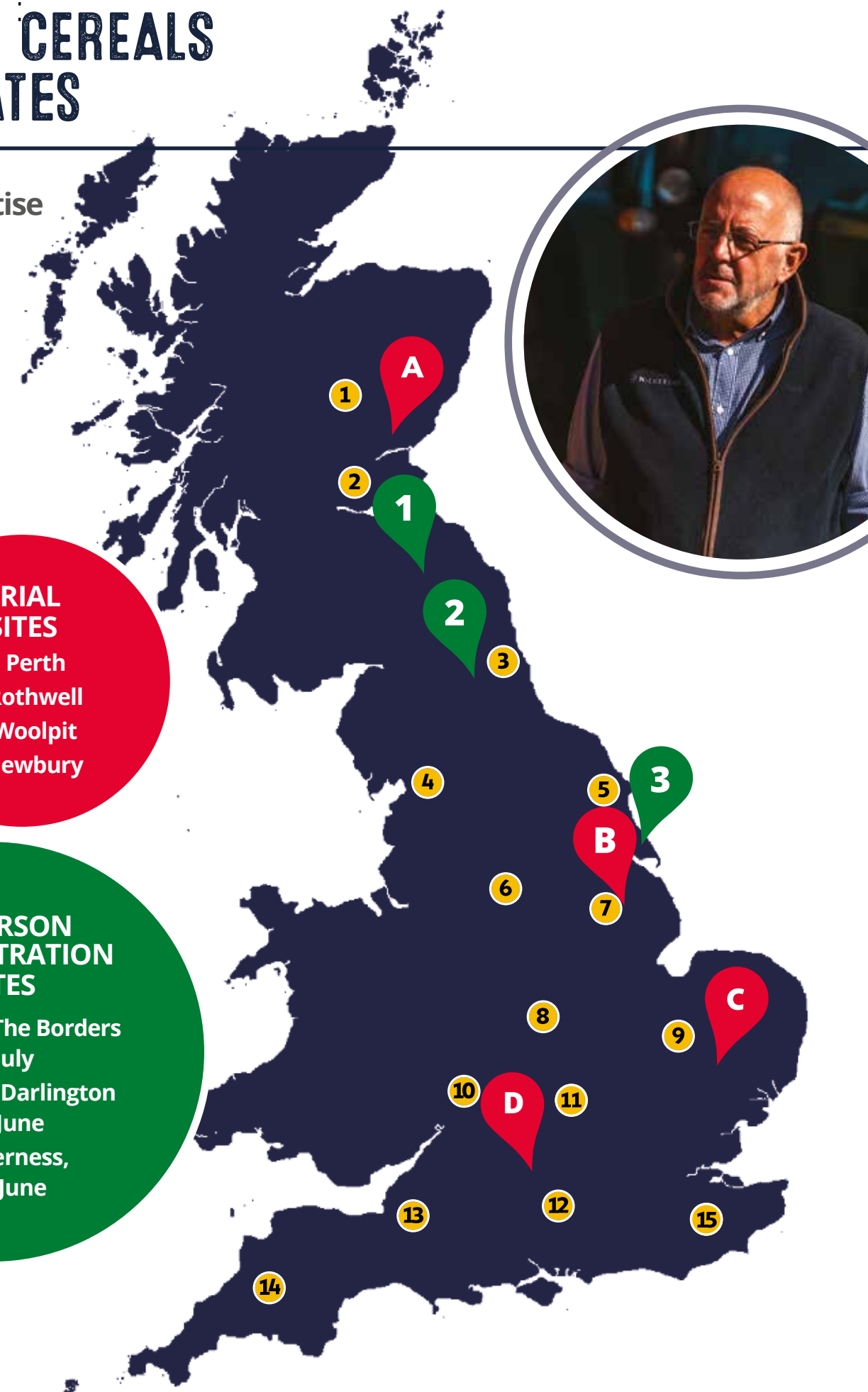


TRIAL SITES

- A Perth
- B Rothwell
- C Woolpit
- D Newbury

NICKERSON DEMONSTRATION DATES

1. Cornhill, The Borders
3rd July
2. Durham, Darlington
27th June
3. Holderness,
22nd June





NICKERSON

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