HUTCHINSONS

Crop Production Specialists

Seed & Varieties

INFORMATION BOOK 2023

Index

Message
from the Seed Team

"Having experienced extreme weather patterns and a pandemic in the last two years, just when we thought it safe to 'step back into the water', the Ukraine invasion and subsequent cataclysmic fallout has moved us all into further uncharted territory!"

That was the initial statement from last season! Extreme weather and the ongoing Ukraine conflict are still having an impact on our potential for the coming months after the driest August in many generations. It is possible but by no means certain that we may experience something more normal this year, but don't hold your breath!

The oilseed rape market did indeed increase to circa 412,000 hectares last autumn but looks likely to remain fairly static. There is still a chance that we will see a further gentle bounce in autumn 2023 (with a fair wind at drilling time) given the extended break some growers have now. Establishment will of course still be absolutely paramount and that conditions are appropriate.

The key OSR features should be Hybrid, TuYV resistance, Pod Shatter resistance, robust disease scores and vigour (all can be found within the hybrid portfolio on offer with our key offer of **LG Aviron** and **LG Academic** ticking the boxes). The offer for conventional varieties will also remain essential, with this market having decreased again last autumn but still very much key to many growers.

New genetics mean that BYDV tolerant hybrid barley is for the first time available commercially for autumn 2023 in the guise of **SY Harrier** and **SY Buzzard**. Circa 30% will continue to be the likely Hyvido market share. Of the conventional 2 row barleys then note should be taken of **LG Caravelle** which has yield to match the best Hyvido varieties and in the East out performs both Hyvido and conventional barley - its grain quality is excellent too.

As far as something new to consider in feed wheat, then note should be taken of **RGT Grouse** which offers interesting BYDV and OWBM genetics. Its yield is in the main pack of group 4 wheats. .

Crusoe and **RGT Illustrious** will be millers' preferred quality options in the wheat market with both reasonably tight in the market place. And whilst there are no outstanding feed wheat considerations on the back of a very successful introduction of KWS Dawsum and Champion last year, **LG Redwald** sets the new standard for yield but will need some considered management to utilise its significant potential. Most of the other new arrivals onto the list offer very little by way of advancement over the previous year. A candidate worth noting is **Bamford** which will potentially have an impact in the autumn of 2024.

We will aim to advise and update as the seasons unfold as to where the best opportunities lay. We very much look forward to welcoming you all to our summer events. These are highlighted on page (33).

t: 01526 832771
e: seedorders@hlhltd.co.uk
www.hlhltd.co.uk

LG Aviron and LG Academic

With a realistic view of the OSR market perhaps reaching 450,000ha in the autumn of 2023, given the appropriate growing conditions at time of drilling (last year they barely existed at all), then the need to find the ideal varieties that suit both region and soil types is key. For this purpose we are highlighting both a fully recommended variety and a candidate with huge potential for this year as well. They are LG Aviron and LG Academic.

With this universal ability to perform across the regions, coupled with RLM 7+ Phoma resistance, both have good light leaf spot coupled with TuYV which is now a key consideration and the addition of pod shatter resistance.

LG Academic can be the early drilled and mainstream option (but also very comfortable 1st half September) with **LG Aviron** a more suitable option for late August and September drilling (but with attention paid to a robust PGR programme due to the excellent autumn vigour, second to none), or indeed later if the soils remain warm and there is moisture to utilise.

(We would have no concern if drilled until mid-September) both varieties possess excellent autumn and spring vigour enabling good establishment and the ability to grow away post winter.

If OSR is a key part of your rotation, then Aviron and Academic should in turn be a key part of that crop portfolio.

AHDB RECOMMENDED

	LG Aviron	LG Academic
Variety type	Hybrid	Hybrid
Scope of recommendation	UK	UK
Gross output, yield adjusted for oil content (% TREATED CONTROL)		
United Kingdom (5.3 t/ha)	**105**	**106**
East/West region (5.2 t/ha)	**105**	**106**
North region (5.9 t/ha)	**103**	**106**
Seed yield (% treated control) (% TREATED CONTROL)		
United Kingdom (4.9 t/ha)	**106**	-
East/West region (4.8 t/ha)	**106**	-
North region (5.4 t/ha)	**105**	-
United Kingdom (5.4 t/ha)	-	-
United Kingdom (5.0 t/ha)	-	-
Agronomic features		
Resistance to lodging (1–9)	[8]	9
Stem stiffness (1–9)	7	8
Shortness of stem (1–9)	6	6
Plant height (cm)	150	151
Earliness of flowering (1–9)	8	6
Earliness of maturity (1–9)	6	6
Pod shatter	R	R
Disease resistance		
Light leaf spot (1–9)	8	7
Stem canker (1–9)	7	8
TuYV	R	R

Oilseed Rape

Variety Notes 2023

RECOMMENDED LIST CHART PAGES 44 - 45

LG ATTICA

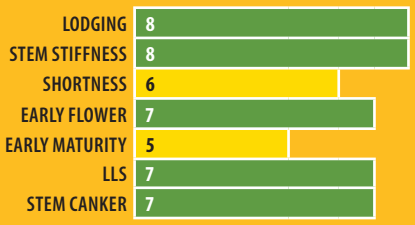
WINTER OILSEED RAPE

LIMAGRAIN

RESTORED HYBRID

Gross Output: 107 (UK) • Oil content: 45.3
TuYV resistant • Recommended for UK

- **NEW - restored hybrid variety, recommended for the UK for 2023**
- Pod Shatter resistance



- Highest gross output variety on the Recommended List with TuYV resistance.

HUTCHINSONS RECOMMENDED

NEW

LG AVIRON

WINTER OILSEED RAPE

LIMAGRAIN

RESTORED HYBRID

Gross Output: 105 (UK) • Oil content: 44.4
TuYV resistant • Recommended for UK

- **SEMI EXCLUSIVE to Hutchinsons**
- Added to list in 2021
- Best LLS of any recommended variety offering highest untreated yield on the Recommended List
- Exceptional autumn and spring vigour
- Suited for a main to late drilling window
- Fully loaded hybrid N-Flex, RLM7+, POSH, TuYV
- Consistent high yield performance across all regions. (Joint 3rd East/West and in the North)

HUTCHINSONS RECOMMENDED

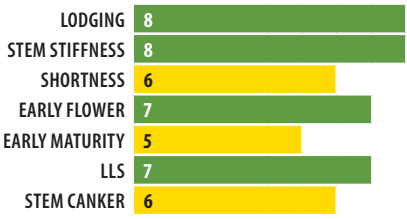
AURELIA

WINTER OILSEED RAPE

LIMAGRAIN

RESTORED HYBRID

Gross Output: 105 (UK) • Oil content: 44.9
TuYV resistant • Recommended for UK



- TuYV resistance coupled with Pod shatter
- Excellent disease resistance, so in essence a good all-round variety with excellent vigour
- Most widely drilled variety in autumn 2022.

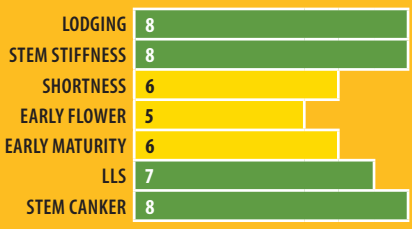
ACADEMIC
WINTER OILSEED RAPE

LIMAGRAIN

RESTORED HYBRID

Gross Output: 107 (UK) • 106 (North)
Oil content: 45.2 • Candidate for UK

- **NEW - 2023 UK candidate variety**
- Good autumn and spring vigour that looks to be potentially better than some of its contemporaries



- Both TuYV and pod shatter resistance.

HUTCHINSONS RECOMMENDED

NEW

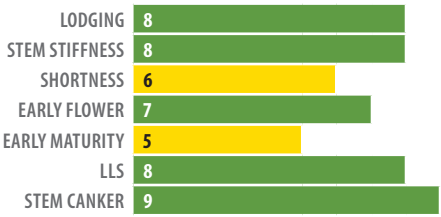
VEGAS

LSPB

RESTORED HYBRID

Gross Output: 105 • 106 (E/W)
Oil content: 45.3 • **UK VARIETY**
Recommended for UK

- **NEW - Restored hybrid recommended for the UK**
- Good resistance to light leaf spot and stem canker



- Excellent autumn vigour and has good resistant to lodging.
- No Pod Shatter or TuYV, but with exceptional LLS and Phoma resistance traits.

NEW

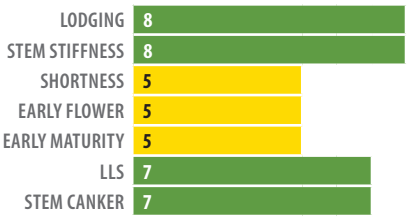
DK Expose

DEKALB

RESTORED HYBRID

Gross Output: 101 (UK) • Oil content: 44.8
Grown in RL trials but not added to 2023 list

- **SEMI EXCLUSIVE to Hutchinsons**
- Suitable for both the early and mainstream drilling window



- Excellent autumn vigour
- Good spring vigour
- TuYV resistant.

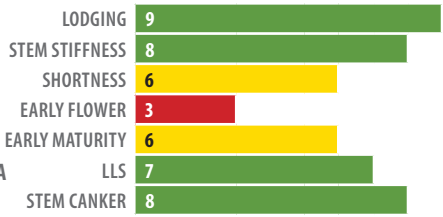
PINNACLE

Mike Pickford

CONVENTIONAL

Gross Output: 104 (UK) • Oil content: 44.3
Candidate variety autumn 2023 • BREEDERS' DATA

- **SEMI EXCLUSIVE to Hutchinsons**
- Suitable for main drilling window
- Good autumn vigour
- Good LLS (7)



- New conventional option with very good yields in East/West.

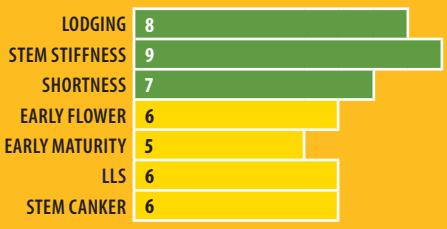
ACACIA
WINTER OILSEED RAPE

LIMAGRAIN

CONVENTIONAL

Gross Output: 101 (UK) • Oil content: 45.0
Recommended for UK

- Added to the RL in 2020 - a later maturing variety, with the second highest treated gross output of any recommended conventional variety currently available
- Recommended for all regions
- Very stiff stemmed, with a high resistance to lodging and excellent agronomics
- Excellent autumn and spring vigour for a conventional type.



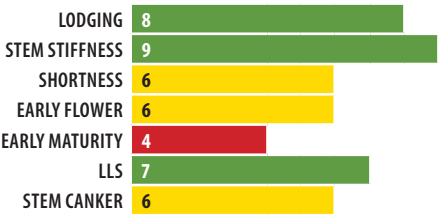
ANNIKA
WINTER OILSEED RAPE

LIMAGRAIN

CONVENTIONAL

Gross Output: 101 (UK) • Oil content: 45.0
Recommended for UK

- First added to the Recommended List in 2022
- Performs well in all regions
- Good autumn vigour and better than some of its contemporaries
- TuYV resistance trait in a conventional variety



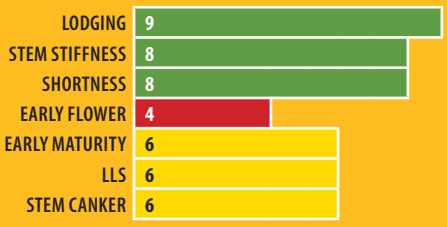
CAMPUS

KWS

CONVENTIONAL

Gross Output: 101 • Oil content: 45.4
UK VARIETY

- No longer on AHDB list but can still be seen as the standout control on the candidate list
- Remarkably consistent
- Good disease resistance
- 2nd in terms of area to Acacia
- Short stiff strawed
- Widely grown now for 9 years and still a very capable conventional variety
- Growers' favourite, yet to let anyone down with better ability to withstand verticillium wilt.



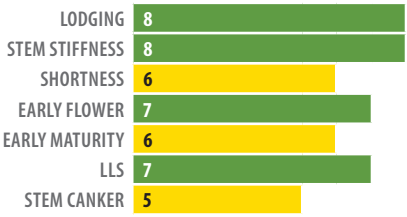
GRANOS

KWS

RESTORED HYBRID

Gross Output: 104 • Oil content: 45.5
Grown in RL trials but not added to 2023 list

- Decent verticillium resistance
- TuYV resistant



- First KWS Hybrid to be considered.

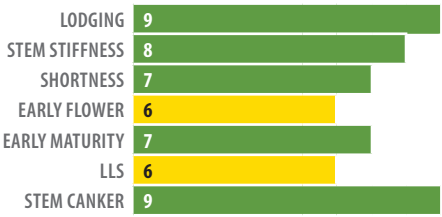
PICASSO

LSPB

RESTORED HYBRID

Gross Output: 107 (E/W) • Oil content: 44.8
Common catalogue • BREEDERS' DATA

- Common catalogue variety with excellent Phoma resistance
- Good autumn vigour



- Good standing ability
- Good resistance to lodging with medium maturity
- TuYV resistance

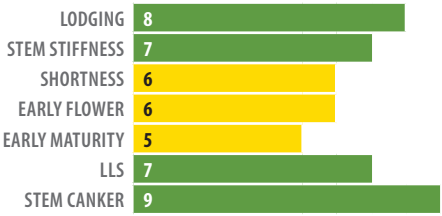
TENNYSON

ELSOMS

RESTORED HYBRID

Gross Output: 100 (E/W) • Oil content: 44.8
Recommended for East/West

- **Added to the Recommended List for 2022**
- TuYV resistant



- Excellent stem canker
- Performs consistently across the regions.

PT312

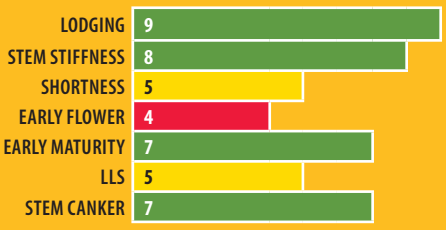
PIONEER® PROTECTOR SCLEROTINIA

PROTECTOR SCLEROTINIA

PIONEER® VARIETY

Gross Output: 104 UK • Oil content: 47.6
UK variety • BREEDERS' DATA

- **From the Protector®Sclerotinia hybrid portfolio launched in Europe**
- TuYV resistance
- Multi genetic Phoma resistance



- Unique in the current market place
- Exceptionally high oil content
- Not on AHDB list but a step on from PT303.

HUTCHINSONS RECOMMENDED

MATRIX CL

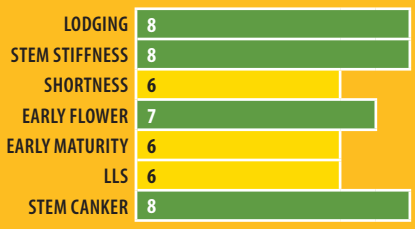
Clearfield® Hybrid Oilseed Rape

DSV

CLEARFIELD® HYBRID

Gross Output: 98 (UK) • Oil content: 45.6
Recommended for UK • TuYV resistant

- Clearfield® hybrid with TuYV resistance first added to 2022 Recommended List
- High oil content
- First quad trait stacked variety



- Highest yielding UK recommended Clearfield variety
- Pod shatter resistance.

HUTCHINSONS RECOMMENDED

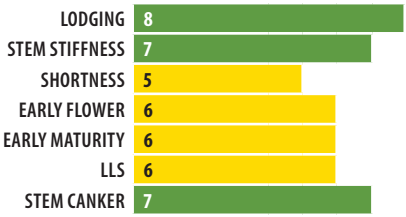
DK Imprint CL

DEKALB

CLEARFIELD® VARIETY

Gross Output: 92 • Oil content: 43.6
UK Variety • TuYV resistant

- A European Clearfield® hybrid variety



- Step on from DK Impressario.

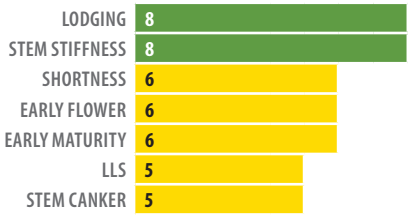
PT279 CL

PIONEER

CLEARFIELD® VARIETY

Gross Output: 92 (E/W) • Oil content: 44.5
Recommended for East/West

- A European Clearfield® hybrid variety.



CROME

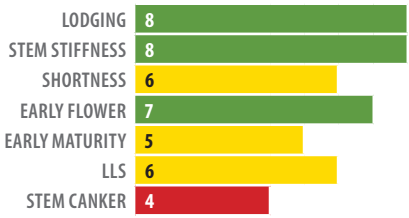
LSPB

RESTORED HYBRID

CLUBROOT RESISTANT

Gross Output: 97 (UK) • Oil content: 45.7
Recommended for Clubroot infected land only (UK)

- Clubroot resistance



- Suitable for sites where the Clubroot pathogen is a limitation to varieties without resistance.

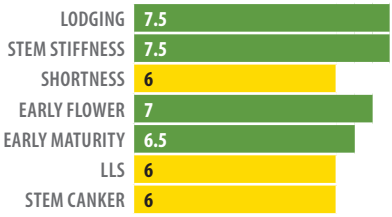
LG SCORPION

WINTER OILSEED RAPE

LIMAGRAIN

RESTORED HYBRID

CLUBROOT RESISTANT



Gross Output: 102.5 • Oil content: 45.8 • BREEDER'S DATA

- For clubroot situations in East/West regions
- Good yields in East/West
- **Should only be grown in areas where Clubroot is a threat!**
- Good light leaf spot scores, but weaker on Phoma and has good standing power
- TuYV resistant
- Breeder's figures for comparison.

CROOZER

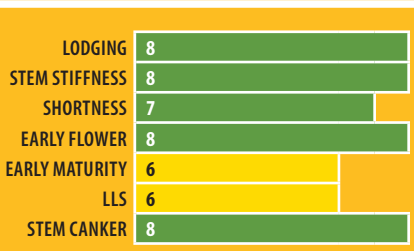
LSPB

RESTORED HYBRID

CLUBROOT RESISTANT

for Clubroot infected land only (E/W)

Gross Output: 96 • Oil content: 44.5 • 2022 RL Data



- Recommended for clubroot situations in East/West regions in 2022/23
- Suitable for sites where the Clubroot pathogen is a limitation to varieties without resistance
- Very good Phoma resistance for the clubroot sector.

HUTCHINSONS RECOMMENDED

t: 01526 832771

e: seedorders@hlhltd.co.uk

www.hlhltd.co.uk

Wheat

Variety Notes 2023

RECOMMENDED LIST CHART PAGES 46 - 47

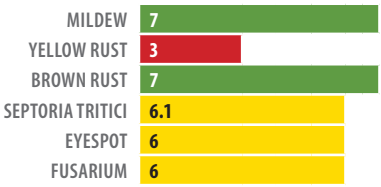
KWS ZYATT

KWS

GROUP 1 HARD

UK 99 • EAST 98 • WEST 99 • NORTH 98

Parentage: Hereford x Quartz



- Group 1 variety with high yields, milling quality characteristics and a now average agronomic package
- Starting to be challenged significantly by yellow rust
- Now well-liked by multiple end users, careful N management required to ensure full protein specification
- Good eyespot rating
- UKp bread export potential.

NOTES: Performs very well as a 2nd wheat. Relatively short and a good stander.

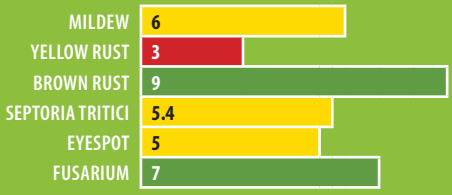
RGT SKYFALL

RAGT SEEDS Grow to expect the best

G1 WINTER WHEAT

RAGT

GROUP 1 HARD



UK 97 • EAST 97 • WEST 97 • NORTH 96 • **Parentage: C4148 X Hurricane**

- High yielding, awned Group 1 variety
- Relativity short and a good stander, better drilled towards the end September due to its rapid speed of development in the spring
- It is an early maturing variety
- High Fusarium rating makes it especially suited to be grown after maize. Yellow rust now a major concern and needs monitoring closely
- Has Pch1 eyespot resistant gene, good 2nd wheat, performs well on light soils
- **The only quality wheat to have OWBM resistance, giving it a definite advantage over its counterparts**
- Higher N applications needed to achieve full protein specification
- Good Hagbergs (although has a tendency to sprout, so priority must be given to it at harvest), it also has a good specific weight
- Most flexible drilling dates currently available.

NOTES: Grown specifically for milling and flexibility in drilling date. Starting to be challenged annually by Yellow Rust.

HUTCHINSONS RECOMMENDED

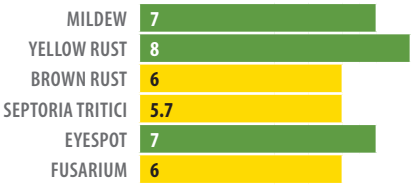
RAGT SEEDS | Grow to expect the best

RGT ILLUSTRIOUS

G4 WINTER WHEAT

RAGT

GROUP 1 HARD



UK 96 • EAST 95 • WEST 97 • NORTH 95 • Parentage: Qplus x Battalion

- Short and stiff strawed with high Hagberg and with a specific weight of 78.2kg/hl
- Excellent milling quality and likely to find more demand this autumn as concerns grow for alternatives
- Highest untreated yield of the group 1.

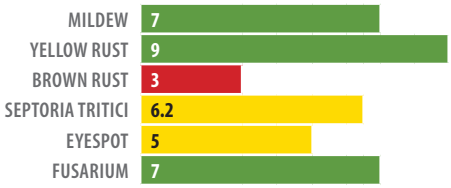
NOTES: Useful group 1 option for 2023

LG CRUSOE

WINTER WHEAT

LIMAGRAIN

GROUP 1 HARD



UK 96 • EAST 96 • WEST 97 • NORTH 94 • Parentage: Cordiale x Gulliver

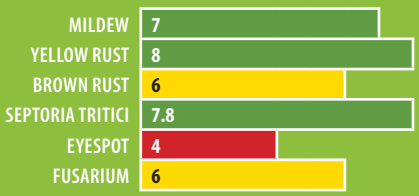
- Good agronomics apart from a growing susceptibility to brown rust and eyespot, average Septoria score
- An established, consistent milling variety becoming very popular with end users for its specific quality attributes
- Best converter of Nitrogen to Protein currently available
- Meets the specifications for UKp bread wheat for export, good specific weight and Hagbergs
- Still a very well-respected variety by the millers and maintains a niche market share.

KWS

KWS EXTASE

KWS

GROUP 2 HARD



UK 102 • EAST 102 • WEST 102 • NORTH 100

Parentage: Boisseau x Solheio

- Group 2 added to the recommended list in 2019
- Still the highest untreated yield on the RL and high treated yields in the West
- Very good yellow rust rating with very good septoria resistance
- Has done particularly well relative to others on the light soils
- Better suited to mid drilling slot (relatively tall but good stander)
- Attracting good milling premiums in current marketplace.

HUTCHINSON'S RECOMMENDED

NOTES: Second highest Septoria Tritici resistance rating on the recommended list at 7.8.

KWS PALLADIUM

KWS

GROUP 2 HARD

UK 100 • EAST 99 • WEST 101 • NORTH 99

Parentage: KWS Zyatt x KWS Trinity

- Added to RL in 2022 – a short and stiff strawed variety
- One of the highest untreated UK yields on the RL
- Good overall disease package.
- Has done well as a first or second wheat
- Meets the specifications for bread making but not export
- Newly recommended and worth consideration in this sector.

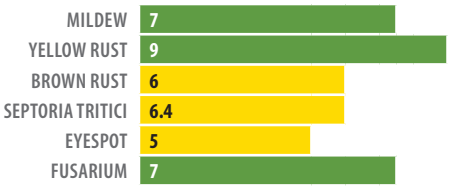
ULTIMATUM

KWS

GROUP 2 HARD

UK 101 • EAST 101 • WEST 102 • NORTH 103

Parentage: KWS Zyatt x Costello



- **NEW - Group 2 variety added to the Recommended List for 2023/24**
- Moderately strawed with high resistance to yellow rust
- Possibly better suited to an earlier drilling slot
- Excellent Fusarium resistance so a variety that will perhaps fit in a maize rotation
- Limited data would suggest it has UKs export potential.

NEW

MAYFLOWER

ELSOMS

GROUP 2 HARD

UK 97 • EAST 97 • WEST 98 • NORTH 96

Parentage: Ascott x Arma

- Group 2 variety with good all-round disease resistance
- UK bread making and export markets
- Excellent resistance to Septoria and Yellow Rust
- Limited yield potential.

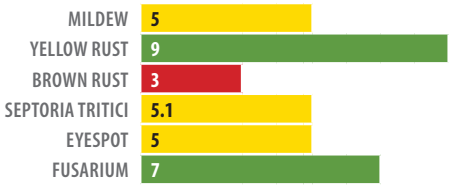
KWS GUIUM

KWS

GROUP 3 SOFT

UK 102 • EAST 102 • WEST 100 • NORTH 101

Parentage: KWS Rowan x Temple



- New in 2022
- Highest yielding soft group 3
- Good grain quality and makes biscuit and has distilling potential
- Brown rust will also need watching
- Attention would be required for Septoria given the lower score for this disease
- Very robust Fusarium resistance.

Notes: Excellent yield in all regions.

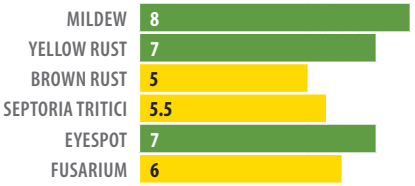
RGT WILKINSON

RAGT SEEDS — Grow to expect the best

G4 WINTER WHEAT

RAGT

GROUP 3 SOFT



UK 101 • EAST 102 • WEST 101 • NORTH (100) • Parentage: (RGT Pembroke x Evolution) **x Dickens**

- **NEW - Added to the Recommended List for 2023/24**
- Short stiff straw
- Good eyespot resistance
- Suitable for export and distilling.

NOTES: Good quality group 3 with good all-round disease resistance. Bushel weight towards the lower end of the ideal.

NEW

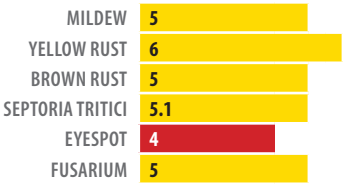
KWS FIREFLY

KWS

GROUP 3 SOFT

UK 100 • EAST 100 • WEST 99 • NORTH 99

Parentage: (Cougar x KWS Rowan)



- Group 3 soft variety producing high treated yields in the East
- Disease package challenging with Septoria dropping but with resistance to OWBM
- Short, stiff-strawed variety
- UKs export potential and biscuit making
- Rated as poor for distilling.

NOTES: Liked by millers and exporters alike.

t: 01526 832771
e: seedorders@hlhltd.co.uk
www.hlhltd.co.uk

LG ASTRONOMER
WINTER WHEAT

LIMAGRAIN

GROUP 3 SOFT

UK 99 • EAST 99 • WEST 99 • NORTH 97

Parentage: (Cougar x Leeds) x Britannia

- **Added to the Recommended List in 2021**

MILDEW	4
YELLOW RUST	9
BROWN RUST	8
SEPTORIA TRITICI	6.2
EYESPOT	5
FUSARIUM	6

NOTES: Excellent bushel weight and the second best Septoria resistance within the group 3 sector.
Strong agronomic package with only Mildew a weakness.
Suitable for biscuit making and distilling home end markets.
Very good standing ability with a 9 when treated with PGR.

HUTCHINSONS RECOMMENDED

RAGT SEEDS | *Grow to expect the best*

LG REDWALD
G4 WINTER WHEAT

RAGT

GROUP 4 SOFT

UK 107 • EAST 107 • WEST 109 • NORTH (103) • Parentage: LG Sundance x Generation

MILDEW	6
YELLOW RUST	7
BROWN RUST	6
SEPTORIA TRITICI	6.7
EYESPOT	6
FUSARIUM	6

- **NEW - for 2023/24**
- Will require robust PGR programme to realise full potential
- Performs well in all regions but especially in the East and West
- Suitable for distilling
- Slightly lower bushel weight so optimise site choice to negate the challenge accordingly
- No obvious disease weaknesses without any outstanding scores either.

NOTES: New to the soft group 4 list, highest yielding variety for autumn 2023
A horse for a course with careful management required.

NEW

LG SKYSCRAPER
WINTER WHEAT

LIMAGRAIN

GROUP 4 SOFT

UK 103 • EAST 103 • WEST 103 • NORTH 102

Parentage: (Cassius x NAWW29) x KWS Santiago

- A very high yielding Group 4 soft variety first added to the 2019 Recommended List
- A relatively tall variety, but with acceptable straw strength nonetheless. Good PGR management and later drilling will assist with any minor concerns
- Weaker on Septoria, but above average score for yellow rust and with OWBM resistance

MILDEW	7
YELLOW RUST	7
BROWN RUST	5
SEPTORIA TRITICI	4.9
EYESPOT	6
FUSARIUM	6

- Very consistent yield performance (Season v Regional).

NOTES: One of highest yielding varieties available in any sector in autumn 2022. Pedigree (Cassius x NAWW29) x KWS Santiago. Soft milling feed variety with excellent grain quality. "Good" distilling quality (+ve) in last two years.

HUTCHINSONS RECOMMENDED

RAGT SEEDS | Grow to expect the best

RGT BAIRSTOW

G4 WINTER WHEAT

RAGT

GROUP 4 SOFT

MILDEW	6
YELLOW RUST	8
BROWN RUST	6
SEPTORIA TRITICI	6.0
EYESPOT	4
FUSARIUM	6

UK 103 • EAST 103 • WEST 103 • NORTH 103 • Parentage: (Revelation x Santiago) x Cougar

- First added to the RL for 2021/22
- Good standing ability
- Performs well in all regions
- Suitable for distilling
- PGR programme will be needed for twin lodging 6's
- Preferred to RGT Stokes for OWBM resistance

NOTES: Group 4 without offering anything outstanding other than being a suitable option for the North and its distilling market.

KWS

ZEALUM

KWS

GROUP 4 SOFT

MILDEW	7
YELLOW RUST	9
BROWN RUST	5
SEPTORIA TRITICI	5.8
EYESPOT	6
FUSARIUM	7

UK 103 • EAST 103 • WEST 103 • NORTH (102)

Parentage: KWS Basset x Reflection

- **NEW - Group 4 feed soft wheat variety - added to the 2023/24 Recommended List**
- Consistent performer across all regions
- Solid disease resistance and OWBM resistant and excellent yellow rust
- Good grain quality and straw strength is very good with a PGR.

NEW

CHAMPION

Winter Wheat

DSV

GROUP 4 HARD

MILDEW	7
YELLOW RUST	8
BROWN RUST	5
SEPTORIA TRITICI	8.1
EYESPOT	5
FUSARIUM	6

UK 106 • EAST 107 • WEST 106 • NORTH 102

Parentage: DSV20122 x Reflection

- Very high yielding hard group 4 recommended in 2022
- Has performed well in first and second wheat situations on light or heavy soils
- Very high yielding in the East
- Very good in the West with accomplished Septoria resistance
- A weaker strawed variety that will reach maximum potential with a robust PGR programme
- OWBM resistant.

HUTCHINSONS RECOMMENDED

NOTES: Excellent potential but care needed on lighter soils.

KWS DAWSUM

KWS

GROUP 4 HARD

UK 104 • EAST 103 • WEST 105 • NORTH 105

Parentage: KWS Kerrin x Costello

- Very yielding feed variety added to the Recommended List in 2022
- Produced consistent high yields
- Good standing ability with strong twin lodging 7's
- High yield potential in all regions
- Very good Hagberg and specific weight
- Stiff strawed and performs particularly well on heavy soils.

NOTES: A very safe looking wheat in the same vein as Costello.

SY Insitor

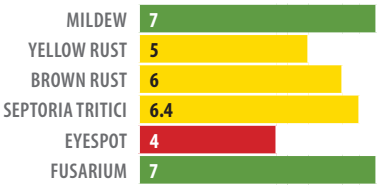
Winter wheat

SYNGENTA

GROUP 4 HARD

UK 104 • EAST 104 • WEST 105 • NORTH 105

Parentage: (Hereford x Oakley) x Hereford



- A variety with high yields
- Has performed in all regions especially the North
- Very early maturing variety with reasonable disease resistance.
- It has weaker eyespot rating
- Good Hagberg and excellent bushel weight, providing confidence in grain quality
- Yellow rust needs monitoring.

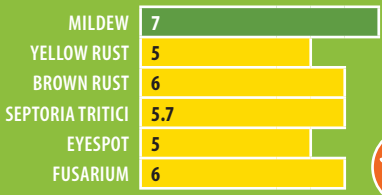
Gleam

Winter wheat

SYNGENTA

GROUP 4 HARD

UK 103 • EAST 103 • WEST 104 • NORTH 103 • Parentage: Hereford x KWS Kielder



- A very consistent performer across the regions
- Robust agronomics and high untreated yields will offer easier management in most situations
- Performs well on all soil types, in either first or second wheat situations
- It is a short and stiffer strawed variety
- OWBM resistant
- Good grain quality and early to mature.

NOTES: Particularly flexible wheat, 1st or 2nd, early or late drilled, good grain characteristics, has started to be affected by yellow rust due to the Hereford in its parentage.

LG TYPHOON
WINTER WHEAT

LIMAGRAIN

GROUP 4 HARD

UK 101 • EAST 101 • WEST 100 • NORTH 101

Parentage: LG Garrus x LGW88

- Added to the RL in 2022
- Good standing ability
- Performs consistently across all regions
- No disease weaknesses

- Good Septoria resistance
- OWBM resistant.

NOTES: A hard group 4, without offering anything outstanding in yield but a safe disease profile.

KWS CRANIUM

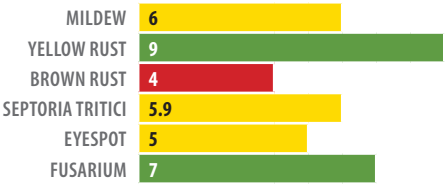
KWS

GROUP 4 HARD

UK 102 • EAST 103 • WEST 101 • NORTH 102

Parentage: KWS Crispin x KWS Kielder

- Added to the Recommended List in 2021.



NOTES: Looks to be a genuine alternative to others within the KWS portfolio and should solve some of the potential issues that Kinetic (poor yellow rust) and Kerrin (moderate grain quality) experience.

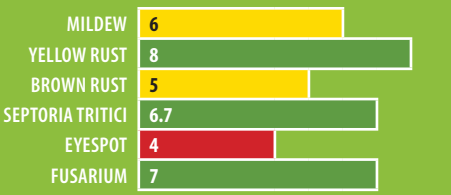
Graham
Winter wheat

SYNGENTA

GROUP 4 HARD

UK 102 • EAST 101 • WEST 105 • NORTH 102

Parentage: Premio x Expert



- A variety with high untreated yields
- Has performed best in the West - less suitable North of the borders
- Very early maturing variety with good all-round disease resistance and good Septoria Tritici resistance, although only weakness being a poor Eyespot rating
- Suitable for early drilling in first wheat situations
- Good resistance to sprouting
- Good Hagberg and bushel weight, providing confidence in grain quality.

NOTES: Good for Septoria with little breakdown to date making it a good geographical fit for the South West and West, whilst not undermining its national ability as a clean variety. Looks to be a suitable early drilling option.

OXFORD

Winter Wheat

DSV

GROUP 4 HARD

UK 104 • EAST 104 • WEST 105 • NORTH (100)

Parentage: DSV20122 x Reflection

MILDEW	6
YELLOW RUST	9
BROWN RUST	6
SEPTORIA TRITICI	6.4
EYESPOT	5
FUSARIUM	6

- **NEW - Group 4 hard feed wheat variety - added to the 2023/24 Recommended List**
- This variety has produced consistent treated UK yields
- Good 1st wheat, potentially a second wheat too
- Only average resistance to lodging, although has done relatively better from later drilling
- Excellent yellow rust and a capable performer elsewhere across the disease profile
- OWBM resistance
- From the same breeder as Champion and probably not quite as good an option.

NOTES: New for 2023.

NEW

RAGT SEEDS | *Grow to expect the best*

RGT GROUSE

G4 WINTER WHEAT

RAGT

Parentage: – coded PD lines

BYDV Resistance Trait • BREEDERS' DATA

MILDEW	7
YELLOW RUST	5
BROWN RUST	5
SEPTORIA TRITICI	5.5
EYESPOT	5
FUSARIUM	6

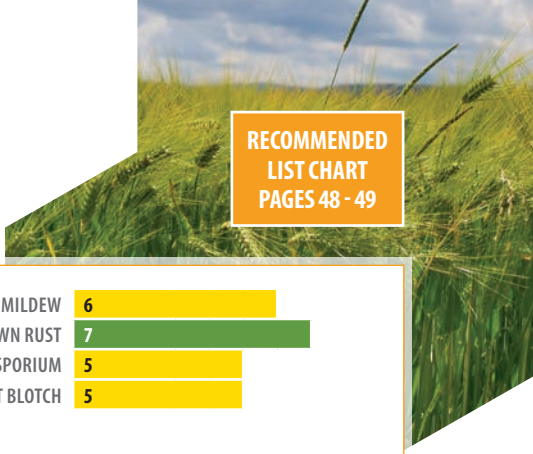
- **BYDV resistance** and by definition a useful management tool
- Weaker yellow rust score advocates tighter crop management particularly in the East
- Acceptable grain quality without being outstanding
- Suitable for drilling from early September onwards.

HUTCHINSONS RECOMMENDED

NOTES: Only BYDV and OWBM resistant variety available for autumn 2023.

Winter Barley

Variety Notes 2023



RECOMMENDED LIST CHART PAGES 48 - 49

Electrum

Winter barley

SYNGENTA

TWO ROW MALTING

MILDEW	6
BROWN RUST	7
RHYNCHOSPORIUM	5
NET BLOTCH	5

UK 96 • EAST 96 • WEST 96 • NORTH 96 • BaYMV Resistant • Parentage: SY208-56 x SY208-59

- 2 row malting variety, has full approval from MBC for brewing
- Performed well in all regions
- Has produced high specific weights
- Suited to heavier soils and has high brown rust rating
- Has been seen to be relatively early maturing
- Resistant to BaYMV strains.

NOTES: Malting variety suited to the East and West regions with full MBC approval.

Craft

Winter barley

SYNGENTA

TWO ROW MALTING

MILDEW	6
BROWN RUST	7
RHYNCHOSPORIUM	6
NET BLOTCH	5

UK 94 • EAST 94 • WEST 94 • NORTH 94 • BaYMV Resistant • Parentage: SY 208-56 x SY Venture

- Malting variety, has full approval from the MBC for brewing with good agronomic characteristics
- Stiff-strawed and has performed better on light soils
- Resistant to common strains of BaYMV.

NOTES: Electrum has the nudge on yield, but consumers will have the final say on quality.

KWS TARDIS

KWS

TWO ROW FEED

MILDEW	5
BROWN RUST	6
RHYNCHOSPORIUM	6
NET BLOTCH	5

UK 103 • EAST 105 • WEST 102 • NORTH 102 • BaYMV Resistant • Parentage: 11-12 x KWS Orwell

HUTCHINSONS RECOMMENDED

- High yielding 2 row barley
- Stiff strawed
- Very good resistance to Rhynchosporium
- Most widely grown in 2022 with 35% market share.

Notes: Sold exceptionally early last year but up against stiffer competition in 2023, but likely to remain market leader.

BOLTON

Elsoms ACKERMANN BARLEY

ELSOMS ACKERMANN

TWO ROW FEED

MILDEW	6
BROWN RUST	6
RHYNCHOSPORIUM	5
NET BLOTCH	5

UK 103 • EAST 105 • WEST 101 • NORTH 102 • BaYMV Resistant • Parentage: KWS Cassia x KWS California

- A high yielding 2 row feed barley variety for the UK
- Performs well across all regions but best in the East
- Excellent grain quality with low screenings
- Consistent performer since listing in 2021.

HUTCHINSONS RECOMMENDED

LG CARAVELLE

WINTER BARLEY

LIMAGRAIN

TWO ROW FEED

MILDEW	7
BROWN RUST	
RHYNCHOSPORIUM	6
NET BLOTCH	5

UK 106 • EAST 109 • WEST 105 • NORTH 104

BaYMV Resistant • New recommendation 2023 • Parentage: LGBU11-5493-B x KWS Moselle

HUTCHINSONS RECOMMENDED

- **NEW - The highest yielding 2 row feed barley variety for the UK**
- Very high bushel weight 71.8
- Reasonable standing ability (7)
- Rhynchosporium at the lower levels and will need management.

NOTES: Performs well on all soil types and across the regions. Exceptional in the East where it is the highest yielding of any variety on the AHDB list.

NEW

LIGHTNING

Elsoms ACKERMANN BARLEY

ELSOMS ACKERMANN

TWO ROW FEED

MILDEW	7
BROWN RUST	8
RHYNCHOSPORIUM	7
NET BLOTCH	5

UK 103 • EAST 104 • WEST 102 • NORTH 103 • BaYMV Resistant

- Added to the RL in 2022 – a 2 row feed variety
- Very high untreated yield
- Taller strawed
- Highest yields in the East where it performs very solidly. Good in the North and West too.

NOTES: Looks to offer excellent management opportunity, coupled with good yields across the UK.

t: 01526 832771

e: seedorders@hlhltd.co.uk

www.hlhltd.co.uk

LG CAPITOL
WINTER BARLEY

LIMAGRAIN

TWO ROW FEED

MILDEW	6
BROWN RUST	7
RHYNCHOSPORIUM	6
NET BLOTCH	5

UK 107 • BaYMV Resistant • RL Candidate for 2023 • Parentage: LGBU11-5493-B x KWS Moselle

- **NEW - A very high-yielding 2 row feed variety for the UK**
- **SEMI EXCLUSIVE to Hutchinsons**
- This variety has performed well in all regions to date
- Bushel weight 70.5
- Has shown no weaknesses in disease profile to date
- Resistant to common strains of BaYMV
- Good brackling resistance.

HUTCHINSONS RECOMMENDED

NOTES: New candidate for 2023, quite accomplished, and maybe the one to beat this year.

NEW

Surge
Winter barley

SYNGENTA

TWO ROW FEED

MILDEW	5
BROWN RUST	8
RHYNCHOSPORIUM	7
NET BLOTCH	5

UK 101 • EAST 102 • WEST 100 • NORTH 99 • BaYMV Resistant • Parentage: SJ053088 x Flight Moselle

- Consistent yielding 2 row feed variety
- Good untreated yield and high resistance to rusts and Rhynchosporium – BaYMV resistant
- Very high specific weight and low screenings
- Performed better on heavier soils
- Becoming outclassed but still well liked.

SY Thunderbolt
Hyvido®

SYNGENTA

SIX ROW FEED

MILDEW	7
BROWN RUST	6
RHYNCHOSPORIUM	6
NET BLOTCH	6

UK 106 • East 106 • West 108 • North 105 • BaYMV Resistant • Parentage: F1 hybrid

- **Highest yielding** 6-row hybrid feed variety on the 2023/24 Recommended List
- Resistant to common strains of BaYMV
- Good bushel weight
- Taller variety with weaker straw. Will respond to a robust PGR programme.

HUTCHINSONS RECOMMENDED

NOTES: Excellent variety from Syngenta with sound grain quality and very high yield. Taller than some, so attention to preferred PGR programme will assist in achieving fullest potential.

SY Kingsbarn Hyvido®

SYNGENTA

SIX ROW FEED

MILDEW	7
BROWN RUST	5
RHYNCHOSPORIUM	6
NET BLOTCH	5

UK 106 • East 106 • West 106 • North 107 • BaYMV Resistant • Parentage: F1 Hybrid

- High yielding 6 row hybrid feed variety
- Most widely grown variety within the hybrid sector
- Good overall disease resistance
- High specific weight and good resistance to lodging
- Resistant to common strains of BaYMV.

SY Nephin Hyvido®

SYNGENTA

SIX ROW FEED

MILDEW	6
BROWN RUST	
RHYNCHOSPORIUM	8
NET BLOTCH	5

UK 105 • East 106 • West (103) • North (105) • BaYMV Resistant • Parentage: F1 Hybrid

- **NEW - A high yielding 6 row hybrid feed variety added to 2023/24 Recommended List**
- Resistant to common strains of BaYMV
- Consistent across all regions of the UK but slightly weaker in the West
- Best resistance to Rhynchosporium.

NEW

SY Buzzard Hyvido®

SYNGENTA

SIX ROW FEED

MILDEW	6
BROWN RUST	5
RHYNCHOSPORIUM	7
NET BLOTCH	6

UK 104 • East 106 • West 106 • North 105 • BYDV Tolerant • 2023 Candidate

- **NEW candidate for 2023**
- High yielding Hybrid Barley
- Lower untreated yields but responds well to fungicides
- BYDV Tolerant – new trait for management of high pressure aphid levels
- Performs well on heavier soils but with robust PGR programme.

SY Harrier Hyvido®

SYNGENTA

SIX ROW FEED

Data cannot be published as variety has not completed National List testing.

UK 105 • East 106 • West 105 • North 104 • BYDV Tolerant • 2023 Candidate data

Parentage: F1 Hybrid

- **NEW candidate for 2023**
- High yielding Hybrid Barley
- Disease data unavailable at time of writing
- BYDV Tolerant – new trait for management of high-pressure aphid levels
- Performs well on all soils, but with robust PGR programme on especially heavy soil.

KWS FEERIS

MILDEW	4
BROWN RUST	6
RHYNCHOSPORIUM	6
NET BLOTCH	6

KWS

SIX ROW FEED

UK 103 • EAST 103 • WEST 103 • NORTH 100 • BaYMV Resistant • BYDV Tolerant

Parentage: Amistar x KWS Kosmos

- Added to list in 2021/22 a high yielding conventional 6 row feed barley variety for the UK
- Highest yielding barley with BYDV tolerance currently available in the marketplace
- Stiff strawed
- Good resistance to Rhynchosporium.

Notes: Recommended and able to offer added protection against BYDV with little detriment to yield and quality. Should be considered as a management tool for barley growers this autumn.
Stewardship on BYDV needed to reach full potential.

SENSATION

Winter Barley

MILDEW	6
YELLOW RUST	8
BROWN RUST	8
RHYNCHOSPORIUM	6
NET BLOTCH	5

DSV

6 ROW CONVENTIONAL BARLEY

BYDV Tolerance • BREEDER'S DATA

- Introduced in 2021 to the UK
- Tolerant to BYDV
- Strong disease resistance
- Very competitive with black-grass
- Not on the AHDB list but will find support given lack of seed treatment for BYDV.

NOTES: Tolerance to BYDV with early maturity.

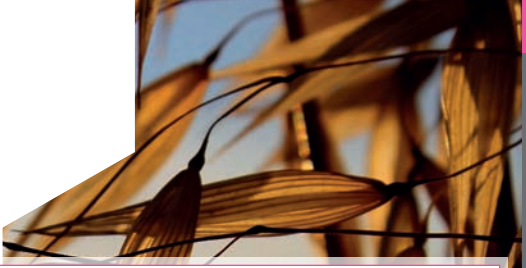
Malting Barley Committee Approved List of Winter Varieties **Harvest 2023**

Full Approval: **FLAGON • CRAFT • ELECTRUM**

t: 01526 832771
e: seedorders@hlhltd.co.uk
www.hlhltd.co.uk

Winter Oat

Variety Notes 2023



RAGT SEEDS | Grow to expect the best

RGT SOUTHWARK

WINTER OATS

RESISTANCE TO LODGING	5
MILDEW	4
CROWN RUST	8

RAGT - UK 104

- RGT Southwark is the highest yielding winter oat on the 2023/24 Recommended List
- It combines high yield and quality, notably specific weight
- RGT Southwark has high resistance to the common strains of crown rust, but is susceptible to mildew
- It is relatively early maturing, with a low lodging resistance.

Cromwell WINTER OAT

RESISTANCE TO LODGING	8
MILDEW	3
CROWN RUST	5

Senova - UK 102

- **NEW - added to the 2023 Recommended List, a winter husked oat with great potential for the milling markets**
- Cromwell is a Mascani cross but produces significantly higher yields
- Combines all of the attributes desired by the millers – high yields, excellent kernel content and specific weight, high hullability and low screening losses
- It is a short, stiff strawed variety – data suggests it is susceptible to mildew.

NEW

Dalguise WINTER OAT

RESISTANCE TO LODGING	4
MILDEW	4
CROWN RUST	4

SENOVA - UK 101

- Dalguise is a very consistent variety with relatively low screenings and a high specific weight
- It has relatively long straw with low lodging resistance
- Needs robust management due to poor agronomic characteristics.

t: 01526 832771

e: seedorders@hlhltd.co.uk

www.hlhltd.co.uk

Gerald
WINTER OAT

RESISTANCE TO LODGING	6
MILDEW	4
CROWN RUST	4

SENOVA - UK 96

- Gerald's consistent yields and good field characteristics ensure it remains a popular variety choice for growers, although it is now being superseded
- Top quality milling variety – data suggests it is susceptible to mildew
- A late maturing variety, with a low kernel content and moderate straw strength.

Mascani
WINTER OAT

RESISTANCE TO LODGING	6
MILDEW	6
CROWN RUST	5

SENOVA - UK 95

- Mascani remains by far the most popular variety with oat millers and growers
- It is less susceptible to mildew than most recommended varieties and has moderate resistance to crown rust, although a race exists to which it could be susceptible
- Mascani delivers moderate yields, but this is compensated by its combination of high kernel content and specific weight.

t: 01526 832771
e: seedorders@hlhltd.co.uk
www.hlhltd.co.uk

Hybrid Rye

Variety Notes 2023

DESCRIPTIVE LIST CHART PAGE 43

t: 01526 832771
e: seedorders@hlhltd.co.uk
www.hlhltd.co.uk

Key advantages:

- An economic alternative to second wheat
- Reduced fertiliser, herbicide and fungicide requirements
- High straw yield
- Grows well on marginal land
- Good drought tolerance
- Very competitive against grass weeds due to high tillering capacity.

Key 2023 varieties:

POSEIDON
HYBRID RYE

POSEIDON as well as high yields and good grain quality, its fast plant development in the autumn and spring produces a high tillering, dense crop. Best for black-grass suppression in our recent trial.

HELLTOP
HYBRID RYE

HELLTOP despite being an older variety, it offers good weed suppression, a powerful rooting system and bold grain size with high dry matter yield.

SU PERFORMER
HYBRID RYE

SU PERFORMER a consistent high yielding variety with good resistance to lodging. A mainstay variety in the Elsoms portfolio.

SU ARVID
HYBRID RYE

SU ARVID a high yielding whole crop variety with an outstanding disease package and high tolerance to drought conditions.

SU ELROND
HYBRID RYE

SU ELROND is a dual-purpose variety with improved genetics that delivers high dry matter yields and consistently high methane content out of whole crop harvest.

KWS **SERAFINO**

KWS Serafino offers a leading harvest index (grains/ear), with excellent Hagberg (HFN) and sample quality. A good option for pig finishing or sow rations. Food industry uses include flour, breakfast cereals and distilling or malt.

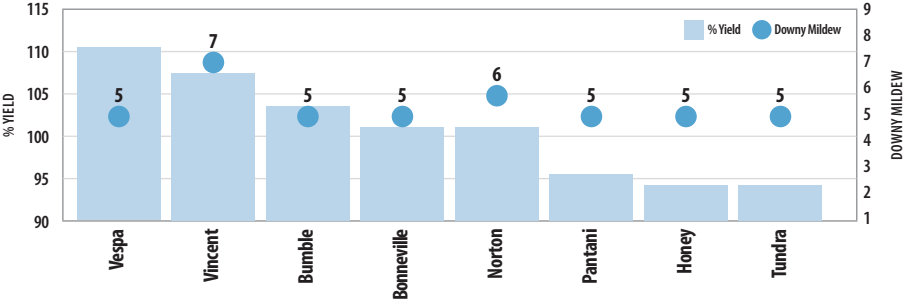
KWS **TAYO**

KWS Tayo has high grain and straw yields plus low growing costs. Also offers robust stem stiffness compared to older hybrids and good Brown Rust resistance. Good for pig finishing.

Winter Bean Variety Notes 2023

DESCRIPTIVE LIST CHART PAGE 51

DL WINTER BEANS 2023



Data courtesy of PGRO, Descriptive List data 2023. *Note yield differences of less than 8% are not statistically different. The control yield for 4- and 5-year varieties 4.5t/ha*

Introduction

Beans will continue to remain key within the rotation for many growers in providing a useful break crop to cereals. They also offer additional flexibility in an autumn sowing window beyond the peak work requirements of oilseed rape and cereals. The crop initially was taking acreage from oilseed rape because of issues attributed to cabbage stem flea beetle, and more recently because of high nitrogen prices.

The later sowing affords a greater opportunity to maximize the effects from the use of non- selective herbicides prior to drilling and better residual activity of pre-emergence herbicides applied to moist soils, thereby improving the efficacy of grass weed control within the rotation.

Varieties General

Winter Bean choice has remained relatively unchanged from last year, the only exceptions being the introduction of the variety **Bonneville** from Senova. It has above average yields (102), and the second highest protein content on the list behind Vincent.

Variety listings in order of yield as they appear on the Descriptive List.

Vespa (Senova) Yld **111** First listed 2018, gained full recommendation in 2020, whilst also moving to the top of the yield rankings. It produces high yields with excellent standing ability, albeit slightly inferior (115cm) to Tundra (105cms) in shortness of straw and ripening.

Vincent (Senova) Yld **108** First listed in 2021 and presently one of the highest yielding varieties on the list. Like Vespa in height (medium) and good standing ability. The highest rating on the list for Downy Mildew. Exceptionally large seed with the highest protein content on the list, could be popular with the export and feed market.

Bumble (Senova) Yld **104** First listed in 2016 as another high yielder, similar agronomics to Vespa, in standing (albeit slightly taller), maturity and disease resistance attributes. It has similar seed size, although a marginally lower grain protein.

Bonneville (Senova) Yld **102** New this year 2023, it is the only new addition to the 2023 list. Its yield is above average at 102% and it has the second highest protein content on the list. With bold seed and high protein content it will open it up for the feed or export market.

Norton (Senova) **102** First listed in 2021, it has many good agronomic aspects including earliest maturing varieties on par with Honey although now behind Pantani (the new market standard for earliness). The second highest variety of the descriptive list for Downy Mildew. Its short straw, good standing ability and early maturity make its suitable for fertile or wetter parts of the country. It has large seed, with potential for feed or export.

Pantani (LSPB) Yld **93** **NEW LAST YEAR 2022**, it has good agronomic characteristics, the earliest maturing variety on the list (just ahead of Honey and Norton) with the shortest straw (90 cm) and standing ability to match. Like Honey and Norton, its maturity date makes it well suited to the North, and its standing ability to fertile sites.

Honey (Senova) Yld **94** First listed in 2012, it has good agronomic characteristics, one of the earliest maturing varieties with the short straw (yet now 15cm taller than Pantani) and standing ability on par with Vespa, bold seed and good protein content. It makes it well suited to fertile sites and the North due to its early maturity. The only downside, its yield is dropping away from the other contenders.

Tundra (Limagrain) Yld **94** First listed in 2014, yields are now dropping away from the new contenders although still a popular variety. It is a moderately short straw variety, with good standing ability and an earlier maturity.

Seed Rate Charts

Oil Seed Rape seeds/m²	30	40	50	60	70	80	90	100
TGW								
4	1.2	1.6	2	2.4	2.8	3.2	3.6	4
4.5	1.35	1.8	2.25	2.7	3.15	3.6	4.05	4.5
5	1.5	2	2.5	3	3.5	4	4.5	5
5.5	1.65	2.2	2.75	3.3	3.85	4.4	4.95	5.5
6	1.8	2.4	3	3.6	4.2	4.8	5.4	6
6.5	1.95	2.6	3.25	3.9	4.55	5.2	5.85	6.5

Cereals seeds/m²	250	275	300	325	350	375	400	425
TGW								
45	113	124	135	147	158	169	180	192
46	115	127	138	150	161	173	184	196
47	118	130	141	153	165	177	188	200
48	120	132	144	156	168	180	192	204
49	123	135	147	160	172	184	196	209
50	125	138	150	163	175	188	200	213
51	128	141	153	166	179	192	204	217
52	130	143	156	169	182	195	208	221

Winter Beans seeds/m²	20	22	24	26	28
TGW					
500	100	110	120	130	140
525	105	116	126	137	148
550	110	121	132	143	154
575	115	127	138	150	162
600	120	132	144	156	168
625	125	138	150	163	175
650	130	143	156	169	182
675	135	149	162	176	189
700	140	154	168	182	196

Spring Beans seeds/m²	44	46	48	50	52	54	56
TGW							
500	220	230	240	250	260	270	280
525	231	242	252	263	274	284	295
550	242	253	264	275	286	297	308
575	253	265	276	288	300	311	323
600	264	277	288	301	313	325	337
625	275	288	300	313	326	338	351
650	286	300	312	326	339	352	365

Spring Peas seeds/m²	74	76	78	80	82	84	86	88
TGW								
250	186	191	196	200	205	210	215	220
260	194	199	204	208	213	218	224	234
270	201	206	211	216	221	227	232	238
280	208	213	218	224	230	235	241	247
290	216	221	226	232	238	244	250	256
300	223	228	233	240	246	252	258	265

Units: kg/ha *- The seed rates in kg/ha highlighted assume 100% establishment.*
To amend these figures to reflect your own expectations of establishment (to include germination and field losses), multiply the relevant figure (from the seed chart below) by 100 and divide by your **expected establishment percentage**.

t: 01526 832771
e: seedorders@hlhltd.co.uk
www.hlhltd.co.uk

Helix & Hutchinsons

Regional Trial Centres

Helix Technology Farms

What can I learn by visiting a **Helix Farm** this summer?

***Jennie Watson** (Hutchinsons Development Manager)*

2023 It's all about soil

As pressure on sustainable food production has come to the forefront of political policy, soil and soil health is a key area of focus across UK farm businesses, and this is reflected in much of the work being carried out across Hutchinsons Helix farms.

This summer's Helix open days will focus on sharing the learnings from individual farms on how they manage and are working to improve their soils - all with their individual set of challenges based on farming system, geographical and weather patterns - and how technology and trials from Helix is helping them to do this.

"Improving soil is not always about trying to physically change the properties of soil, which often cannot be changed. However, by understanding the soil in any area of a field on an individual farm, agronomic management can work with, rather than against the soil, to improve resilience and productivity," says Jennie Watson, development manager for Hutchinsons.

"Helix growers have found wide ranging benefits from improving their understanding of the soil on their own farm, adjusting applications to variable soil types to improve consistency, focusing on the rooting zone to improve nutrient use efficiency and reducing cultivations to increase organic matter and improve water holding capacity, to name but a few."

Sharing these learnings is the core theme of the 2023 Helix Open Days.

Each open day will have three soil stations based around:

1. Cutting through the noise:

There is a lot of 'noise' in the market regarding soil.

- What does Healthy Soil actually mean? Hutchinsons has a unique position to be able to cut through that with our soils expertise, Gold Soil test measurements and TerraMap.

2. Interpretation of Soil:

As with all data generated as part of Helix, the value comes from the interpretation and soil is no different.

- Interpreting the data is crucial to supporting bespoke on-farm decisions, whether it is the volatiles produced by the PES technology, microbiology detailed in the PLFA test or layers of detail provided from TerraMap.

3. So what?

Supporting on-farm decisions that can make a difference

- Nutrient choice, timing and variable applications
- Rotation and the inclusion of cover and break crops for N optimisation
- Reviewing field areas to improve, remove or farm to its potential
- SFI options
- Water and land management

In addition to the soils focus there will also be an opportunity to discuss:

- Variety blends
- Looking to the future regarding potential CP challenges
- Opportunity to tailor to the farm/region, end market, growers attitude to risk.

The Hutchinsons Helix project allows growers to trial and adapt new technology developments and innovations on a whole farm or field scale basis with the over-riding premise of supporting on-farm decision making.

Since the launch of the Helix national farm back in 2019, hosted courtesy of Andrew and William Pitts of JW Pitts & Sons located at Mears Ashby and Whiston in Northamptonshire, the success of this approach is reflected in the increasing number of farmers wishing to become Helix farmers; there are now 9 Helix farms spread across the UK reaching from Cornwall to Fife.

How Helix has helped growers take a new look at soils

Using technology to bridge the gap

George Stephenson of Upper Aynho Grounds

Bringing together the technology from TerraMap and the Gold Soil Test results helps growers make decisions on how to manage both soils and nutrients.

Having access to the TerraMap Gold Soil Test has meant a change in cultivation approach for farmers George and Jerry Stephenson of R.H. Stephenson & Son of Upper Aynho Grounds, in Oxfordshire.

"The farm was TerraMapped and we had the Gold Soil test done about three years ago, says George. We were surprised to find that despite regular applications, levels of available phosphorus were very low."

"It turns out that we were locking up P through our cultivations; effectively we were over-cultivating our light, brashy soils – resulting in phosphorus lock up from high pH Soil."

"This gave us the impetus to reduce cultivations, which we had been thinking about doing anyway, and we now only cultivate the top inch of the soil very lightly and have improved phosphorus levels."

"However, it's about being flexible and understanding what is going on in the soil. If we need to, we will still deep cultivate with a low disturbance subsoiler."

"Another challenge of our light land is that it can often drought out and this corresponded with low organic matter measurements. To address this, we have been growing cover crops which are grazed off and using products like sewage sludge where possible."

"We no longer use bagged P&K but rely on the manure to provide this, costing us less whilst being more sustainable."

Helix Northumberland farm battles to conserve soil moisture

Thomas Todd of Barelees Farm, Cornhill on Tweed takes a little but often approach with fertiliser on his drought-prone farm, which lies within a rain shadow on the east of the Cheviot Hills.

His big issue is drought with an average 610-711mm of rain a year and this influences his Nitrogen strategy.

Mr Todd plans to make savings on fertiliser costs using learnings from Helix trials on his and other Helix farms.

Thomas Todd *of Barelees Farm*

Rob Jewers *(Hutchinsons Crop Nutrition Specialist)*

The first is methylated urea applied as a foliar N and Rob Jewers, crop nutrition specialist, explains that it is applied to wheat in April, when there is plenty of leaf to take it up.

"Helix farm trials last year in Suffolk and North Yorkshire showed no detrimental impact on yield despite cutting back total Nitrogen rates by about 30kg/ha."

In addition, Mr Todd has used it for three years in Northumberland and has not seen a decrease in yield despite making a 30kg/ha saving on liquid N.

However, Mr Jewers highlights that when cutting back further (70kg/ha) with two applications (mid-March and April), they did see a drop off in yield. "You need that base and if you go too far, you will see an impact."

His advice is that farmers can replace 30kg or more later in the season with one or two applications, but crops need 120-180kg/ha of base fertiliser before using methylated urea products.

He also trialled the bacterial product Utrisha N in cereals and one tramline width in oilseed rape and successfully replaced 30kg/ha.

Last year, he used 180kg/ha on his first wheat, 210kg/ha on second wheat, while spring barley received 140-150kg/ha and 180kg/ha for oilseed rape.

This year he hopes to fine tune N levels and is trialling the alternative N sources again.

Potato demonstration day

With the loss of AHDB potatoes, the UK potato industry will have to do its own R&D going forward.

It is with this in mind that Hutchinsons has set up a potato demonstration and trial site in conjunction with **Worths Farms** and **Simon Faulkner** of **SDF Agriculture Ltd**.

The aim of the site will be to look at issues that not only affect potato growers on the Lincolnshire silts, but are common to growers across a range of soil types.

As with the very successful Fen Trials site run in conjunction with **A.L. Lee** at Ely, the new site will look at new varieties and their tolerance and resistance to PCN and what to use for weed control in the same varieties.

Thursday 13th July

Alternative nutritional strategies will also be investigated and their effect on the Nitrogen Use Efficiency (NUE) and carbon footprint of potatoes.

Another topic under investigation will be wireworm, long regarded as a pest of potatoes grown in grass rotations, but now an increasing problem across all rotations. UK experts on the topic will be on hand to answer all of your questions and we look forward to seeing you on the day.

HUTCHINSONS
Crop Production Specialists

Regional Trial Centres 2023

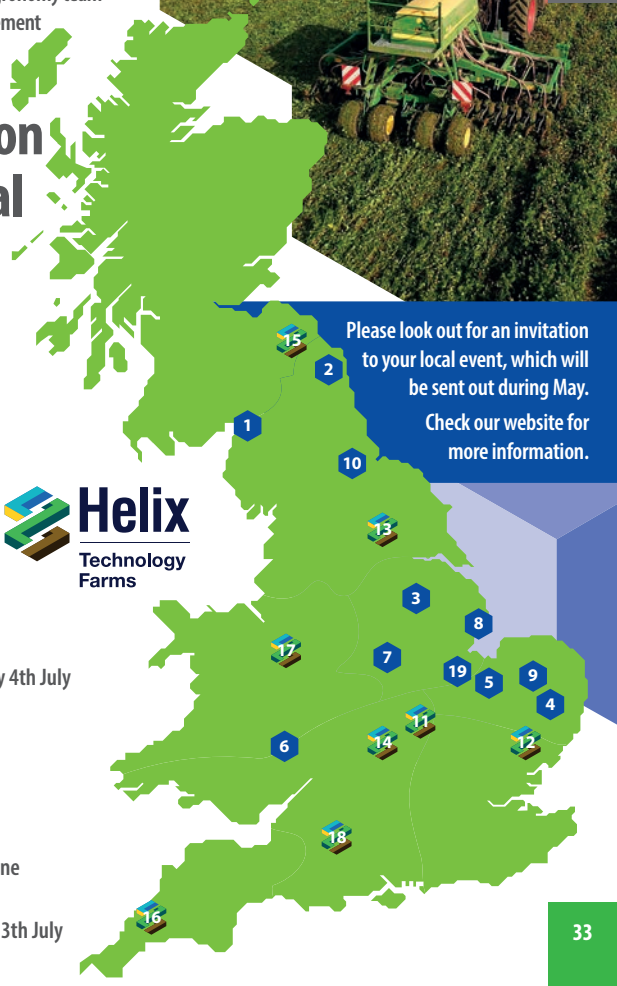
'Building Blocks of Yield'

With eleven Regional Trial Centre (RTC) open days this summer, visitors can expect to see how their Hutchinsons agronomy team are testing new varieties, technologies, or management practices in their local conditions - all of which are fundamental to fulfilling yield potential on farm.

Helix Demonstration Farms and Regional Trial Centres

Locations & Events Summer 2023

1 **Carlisle** – Tuesday 13th June
2 **Alnwick** – Wednesday 14th June
3 **Grayingham** – Wednesday 5th July
4 **Harleston** – Thursday 6th July
5 **Stowbridge** – Friday 30th June
6 **Sutton St Nicholas** – Wednesday 5th July
7 **Castle Donington** – Tuesday 27th June
8 **Old Leake** – Monday 19th June
9 **Great Fransham** - Thursday 15th June
10 **DKB** – Tuesday 27th June
11 **Helix National Technology Farm** – Tuesday 4th July
12 **Helix East Anglia** – Wednesday 14th June
13 **Helix Yorkshire** – Thursday 15th June
14 **Helix Oxfordshire** – Wednesday 21st June
15 **Helix Northumberland** – Monday 3rd July
16 **Helix Cornwall** – 14th/15th June evenings
17 **Helix Agroecology Farm** – Tuesday 20th June
18 **Helix Wiltshire** – Thursday 22nd June
19 **Potato Demonstration Event** – Thursday 13th July



Please look out for an invitation to your local event, which will be sent out during May.

Check our website for more information.

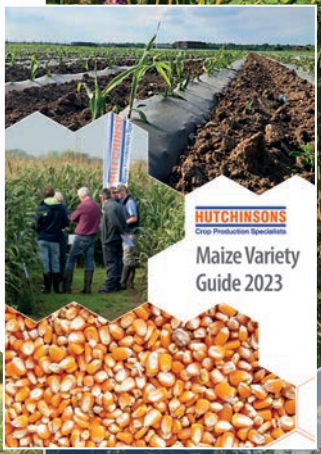
Helix Technology Farms

Our specialist seed mixes

Scan the QR code for more information on our specialist seed mixes:

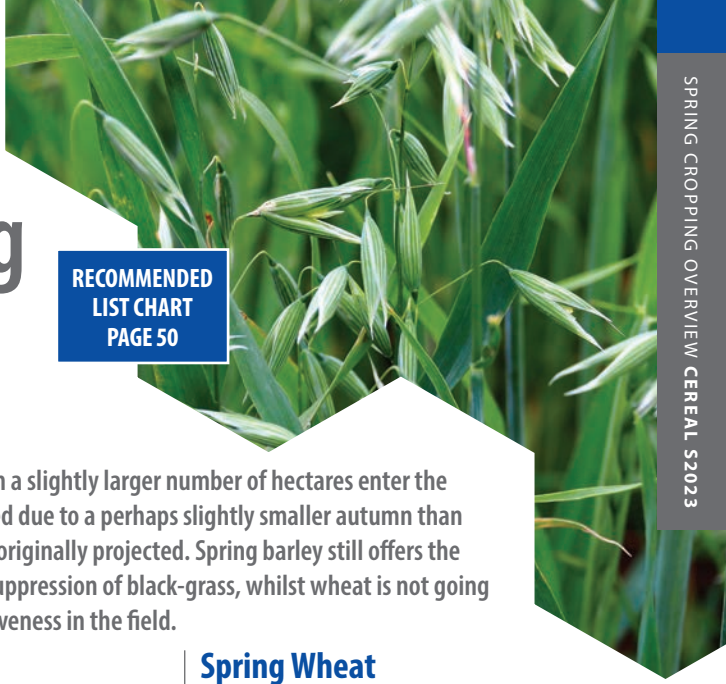
- Environmental mixes
- Catch and cover crop mixes
- Maize varieties.

Ensure you get the best mix for your situation and speak to us before deciding.



Spring Cropping OVERVIEW

RECOMMENDED LIST CHART PAGE 50



Cereals

In spring 2023 we have seen a slightly larger number of hectares enter the ground than first anticipated due to a perhaps slightly smaller autumn than the over 2 million hectares originally projected. Spring barley still offers the best option for rotational suppression of black-grass, whilst wheat is not going to offer the same competitiveness in the field.

Spring Barley

LAUREATE is now the undoubted number one in the marketplace, outselling its competitors whilst offering dual purpose end markets, as does **LG DIABLO** but not as widely grown. **RGT PLANET** has seemingly had its day as its market share starts to decline. It will still have support from growers who have seen very consistent performance.

SKYWAY offers potential brewing ability and is under test at time of writing by MBC but is a very competent offer. **FLORENCE** offers potential for the spring of 2025 as does **KWS CURTIS**.

Feed varieties – **WESTMINSTER** and **KELIM** still sells well for this market, but arguably the malting varieties offer better yield.

Spring Wheat

MULIKA, **KWS HARSUM** and **KWS LADUM** are the group 1 offer with the former now under significant yield disadvantage. **KWS LADUM** has no major disease weaknesses, with high resistance to mildew, brown rust and Septoria tritici. It will be a major consideration for next spring.

KWS COCHISE, and to a lesser extent **KWS CHILHAM** provide alternatives in the group 2 sector which is little changed. **KWS ALICIUM** is the new kid on the block showing potential.

WPB ESCAPE has the largest market share with **KWS FIXUM** since its arrival within the sector. It is a relatively late-maturing variety (which will be a limitation to some). Again it appears that **KWS FIXUM** has no major disease weaknesses, with high resistance to yellow rust, mildew and brown rust.

Spring Oats

WPB ELYANN and **WPB ISABEL** are the current market leaders, with **MELRIN** making significant headway. **ISABEL** is still attracting the greatest demand. **CANYON** still has support within the market place. Essentially the key to growing spring oats is rainfall in June (key for all oat crops) and timeliness of harvest.

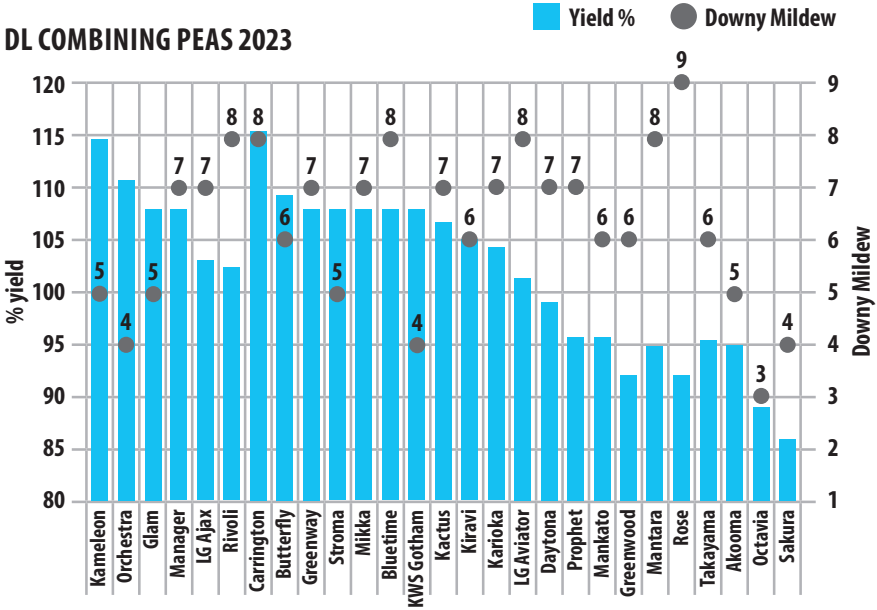
The end market will dictate the preferred variety in almost all the spring quality cereals

Spring Cropping
OVERVIEW

RECOMMENDED LIST CHART PAGES 52 - 53

Combining Peas

The change in classification of peas is aligning more to international standards and moving to a descriptive list. Large blues are now listed as **Green/Blue** and whites as **Yellow/White**, the **Maple** and **Marrowfats** classifications remain unchanged. **There have been 6 new additions this year to the descriptive list.**



Tables: taken from the PGRO Descriptive List 2023.

Note yield differences of less than 13.2% are not statistically different. The control yield for 4- and 5-year varieties 3.88t/ha

Green/Blues: (large and small blue combined into one): The largest sector if gauged by the seed production at around 50% of the market. There are **three new additions** this year, these are **Butterfly** (LS Plant Breeding), **KWS Gotham** (KWS) and **Kiravi** (Senova).

- **Carrington (115)** LS Plant Breeding maintains its top yielding variety status (yielding 6% above its nearest rival). It also the highest rating along with Bluetime for downy mildew (8). A small-seeded variety.
- **Butterfly (109)** LS Plant breeding. New this year, it is the second highest yielding and the second earliest maturity rating within the group.
- **KWS Gotham (107)** KWS, new to the list this year, part of a group following with respectable yields and good agronomics.
- 2021 additions include **Stroma (107)** LS Plant Breeding, which drops down the order of yield this year, yet still retains the highest TGW in the group at 303g. **Greenway (107)** and **Mikka (107)** steps up slightly in the yield ranking, both from IAR Agri and both similar in terms of agronomics.
- **Bluetime (107)** LS Plant Breeding (2018).
- **Kiravi (105)** Senova. New this year.
- **Kactus (106)** Senova and **LG Aviator (101)** Limagrain both received listings in 2020. Kactus being the highest yielding of the two, with good agronomics as well (shortness of straw, standing ability and downy mildew rating).

Marrowfats: the second largest sector if judged by seed production at around 40% of the market. **One NEW addition** this year **Takayama**.

- **Takayama (96)** LS plant breeding, the only new variety in this category this year (2023). A tall variety with a standing ability on par with the rest. It is not particularly bold a seed or has a high protein content. It has however the highest downy mildew rating in this group.
- **Akooma (95)** LS Plant Breeding, has maintained its yield at around 9% above Sakura. Although it is not a tall variety, it has a marginally lower rating for standing than the rest in the group.
- **Octavia (88)** IAR Agri continues to year five of trials, has a medium straw with a better standing ability than most marrowfats although late maturing with low rating for downy mildew.
- **Sakura (86)** Daltons entered the list back in 2008. Still the mainstay by some margin if seed sales is anything to go by. Its agronomics are good, regarding quality although not the boldest seed relative to its counterparts, yet it has the highest protein content, and the end users know what they are getting.

Yellow/White-seeded: Two NEW additions this year **Glam (108) from Senova** and **LG Ajax (103) from Limagrain**.

- **Kameleon (114)** Senova and **Orchestra (111)** LS Breeding move to the five-year status. Kameleon has exceptional yields, out yielding its nearest rival by 3%. A short variety with good standing ability and earliness to maturity, it has some outstanding credentials. Its grain size makes it suitable to the whole grain packet and split pea market, as well general suitability to the animal feed sector. Orchestra is a medium plant height with good standing ability, with a maturity with Kameleon. The TGW of 315g will make it attractive to some high value niche markets.
- **Glam (108)** Senova. Is the higher yielding of the two new arrivals, although is the latest maturing (3) and the tallest (88cm) in the group. It is a small-seeded variety 248g.
- **LG Ajax (103)** Limagrain. Although slightly lower yielding, yet has some good agronomics, short straw, good stander, good on Downy as well as Powdery mildew, for the latter the only variety labelled highly resistant.

Maple peas:

- **Mantara (95)** Limagrain and **Rose (92)** Daltons remain the only two recommended varieties in this category. Mantra has slightly smaller pea size and protein content and a later maturing variety, otherwise better agronomics, it has shorter straw a better stander and resistance to pea wilt. Both have excellent ratings for downy mildew although Rose edging it with the highest rating on the list at 9.

Downy mildew ratings often vary because of the season. It should be noted that some varieties showed a different resistance pattern to that normally seen. Different races of downy mildew exist, and varietal resistance may vary depending upon the race(s) present in the soil.

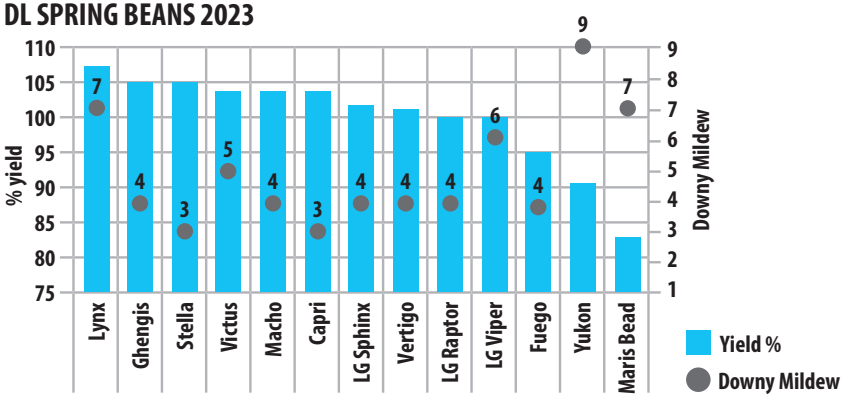
Spring Beans

RECOMMENDED LIST CHART PAGE 54

The descriptive list for 2023.

Three new high-yielding spring bean varieties have been added to the list this year. The varieties are Genius, Futura (Both LS Plant Breeding) and LG Stego (Limagrain). All pale hilum varieties, with Futura having the LVC trait (low Vicine and Convicine).

DL SPRING BEANS 2023



Tables: taken from the PGRO Descriptive List 2023.
Note yield differences of less than 7.3% are not statistically different. The control yield for 4- and 5-year varieties 4.24t/ha

Pale Hilum

Genius 110 LS plant breeding new this year 2023, presently taking top spot for yield on the descriptive list. It has comparable agronomics to Lynx.

Lynx 107 LS plant breeding reclaimed the highest yielder spot from Stella in 2022, yet now trails Genius. One of the best varieties for Downy mildew. Has performed well over the years since joining the list in 2016. Has the highest seed sales of all the varieties.

LG Stego 105 Limagrain. Its only main agronomic weakness is downy mildew (3).

Ghengis 105 LS plant breeding joined the list in 2021. One of the tallest varieties on the list although a good stander.

Stella (105), Capri (104), (from Saaten Union) were added in 2021. Stella (105) was then then highest yielder 108 at 2% above Lynx, although has since dropped back to 2% below. Capri have similar characteristics to Stella although higher protein content is offset by a smaller seed size.

Pale Hilum & LVC

A new sub-category was established in 2021 (LVC) - linked to low Vicine and Convicine. These are glycosides, anti-nutritional compounds and they hamper the development of fava beans as a worldwide food and feed crop. High LVC's in beans cause a disease called favism, a hemolytic response to the consumption of fava beans in people who have an inherited absence of the enzyme glucose-6-phosphate dehydrogenase (G6PD) in their red blood cells. It is estimated more than 100 million people worldwide are genetically deficient in G6PD. The incidence of this genetic deficiency is as high as 50% in some populations.

Futura (Limagrain) Yld **106** takes the top spot from Victus for yield in this category. At these yields its competing well with the best non LVC varieties. It has a slightly bigger seed size and lower protein level to Victus. It is a tall variety (111cm) as opposed to Victus (104cm), with similar standing ability.

Victus 104 LS plant breeding joined in this sub-category on the list in 2019. A short variety 104cm.

Maize Variety Options

Demand for maize seed in the UK is likely to remain high as it is used for forage, AD feedstock and grain.

Our portfolio is selected from material produced by the top breeders, suitable for the British climate. Supplier performance data is supplemented by our regional trials and feedback from our national network of agronomists. This enables us to offer independent advice on the range of varieties best suited to individual farm location and conditions.

Varieties have been selected for their consistency, yield, quality and agronomics.

Best-selling varieties for 2023 by maturity class

		FAO	FORAGE	BIOGAS	GRAIN
Very early maturing varieties	Augustus	160	✓		
	Duxxbury	160	✓		
	Perez	160	✓	✓	
	P7179	165	✓	✓	
Early maturing varieties	Prospect	170	✓	✓	✓
	Autens	170	✓	✓	✓
	Debalto	170	✓	✓	✓
	Ability	180	✓	✓	
	P7326	180	✓	✓	✓
	P7034	180	✓	✓	✓
Intermediate maturing varieties	P7524	200	✓	✓	
	DK2684	200	✓	✓	
	Movanna	210	✓	✓	
	Keops	210			
	P7948	220	✓	✓	✓
Late maturing varieties	Neutrino	230	✓	✓	
	Petroschka	230		✓	
	Indexx	240		✓	

Hutchinsons have access to varieties from all of the main maize breeders including:

Elsoms · RAGT · PIONEER BRAND · SEEDS · DSV · LG · BAYER · KWS

Download our **Maize Variety Guide** for more information

hlhltd.co.uk/resources

Our services

We have an unrivalled range of specialist services and experts to take your business to the next level. Our services support the agronomy advice at the core of your business.

Omnia
Digital Farming

Omnia is cloud based farm software that allows you to collect and layer data onto field maps, which provide insights to sub field performance.

We work with you to pair your farm knowledge with our expertise to improve efficiency, productivity and profitability.

TerraMap
Digital Soil Mapping

TerraMap produces the highest resolution soil mapping layers at over 800 data reference points per hectare. We can help you understand your data and create tailored management and variable rate plans quickly and easily.

HealthySoils
Building Resilience

Understand your soil and make soil management decisions that optimise crop nutrition and productivity.

Environmental Services

Plan the best way forward to benefit from the agri-environment opportunities available with our practical advice and support.

Agroecology Services

Deliver management plans focusing on soil and plant health to produce profitable crops with minimal, targeted inputs, whilst delivering an uplift in biodiversity.

Farm Business Consultancy

We appraise your business to implement change and increase profitability, building a business that's fit for your future.

Carbon Services

Measure and manage carbon on your farm. TerraMap provides an accurate baseline measurement of carbon in the soil and Omnia is unique in providing the ability to map carbon use efficiency per ha or per tonne.

Whatever your question, we have the answer. Speak to us and see how we can help you.

AHDB RECOMMENDEDLISTS

Winter triticale Recommended List 2023/24

AHDB DESCRIBED

	Lumaco	Kasyno	Temuco	KWS Fido	SU Liborious	Belcanto	Tender P2O	Cyrkon	Tribeca	DL candidates: RGT Eliac	DL candidates: FDT11053 †	DL candidates: SU Askadus	Average LSD (5%)
Variety status	NEW	C		C									
Grain yield (as % treated control)													
Fungicide-treated (10.7 t/ha)	104	100	100	100	99	96	95	95	93	[104]	-	[101]	8.1
Number of trials	8	14	14	14	14	14	14	14	12	4	-	4	
Agronomic features													
Lodging (%) ∞	-	-	-	-	-	-	-	-	-	-	-	-	
Straw length (cm)	[118]	101	108	112	108	110	128	96	119	[113]	-	[104]	6.6
Ripening (days +/- KWS Fido)	[-1]	+2	+2	0	+1	+4	0	0	+1	[+1]	-	[1]	2.5
Grain quality													
Specific weight (kg/hl)	74.9	73.6	71.6	75.3	72.1	77.9	74.0	73.2	72.0	[71.1]	-	[75.7]	1.2
Protein content (%)	11.3	11.4	10.8	10.8	11.3	11.8	11.6	11.2	11.2	[10.9]	-	[11.5]	0.5
Disease resistance													
Yellow rust (1–9)	9	8	7	6	7	6	5	4	7	-	-	-	0.9
Breeder/UK contact													
Breeder	Lant	Dank	Lant	Lant	Nord	Dank	IGP	Hod	Desp	R2n	-	Nord	
UK contact	Sen	Sen	Sen	Sen	SU	Sen	Sen	Dalt	Els	RAGT	Sen	SU	
Status in DL system													
Year first listed	23	18	21	14	21	21	20	16	12	-	-	-	
DL status	P1	-	-	-	-	-	-	-	-	-	-	-	

Varieties no longer listed: Toro.

The data in this table is provided for information only and does not constitute a recommendation.

On the 1–9 scale, high figures indicate that a variety shows the character to a high degree (e.g. high resistance).

Candidate varieties will be considered for the RL 2024/25.

† Data cannot be published as variety has not completed National List testing.

C = Yield control
∞ = Data not available
[ ] = Limited data
P1 = First year of listing

LSD = Least significant difference
Average LSD (5%): Varieties that are more than one LSD apart are significantly different at the 95% confidence level

Dalt = Dalton Seeds (**daltonseeds.co.uk**)
Dank = Danko Hodowla Roslin, Poland (**danko.pl**)
Desp = Maison Florimond Desprez, France (**florimond-desprez.com**)
Els = Elsoms Seeds Ltd (**elsoms.com**)
Hod = Hodowla Roslin Strzelce, Poland (**hr-strzelce.pl**)
IGP = I.G. Pflanzenzucht, Germany (**ig-pflanzenzucht.de/en**)

Lant = Lantmannen SW Seed BV (**lantmannen.com**)
Nord = Nordsaat, Germany (**nordsaat.de**)
R2n = RAGT, France (**ragt.co.uk**)
RAGT = RAGT Seeds (**ragt.co.uk**)
Sen = Senova (**senova.uk.com**)
SU = Saaten Union UK (**saaten-union.co.uk**)

Winter rye Recommended List 2023/24

AHDB DESCRIBED

	KWS Tayo	KWS Igor	SU Baresi	KWS Serafino	SU Performer	SU Elrond	SU Arvid	SU Pluralis	Poseidon	SU Bendix	DL candidates: Astranos	KWSH209 †	SU Isaksson	KWSH214 †	SU Perspectiv	SU Karlsson	Average LSD (5%)
Variety type	Hybrid	Hybrid	Hybrid	Hybrid	Hybrid	Hybrid	Hybrid	Hybrid	Hybrid	Hybrid	Hybrid	-	Hybrid	-	Hybrid	Hybrid	
Variety status		NEW			C												
Grain yield (as % treated control)																	
Fungicide-treated (10.3 t/ha)	104	103	103	101	100	99	99	98	97	97	[104]	-	[103]	-	[101]	[100]	6.9
Number of trials	15	10	15	17	17	15	17	14	16	14	4	-	4	-	4	4	
Agronomic features																	
Lodging (%)	[2]	[5]	[5]	[2]	[8]	[5]	[7]	[7]	[3]	[9]	[3]	-	[4]	-	[5]	[6]	2.4
Straw length (cm)	129	126	129	131	130	134	135	129	130	132	[129]	-	[132]	-	[131]	[135]	7.8
Ripening (days +/- SU Mephisto)	+1	+1	+1	+1	0	+1	+1	0	0	+1	[0]	-	[2]	-	[2]	[0]	1.8
Grain quality																	
Protein content (%)	9.1	8.9	8.7	9.1	9.2	9.1	9.0	8.9	9.8	9.5	[9.7]	-	[9.1]	-	[9.1]	[9.2]	0.6
Hagberg Falling Number	267	252	245	269	245	238	208	219	190	223	[196]	-	[229]	-	[250]	[253]	33.3
Specific weight (kg/hl)	77.0	76.5	78.2	77.3	77.9	79.2	77.3	77.8	76.3	77.8	[77.7]	-	[78.4]	-	[78.4]	[79.0]	1.4
Disease resistance																	
Brown rust (1–9)	7	[4]	5	7	4	5	4	4	3	4	-	-	-	-	-	-	1.5
Breeder/UK contact																	
Breeder	KWSGmbh	KWSGmbh	Hybro	KWSGmbh	Hybro	Hybro	Hybro	Hybro	NS	Hybro	NS	KWSGmbh	Hybro	KWSGmbh	Hybro	Hybro	
UK contact	KWS	KWS	SU	KWS	SU	SU	SU	SU	Dalt	SU	Sen	KWS	SU	KWS	SU	SU	
Status in DL system																	
Year first listed	22	23	22	21	17	22	21	22	21	22	-	-	-	-	-	-	
DL status	P2	P1	P2	-	-	P2	-	P2	-	P2	-	-	-	-	-	-	

Varieties no longer listed: Dukato, Inspector, SU Cossani, SU Mephisto and SU Nasri.
The data in this table is provided for information only and does not constitute a recommendation.
On the 1–9 scale, high figures indicate that a variety shows the character to a high degree (e.g. high resistance).
Candidate varieties will be considered for the RL 2024/25.
† Data cannot be published as variety has not completed National List testing.

C = Yield control
[ ] = Limited data
P1 = First year of listing
P2 = Second year of listing

LSD = Least significant difference
Average LSD (5%): Varieties that are more than one LSD apart are significantly different at the 95% confidence level

Dalt = Dalton Seeds (**daltonseeds.co.uk**)
Hybro = Hybro, Germany (**saaten-union.co.uk**)
KWS = KWS UK (**kws-uk.com**)
KWSGmbh = KWS Lochow GmbH (**kws-uk.com**)

NS = Nordic Seed, Denmark (**nordicseed.com**)
Sen = Senova (**senova.uk.com**)
SU = Saaten Union UK (**saaten-union.co.uk**)

AHDB RECOMMENDEDLISTS

Winter oilseed rape 2023/24

YIELD, QUALITY, AGRONOMY AND DISEASE RESISTANCE

AHDB RECOMMENDED

	Recommended for the UK (both East/West and North regions)															Described varieties			
	Turing	Attica	LG Auckland	Vegas	Ambassador	Aurelia	LG Aviron	PT303	Tom	Acacia	Annika	Matrix CL [&]	Aspire	LG Constructor CL [&]	DK Imprint CL [&]	PX131	Resort	V 316 OL	Average LSD (5%)
Variety type	Hybrid	Hybrid	Hybrid	Hybrid	Hybrid	Hybrid	Hybrid	Hybrid	Conv	Conv	Conv	Hybrid	Conv	Hybrid	Hybrid	Hybrid	Hybrid	Hybrid	
Scope of recommendation	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK Sp	UK	UK Sp	UK Sp	UK SD	UK HEAR	UK HOLL	
Variety status	NEW	NEW		NEW		C			NEW				C		*				
Gross output, yield adjusted for oil content (% treated control)																			
United Kingdom (5.2 t/ha)	**107**	**107**	**106**	**105**	**105**	**105**	**105**	**104**	**102**	**101**	**101**	**98**	**98**	**95**	**92**	**88**	**89**	**96**	4.6
East/West region (5.1 t/ha)	**107**	**107**	**106**	**106**	**105**	**105**	**105**	**104**	**102**	**101**	**101**	**99**	**98**	**96**	**92**	**88**	**89**	**96**	5.1
North region (5.8 t/ha)	**107**	**107**	**102**	**103**	**103**	**104**	**103**	**102**	**[102]**	**101**	**101**	**95**	**99**	**92**	**91**	**94**	**89**	**96**	5.3
Seed yield (% treated control)																			
United Kingdom (4.8 t/ha)	**109**	**106**	**106**	**105**	**106**	**105**	**106**	**103**	**102**	**102**	**101**	**97**	**98**	**96**	**94**	**87**	**89**	**96**	4.3
East/West region (4.8 t/ha)	**109**	**107**	**106**	**105**	**106**	**105**	**106**	**103**	**102**	**102**	**101**	**98**	**98**	**97**	**94**	**87**	**89**	**96**	4.8
North region (5.4 t/ha)	**108**	**106**	**102**	**103**	**104**	**105**	**105**	**102**	**[102]**	**101**	**102**	**95**	**99**	**93**	**94**	**93**	**88**	**96**	5.0
Untreated gross output, yield adjusted for oil content (% untreated control) [¤]																			
United Kingdom (5.2 t/ha)	-	-	107	-	105	105	107	102	-	101	99	96	98	90	93	88	89	96	7.6
Untreated seed yield (% untreated control) [¤]																			
United Kingdom (4.9 t/ha)	-	-	107	-	105	105	108	101	-	101	99	95	99	91	95	87	89	96	7.3
Agronomic features																			
Resistance to lodging (1–9)	[8]	[8]	[8]	[8]	8	8	[8]	[8]	[8]	8	[8]	[8]	8	[8]	[8]	8	8	8	0.3
Stem stiffness (1–9)	8	8	7	8	9	8	7	8	9	9	9	8	9	8	7	9	8	8	0.6
Shortness of stem (1–9)	6	6	6	6	6	6	6	5	6	7	6	6	7	6	5	9	6	6	0.3
Plant height (cm)	144	149	150	144	148	145	150	159	143	141	143	152	136	143	153	111	145	149	3.5
Earliness of flowering (1–9)	8	7	7	7	7	7	8	5	6	6	6	7	7	6	6	6	7	6	0.4
Earliness of maturity (1–9)	5	5	5	5	6	5	6	5	5	5	4	6	5	6	6	4	5	5	0.4
Pod shatter resistance	-	R	R	-	R	R	R	-	-	-	-	R	-	R	R	R	-	-	
Disease resistance																			
Light leaf spot (1–9)	7	7	7	8	7	7	8	7	7	6	7	6	7	6	6	7	5	6	0.5
Stem canker (1–9)	5	7	7	9	7	6	[7]	6	6	6	6	8	6	6	[7]	6	5	5	0.9
TuYV	-	R	R	-	R	R	R	R	-	-	R	R	R	R	-	-	-	-	
Seed quality (at 9% moisture)																			
Oil content, fungicide-treated (%)	44.3	45.3	45.3	45.3	44.8	44.9	44.4	45.7	45.1	45.0	45.0	45.6	45.2	44.2	43.6	46.1	45.4	45.0	0.3
Glucosinolate (µmoles/g)	10.4	12.0	12.2	11.0	10.9	10.2	11.2	8.0	11.6	8.1	11.6	14.2	9.9	15.8	14.3	9.4	14.0	12.3	-

Varieties no longer listed in the UK (both East/West and North regions): Aardvark and Artemis.
Varieties no longer listed in the East/West region: Croozer, Darling, Dazzler, Nizza CL and FX138.
Varieties no longer listed in the North region: Blazen.
HEAR (High Erucic Acid), HOLL (High Oleic, Low Linolenic) and semi-dwarf varieties are described. Data is provided for information only and does not constitute a recommendation.
On the 1–9 scales, high figures indicate that a variety shows the character to a high degree (e.g. high resistance).
The target (spring) plant population is 40 plants/m^2 for RL trials. Maximum seed rate is 70 seeds/m^2 and may be lower if conditions permit.
Glucosinolate contents are taken from the National List trials data.
Yield figures for regions where the variety is not recommended are provided for information only and are indicated in italics.

AHDB RECOMMENDEDLISTS

Winter oilseed rape 2023/24

YIELD, QUALITY, AGRONOMY AND DISEASE RESISTANCE

AHDB RECOMMENDED

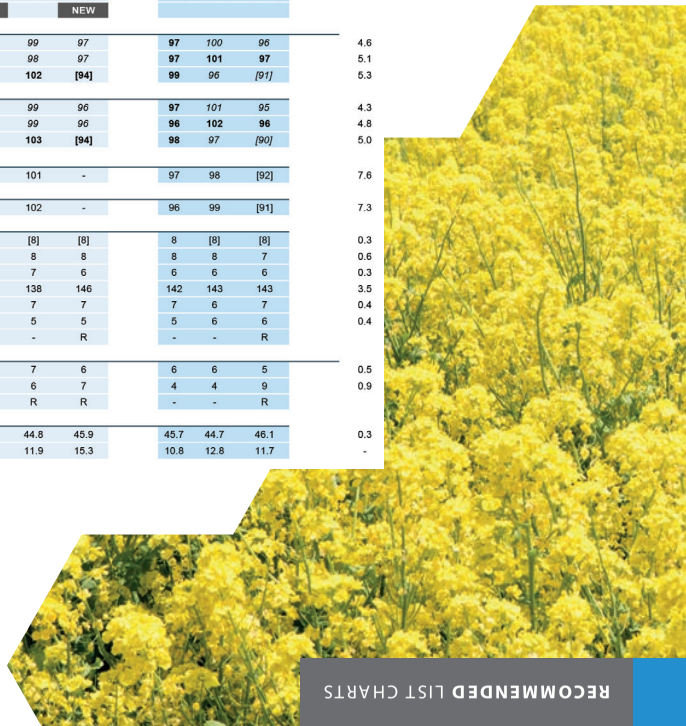
	Recommended for the East/West region only									Recommended for the North region only			Recommended for use on clubroot-infected land only			Average LSD (5%)
	Murray	LG Adonis	Dart	Respect	Flemming	LG Antigua	Tennyson	DK Expectation	PT279CL &	LG Wagner	Amarone	Beatrix CL &	Crome #	Crocodile #	Crossfit #	
	Hybrid	Hybrid	Hybrid	Hybrid	Hybrid	Hybrid	Hybrid	Hybrid	Hybrid	Hybrid	Conv	Hybrid	Hybrid	Hybrid	Hybrid	
	E/W	E/W	E/W	E/W	E/W	E/W	E/W	E/W	E/W Sp	N	N	N Sp	UK Sp	E/W Sp	E/W Sp	
	NEW			*	*	*		*	*	NEW		NEW				
Gross output, yield adjusted for oil content (% treated control)																
United Kingdom (5.2 t/ha)	*106*	*104*	*102*	*101*	*101*	*101*	*99*	*99*	*92*	*104*	*99*	*97*	**97**	*100*	*96*	4.6
East/West region (5.1 t/ha)	**106**	**104**	**103**	**102**	**101**	**101**	**100**	**100**	**92**	*104*	*98*	*97*	**97**	**101**	**97**	5.1
North region (5.8 t/ha)	*103*	*102*	*95*	*97*	*[96]*	*101*	*95*	*95*	*92*	**108**	**102**	**[94]**	**99**	*96*	*[91]*	5.3
Seed yield (% treated control)																
United Kingdom (4.8 t/ha)	*107*	*103*	*102*	*102*	*102*	*101*	*100*	*99*	*93*	*104*	*99*	*96*	**97**	*101*	*95*	4.3
East/West region (4.8 t/ha)	**107**	**103**	**103**	**103**	**103**	**101**	**100**	**100**	**93**	*104*	*99*	*96*	**96**	**102**	**96**	4.8
North region (5.4 t/ha)	*104*	*101*	*95*	*98*	*[97]*	*101*	*96*	*95*	*93*	**108**	**103**	**[94]**	**98**	*97*	*[90]*	5.0
Untreated gross output, yield adjusted for oil content (% untreated control) ¤																
United Kingdom (5.2 t/ha)	-	102	98	102	[99]	103	97	95	92	-	101	-	97	98	[92]	7.6
Untreated seed yield (% untreated control) ¤																
United Kingdom (4.9 t/ha)	-	102	98	103	[99]	103	98	96	93	-	102	-	96	99	[91]	7.3
Agronomic features																
Resistance to lodging (1–9)	[8]	[8]	[8]	[8]	[8]	[8]	[8]	[8]	8	[8]	[8]	[8]	8	[8]	[8]	0.3
Stem stiffness (1–9)	8	8	8	8	9	8	7	7	8	8	8	8	8	8	7	0.6
Shortness of stem (1–9)	6	6	6	6	6	6	6	6	6	6	7	6	6	6	6	0.3
Plant height (cm)	150	142	145	152	151	151	144	145	147	143	138	146	142	143	143	3.5
Earliness of flowering (1–9)	7	7	7	7	6	7	6	8	6	7	7	7	7	6	7	0.4
Earliness of maturity (1–9)	5	5	5	5	4	6	5	6	6	5	5	5	5	6	6	0.4
Pod shatter resistance	-	-	-	-	-	R	-	R	-	R	-	R	-	-	R	
Disease resistance																
Light leaf spot (1–9)	7	7	7	6	7	7	7	7	5	7	7	6	6	6	5	0.5
Stem canker (1–9)	8	7	6	[7]	8	[7]	9	[7]	5	6	6	7	4	4	9	0.9
TuYV	-	R	R	-	R	R	R	R	-	R	R	R	-	-	R	
Seed quality (at 9% moisture)																
Oil content, fungicide-treated (%)	44.5	46.0	45.2	44.5	44.5	45.2	44.8	45.1	44.5	45.0	44.8	45.9	45.7	44.7	46.1	0.3
Glucosinolate (µmoles/g)	11.1	9.7	10.0	11.8	12.0	11.5	11.1	12.2	10.9	11.7	11.9	15.3	10.8	12.8	11.7	-

UK = Recommended for both the East/West and North regions
E/W = Recommended for the East/West region
N = Recommended for the North region
Sp = Specific recommendation
Conv = Conventional open-pollinated variety
SD = Semi-dwarf variety
HEAR = High Erucic Acid variety
HOLL = High Oleic, Low Linolenic variety

C = Yield control. For this table, Campus, DK Expansion and Temptation were also control varieties but are no longer listed
* = Variety no longer under test in RL trials in region
& = Herbicide-tolerant variety. This variety has a specific recommendation for tolerance to specific imidazolinone herbicides (a Clearfield® variety)
# = Specific recommendation for growing on land infected with common strains of clubroot. Believed to be resistant to common strains of clubroot, but this has not been verified in Recommended List tests. These varieties should only be used in line with AHDB clubroot management guidelines, to reduce the risk of resistance breakdown

¤ = Untreated trials are treated for sclerotinia at flowering
TuYV = *Turnip yellows virus*
[ ] = Limited data
R = Believed to be resistant to the trait (TuYV or pod shatter), but this has not been verified in Recommended List tests

LSD = Least significant difference
Average LSD (5%): Varieties that are more than one LSD apart are significantly different at the 95% confidence level



AHDB RECOMMENDEDLISTS

Winter wheat 2023/24

YIELD, AGRONOMY AND DISEASE RESISTANCE

AHDB RECOMMENDED

	KWS Zyatt	Skyfall	Crusoe	RGT Illustrious	KWS Extase	KWS Ultimatum	KWS Palladium	KWS Siskin	Mayflower	KWS Guium	RGT Wilkinson	LG Prince	KWS Brium	Merit	KWS Firefly	RGT Rashid	LG Illuminate	LG Astronomer	Elicit	Average LSD (5%)
End-use group	UKFM Group 1				UKFM Group 2					UKFM Group 3										
Scope of recommendation	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	E	UK	E	UK	UK	UK	
Variety status		C				NEW		*C			NEW				*				*	
Fungicide-treated grain yield (% treated control)																				
United Kingdom (10.9 t/ha)	99	97	96	96	102	101	100	99	97	101	101	101	100	100	100	100	100	99	98	2.3
East region (10.7 t/ha)	98	97	96	95	102	101	100	99	97	102	102	101	101	101	100	101	100	99	98	2.7
West region (11.1 t/ha)	99	97	97	97	102	102	101	99	98	100	101	100	100	98	99	97	100	99	97	3.0
North region (11.3 t/ha)	98	96	94	95	100	[103]	99	99	96	101	[100]	98	100	100	99	98	100	97	99	3.4
Untreated grain yield (% treated control)																				
United Kingdom (10.9 t/ha)	75	70	76	85	97	93	94	87	93	80	87	85	83	84	80	81	87	88	82	5.6
Agronomic features																				
Resistance to lodging without PGR (1–9)	8	8	8	7	7	[7]	7	6	6	7	[8]	7	7	6	8	8	7	7	6	1.4
Resistance to lodging with PGR (1–9)	8	7	7	8	8	7	8	6	7	7	8	8	7	6	8	8	7	9	7	1.2
Straw length without PGR (cm)	85	85	82	89	91	85	83	84	89	90	83	83	92	88	83	86	83	88	86	1.6
Straw length with PGR (cm)	75	77	75	80	85	75	78	74	82	82	77	75	85	81	75	79	76	79	77	1.7
Ripening (days +/- Skyfall)	-1	0	+1	+1	-1	+1	-1	0	-1	+3	+2	+2	+2	+1	0	+3	+1	+1	+1	0.7
Resistance to sprouting (1–9)	6	6	6	6	6	[7]	[6]	4	[6]	[6]	[5]	[5]	[6]	[6]	5	[6]	[6]	[6]	5	1.0
Disease resistance																				
Mildew (1–9)	7	6	7	7	7	7	8	8	7	5	8	4	7	4	5	4	5	4	6	1.4
Yellow rust (1–9)	3	3	9	8	8	9	9	9	9	9	7	8	9	8	6	8	7	9	9	0.6
Yellow rust (young plant)	s	s	r	s	r	r	r	r	r	r	s	r	r	r	s	r	r	r	s	
Brown rust (1–9)	7	9	3	6	6	6	5	5	6	3	5	7	5	7	5	6	6	8	6	0.9
Septoria tritici (1–9)	6.1	5.4	6.2	5.7	7.8	6.4	7.4	6.8	8.9	5.1	5.5	5.9	5.6	5.4	5.1	6.4	5.8	6.2	5.0	0.9
Eyespot (1–9)	[6]@	[5]@	[5]	[7]@	[4]	[5]	[6]	[4]	[6]@	[5]	[7]@	[4]	[6]	[3]	[4]	[6]	[6]	[5]	[6]	2.0
Fusarium ear blight (1–9)	6	7	7	6	6	7	6	6	6	7	6	6	6	6	5	7	6	6	6	0.4
Orange wheat blossom midge	-	R	-	-	-	-	-	-	-	R	-	R	-	R	R	R	R	R	R	

Varieties no longer listed: KWS Barrel, KWS Kerrin, LG Spotlight and RGT Gravity.
Comparisons of varieties across regions are not valid.
All yields in this table are taken from treated trials receiving a full fungicide and PGR programme.
Protein content (%) – milling spec data are taken from trials managed to a bread-milling protocol.

On the 1–9 scales, high figures indicate that a variety shows the character to a high degree (e.g. high resistance).
Comparisons of varieties across regions are not valid.

AHDB RECOMMENDEDLISTS

Winter wheat 2023/24

YIELD, AGRONOMY AND DISEASE RESISTANCE

AHDB RECOMMENDED

	LG Redwald	KWS Zealum	LG Skyscraper	RGT Bairstow	RGT Stokes	RGT Saki	Elation	KWS Jackal	Swallow	Champion	SY Insitor	KWS Dawsum	Oxford	Gleam	Graham	KWS Cranium	LG Typhoon	RGT Wolverine	Costello	Theodore	Average LSD (5%)
End-use group	Soft Group 4									Hard Group 4											
Scope of recommendation	E&W	N	UK	UK	UK	UK	N	N	N	UK	UK	UK	E&W	UK	UK	UK	UK	Sp	UK	W	
Variety status	NEW	NEW	C				*	*					NEW	C						*	
Fungicide-treated grain yield (% treated control)																					
United Kingdom (10.9 t/ha)	107	103	103	103	102	102	100	99	98	106	104	104	104	103	102	102	101	99	99	99	2.3
East region (10.7 t/ha)	107	103	103	103	101	102	100	99	98	107	104	103	104	103	101	103	101	99	99	99	2.7
West region (11.1 t/ha)	109	103	103	103	104	101	100	97	98	106	105	105	105	104	105	101	100	100	98	101	3.0
North region (11.3 t/ha)	[103]	[102]	102	103	103	102	101	100	101	102	105	105	[100]	103	102	102	101	100	101	[95]	3.4
Untreated grain yield (% treated control)																					
United Kingdom (10.9 t/ha)	92	86	86	87	87	86	80	78	80	93	82	95	89	84	93	82	92	74	86	93	5.6
Agronomic features																					
Resistance to lodging without PGR (1–9)	[5]	[6]	6	6	5	6	7	7	8	6	6	7	[6]	7	7	8	7	7	7	6	1.4
Resistance to lodging with PGR (1–9)	5	8	6	6	6	7	8	6	9	6	7	7	7	7	8	8	7	7	8	8	1.2
Straw length without PGR (cm)	94	88	92	91	91	89	82	87	79	88	94	84	85	87	88	89	87	87	84	84	1.6
Straw length with PGR (cm)	89	81	83	83	82	81	75	81	73	82	83	76	79	77	80	80	78	77	75	76	1.7
Ripening (days +/- Skyfall)	+2	+2	0	+2	+2	+2	+1	+1	+1	0	+1	+1	+2	0	-1	+3	+1	+2	+2	0	0.7
Resistance to sprouting (1–9)	[6]	[6]	6	[6]	[6]	5	6	6	[5]	[6]	5	[7]	[6]	6	6	[6]	[5]	[6]	6	[6]	1.0
Disease resistance																					
Mildew (1–9)	6	7	7	6	5	5	7	7	6	7	7	8	6	7	6	6	6	6	8	7	1.4
Yellow rust (1–9)	7	9	7	8	7	9	8	9	6	8	5	9	9	5	8	9	9	4	9	9	0.6
Yellow rust (young plant)	s	r	s	r	r	r	s	s	r	r	s	r	r	s	s	r	r	s	r	r	
Brown rust (1–9)	6	5	5	6	5	6	5	5	5	5	6	7	6	6	5	4	6	7	5	8	0.9
Septoria tritici (1–9)	6.7	5.8	4.9	6.0	6.3	5.4	4.3	5.0	5.3	8.1	6.4	6.4	6.4	5.7	6.7	5.9	7.3	5.9	5.8	9.1	0.9
Eyespot (1–9)	[6]	[6]	[6]	[4]	[5]	[5]	[5]	[5]	[4]	[5]	[4]	[6]	[5]	[5]	[4]	[5]	[6]	[4]	[4]	[4]	2.0
Fusarium ear blight (1–9)	6	7	6	6	6	6	6	6	6	6	7	7	6	6	7	7	6	6	7	5	0.4
Orange wheat blossom midge	R	R	R	R	-	R	R	R	R	R	R	-	R	R	-	R	R	-	-	-	

C = Yield control. For this table, KWS Barrel was also a control variety but is no longer listed
* = Variety no longer under test in RL trials
PGR = Plant growth regulator
[ ] = Limited data

r and s = Young plant resistance (r) or susceptible (s) to yellow rust as shown by UKCPVS tests and RL trial data
@ = Believed to carry the *Pch1* Rendezvous resistance gene to eyespot, but this has not been verified in Recommended List tests
R = Believed to be resistant to orange wheat blossom midge (OWBM), but this has not been verified in Recommended List tests

UKFM = UK Flour Millers
UK = Recommended for the UK
E = Recommended for the East region
W = Recommended for the West region
N = Recommended for the North region

Sp = Specific recommendation. RGT Wolverine has a specific recommendation for resistance to *Barley yellow dwarf virus* (BYDV). Resistance to BYDV has not been verified in Recommended List tests

AHDB RECOMMENDEDLISTS

Winter barley 2023/24

MARKET OPTIONS, YIELD AND GRAIN QUALITY, AGRONOMY AND DISEASE RESISTANCE

AHDB RECOMMENDED

	Buccaneer	Electrum	Craft	LG Caravelle	Bolivia	KWS Tardis	Bolton	Lightning	Bordeaux	LG Mountain	LG Dazzle	Surge	KWS Hawking	KWS Orwell	Valerie	California	KWS Cassia	Average LSD (5%)
End-use group	Two-row malting			Two-row feed														
Scope of recommendation	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	W	UK	
Variety status	NEW	C	C	NEW	NEW					C		*				*	*	
Fungicide-treated grain yield (% treated control)																		
United Kingdom (9.8 t/ha)	100	96	94	106	104	103	103	103	103	102	101	101	100	100	99	98	97	2.4
East region (9.5 t/ha)	101	96	94	109	105	105	105	104	105	102	104	102	102	100	100	100	97	2.9
West region (9.9 t/ha)	[97]	96	94	[105]	[104]	102	101	102	101	102	99	100	99	101	97	97	97	3.6
North region (10.4 t/ha)	[102]	96	94	[104]	[102]	102	102	103	102	101	101	99	98	98	100	94	95	3.3
Untreated grain yield (% treated control)																		
United Kingdom (9.8 t/ha)	87	79	79	89	89	85	86	90	83	83	88	88	83	82	78	80	82	4.7
Main market options																		
MBC malting approval for brewing use	T	F	F	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Grain quality																		
Specific weight (kg/hl)	70.3	70.5	70.7	71.8	70.2	70.6	69.9	69.4	71.1	71.1	69.5	70.6	69.8	69.3	71.2	69.1	72.4	0.7
Screenings (% through 2.25 mm)	2.2	2.3	2.2	1.5	1.1	1.7	1.5	1.9	1.2	1.9	1.9	1.7	2.0	1.8	0.8	2.2	1.5	0.7
Screenings (% through 2.5 mm)	6.7	6.6	6.7	4.3	2.6	5.2	4.7	5.5	3.5	5.8	5.8	4.9	5.9	5.5	1.9	7.1	4.1	1.7
Nitrogen content (%)	1.73	1.76	1.71	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.14
Status in RL system																		
Year first listed	23	18	16	23	23	21	21	22	21	19	22	16	20	16	19	13	10	
Agronomic features																		
Resistance to lodging without PGR (1–9)	-	7	7	-	-	8	7	[6]	7	6	[7]	7	7	7	7	7	7	1.7
Resistance to lodging with PGR(1–9)	7	7	8	7	8	8	8	6	8	7	7	7	8	8	8	7	7	1.4
Straw length without PGR (cm)	[99]	98	96	[93]	[91]	95	94	92	93	91	93	92	95	94	93	96	95	3.9
Straw length with PGR (cm)	90	90	89	85	89	85	83	88	84	84	85	85	86	86	87	91	90	2.4
Ripening (days +/- KWS Orwell)	+1	-1	0	0	0	0	0	0	0	-1	+1	0	+1	0	-1	0	0	1.0
Disease resistance																		
Mildew (1–9)	6	6	6	7	7	5	6	7	6	5	6	5	6	3	7	6	5	1.2
Brown rust (1–9)	-	7	7	-	-	6	6	8	6	7	8	8	7	7	4	6	7	1.0
Rhynchosporium (1–9)	7	5	6	6	6	6	5	7	4	5	7	7	6	6	6	6	5	1.2
Net blotch (1–9)	[6]	5	5	[5]	[6]	5	5	5	5	5	5	5	5	5	5	5	5	0.9
BaYMV	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	-

Varieties no longer listed: Jordan, KWS Creswell, KWS Gimlet and LG Flynn.
Comparisons of variety performance across regions are not valid.

UK = Recommended for the UK
W = Recommended for the West region
Sp = Specific recommendation. KWS Feeris has a specific recommendation for tolerance to *Barley yellow dwarf virus* (BYDV). Tolerance to BYDV has not been verified in Recommended List tests

C = Yield control
* = Variety no longer under test in RL trials
# = Hybrid variety

MBC = Malting Barley Committee
[ ] = Limited data
T = Under test for MBC approval
F = Full MBC approval

LSD = Least significant difference
Average LSD (5%): Varieties that are more than one LSD apart are significantly different at the 95% confidence level

AHDB RECOMMENDEDLISTS

Winter barley 2023/24

MARKET OPTIONS, YIELD AND GRAIN QUALITY, AGRONOMY AND DISEASE RESISTANCE

AHDB RECOMMENDED

	SY Thunderbolt#	SY Kingsbarn#	SY Kingston#	SY Canyon#	Belmont#	SY Nephin#	Belfry#	Bazooka#	KWS Feeris	Funky	Average LSD (5%)	Two-row feed	Six-row feed
End-use group	Six-row feed												
Scope of recommendation	UK	UK	UK	UK	UK	UK	UK	UK	Sp	UK		LG Campus	SY Javelin#
Variety status		C			*	NEW				*C		VARIETIES NOT ADDED TO RECOMMENDED LIST	
Fungicide-treated grain yield (% treated control)													
United Kingdom (9.8 t/ha)	106	106	106	106	105	105	104	104	103	102	2.4	103	105
East region (9.5 t/ha)	106	106	105	106	106	106	104	104	103	101	2.9	106	107
West region (9.9 t/ha)	108	106	107	107	105	[103]	104	103	103	103	3.6	[100]	105
North region (10.4 t/ha)	105	107	106	105	105	[105]	104	104	100	103	3.3	[102]	102
Untreated grain yield (% treated control)													
United Kingdom (9.8 t/ha)	89	85	88	91	78	90	88	84	85	88	4.7	86	88
Main market options													
MBC malting approval for brewing use	-	-	-	-	-	-	-	-	-	-		-	-
Grain quality													
Specific weight (kg/hl)	70.9	70.9	70.7	71.7	69.9	71.4	69.7	70.5	69.8	70.0	0.7	70.4	69.7
Screenings (% through 2.25 mm)	2.1	1.4	2.7	2.0	2.6	3.1	2.6	2.4	1.2	3.5	0.7	1.8	2.3
Screenings (% through 2.5 mm)	7.5	5.4	9.0	6.4	9.0	10.9	9.2	8.1	5.3	13.4	1.7	5.5	8.7
Nitrogen content (%)	-	-	-	-	-	-	-	-	1.76	-	0.14	-	-
Status in RL system													
Year first listed	21	19	21	22	18	23	16	16	22	17		-	-
Agronomic features													
Resistance to lodging without PGR (1–9)	5	6	6	[7]	6	-	7	6	[8]	8	1.7	-	[5]
Resistance to lodging with PGR(1–9)	5	7	5	5	6	6	7	6	7	7	1.4	7	6
Straw length without PGR (cm)	111	111	117	115	112	[110]	109	117	100	95	3.9	[99]	107
Straw length with PGR (cm)	104	104	107	107	106	102	102	108	95	91	2.4	88	102
Ripening (days +/- KWS Orwell)	-1	0	-1	0	0	0	0	0	0	-1	1.0	+1	-1
Disease resistance													
Mildew (1–9)	7	7	8	7	6	6	6	5	4	5	1.2	4	4
Brown rust (1–9)	6	5	6	7	5	-	6	5	6	7	1.0	-	6
Rhynchosporium (1–9)	6	6	6	6	7	8	7	7	6	6	1.2	6	7
Net blotch (1–9)	6	5	6	5	5	[5]	5	5	6	5	0.9	[6]	5
BaYMV	R	R	R	R	R	R	R	R	R	R	-	R	R

AHDB RECOMMENDEDLISTS

Spring barley 2023

MARKET OPTIONS, YIELD, AGRONOMY AND DISEASE RESISTANCE

AHDB RECOMMENDED

	Florence	SY Tennyson	Skyway	Sun King	Diviner	SY Signet	KWS Curtis	Firefoxx	Laureate	LG Diablo	RGT Planet	KWS Sassy	Fairing	Hunter	Cadiz	Malvern	Prospect	CB Score ~	Average LSD (5%)
End-use group	Malting varieties													Feed varieties				Described variety	
Scope of recommendation	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	UK	Sp	UK	E&W	W	UK	UK Null-Lox	
Variety status	NEW	NEW		NEW	NEW	NEW	NEW		C	C	C			NEW	*	*	*		
Fungicide-treated grain yield (% treated control)																			
United Kingdom (7.5 t/ha)	105	105	105	104	104	104	104	103	103	101	98	97	93	107	103	103	102	101	2.3
East region (7.5 t/ha)	106	107	106	104	104	105	105	103	103	102	99	96	93	108	104	103	103	101	3.3
West region (7.3 t/ha)	[106]	[104]	106	[107]	[104]	[103]	[103]	104	104	101	98	98	94	[108]	106	105	102	101	3.8
North region (7.8 t/ha)	104	106	102	103	105	105	103	103	102	102	99	98	92	106	100	102	101	101	2.8
Untreated grain yield (% treated control)																			
United Kingdom (7.5 t/ha)	95	92	94	96	92	95	93	92	94	92	89	89	84	94	92	94	92	92	2.9
Agronomic features																			
Resistance to lodging without PGR (1–9)	[8]	[7]	7	[8]	[8]	[8]	[8]	7	6	7	7	6	8	[9]	7	8	7	7	1.1
Straw length without PGR (cm)	[69]	[69]	75	[72]	[67]	[71]	[69]	69	70	71	73	78	70	[65]	75	71	70	71	2.0
Ripening (days +/- RGT Planet)	0	+1	+1	+1	+1	+1	+1	0	+1	+2	0	+1	-2	+1	0	+1	+1	+1	0.8
Resistance to brackling (1–9)	9	7	7	9	9	8	9	8	8	8	8	6	8	9	8	8	9	8	0.8
Disease resistance																			
Mildew (1–9)	8	9	9	9	9	9	9	9	9	9	8	9	8	8	9	9	9	9	0.7
Brown rust (1–9)	5	4	4	6	5	5	4	4	5	5	5	5	5	4	4	5	5	5	1.1
Rhynchosporium (1–9) – **see note below**	[6]	[3]	7	[4]	[3]	[5]	[7]	5	7	6	6	6	8	[6]	[5]	3	7	7	2.6
Main market options																			
MBC malting approval for brewing use	T	T	P	T	N	T	T	-	F	F	F	N	-	-	-	-	-	-	-
MBC malting approval for malt distilling use	-	T	-	-	T	-	T	F	F	F	N	F	-	-	-	-	-	-	-
MBC malting approval for grain distilling use	-	-	-	-	-	-	-	-	-	-	N	-	F	-	-	-	-	-	-

On the 1–9 scales, high figures indicate that a variety shows the character to a high degree (e.g. high resistance).
Comparisons of variety performance across regions are not valid.

Varieties no longer listed: Fairway, Jensen, Spinner, SY Bronte, SY Tungsten and SY Splendor.
All yields on this table are taken from treated trials receiving a full fungicide programme.

UK = Recommended for the UK
E = Recommended for the East region
W = Recommended for the West region
Sp = Specific recommendation. Fairing is suitable for the production of malt for grain distilling

C = Yield control. For this table, Propino and SY Tungsten were also control varieties but are no longer listed
* = Variety no longer under test in RL trials
~ = Variety lacking a gene for lipogenase production (a Null-Lox variety)
MBC = Malting Barley Committee
[ ] = Limited data

F = Full MBC approval in this segment
N = Not approved by MBC in this segment
P = Provisional MBC approval in this segment
T = Under test for MBC approval in this segment

LSD = Least significant difference
Average LSD (5%): Varieties that are more than one LSD apart are significantly different at the 95% confidence level

Rhynchosporium ratings

Low disease levels in trials in 2020 and 2021 limited data and resulted in low confidence in the rhynchosporium ratings for newer varieties (indicated by bracketed ratings), with some recommended with very low ratings.
Sufficient data from 2022 has enabled more robust ratings to be calculated, producing ratings more in line with those expected for recommended varieties.

Winter Beans PGRO Descriptive List 2023

The control for yield is the mean of 4 & 5 year varieties (4.50t/ha). Yield differences of less than 8.0% are not statistically different

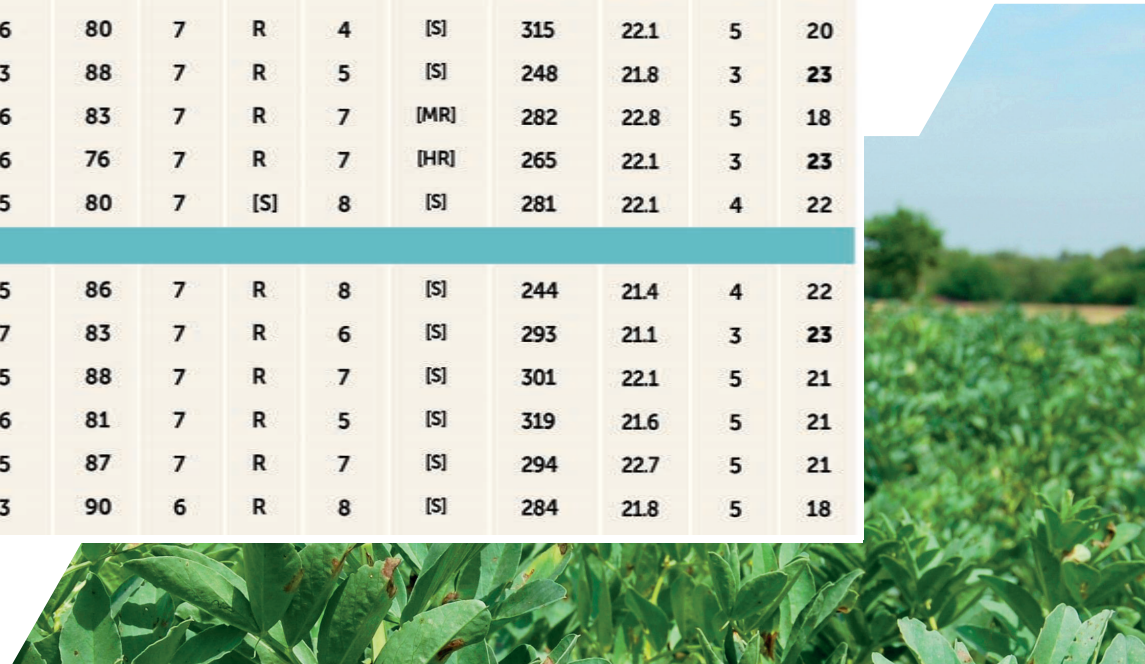
			Agronomic characters				Resistance to		Seed characters			
	UK Agent	Yield as % of Control	Flower colour	Earliness of maturity (1-9)	Straw length (cm)	Standing ability at harvest (1-9)	Downy mildew (1-9)	Rust* (1-9)	Thousand seed weight (g) (@15%mc)	Protein content (% dry)	No. Years in matrix	Year first listed
Pale Hilum												
Vespa	Sen	111	C	5	115	8	5	5	667	25.7	5	18
Vincent	Sen	108	C	5	117	8	7	4	768	26.9	5	21
Bumble	Sen	104	C	5	121	8	5	5	665	25.3	5	16
Bonneville	Sen	102	C	6	115	8	5	4	692	26.5	3	**23**
Norton	Sen	102	C	7	112	8	6	5	659	25.8	5	21
Pantani	LSPB	96	C	8	90	8	5	5	610	23.3	4	22
Honey	Sen	94	C	7	105	9	5	4	673	25.9	5	12
Tundra	LUK	94	C	6	105	8	5	5	607	25.7	5	14

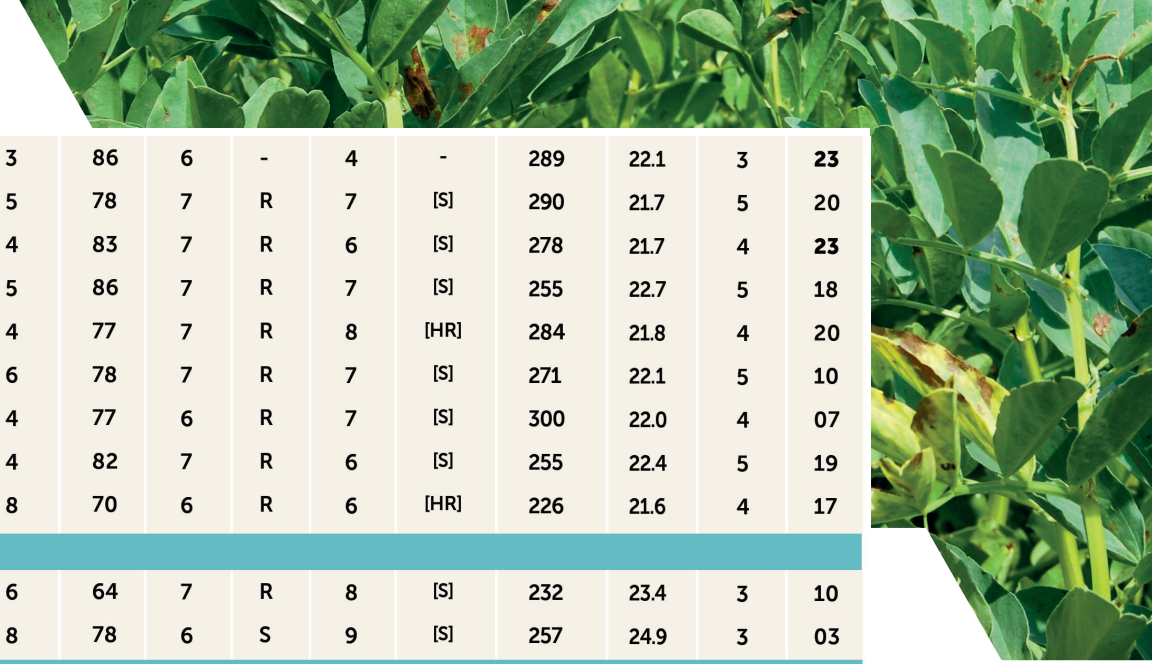
(1-9) A high rating indicates that the variety shows the character to a high degree. The scales of characters of winter beans do not necessarily correspond with those for spring beans. © PGRO 2022 23.11.2022

Combining Peas PGRO Descriptive List 2023

The control for yield is the mean of 4 and 5 year varieties (3.88 t/ha). Yield differences of less than 13.2% are not statistically different.

			Agronomic characters			Resistance to			Seed characters			
	UK Agent	Yield as % of Control	Earliness of maturity (1-9)	Straw length (cm)	Standing ability at harvest (1-9)	Pea wilt (Race1)	Downy mildew (1-9)	Powdery mildew *	Thousand seed weight (g) (@15%mc)	Protein content (% dry)	No. Years in matrix	Year first listed
Yellow												
Kameleon	Sen	114	6	76	7	R	5	[S]	301	21.8	5	20
Orchestra	LSPB	111	6	80	7	R	4	[S]	315	22.1	5	20
Glam	Sen	108	3	88	7	R	5	[S]	248	21.8	3	**23**
Manager	KWS	108	6	83	7	R	7	[MR]	282	22.8	5	18
LG Ajax	LUK	103	6	76	7	R	7	[HR]	265	22.1	3	**23**
Rivoli	Sen	102	5	80	7	[S]	8	[S]	281	22.1	4	22
Green												
Carrington	LSPB	115	5	86	7	R	8	[S]	244	21.4	4	22
Butterfly	LSPB	109	7	83	7	R	6	[S]	293	21.1	3	**23**
Greenway	IARA	107	5	88	7	R	7	[S]	301	22.1	5	21
Stroma	LSPB	107	6	81	7	R	5	[S]	319	21.6	5	21
Mikka	IARA	107	5	87	7	R	7	[S]	294	22.7	5	21
Bluetime	LSPB	107	3	90	6	R	8	[S]	284	21.8	5	18





KWS Gotham	KWS	107	3	86	6	-	4	-	289	22.1	3	**23**
Kactus	Sen	106	5	78	7	R	7	[S]	290	21.7	5	20
Kiravi	Sen	105	4	83	7	R	6	[S]	278	21.7	4	**23**
Karioka	Sen	104	5	86	7	R	7	[S]	255	22.7	5	18
LG Aviator	LUK	101	4	77	7	R	8	[HR]	284	21.8	4	20
Daytona	Agrii	98	6	78	7	R	7	[S]	271	22.1	5	10
Prophet	LUK	96	4	77	6	R	7	[S]	300	22.0	4	07
Mankato	KWS	96	4	82	7	R	6	[S]	255	22.4	5	19
Greenwood	IARA	92	8	70	6	R	6	[HR]	226	21.6	4	17
Maple												
Mantara	LUK	95	6	64	7	R	8	[S]	232	23.4	3	10
Rose	Dalt	92	8	78	6	S	9	[S]	257	24.9	3	03
Marrowfat												
Takayama	LSPB	96	4	87	6	R	6	[S]	350	21.5	3	**23**
Akooma	LSPB	95	4	81	5	R	5	[S]	406	22.8	5	21
Octavia	IARA	88	3	79	7	R	3	[S]	399	23.0	5	20
Sakura	Dalt	86	5	80	6	R	4	[S]	382	23.3	5	08

(1-9) A high rating indicates that the variety shows the character to a high degree. All varieties are semi-leafless. Downy mildew: Varietal resistance may vary in different regions as race structure of the disease changes. Pea wilt (Fusarium oxysporum f. sp. pisi)(race 1)
R = Resistant; S = Susceptible. *Powdery mildew Trials & Breeders information - HR = High resitsance, MR = Moderate resistance, S = Susceptible. © PGRO 2022 23.11.2022

Spring Beans PGRO Descriptive List 2023

The control for yield is the mean of 4 and 5 year varieties (4.24 t/ha). Yield differences of less than 7.3% are not significantly different.

			Agronomic characters				Resistance to		Seed characters			
	UK Agent	Yield as % of Control	Flower colour	Earliness of maturity (1-9)	Straw length (cm)	Standing ability at harvest (1-9)	Downy mildew (1-9)	Rust* (1-9)	Thousand seed weight (g) (@15%mc)	Protein content (% dry)	No. Years in matrix	Year first listed
Pale Hilum												
Genius	LSPB	110	C	6	109	8	5	4	541	27.3	3	23
Lynx	LSPB	107	C	6	108	8	7	4	518	28.1	5	16
LG Stego	LUK	106	C	7	110	8	3	5	562	27.7	3	23
Futura[LVC]	LSPB	106	C	7	111	8	4	4	565	26.5	3	23
Ghengis	LSPB	105	C	7	113	8	4	5	558	28.1	5	20
Stella	SU	105	C	7	110	8	3	5	537	27.8	5	21
Victus[LVC]	LSPB	104	C	7	104	8	5	4	547	27.8	5	19
Macho	LSPB	104	C	5	109	8	4	6	650	26.8	5	20
Capri	SU	104	C	7	109	8	3	4	512	28.3	5	21
LG Sphinx	LUK	102	C	6	108	8	4	4	499	28.4	5	21
Vertigo	LSPB	101	C	7	108	8	4	4	572	27.8	5	13
LG Raptor	LUK	100	C	7	109	8	4	5	534	28.0	5	20
LG Viper	LUK	100	C	5	99	9	6	7	582	28.4	5	21
Fuego	LUK	95	C	7	104	8	4	4	562	28.3	4	05
Yukon	LSPB	92	C	8	101	8	9	5	622	27.5	5	20
Black Hilum, Tic												
Maris Bead	WAC	83	C	6	115	7	7	-	399	29.7	3	64

Key to Source Of Varieties

AGENT CODE ON DL	UK AGENT
Agrii	Agrii
Dalt	Dalton Seeds
IARA	IAR Agri
KWS	KWS UK Ltd
LSPB	LS Plant Breeding
LUK	Limagrain UK Ltd
SU	Saaten Union (UK) Ltd
Sen	Senova Ltd
WAC	WA Church (Bures) Ltd

(1-9) A high rating indicates that the variety shows the character to a high degree. The scales of characters of spring beans do not necessarily correspond with those for winter beans. The export market for human consumption usually requires pale hilum types. LVC = Low Vicine & Low Convicine (LVC). *Rust data influenced mostly by 4 trials in 2020. The lsd is approx 1 rating point. 23.11.2022

HUTCHINSONS
Crop Production Specialists

Advanced agronomy advice

You have a question, we have the answer

Digital
- Tools in Omnia to ease every decision

TerraMap
- The most accurate soil mapping system

Healthy Soils
- Soil improvement strategies

Environmental Services
- Benefit from schemes and advice

Farm Business Consultancy
- Maximise business performance

Agroecology Services
- Practical, sustainable farming techniques

Carbon Services
- Understand and manage your farm's Carbon

Seed
- Varieties for your situation

Nutrition
- Optimise for yield and performance

See the difference for yourself

hlhltd.co.uk

HUTCHINSONS

Crop Production Specialists

Your local Hutchinsons agronomist is able to provide you with seeds and varieties advice and guidance, as well as supply all of the seeds that have been mentioned within this book and many more.

For more information on any of our products or services please contact a member of the Hutchinsons Seed Team:

NATIONAL SALES ENQUIRIES:

David Bouch
SEED MANAGER – NATIONAL
Office: 01526 831306
Mobile: 07802 630107

Peter Brundle
SEED MANAGER – SOUTH
Mobile: 07774 707494

Emma Roughton
COMMERCIAL SEED & FERTILISER SUPPORT – CENTRAL
Mobile: 07825 645404

Stewart MacIntyre
SEED MANAGER – NORTH
Mobile: 07834 933890

David Neale
CENTRAL
Mobile: 07799 695549
Tel: 01451 844264

Jack Richards
LOGISTICS AND SEED CO-ORDINATOR – SOUTH WEST
Office: 01872 227944

Dianne King
SEED ADMIN – DORRINGTON
01526 831309

Lucy Thomas
SEED ADMIN - TRURO
01872 227941

Central Seed Office
Tel: 01526 832771

H L Hutchinson Limited
Weasenham Lane • Wisbech
Cambridgeshire • PE13 2RN

Tel: 01526 832771
Email: seedorders@hlhltd.co.uk

www.hlhltd.co.uk

@Hutchinsons_Ag
HLHutchinsons

designed and produced by Fine Design Ltd 01354 650 679