MasterSeeds

Agri intelligence

# **Arable Crops** Autumn 2024







# Dear Grower

Welcome to this year's edition of the Agrii-Seed Autumn Crops Yearbook, packed full of information that we hope you find useful.

If you have any questions, please don't hesitate to get in touch.



**John Miles** Agrii Seed Technical Manager

After enduring a forgettable Winter and Spring, we are determined to embrace a positive outlook as we begin to look forward to and plan Autumn 2024.

On the variety front, there are notable developments to take note of. Firstly, we have exciting new variety introductions for this season, making it worthwhile to attend field days and learn about their compatibility with our existing crops.

Secondly, the consequences of this autumn will reverberate through seed supply. While the industry anticipates reduced areas due to crop losses, the exact extent remains uncertain. In such a market, it's practical to place orders promptly this spring if you have specific needs.

Nutrition will be pivotal in optimising crop yields this Spring. Nutrient depletion from soils, erosion, or compaction will impact availability, especially during dry spells. Our R&D efforts underscore the importance of measurement for informed decisions. Early tests indicate expected deficiencies in Boron and Sulphur, and other nutrients, varying by location. At recent winter meetings, I advised farmers to identify areas designated for home-saved seed crops. Prioritising these areas will enhance both yield and seed quality. It's crucial to plan harvest around securing these crops and schedule mobile services promptly to ensure timely drilling. Selecting the right variety within the optimal drilling window is imperative this year, considering the implications of earlier drilling on Septoria resistance, lodging, and grain quality. Our Advisory List offers a drilling schedule based on these traits.

This Autumn, the focus is on starting with quality seed, available from either Master Seeds or Agrii Mobile.

In the forage section, our Roots Seed Selector and Master Leys Mixture Selector guide you towards options aligning with your objectives. The cover crops guide provides technical insights to tailor solutions to your needs.

As we all anticipate a better spring, I look forward to catching up at an iFarm event this summer, if not sooner.

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# An introduction to Master Seeds



### A science-based approach to variety selection

- + Varieties are selected using Agrii's extensive trials network
- + Variety Sustainability Ratings give a balanced view of performance



### Master Seeds quality

+ Tested more rigorously than Higher Voluntary Standard seed



### Supporting our future seed business

+ Continued investment in statics and mobile seed plants and our Farm Saved Seed operations

### Sustainable production of seed

+ Seed grown as close to seed plants as is practically possible



#### Investing in our people

+ Training of staff to ensure advice and service exceed industry standards



### **Regional** expertise

+ Our Seed Specialists are embedded within our local agronomy teams

### We work with the best suppliers in the industry

+ Our seed treatments are rigorously tested through our own trials network

### Seeking new markets

+ We are continually looking to introduce innovation crops to the UK market

### **Buy-back opportunities**

+ We work with partners to identify suitable buy-back contracts





SEED SAMPLE STANDARDS	Master Seeds	C1 HVS	C2 HVS	C2 Lower	C1/C2 Triticale
Germination level	90% On preliminary germ	85%	85%	85%	80%
Vigour tests carried out on	Winter Wheat Spring Wheat	No test required	No test required	No test required	No test required
Analytical purity (inert matter) % weight	1% (99%)	1% (99%)	1% (99%)	2% (98%)	2% (98%)
Loose smut in barley	Treated for control	0.2% or treated	0.2% or treated	0.5% or treated	n/a
Embryo testing for loose smut in barley	Treated for control	Not compulsory	Not compulsory	Not compulsory	n/a

### Conventional Wheat, Barley, Oats

MAXIMUM IMPURITIES ALLOWED					
IMPURITY	Master Seeds 2kg sample	C1 HVS equivalent 2kg sample	C2 HVS equivalent 2kg sample	C2 Lower equivalent 2kg sample	CI/C2 Triticale equivalent 2kg sample
Seeds of other cultivated cereal species	2	2	6	28	28
Seeds of brome or couch species	2	2	2	28	28
Seeds of blackgrass (Alopecurus myosuroides)	Nil	2	4	28	28
Seeds of other weed species	2	2	4	28	28
Maximum species impurities allowed	4	4	8	40	40
Ergot pieces	1	2	2	12	12
Wild oats	Bardex tested Nil in 20kg	Nil in 1kg sample	Nil in 1kg sample	Nil in 1kg sample	Nil in 1kg sample
Sample size inspected	2kg	1kg	1 kg	0.5kg	0.5kg

### Hybrid Barley

SEED SAMPLE STANDARDS	Master Seeds	Certified seed
Germination level	90% On preliminary germ	85%
Analytical purity (inert matter) % weight	1% <b>(99%)</b>	2% (98%)

MAXIMUM IMPURITIES ALLOWED		
IMPURITY	Master Seeds 2kg sample	Certified seed standards equivalent 2kg sample
Seeds of other cultivated cereal species	7	28
Seeds of brome or couch species	Nil	No Standard
Seeds of blackgrass (Alopecurus myosuroides)	Nil	28
Seeds of other weed species	4	28
Maximum species impurities allowed	10	40
Ergot pieces	4	12
Wild oats	Bardex tested Nil in 20kg	Nil in 1kg sample
Sample size inspected	2kg	0.5kg

### Hybrid Rye

SEED SAMPLE STANDARDS	Master Seeds	Basic	C2
Germination level	90% On preliminary germ	85%	85%
Analytical purity (inert matter) % weight	1% <b>(99%)</b>	2% (98%)	2% (98%)

#### MAXIMUM IMPURITIES ALLOWED

IMPURITY	Master Seeds 2kg sample	C2 Equivalent 2kg sample
Seeds of other cultivated cereal species	4	28
Seeds of brome or couch species	Nil	28
Seeds of blackgrass (Alopecurus myosuroides)	Nil	28
Seeds of other weed species	4	28
Maximum species impurities allowed	8	40
Ergot pieces	4	12
Wild oats	Bardex tested Nil in 20kg	Nil in 1kg sample
Sample size inspected	2kg	0.5kg

### Naked Oats

SEED SAMPLE STANDARDS	Master Seeds	C2 HVS	C2 Lower Minimum
Germination level	80% On preliminary germ	75%	75%
Analytical purity (inert matter) % weight	1% (99%)	1% (99%)	2% (98%)

MAXIMUM IMPURITIES ALLOWED			
IMPURITY	Master Seeds 2kg sample	C2 HVS Equiv 2kg sample	C2 Lower Equiv 2kg sample
Seeds of other cultivated cereal species	6	6	28
Seeds of brome or couch species	Nil	2	28
Seeds of blackgrass (Alopecurus myosuroides)	Nil	4	28
Seeds of other weed species	4	4	28
Maximum species impurities allowed	8	8	40
Ergot pieces	1	2	12
Wild oats	Bardex tested Nil in 20kg	Nil in 1kg sample	Nil in 1kg sample
Sample size inspected	2kg	1 kg	0.5kg

### Beans

SEED SAMPLE STANDARDS	Master Seeds	Certified seed
Sample size examined	2kg	1 kg
Purity (% by weight)	Minimum 99%	Minimum 98%
Germination	90% on preliminary test	80%
Ascochyta C1	Nil	No standard
Ascochyta C2	0.5%, maximum 6% if treated	No standard
Stem nematode infection C1	Nil on a sample from the cleaned seed lot	No standard
Stem nematode infection C2	Absent	No standard
Other plant species in total	Maximum 0.1%	Maximum 0.5%
Wild oats	Nil in 2kg	Nil in 1kg

#### Notes

There are no higher voluntary standards (HVS) for Triticale / Hybrid Barley / Hybrid Rye. Bardex test: A Bardex test does not have to be carried out on the on line QC so long as a 20kg sample is tested for each final seed certification lot produced as Master Seeds. Cereal seed must not exceed maximum moisture content of 17% on all grades.

Thousand seed weight, should normally be carried out on a screened farm sample, alternatively it may be carried out on a screened sample from the as-grown intake or from the cleaning line.

# PRIORITY SEED DELIVERY



WINTER WHEAT WIN

WINTER OILSEED RAPE

WINTER BARLEY WINTER RYE

### Priority delivery for early seed supply

### Master Seeds RESERVED seed is held back from the previous harvest for growers who require early seed supply for the following year.

It is cleaned, then germination tested and treated in June/July and delivered immediately. It has all of the usual Master Seeds benefits, but with the peace of mind of being able to reserve your priority seed, ready and tailored as you need it, to meet your early drilling requirements.

Securing your seed supply with **RESERVED** seed means that it will arrive on-farm, in advance, at a convenient time for you – avoiding logistical problems at the time of drilling.



FIND OUT MORE...

Please get in touch with your usual Agrii Agronomist or Seed Specialist for more information, or contact the Agrii Seed Desk on 01277 898202 or email info@agrii.co.uk.

#### THE MASTER SEEDS BENEFITS

- The most extensive trials network in the UK used to create the Agrii Advisory List

   a balanced view of what different varieties can offer.
- Master Seeds certified seed is processed using our own or Agrii approved production facilities.
- It is fully traceable and undergoes rigorous quality control.
- Seed treatment solutions that are meticulously tested through our own trials network to provide the best proven products available in the industry.

### The Agrii Advisory List and Variety Sustainability Ratings

To assist our agronomists and customers in selecting the right variety for the right situation, we run national and regional variety trials. These include those found on our iFarm and Technology Centre sites – extending from Carnoustie (Angus) down to Saltash (Cornwall), and from Bridgend (South Wales) across to Great Dunmow (East Anglia).

The detailed data from these trials is used to create the Agrii Advisory List. This complements the AHDB Recommended List, with extra analysis and statisticallyrobust data from Agrii's extensive national and regional variety testing programme.

The scores provided in this Yearbook within the detailed variety information are from the Agrii Advisory List. Your Agrii agronomist has access to the full Agrii Advisory List data – please speak to them for more information. In 2020 we introduced Variety Sustainability Ratings to the Agrii Advisory List. As well as helping individual growers in their variety selection, these sustainability ratings form part of a concerted effort to improve the sustainability of UK arable production as a whole. They raise the technical bar of selecting varieties to a new level.

These sustainability ratings provide an unbiased way of comparing the overall robustness and resilience of varieties. Through collating and analysing 'realtime' data, they help us to answer the following questions:

- Are the varieties technically robust?
- Which varieties offer consistent yields and quality and reduce agronomic risk?
- Do they provide the flexibility to use crop protection products more efficiently?

Scores are also added for traits which reduce pesticide usage in the crop, e.g. orange wheat blossom midge, BYDV, TuYV and pod shatter resistance.





### Agrii Advisory List and VSRs

### Agronomy

### How are Agrii's Variety Sustainability Ratings calculated?

Individual weighted scores are added together to give the high, medium or low sustainability rating:

#### WINTER WHEAT

#### VSRs are based on:

- Foliar disease resistance
- + Lodging
- Orange wheat blossom midge resistance
- Yield resilience and consistency
- Grassweed competitiveness
- + Specific weight
- Latest optimum sowing date
- Second vs first wheat performance

- WINTER BARLEYOILSEED RAPEVSRs are based on:VSRs are based on:
- BYDV tolerance
   Foliar disease resistance
- + Lodaina
- Yield resilience
- Grassweed competitiveness
- + Specific weight
- Maturity
   Disease resistance
   TuYV tolerance

lodaina

+ Autumn and

+ Height

spring vigour

+ Stem stiffness and

- Pod shatter resistance
- Nitrogen use efficiency

A weighting is applied to reflect the relative agronomic importance of each character, their potential to reduce pesticide use and overall cost/tonne.

#### We have colour-coded the wheat, barley and oilseed rape varieties in this Yearbook to show their Variety Sustainability Ratings.

Please ask your agronomist for details of each variety's detailed scores, and for more information about how the scores were attributed to each variety.







### **GREEN HORIZ S** Background

"Growing food is our mission, and doing that productively and sympathetically is what we mean by sustainable farming. Agriculture has the unique capacity to provide solutions to the challenge of producing healthy, nutritious food while mitigating climate change and protecting biodiversity. Through our Green Horizons initiative, we strive to dovetail that approach with the right agronomic advice to put our growers ahead in this rapidly evolving environment."



TRAINING

• • •



# **2023** in numbers

**67**%

of our customers recycle their farm plastic



increase in sales for highly sustainable varieties (scored through our VSR trials) of our sites are powered by renewable energy

We are targeting a 20% NUE increase in nitrogen use efficiency by 2030



customer facing employees received FCN wellbeing in agriculture training



electric vehicle miles covered in 2023



for selected charities through our Miles in May wellbeing challenge



# ALL DRESSED UP AND READY TO GROW



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# Winter Wheat

### UKFM\* GROUP 1 BREAD

Skyfall

Crusoe

SY Cheer **NEW** KWS Zyatt

### UKFM GROUP 2 BREAD & FEED

KWS Extase KWS Palladium

### UKFM GROUP 3 BISCUIT/DISTILLING

Bamford **NEW** LG Astronomer

### OFT FEED/DISTILLING

LG Skyscraper Blackstone **NEW** RGT Bairstow LG Tapestry

#### HARD FEED

KWS Dawsum Graham Champion LG Typhoon Fitzroy LG Beowulf **NEW** SY Insitor Oxford KWS Cranium RGT Grouse







### WINTER WHEAT VARIETY TRIALS - 2023 NATIONAL AND REGIONAL TRIALS SUMMARY



Sixteen trials, Mean yield of controls\* = 10.1 t/ha Note: Untreated results are from unreplicated plots

Maste

Winter Wheat

 $\forall$ 

### WINTER WHEAT VARIETY TRIALS - 2023 NORTHERN TRIALS SUMMARY



Source: Three trials (Carnoustie, Coldstream and Bishop Burton), Mean yield of controls\* = 11.2 t/ha Note: Untreated results are from unreplicated plots



Master

The Seeds to Grow your Farming Busine





Source: Mean of 2 site (Light land site, Wilbrham, Cambs, and heavy land site, Throws, Essex)

AHDB

### Winter Wheat

AHDB

## Skyfall

GROUP 1, BREAD & FEED MEDIUM VSR

Remains a big variety due to its consistent performance, late-drill flexibility, stiff straw and early maturity. Widely accepted by UK millers and often finds its way into export cargoes. Suitable for all areas of the UK and it can be drilled right through to the end of the first week in March. Short, relatively stiff-strawed (7) (7) and early to mature (0) but watch for potential sprouting and prioritise harvesting accordingly. It has a generally good disease package but watch yellow rust (3.1) (2.5). Acceptable performance as a second wheat and resistant to ear blight (7) and orange wheat blossom midge.

BREEDER:	RAGT SEEDS, UK
PARENTAGE:	C4148 X HURRICANE

# GROUP 1, BREAD HIGH VSR

The first new group 1 milling wheat for several years with agronomic imporvements but it yields around the same level as the established varieties. Good grain quality with HFN 299s, specific weight **79.5kg/hl** and high protein (13.0%). Not approved for export under uks. Best drilled as a first wheat. It is a slightly taller variety (**90.5 cm**) but its straw strength is acceptable when treated with pgr (**7**) (**7**). Reasonable disease ratings for mildew (**7.6**), yellow rust (**7.4**) (8.3), *Septoria tritici* (**6**) (6.3) and slightly weaker on brown rust (**5.5**). It is later to mature (+1) (+2) and not resistant to orange wheat blossom midge.

BREEDER:	SYNGENTA, UK
PARENTAGE:	KWS TRINITY X EXPERT

### KWS Zyatt



The highest yielding Group 1 milling wheat that has dropped back in popularity due its yellow rust susceptibility. Good baking quality with excellent grain characteristics and suitable for ukp export. Drill from the end of September, preferably on heavy land. Excellent second wheat performance. Decently stiff (8) (7) but take care in fertile situations and relatively early to mature (0) (-1). Reasonable mildew (7), brown rust (6.9) (4.6) and Septoria tritici (6.3) (6.2) resistance, but very weak on yellow rust (3.1) (2.4). Not resistant to orange wheat blossom midge and moderately susceptible to fusarium ear blight (5.8).

BREEDER:	KWS UK
PARENTAGE:	QUARTZ X HEREFORD

### Crusoe

GROUP 1, BREAD & UKP EXPORT

LOW VSR

Crusoe has made a comeback given the yellow rust concerns of Skyfall and KWS Zyatt. It retains strong support from the millers for its excellent baking quality and from growers for its ability to lay down protein (13.4%). Best drilled from the third week of September through to the end of October, but no later. Average competitiveness against grassweeds. Short and relatively stiff straw (7.4) (7.0) with medium maturity +1 (0). A good set of disease scores with mildew (7), yellow rust (8.4) (7.6) and Septoria tritici (6.3) (6.2), but be careful with brown rust (2.7) (2.3). Not resistant to orange wheat blossom midge.

BREEDER:	LIMAGRAIN UK
PARENTAGE:	CORDIALE X GULLIVER



### **KWS** Extase

Winter Wheat



### GROUP 2, BREAD, UKP EXPORT & FEED HIGH VSR

#### + High yields and excellent grain guality

#### + Outstanding Septoria tritici resistance

Now firmly established as the UK's leading winter wheat variety. Consistently high yielding in Agrii trials over the past three years (103%, treated, 93% untreated). A Group 2 bread-type with ukp for export that has also attracted interest as a feed wheat, due to its high yields, outstanding Septoria resistance and bold grain (78.1 kg/hl).

Suitable for all regions of the UK except areas of high sterility risk. Consistent across soil types with good performance on lighter soils. A fast-developing variety best drilled from the last week of September through to the end of December, but it can be drilled to the end of January where necessary. Acceptable second wheat performance and average competitiveness against grassweeds. With tall straw, care is needed particularly on more fertile soils as stem stiffness (7.6) (6.0) could be better and a robust PGR programme should be used. It is early to mature (-1) (-1).

Excellent disease resistance with a very strong rating for Septoria tritici (7.4) (6.4), yellow rust (7.4) (6.4) and brown rust (6.4) (5.7). The juvenile stage of yellow rust may be seen before GS32. It is very susceptible to evespot (3.6) so it will need attention in a second wheat situation. Not resistant to orange wheat blossom midge.



### **KWS** Palladium

GROUP 2. BREAD & FEED VERY HIGH VSR



- + A good choice to grow alongside KWS Extase
- + Short, stiff and good all-round disease resistance

Looks like a good partner to grow alongside KWS Extase with similar high vields (98% treated, 92% untreated). Accepted by the millers as a Group 2-type but not approved for *ukp* export. Grain quality is good with Hagberg Falling Number 305s, a slightly lower specific weight (77.6 kg/hl AHDB) and a protein content of 12.2%.

Suitable for all regions including areas of high sterility risk. Performs well across soil types and is an acceptable choice as a second wheat. It can be

drilled slightly earlier than KWS Extase but best grown from the last week of September. Medium length straw, decently stiff straw treated (7.7) (8) and untreated (7). Relatively early maturity (-1) (-1) and has good resistance to sprouting.

A clean variety with a very good disease package with mildew (7.5), vellow rust (8.8) (8.3), brown rust (5.2) (4.1) and Septoria tritici (7.3) (6.7). Moderately susceptible to fusarium ear blight (5.5) and not resistant to orange wheat blossom midge.



### UKFM Group 3 Biscuit/Distilling

### NEW Bamford BISCUIT, POTENTIAL DISTILLING & EXPORT VERY HIGH VSR



#### A new hight yielding soft wheat with wide marketing opportunities

#### + Excellent agronomic profile

A new addition to the UK Recommended List with high consistent yields over the past three years (106% treated, 92% untreated) and good agronomic characteristics. Excellent physical grain quality (78.5kg/hl) that suits the millers and exporters alike, and it is under further tests for the distilling market where shows high spirit yields.

Best drilled in the main drilling window and suitable for all regions except areas of high sterility risk until more information is available. Performs well across a range of soil types including lighter soils and more fertile sites. It has PCH1 eyespot resistance and performs well as a second wheat. Agrii trials suggest that straw strength is not as stiff as official ratings; (7) (5) untreated and (7.1) (6) treated.

A good package for disease with mildew (6), yellow rust (7.0) (7.2), brown rust (6.1) (6.0), Septoria tritici (6.7) (6.6) and moderately susceptible to fusarium ear blight (5.8). Resistant to soil borne wheat mosaic virus but not resistant to orange wheat blossom midge.

BREEDER:	ELSOMS SEEDS
PARENTAGE:	MOULTON X 129

## LG Astronomer



- The mainstay biscuit wheat with excellent physical grain quality and rated 'medium' for distilling
- + Good resistance against yellow and brown rust

Starting to look outclassed in terms of yield (93% treated, 85% untreated) but it retails good grain quality (HFN 232, 78.1 kg/hl) that suits the domestic biscuit market but it is not accepted for uks export. Its northern performance, later maturity and mildew susceptibility have limited interest in the traditional distilling markets.

Its best performance is in the East and West regions in both official and Agrii trials, while its performance drops off further north. Acceptable performance

as a second wheat and across soil types including lighter soils. Unsuitable for early drilling but it has performed well in late drilled trials up until the end of January. Medium-long straw with good straw strength when treated (8.6) (7) and is very competitive against grassweeds. Later maturity (+2) (+1) and reasonable resistance to sprouting (7).

Disease ratings are good for yellow rust (8.3) (7.7), brown rust very good (7.4) (6.7) but weaker for Septoria tritici (5.9) (4.2) and mildew resistance is poor (3.8). Average resistance to eyespot (4.7), moderately resistant to fusarium ear blight (6.4) but resistant to orange wheat blossom midge.

BREEDER: LIMAGRAIN UK PARENTAGE: (COUGAR X LEEDS) X BRITANNIA



Soft Feed/Distilling

### LG Skyscraper

Winter Wheat



### SOFT FEED & DISTILLING LOW VSR

- + Consistent high yields and good physical grain quality
- + Soft feed wheat and rated 'medium' for distilling

Remains a major soft wheat across the UK with consistent yields in Agrii trials (98% treated, 88% untreated) and it continues to perform well on the UK Recommended List. Good specific weight (77.1 kg/hl) and rated 'medium' for distilling but unsuitable for uks export.

Suitable for all regions of the UK including areas of high sterility risk. Consistent across soil types including lighter soils and very high yielding as a second wheat, even though it performs better as a first wheat. Proven to be one of the most consistent varieties over the past few years, probably due to its taller straw. Best drilled from the start of October through to the end of January. A high tillering variety, fast to grow away in the spring with average competitiveness against grassweeds. Fairly tall straw of very average strength both treated and untreated (6) (5), so it needs a robust PGR programme. Reasonably early to mature (0) (0).

Its disease profile is very average, with mildew (7), yellow rust (6.7) (7.0), brown rust (5.4) (3.9) and poor Septoria tritici (4.9) (4.0). Moderately resistant to fusarium ear blight (6.4) and resistant to orange wheat blossom midge.

BREEDER:	LIMAGRAIN UK	
PARENTAGE:	(CASSIUS X NAWW29) X KWS SANTIAGO	

### NEW Blackstone



SOFT FEED & POTENTAIL DISTILLING VERY HIGH VSR

+ A new high yielding soft feed wheat rated 'Good' for distilling

#### + Midge resistant with reasonable foliar disease resistance

A high yielding soft wheat in Agrii Scottish trials over the past two years (99% treated, 93% untreated). Average physical grain quality (76.7 kg/hl) and similar to that of LG Skyscraper and RGT Bairstow. Rated 'good' for distilling.

Best grown in the north including areas of high sterility risk and sown in the main drilling window until further information is available. It can be grown on both heavy and lighter soils with particularly good performance on the latter. It is a reasonable second wheat choice while its grassweed competitiveness is still under evaluation at Stow Longa.

Medium height (80 cm), stiff straw treated (8) (8) and untreated (8) (8) but its maturity is later (+1) (+3).

It has reasonable disease ratings for mildew (6), yellow rust (6), brown rust (5) and Septoria tritici (5.5) (4.2). It appears to be more susceptible to fusarium ear blight than the official rating suggests (5.6). Resistant to orange wheat blossom midge.

BREEDER:	ELSOMS WHEAT
PARENTAGE:	PANACEA X TEMPO

SRUC

### Winter Wheat

### **RGT** Bairstow

### SOFT FEED & DISTILLING HIGH VSR

#### + Rated 'good' for distilling

+ Reasonably good disease profile

RGT Bairstow came into the market a couple of years ago as a Skyscrapertype with similar yields (98% treated, 85% untreated) but slightly better standing and disease resistance. Grain quality is very average with HFN 228s and specific weight 76.6 kg/ hl, but it is rated 'good' for distilling so it is of interest in Scotland where it has performed consistently well (102%).

Suitable for all soil types, including lighter land, and it performs well

as a second wheat. With an average speed of development it is not suited to very early drilling but will perform well through to the end of January. Very competitive against grassweeds in Stow Longa trials. Moderately tall with reasonable straw strength treated (6.4) (7) but (5.6) (5) untreated, so it requires a robust PGR programme. It is relatively late to mature (+2) (+3).

RGT Bairstow's disease scores are decent enough with mildew (6), yellow rust (7.5) (6.4) and Septoria tritici (5.9) (5.2) but weak against brown rust in Agrii trials (6.0) (4.0). Moderately susceptible to fusarium ear blight, weak against eyespot (3.8) but resistant to orange wheat blossom midge.

BREEDER:	RAGT UK
<b>PARENTAGE:</b>	(REVELATION X KWS SANTIAGO) X COUGAR



### LG Tapestry SOFT FEED & DISTILLING VERY HIGH VSR

- + A non-Recommended List soft feed-type
- + Orange Wheat Blossom Midge and good overall foliar disease resistance

A high yielding soft feed variety (101% treated, 87% untreated) in Agrii trials and a specific weight similar to that of LG Skyscraper. Although it just missed the AHDB or SRUC Recommended List, it has shown a very high sustainability rating in Agrii trials.

Suitable for all regions excluding areas of high sterility risk and best grown on heavy soil as a first wheat. Unsuitable for early drilling but its late drilling performance is good up until the end of January. Its grassweed competitiveness is also excellent. Medium height (86 cm) and stiff straw (8 treated, 7 untreated) and medium-late maturity (+2).

Good disease scores with yellow rust (8.2), brown rust (6.3) and Septoria tritici (6.3), but mildew (3.7) will require some attention. Resistant to orange wheat blossom midge.

BREEDER:	LIMAGRAIN UK
PARENTAGE:	GARRUS X LGW77



### Hard Feed

SRUC

### KWS Dawsum



Winter Wheat

+ High yields and excellent physical grain quality

#### + Drilling date flexibility and all-round disease resistance

Agrii's second biggest selling variety after KWS Extase due to its consistently high yields (101% treated, 95% untreated) and very bold grain (79.9 kg/hl). While it is a hard feed wheat it may be accepted into some low grade flour blends by some millers.

Suitable for growing across the UK including areas of high sterility risk. It can be grown on heavy and light soils and it has a wide drilling window from mid-September through to the end of January. It has a relatively slow speed of development in the spring which is particularly apparent when grown alongside faster developing varieties like KWS Extase. An acceptable second wheat choice with average competitiveness against grass weeds. KWS Dawsum is a high tillering variety of medium height

(85 cm) and average straw strength both treated (7.3) (6) and untreated (7.2) (5) so a robust pgr programme is advisable. It shows medium-late maturity (+1) (+3).

A good set of disease scores for mildew (8), yellow rust (8.9) (8.1), brown rust (6.8) (5.1) and Septoria tritici (6.3) (6.2). Moderately resistant to fusarium ear blight (6.8), average eyespot resistance (5) and not resistant to orange wheat blossom midge.





### Graham



### HARD FEED MEDIUM VSR

+ Consistent high yields and good physical grain quality

#### + Wide drilling window and good resistance against Septoria tritici

Graham has performed consistently well in Agrii trials over the past nine years (101 treated, 89% untreated), and, while it is not the highest yielding variety, much of its success can be attributed to its good Septoria resistance and bold grain (77.7 kg/hl). More suited for East and West regions with yield tailing off in the North and best not grown in Scotland or other areas of high sterility risk. It can be grown on heavy and lighter soil types, but it should always be grown as a first wheat as its second wheat performance is relatively poor.

Graham can multi-task across the drilling window. It has a relatively slow speed of development in the autumn and is ideal for early drilling, yet it moves relatively quickly in the spring. It has a very prostrate autumn growth habit with medium to high tillering capacity so seed rates can be reduced. Agrii late-drill trials show that it continues to yield well through to the end of January.

Average competitiveness against grass weeds. Has average straw length and decently stiff straw, treated (7.6) (7) and untreated (6.9) (6) Early to mature (-1).

Disease ratings are generally good for mildew (6.3) and Septoria tritici(6.6) (6.3), but yellow rust has started to decline (7.0) (5.4) and brown rust (4.9) (3.5) and eyespot (4.4) resistances are poor. Not resistant to orange blossom midge.

BREEDER:	SYNGENTA UK LTD	
PARENTAGE:	EXPERT X PREMIO	

Hard Feed

### Champion HARD FFFD LOW VSR

- + High vielding hard feed wheat
- + Ideally suited for later drilling and lighter soils

A very high vielding hard feed wheat in Agrii trials (103% treated, 92% untreated) and sits near the top of the UK Recommended List so it continues to attract a lot of interest from arowers. However, it has a very average specific weight (75.4 kg/hl) compared with varieties like Graham. Gleam and KWS Dawsum. In spite of this it has taken a significant share of the wheat market.

Champion is most suitable for the East and West regions, adaptable across

soil types and performs well as a second wheat. It is not suitable for regions of high sterility risk and not recommended in Scotland. The straw is reasonably tall (89 cm) and rather weak, (6.4) (4) treated, (6.4) (3) untreated, so attention needed here. Later drilling, second wheat position and lighter soils can be used to help mitigate against the lodging risk. On a positive note it is relatively early to mature (0) (+1).

It has a very good set of disease scores with mildew (6.5), yellow rust (7.9) (7.4), Septoria tritici (7.9) (7.1), but weaker on brown rust (4.7) (3.3) and appears to be moderately susceptible to evespot (4.1) and fusarium ear blight (5.7). Resistant to orange wheat blossom midge.

BREEDER:	DSV UK
PARENTAGE:	DSV20122 X REFLECTION



AHDE

LG Typhoon



### HARD FFFD HIGH VSR

- + A slower developing wheat with good resistance to Septoria tritici
- + Good all-round foliar disease and midge resistance

A hard feed variety that performed consistently well in Agrii's national trials over the past three years (96% treated, 87% untreated). It is a slightly lower yielding variety but opens up opportunities to reduce input costs due to its improved agronomic profile. It has reasonable physical grain guality (77.1 kg /hl) but a relatively low HFN (164).

Suitable for all regions including areas of high sterility risk. It is adaptable across heavy and light soils and suitable for drilling from mid-September through to the end of October. It has performed well in the second wheat slot and has average competitiveness against grass weeds. Moderately tall but with average strength straw, treated (7) (6) and untreated (7) (5) and medium-late maturity (+1) (+2) and higher sprouting risk (5).

A good set of disease scores for mildew (6.5), yellow rust (8.8) (8.1) and Septoria tritici (7.2) (7.0), but weaker against brown rust (5.8) (4.3) and fusarium ear blight (4.9). Resistant to orange wheat blossom midge.

BREEDER:	LIMAGRAIN UK
PARENTAGE:	GARRUS X LGW88

### Fitzroy Hard feed very high vsr

- A non-Recommended List hard feed wheat with consistently high yields
- + Outstanding foliar disease resistance

A non-Recommended List variety but with plenty to offer. This hard feed variety has performed very well in Agrii trials over the past three years with consistently high yields (102% treated, 95% untreated). Grain quality is average with specific weight 76.0 kg/hl.

Suitable across the UK excluding areas of high sterility risk and attracting particular interest in the West due to its excellent *Septoria* resistance and better specific weight than Theodore which is now outclassed. Unsuitable for early drilling and it should be drilled in the main drilling window up until the end of October. Suitable for all soil types including light land and performs well as a second wheat. Relatively tall (93 cm) with average stem stiffness (6 treated, 5 untreated), so it requires a robust pgr programme. Average competitiveness against grass weeds and late maturity (+5).

An excellent set of disease scores with mildew (6.4) yellow rust (8.1), brown rust (6.1) and Septoria tritici (7.6). It appears to be susceptible to fusarium ear blight and it is not resistant to orange wheat blossom midge.

BREEDER:	SECOBRA, FRANCE
UK AGENT:	AGRII
PARENTAGE:	<b>EVOLUTION X STIGG</b>

### NEW LG Beowulf Hard feed New High VSR



#### + Good all-round disease resistance and midge resistance

A new addition to the UK Recommended List with high yields (102% treated, 91% untreated) with very bold grain (78.1 kg/hl).

SRUC

Suitable across the UK excluding areas of high sterility risk until more information is available. It can be grown across heavy and light soils and has a wide drilling window from mid-September through to the end of January. It is also an acceptable second wheat choice. A high tillering variety that is relatively tall (90 cm) and reasonably stiff straw both treated (7.5) (7) and untreated (8.1) (6). It's competitiveness against grass weeds is still under evaluation and it has mid-late maturity (+2) (+3).

A good set of disease scores for mildew (6.1), yellow rust (8.9) (9.0) and Septoria tritici (6.7) (6.8) but weaker against brown rust (4.7) (3.8) and moderately resistant to fusarium ear blight (6.3) and eyespot (5.6). It is also resistant to orange wheat blossom midge.

BREEDER:	LIMAGRAIN UK
PARENTAGE:	COSTELLO X GLEAM



#### Hard Feed

### NEW Oxford HARD FFFD MEDIUM VSR



AHDE

Oxford shares exactly the same parents as Champion with similar high yields (104% treated, 90% untreated) but an improved specific weight (76.1 kg/hl) and stiffer straw. Best grown in the East and West regions on heavy soil and drilled before the end of October. Average height (86.4 cm) and stiffness (7) (6) and slightly later than Champion (+2) (+1). Good set of disease scores with mildew (5.6), yellow rust (8.4) (8.5), Septoria tritici (6.6) (6.3) but weaker on brown rust (6) (4.9) Resistant to orange wheat blossom midge.

BREEDER:	DSV UK
PARENTAGE:	DSV20122 X REFLECTION

### KWS Cranium

### HARD FEED LOW VSR

KWS Cranium's performance has dropped back over the past couple of years (94% treated, 82% untreated) and it has delivered a rather average specific weight 75.8 kg /hl. Suitable across all soil types including lighter soils and acceptable as a second wheat. It has found a niche as a later-drilled wheat but is should still be drilled before the end of December. Tall straw (90 cm) but good straw strength both treated (8) (7), and untreated (8) (8). Poor grass weed competitiveness and later maturity (+3) (+5). Mixed disease scores with mildew (5), yellow rust (8.7) (8.3), brown rust (4.4) (3.6) and Septoria tritici (5.8) (5.9). Moderate resistance to fusarium ear blight (6.7) and resistant to orange wheat blossom midge.

BREEDER:	KWS UK
PARENTAGE:	KWS CRISPIN X KWS KIELDER

## SY Insitor



A high input, high output variety with very high yields (101% treated, 79% untreated) and bold grain (78.6 kg/hl). Suitable for all regions and soil types with particularly good performance on lighter soils. Drill from the end of the last week of September right through to the end of January. It is an average second wheat.

Straw is tall (95 cm) and relatively weak, treated (7) (5) and untreated (6) (3), so a decent pgr programme is required. Medium maturity (+1) (+2). Yellow rust resistance is effectively broken (4) (2.8) but it retains reasonable mildew (6) and Septoria tritici (6.4) (7.1). Resistant to orange wheat blossom midge.

 BREEDER:
 SYNGENTA UK LTD

 PARENTAGE:
 (HEREFORD X OAKLEY) X HEREFORD

### **NEW RGT Grouse**

### HARD FEED WITH BYDV-RESISTANCE LOW VSR

RGT Grouse is the next in line of the Genserus BYDV-resistant varieties from RAGT. The genetic trait is attracting interest from growers looking to move away from using any foliar insecticides. It has relatively low yields in Agrii trials (98% treated, 68% untreated) and average grain quality (76.7 kg/hl). Straw is reasonably tall (91 cm) and weak (6) (6) so a robust pgr programme needed. Indifferent disease scores with mildew (4) yellow rust (4), brown rust (3) but Septoria is reasonable (6.2). Resistant to orange wheat blossom midge.

BREEDER:	RAGT UK
PARENTAGE:	(12TC1062 X KWS SANTIAGO) X KWS SANTIAGO

Disease Resilience

Maste

The Seeds to Grow your Farming Bu

### DISEASE RESILIENCE (2023) Yield Lost to Foliar Disease (t/ha) – seven sites

Poor Moderate Good disease resilience







### WINTER WHEAT VARIETIES AGRII TREATED AND UNTREATED LODGING RATINGS



Nutrition

WINTER WHEAT NPKS PLAN						
TIMING	ING PRODUCT	RATE/HA	NUTRIENTS KGS/HA			
			N	Р	К	SO <sub>3</sub>
1st Dose	Agrii-Start Replenish	350	60	40	79	39
2nd Dose	Agrii-Start Enhance	150	69	0	0	0
3rd Dose	Agrii-Start Enhance	150	69	0	0	0
		Total kgs/ha	198	40	79	39

WINTER WHEAT NKS PLAN						
TIMING		RATE/HA	NUTRIENTS KGS/HA			
			N	Р	К	SO <sub>3</sub>
1st Dose	Agrii-Start Nourish	345	60	0	81	50
2nd Dose	Agrii-Start Enhance	150	69	0	0	0
3rd Dose	Agrii-Start Enhance	150	69	0	0	0
		Total kgs/ha	198	0	81	50



Developed specifically for use across all cereals to fulfil nitrogen, phosphorus, potassium and sulphur requirements in one pass.



Enhance is powered by Nutrisphere-N which stabilises the nitrogen and reduces the risks from volatilisation, leaching and nitrification.



Agrii-Start Nourish NKS+ is a size matched formulation designed for broadcast systems up to 36m compared with other fertiliser combinations.

Nutrient rates are for guidance purposes only. For more info on nutrition, please speak to your local fertiliser product manager or email info@agrii.co.uk.



NPKS and NKS Drill+ fertilisers are designed specifically for use in placement drills. Suitable for all crops, Drill+ contains both NPKS, MgO, CaO with the added feature of controlled release technology to provide steady release of nutrients matched to the crop uptake.



A unique soil phosphorus complexing agent. Release can be used where growers are looking to omit or reduce phosphorus in fertiliser applications.



WINTER WHEAT NPKS PLAN						
TIMING PRODUCT	PRODUCT	RATE/HA	NUTRIENTS KGS/HA			
TIMING	IIMING PRODUCT		Ν	P	K	SO <sub>3</sub>
1 st Dose	Agrii-Start Drill+ NPKS	366	55	37	73	26
2nd Dose	Agrii-Start Enhance	150	69	0	0	0
3rd Dose	Agriister Agrii-Start Enhance	150	69	0	0	0
		Total kgs/ha	193	37	73	26

WINTER WHEAT NKS PLAN						
TIMING	PRODUCT	RATE/HA	NUTRIENTS KGS/HA			
			N	Р	К	SO <sub>3</sub>
1 st Dose	Agrii-Start Drill+ NKS	360	72	0	72	43
2nd Dose	Agrii-Start Enhance	140	64	0	0	0
3rd Dose	Agrii-Start Enhance	140	64	0	0	0
		Total kgs/ha	201	0	72	43

# Late Autumn & Spring Wheat

Delaying drilling is one of the most important ways of reducing the competition from grassweeds and remains an important time to establish cereals after later harvest crops like potatoes, sugar beet and maize.

The varieties can then be ranked in order of yield based on a minimum of eight trials over five years, drilled mid-November to late January (\*six trials only).

### + LG Tapestry

- + Gleαm
- LG Skyscraper
- + Graham
- SY Insitor
- + Champion

**YIELD** 

- **∔** KWS Dαwsum
- + KWS Cranium
- + KWS Palladium
- + KWS Extαse
- Fitzroy\*\*
- ♣ RGT Bairstow
- + LG Astronomer

KWS Zyatt, Skyfall, KWS Extase, and KWS Palladium may offer additional premium opportunities for milling.

**Skyfall** has the benefit of a longer drilling window through to early March and appears to be less susceptible to ergot than true spring wheats.

**Spring wheats** can also be drilled in late autumn. Trials over the past three years suggest that these can yield at the level of true winter types. There is also evidence to suggest that they are best suited to heavier soils and their yields can drop away quickly on lighter or drought-prone soils.

### Mulika



### UKFM GROUP 1, BREAD

A Group 1 spring milling wheat with a lower than average yield (95%). It produces tall straw (79 cm) and a full PGR programme is advisable, especially on fertile land. Average disease resistance with Septoria *tritici* (7), brown rust (9), mildew (6) and yellow rust (6). Resistant to orange wheat blossom midge.

BREEDER:	BLACKMAN AGRICULTURE (UK)
UK AGENT:	SENOVA
PARENTAGE:	PARAGON X (TYBALT X ROBIGUS)







UKFM GROUP 1, BREAD

The highest yielding milling spring wheat in both official trials (102%) and in an Agrii trial (110%) last year. It also has very bold grain (78.0 kg/hl). It is slightly shorter that Mulika (75 cm) with similar maturity. Its disease resistance is reasonable with mildew (7), yellow rust (6), brown rust (7) and Septoria tritici (7) but, unlike Mulika and Nissaba, it is not resistant to orange wheat blossom midge.

 BREEDER:
 KWS UK

 PARENTAGE:
 KWS SYWELL X KWS TALLAND

### **KWS** Cochise



UKFM GROUP 1, BREAD

A consistently high yielding Group 2 variety with a 7% yield advantage over Mulika in Agrii trials. Excellent physical grain quality (**78.6 kg/hl**) but lower than average Hagberg Falling Number (**250s**). Similar in height (**78 cm**) to Mulika and similar maturity (+1). It is very susceptible to yellow rust (**4**) but is resistant to orange wheat blossom midge.

 BREEDER:
 KWS UK

 PARENTAGE:
 ASHBY X LAPIS



Yield Performance

### LATE AUTUMN WHEAT VARIETY TRIAL - 2023 (HEAVY LAND) MEAN OF 2 SITES



■ Treated Yield as % Site Mean ■ Untreated Yield as % Trt Site Mean ■ Specific Weight (kg/hl)

Source: Agri trials at Revesby, Lincs (drilled 27/1/2023) and Throws, Essex (drilled 7/12/22). Mean control yield\* = 7.7 t/ha (untreated yield from unreplicated plots)



# Winter Barley

### HYBRID BARLEY 6-ROW FEED

SY Armadillo

Belfry

SY Kingsbarn

### BARLEY YELLOW DWARF VIRUS (BYDV) TOLERANT VARIETY

KWS Feeris

2-ROW FEED KWS Tardis LG Caravelle NEW Bolivia NEW Memento

2-ROW MALTING Craft









### WINTER BARLEY VARIETY TRIALS - 2 YEAR SUMMARY



Source: Mean of eleven trials over two years. Mean yield of controls\* = 9.3t/ha

Maste

### Hybrid Barley, 6-Row Feed

### SY Kingsbarn



### HYBRID BARLEY, 6-ROW FEED MEDIUM VSR

- + Very high output hybrid barley
- + Highest specific weight and lowest screenings of any 6-row type

SY Kingsbarn has become a very popular hybrid across the UK with high yields in Agrii trials over the past three years (103% treated, 77% untreated). It also has the lowest screening losses of any 6-row type in official trials and a high specific weight (70.2 kg/hl). Ideal for use on lower potential sites, lighter soils, situations where grass weeds are a problem and increasingly used for anaerobic digestion.

Very stable performance across all regions and soil types. Best drilled from late September through to mid-October. Very competitive against grassweeds. Tall straw (116 cm untreated, 106 cm treated). Stem stiffness is on the low side (7 treated, 6 untreated) and it is still prone

to lodging even after a robust PGR programme. It has a higher lodging risk than both SY Armadillo and Belfry. Medium maturity **(0)**.

Good disease resistance against mildew (7) (6) and net blotch (5) (5), and *Rhynchosporium* (7) (7), but weak against brown rust (5) (4). Resistant to barley yellow mosaic virus.

BREEDER:

#### SYNGENTA UK LTD



### Belfry



#### HYBRID BARLEY, 6-ROW FEED HIGH VSR

- + Very high yields, less bulk and ideal for heavy land
- + Improved standing, disease resistance and relatively easy to grow

Agrii's preferred hybrid barley variety for heavy land due to its sensible height and stiff straw, while only being a couple of percent behind the leading varieties in terms of yield. Consistently high yields over the past three years in Agrii trials (102% treated, 82% untreated) and a reasonable specific weight (69.7 kg/hl).

It performs consistently well across all regions and soil types. High-tillering capacity with a semi-prostrate growth habit, it is very competitive against blackgrass. Drill from 20th September through to the end of October and, like the other hybrids, it is best used to maintain already low weed populations. It is the shortest (113 cm treated, 104 cm untreated) and stiffest (8) (7) of any of the hybrids. Medium maturity.

Good all-round disease resistance against mildew (6) (6), brown rust (6) (5), *Rhynchosporium* (7) (7) and net blotch (5) (5). Resistant to barley yellow mosaic virus.

#### **SYNGENTA UK LTD**



### SY Armadillo

#### HYBRID BARLEY, 6-ROW FEED MEDIUM VSR

- A non-Recommended List hybrid with high yields and excellent specific weight
- Relatively stiff straw, very low brackling and good all-round disease resistance

High yields (105% treated, 81% treated) over the past two years in Agrii trials with an excellent specific weight (68.4 kg/hl) and a good variety to sit alongside Belfry.

Suitable for all regions of the UK, all soil types and best drilled in the main drilling window through to the middle of October. SY Armadillo has excelled on light land and, like all hybrid barley varieties, it is very competitive against grassweeds.

Tall (114 cm treated, 108 cm untreated) and relatively stiff (7) so this will be attractive to growers who have struggled to keep their hybrids standing. Armadillo has also shown outstanding brackling resistance and far better than from any other hybrids. A robust PGR programme is still recommended. Medium maturity, similar to Belfry.

A strong combination of wet weather disease resistance, it has good ratings for mildew (5), *Rhynchosporium* (7), net blotch (5) but brown rust (4) needs watching. Resistant to barley yellow mosaic virus.

BREEDER: SYNGENTA UK LTD

### **KWS** Feeris



### 6-ROW FEED, BYDV TOLERANCE HIGH VSR

A conventional 6-row variety with the added benefit of BYDV tolerance. Tolerance allows growers to reduce insecticide use or better protect yield in high-risk situations. Yielding at the same level as SY Kingsbarn and Belfry over the past three years (104% treated, 82% untreated) with average specific weight (69.2 kg/hl) and low screening losses. BSPB Trait Protection Scheme means a slight increase in royalty for the trait and follows a different approach to the BIPO scheme.



Suitable for the South, West, North and other areas where BYDV is a significant problem, KWS Feeris can be grown on any soil type but it performs better on heavier soils. Not as tall as other hybrids (97 cm treated, 102 cm untreated), moderately stiff straw (7) and lower lodging risk. Average competitiveness against grass weeds and medium-late maturity. Good resistance to net blotch (6) (6) and *Rhynchosporium* (6) (7) but weak against mildew (5) (4) and brown rust (6) (3). Resistant to barley yellow moscric virus.

BREEDER:	KWS UK
PARENTAGE:	AMISTAR X KWS KOSMOS
# RANCONA<sup>®</sup> i-MIX

**MICRO-EMULSION FUNGICIDE SEED TREATMENT** 

### **BEST** IN **CLASS**

- Protects against seed and soil-borne diseases in wheat and barley
- Reduces ergot germination
- Controls loose smut
- Unique micro-emulsion formulation for low dust and a safer working environment



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### KWS Tardis



#### 2-ROW FEED MEDIUM VSR

- The most widely grown 2-row variety in the UK
- + Consistent high yields with tall stiff straw

KWS Tardis remains the market leading variety in the UK, at least for the time being. It has produced consistently high yields in Agrii trials (100% treated, 85% untreated) over the past three years with an average specific weight (70.1 kg/hl).

Suitable for all regions and soils with particularly strong performance on heavy soils (106%) in official trials. Relatively tall straw (85 cm treated, 97 cm untreated), stiff straw (8 treated, 8 untreated) and good brackling resistance (6). Like most 2-row varieties, KWS Tardis has shown relatively poor grass weed competitiveness in Stow Longa trials. Medium-early maturity (0)

Average disease resistance against mildew (5) (4), Rhynchosporium (6) (7), net blotch (6) (6) and brown rust (6) (4). Resistant to barley yellow mosaic virus.

BREEDER:	KWS UK
PARENTAGE:	11-12 X KWS ORWELL



- KWS Tardis-level yields and excellent agronomy
- + Better standing than LG Caravelle

Bolivia sits on the UK Recommended List with KWS Tardis-level yields, yet it has captured strong interest as a likely successor. Consistent high yields (101% treated, 88% untreated), good specific weight (69.9 kg/hl) and low screening losses come together with an excellent agronomic package.

Consistent performance across regions and all soil types, it is moderately tall (93 cm untreated, 90 cm treated), with excellent stiff straw (8 treated, 8 untreated) that is better than that of LG Caravelle, average brackling resistance and mid-late maturity (0).

Disease resistance is good with mildew (8) (7), brown rust (8) (8), Rhynchosporium (6) (4) and net blotch (6) (6). Good disease resistance is reflected in a high untreated yield and outstanding mildew and brown rust ratings make it of interest in the North and South alike. Resistant to barley yellow mosaic virus.

BREEDER:	NORDIC SEEDS
UK AGENT:	AGRII
PARENTAGE:	NOS 9901-14 X FRIGG



### NEW LG Caravelle

#### 2-ROW FEED HIGH VSR

- The highest yielding 2-row barley on the UK Recommended List
- Excellent grain quality and all-round agronomy

Top of the UK Recommended List in terms of yield and similar strong performance in Agrii trials (104% treated, 91% untreated) over the past two years. It also has the boldest grain (71.4 kg/hl, AHDB) of any of the newer varieties. It is expected to become the new front-runner in the market from a variety that combines the genetics of two of the most successful barley breeders of the last decade, KWS and Limagrain.

Consistent across all soils and regions with particularly strong performance in the East (107%). Good performance on all soils especially heavy land (106%). Agronomically, it is sound with an average height (86 cm treated, 93 cm untreated), reasonably stiff straw treated (7) untreated (8), brackling (8) and mid-late maturity in Agrii trials.

Disease resistance is very encouraging with mildew (7) (7), brown rust (7) (7), *Rhynchosporium* (6) (7) and net blotch (6) (6). Resistant to barley yellow mosaic virus.

BREEDER:	LIMAGRAIN
PARENTAGE:	KWS MOSELLE X LGBU11-6103-C



SRUC

#### 2-Row Feed and 2-Row Malting

MasterSeeds The Seeds to Grow your Farming Business

### Memento

#### 2-ROW FEED MEDIUM VSR

- + Consistent high yields
- + The boldest grain of any variety

Memento effectively replaced Cassia as the variety with the boldest sample. High yields (100% treated, 85% untreated) in Agrii trials over the past three years, in line with KWS Tardis. It has consistently achieved higher specific weights than any other variety over the past five years.

Suitable for all regions and soils with particular appeal to growers in the West who have come to expect big bold grain. Low competitiveness against blackgrass compared with California but no different to KWS Tardis. Average height (88 cm treated, 96 cm untreated) with a medium lodging and brackling risk. Mid-late maturity.

Good resistance to brown rust (6), Rhynchosporium (7) and net blotch (6) but susceptible to mildew (3) which has limited interest in the North. Resistant to barley yellow mosaic virus.

BREEDER:	SECOBRA, FRANCE
UK AGENT:	AGRII
PARENTAGE:	BASILIC X KWS CASSIA

### Craft



#### 2-ROW MALTING MEDIUM VSR

Craft remains the UK's number one winter malting barley with full MBC approval. Performs consistently in Agrii trials with high yields (93% treated, 80% untreated), good specific weight (69.9 kg/hl). Preferred by the maltsters for its relatively high malt extract (308 l deg/kg) and low grain nitrogen (1.68%).

Performs best on lighter soils (94%). Moderately tall (91 cm treated, 99 cm untreated) with medium risk of lodging (8 untreated, 8 treated) and medium maturity (0).

Relatively good disease resistance against mildew (6) (6), brown rust (7) (6), Rhynchosporium (6) (6) but net blotch is weak (5) (3) so this needs to be monitored. Resistant to barley yellow mosaic virus.

BREEDER:	SYNGENTA UK LTD				
PARENTAGE:	SY 208-56 X SY VENTURE				

Nutrition

WINTER BARLEY NPKS PLAN							
TIMING	PRODUCT	PRODUCT RATE/HA	NUTRIENTS KGS/HA				
			Ν	P	К	SO <sub>3</sub>	
1 st Dose	Agrii-Start Replenish	350	60	40	79	39	
2nd Dose	Agrii-Start Enhance	195	90	0	0	0	
		Total kgs/ha	150	40	79	39	

WINTER BARLEY NKS PLAN							
TIMING	NG PRODUCT	RATE/HA	NUTRIENTS KGS/HA				
			Ν		K	SO <sub>3</sub>	
1st Dose	Agrii-Start Nourish	345	60	0	81	50	
2nd Dose	Agrii-Start Enhance	195	90	0	0	0	
		Total kgs/ha	150	0	81	50	



Developed specifically for use across all cereals to fulfil nitrogen, phosphorus, potassium and sulphur requirements in one pass.



Enhance is powered by Nutrisphere-N which stabilises the nitrogen and reduces the risks from volatilisation, leaching and nitrification.



Agrii-Start Nourish NKS+ is a size matched formulation designed for broadcast systems up to 36m compared with other fertiliser combinations.

Nutrient rates are for guidance purposes only. For more info on nutrition, please speak to your local fertiliser product manager or email info@agrii.co.uk.

Nutrition



NPKS and NKS Drill+ fertilisers are designed specifically for use in placement drills. Suitable for all crops, Drill+ contains both NPKS, MgO, CaO with the added feature of controlled release technology to provide steady release of nutrients matched to the crop uptake.



A unique soil phosphorus complexing agent. Release can be used where growers are looking to omit or reduce phosphorus in fertiliser applications.



WINTER BARLEY NPKS PLAN							
TIMING PRODUCT	RATE/HA	NUTRIENTS KGS/HA					
		Ν	Р	K	SO <sub>3</sub>		
1 st Dose	Agrii-Start Drill+ NPKS	366	55	37	73	26	
2nd Dose	Agrii-Start Enhance	206	95	0	0	0	
		Total kas/ha	150	37	73	26	

WINTER BARLEY NKS PLAN							
TIMING	TIMING PRODUCT	RATE/HA	NUTRIENTS KGS/HA				
			Ν	Р	K	SO <sub>3</sub>	
1 st Dose	Agrii-Start Drill+ NKS	360	72	0	72	43	
2nd Dose	Agrii-Start Enhance	169	78	0	0	0	
		Total kgs/ha		0	72	43	

## Hybrid Rye

Agrii offers an extensive understanding of rye production throughout the UK. Whether rye is being grown as wholecrop for AD or indeed for grain for livestock production, we are able to supply growers with unrivalled expertise when it comes to maximising returns from their rye crops.

### This knowledge and technical advice comes directly from the intensive trials and screening programmes that Agrii carries out every year.

With sites throughout the UK, Agrii has been able to produce best practice recommendations for both variety choice and crop management.

#### Grain rye feeding trials

In 2019, a collaborative pig feeding trial between Elsoms Seeds, Harbro Feeds and Agrii was conducted at Leeds University. The feeding trial assessed varying levels of grain rye inclusion fed to controlled and monitored batches of pigs at the University Farm. The significant findings from the feeding trial have enabled Agrii to maintain an extensive understanding of how the crop is best utilised once harvested and the required quality traits from varieties.

Agrii conducted further feeding trials in 2022, this time evaluating the results of grain rye fed to beef cattle in the UK. Please get in touch for more information on any of our trials work or collaborative projects.



Growing rye within a rotation can offer several benefits...

- + An alternative to winter barley
- + Offers a good blackgrass control option
- + A more economical alternative to second wheat
- + Reduced fertiliser, herbicide and fungicide requirements
- + Drought tolerance
- + + 2 tonnes of straw per hectare when compared to wheat
- + High tillering ability
- + Very competitive against grassweeds

Hybrid Rye Varieties

### KWS Igor

- Highly impressive and new grain variety from KWS
- Identified within Agrii trials as the highest yielding for grain
- + Good all-round agronomics
- Very good vigour throughout the autumn and spring
- + Benefits from KWS Pollen Plus genetics

BREEDER:

KWS, GERMANY

### Helltop

- + Suitable for both wholecrop and grain production
- Constantly outperforms other varieties in Agrii trials
- + Well proven throughout the UK and Europe
- The most vigorous hybrid throughout the autumn and spring
- + Very stiff straw with good rust resistance
- Improved feed quality when compared to other hybrids

BREEDER: NORDIC SEED, DENMARK UK AGENT: AGRII

### Astranos

- + Suitable for both wholecrop and grain production
- Identified as a successor or partner to Helltop within Agrii trials
- + Significant following throughout Europe
- Equal vigour to Helltop throughout the autumn and spring
- + Very stiff straw with good rust resistance
- + Produces significant levels of high quality biomass

BREEDER:

NORDIC SEED, DENMARK

### SU Bendix

- + Suitable for early drilling
- + Very reliable grain variety
- + Exceptional grain quality
- + Ideal for incorporating into feed rations
- ✤ Suitable for all regions of the UK
- + Good all-round agronomics

BREEDER:SAATEN UNIONUK AGENT:AGRII



HYBRID RYE NPKS PLAN							
	RATE/HA	NUTRIENTS KGS/HA					
		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	N	Р	К	SO3	
Seedbed	Agrii-Start Replenish	350	60	40	79	39	
Top Dress	Agrii-Start Enhance	100	46	0	0	0	
		Total kgs/ha	106	40	79	39	



Developed specifically for use across all cereals to fulfil nitrogen, phosphorus, potassium and sulphur requirements in one pass.



Aarii-Star

Enhance is powered by Nutrisphere-N which stabilises the nitrogen and reduces the risks from volatilisation, leaching and nitrification.





Agrii-Start Nourish NKS+ is a size matched formulation designed for broadcast systems up to 36m compared with other fertiliser combinations.

Nutrient rates are for guidance purposes only. For more info on nutrition, please speak to your local fertiliser product manager or email info@agrii.co.uk.

Hybrid Rye



Designed specifically for use in placement drills. Suitable for all crops, Drill+ contains both NPKS, MgO and CaO with the added feature of controlled release technology to provide steady release of nutrients matched to the crop uptake.



A unique soil phosphorus complexing agent. Release can be used where growers are looking to omit or reduce phosphorus in fertiliser applications.



HYBRID RYE NPKS PLAN							
TIMING	PRODUCT	RATE/HA	NUTRIENTS KGS/HA				
			N	Р	К	SO3	
Seedbed	Agrii-Start Drill+ NPKS	366	55	37	73	26	
Top Dress	Agrii-Start Enhance	100	46	0	0	0	
		Total kgs/ha	101	37	73	26	

HYBRID RYE NKS PLAN							
TIMING	PRODUCT	RATE/HA	NUTRIENTS KGS/HA				
			N	P	К	SO <sub>3</sub>	
Seedbed	Agrii-Start Drill+ NKS	366	73	0	73	44	
Top Dress	Agrii-Start Enhance	90	41	0	0	0	
		Total kgs/ha	115	0	73	44	

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## Winter Oats

#### **HUSKED VARIETIES**

#### **NAKED VARIETIES**

Mascani Cromwell

Gerald

Dalguise

Fusion Peloton









Winter Oats

Oats are a white straw break crop and as such can be used as a common Take-all break. They are adaptable and can tolerate soil pH down to 5.3.

Current best practice is to not grow oats more than one year in four to reduce the potential incidence of oat mosaic virus and stem eelworm.

To obtain maximum value of the crop, growing on a milling contract is crucial.

Please talk with your local Agrii or Viterra UK Ltd representative about availability of milling oat contracts.

### Mascani

Still the market leading variety driven by end-users. Decent standing ability and acceptable maturity with a disease resistance package slightly better than others on the list. Good specific weight, best kernel content and best performance in the mill, shows why it's the preferred oat. With this need in the market, good value contracts will be available.

BREEDER:	INSTITUTE OF BIOLOGICAL, ENVIRONMENTAL AND RURAL SCIENCES
UK AGENT:	SENOVA

### Cromwell

Currently yielding near the top of the list with the best specific weight and average screenings. Short straw and stiff but watch out for mildew. Milling potential seems good with kernel content only marginally behind Mascani and early tests showing promise. We are working with end-users to fully understand the potential of this line.

BREEDER:	INSTITUTE OF BIOLOGICAL, ENVIRONMENTAL AND RURAL SCIENCES
UK AGENT:	SENOVA

### Other Varieties to Consider

**Dalguise** yields in the middle of the pack and has good specific weight with decent kernel content. It is also early maturing, but straw and disease will need looking after.

**Gerald**'s yields are a bit behind the rest now. With moderate grain characteristics, later maturity and susceptibility to mildew this should only be grown where success has been had before.

BREEDER:	INSTITUTE OF BIOLOGICAL, ENVIRONMENTAL AND RURAL SCIENCES
UK AGENT:	SENOVA

### Benefits of Naked Winter Oats

Naked oats have the same agronomic benefits as husked oats. However, naked oats naturally thresh free from the husk during harvest, producing a nutrient dense natural groat with high digestible energy.

In comparison to spring naked oats, an established winter crop is more tolerant of spring droughts and has the potential to produce greater yields.

Our naked oats are grown on an exclusive buy-back contract and marketed through our **Superioats** brand with **GB Seeds**.





### Fusion

Winter Oats

Fusion has proved to be a high yielding semi-dwarf variety. A PGR programme is not required due to its short stiff straw, and it is a good variety choice for areas where lodging is a high risk. Fusion is susceptible to both mildew and crown rust; a robust fungicide programme is recommended.

BREEDER:	INSTITUTE OF BIOLOGICAL, ENVIRONMENTAL AND RURAL SCIENCES
UK AGENT:	SENOVA

### Peloton

Peloton is a newer variety in the naked oat market and sits as the highest yielding of winter varieties. It has a good specific weight and low screenings. Peloton has moderate height and is stiff-strawed, maturity is marginally later than Grafton. With good resistance to mildew and crown rust it is a relatively easy variety to manage.

BREEDER:	INSTITUTE OF BIOLOGICAL, ENVIRONMENTAL AND RURAL SCIENCES
UK AGENT:	SENOVA

### ESTABLISH A STRONG AND RESILIENT CROP WITH VIBRANCE® DUO THIS SEASON

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WINTER OATS NPKS PLAN						
TIMING	PRODUCT	RATE/HA	NUTRIENTS KGS/HA			
TIMING			Ν	P	K	SO <sub>3</sub>
1st Dose	Agrii-Start Replenish	350	60	51	99	48
2nd Dose	Agrii-Start Enhance	87	40	0	0	0
		Total kgs/ha	100		99	

WINTER OATS NKS PLAN						
TIMING PRODUCT		RATE/HA	NUTRIENTS KGS/HA			
			Ν	Р	К	SO <sub>3</sub>
1 st Dose	Agrii-Start Nourish	340	60	0	80	49
2nd Dose	Agrii-Start Enhance	87	40	0	0	0
		Total kgs/ha	100	0	80	49



Developed specifically for use across all cereals to fulfil nitrogen, phosphorus, potassium and sulphur requirements in one pass.



Enhance is powered by Nutrisphere-N which stabilises the nitrogen and reduces the risks from volatilisation, leaching and nitrification.



Agrii-Start Nourish NKS+ is a size matched formulation designed for broadcast systems up to 36m compared with other fertiliser combinations.

Nutrient rates are for guidance purposes only. For more info on nutrition, please speak to your local fertiliser product manager or email info@agrii.co.uk.

Winter Oats

Winter Oats 🕖



NPKS and NKS Drill+ fertilisers are designed specifically for use in placement drills. Suitable for all crops, Drill+ contains both NPKS, MgO, CaO with the added feature of controlled release technology to provide steady release of nutrients matched to the crop uptake.



Agrii-Start Release

A unique soil phosphorus complexing agent. Release can be used where growers are looking to omit or reduce phosphorus in fertiliser applications.



WINTER OATS NPKS PLAN						
TIMING	PRODUCT	RATE/HA	NUTRIENTS KGS/HA			
			Ν	Р	K	SO <sub>3</sub>
1 st Dose	Agrii-Start Drill+ NPKS	400	60	40	80	20
2nd Dose	Agrii-Start Enhance	87	40	0	0	0
		Total kgs/ha	100	40	80	20

WINTER OATS NKS PLAN						
TIMING	PRODUCT	RATE/HA	NUTRIENTS KGS/HA			
			N	Р	К	SO <sub>3</sub>
1 st Dose	Agrii-Start Drill+ NPKS	300	60	0	60	36
2nd Dose	Agrii-Start Enhance	87	40	0	0	0
		Total kgs/ha	100		60	



## Winter Oilseed Rape

#### **HYBRID**

Vegas **NEW** RGT Kazzas **NEW** LG Auckland Ambassador InV1035 DK Exsteel

#### **CONVENTIONAL**

Amarone Aardvark

#### **CLEARFIELD**

Matric CL InV1266 CL

#### **CLUBROOT**

LG Anarion

Crome

HOLL V367OL

\_\_\_\_\_

HEAR Rocca









#### AGRII WOSR VARIETIES – 2023 NATIONAL TRIALS GROSS OUTPUT AS % OF CONTROLS (MEAN OF 4 SITES)

Gross output as % of controls Oil content 120 47.5 47.0 110 46.5 Gross output (% controls) 100 46.0 Oil content (%) 45.5 90 45.0 80 44.5 44.0 70 43.5 60 43.0 50 42.5 LG Adeline LG Wagner Vegas InV1035 Murray V3670L Matrix CL Annika Dolphin Turing Hanneli Attica PT303\* LG Academic Aurelia\* InV1266CL LG Anarion Crome Aspire\* Amarone Acacia Aardvark LG Auckland RGT Kanzzas Ambassador\* LG Armada DK Exsteel HOLL CLEARFIELD CLUBROOT HYBRID CONVENTIONAL

Source: Four trials (South Wales, Lincolnshire, East Yorkshire and Kinross). Mean control\* gross output = 4.2 t/ha.

Performance in the Presence of Cabbage Stem Flea Beetle Larvae



Source: Revesby, Lincs, 4 replicates

## **DK EXSTEEL**

### **MR CONSISTENCY**

Still performing near the top of Agrii national variety trials every year 5.26 5.07 5.01 4.96 4.78 4.69 **DK Exsteel Gross Output (t/ha)** 6<sup>th</sup> 6<sup>th</sup> 5<sup>th</sup> 2<sup>nd</sup> 2nd 5 Year Mean 2023 2022 2021 2020 2019 45 Varieties 44 Varieties 43 Varieties 43 Varieties 42 Varieties

#### THE RISK MANAGEMENT PROOF IS ALL IN THE GROWING

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#### PROVEN ALL-ROUND STRENGTH

The single most consistent variety



- Outputs higher than almost any other
- Rapid autumn & spring development
- First class foliar disease resistance
- Good verticillium resistance
- Strong standing power
- Dekalb pod shatter resistance



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#### Hybrid Varieties

AHDE

### NEW Vegas

#### HYBRID OILSEED RAPE – UK-WIDE HIGH VSR

- + Top-level high gross output hybrid
- + Excellent disease profile especially against Verticillium stem stripe

Excellent performance in both the AHDB UK recommended list system (104%) and in Agrii trials (107%), and out performs many other varieties in spite of not having the TuYV resistance trait that is now widely deployed by other breeders. This can probably be attributed to its excellent disease profile and late-season stem health. It also has a very high oil content (45.4%) (46.4%).

Suitable for all soils and regions of the UK. Vegas has a fast speed of development in the autumn (7) and is early vigorous regrowth in the spring (8). Vegas produces a relatively compact canopy (143cm), very stiff (8) (9) and has medium maturity (5) (5).

Disease resistance includes a robust light leaf spot rating (7) (7) and RLMS stem canker resistance (9). Vegas has excellent tolerance to *Verticillium* wilt (7) with noticeably much greener stems compared with many other varieties late in the season and this is where the extra yield comes from.

While Vegas does not have the genetic podshatter or TuYV resistance traits, it has one of the highest Variety Sustainability Ratings on the Agrii Advisory List.

BREEDER:	NPZ GERMANY				
UK AGENT:	LSPB UK				



### Ambassador



HYBRID OILSEED RAPE (TUYV RESISTANT) – UK-WIDE HIGH VSR

- + High gross output hybrid
- Robust disease profile including Turnip Yellows Virus (TuYV) resistance

Continues to be on of Agrii's biggest selling varieties, proving popular over the past few years with its high consistent yield and strong traits package. It continues to perform well on-farm and has produced high yields (106% treated, 95% untreated) and a good oil content (44.7%) in Agrii trials over the past three years. It has become the go-to variety for many growers. There is no doubt that the trait conferring resistance to Turnip Yellows Virus is delivering a significant lift in yield of about 7%.

Suitable for all soils and regions of the UK. Ideal for later drilling with a fast speed of development in the autumn (7) and relatively early to grow away in the spring (8). The new N-Flex trait delivers improved nitrogen-use efficiency, especially in situations where nitrogen is limiting. Average height (146 cm and a stiff canopy (8).

Disease resistance includes a robust light leaf spot rating (7) (8) and

RLM7 stem canker resistance (6) (7). It appears susceptible to Verticillium stem stripe in both official and Agrii trials (5) but it still yields consistently in spite of this due to the combination of pod shatter resistance trait and mid-early maturity (6).

EDER: LIMAGRAIN UK

AHDB

### LG Auckland

#### HYBRID OILSEED RAPE (TUYV RESISTANT) – UK-WIDE MEDIUM VSR

#### + Similar to Ambassador with high yields and virus resistance

### + Excellent disease profile with improved Verticillium stem stripe tolerance

One of the latest hybrids from Limagrain and tested over the past three years in Agrii trials where it has delivered very high yields (108% treated, 94% untreated) and high oils (45.5%). It is a step up from Ambassador in some areas with a slightly faster autumn growth habit (7.2), slightly quicker to grow away in the spring (8) and shows reduced symptoms of *Verticillium* stem stripe. In many other ways it is very similar to Ambassador and has quickly become one of Agrii's biggest selling varieties.

Suitable for all soils and regions of the UK for drilling from mid-August right through to mid-September. It has an average height (148 cm) and average stem stiffness (7) (5) so a robust PGR programme is advised. Avoid very fertile sites or very early drilling. It has mid-maturity (5).

Excellent all-round disease profiles including robust light leaf spot (7) (8) and average stem canker resistance (5). There is good evidence from the breeder and Agrii trials that is it less affected by *Verticillium* stem stripe (6) compared with Ambassador (5) with fewer pronounced symptoms. It also carries the trait for pod shatter resistance.

BREEDER: LIMAGRAIN UK

InV1035

#### HYBRID OILSEED RAPE – UK-WIDE HIGH VSR

- + High treated and untreated gross output
- + Fast vigorous growth habit in autumn and spring

A significant variety in the Agrii portfolio over the last few years, favoured for its consistently high treated gross output (102%), high untreated yields (95%) and a high oil content (45.7%) in Agrii trials. It has delivered high yields on-farm in spite of not having the TuYV resistance trait. It has been supported throughout by an innovative establishment programme to offset the risks of losses from cabbage stem flea beetle.

InV1035 is marketed under BASF's 'InVigor' brand to emphasise this important agronomic characteristic. Indeed, InV1035 has shown outstanding autumn vigour over the past six years of testing by Agrii. It has a fast, vigorous autumn growth habit (7) and early spring regrowth (8) which is useful against slugs, pigeons and cabbage stem flea beetle. Suitable for all regions of the UK and it can be grown across all soil types. Relatively short (149 cm) and a stiff canopy (8). Very early maturity (7) and carries the pod shatter resistance trait.

Its high untreated yields can be attributed to its excellent disease resistance profile which is hard to beat. It has one of the best disease resistance packages available with both RLM7 phoma/stem canker genetics (8) and an excellent light leaf spot (8) rating. It also shows good tolerance of *Verticillium* stem stripe (7).

REEDER: BASF UK

#### MasterSeed

Hybrid Varieties

### **DK Exsteel**

HYBRID OILSEED RAPE – UK-WIDE HIGH VSR

- + Remains one of the highest gross output hybrids in Agrii trials
- + Fast vigorous growth habit in the autumn and spring

One of the highest yielding varieties in Agrii trials every year for the past seven years, which is remarkable given that the variety doesn't have the advantage of the more recent TuYV trait. High gross output hybrid (107%), high untreated yields (94%) and a high oil content (46.4%) in spite of not having the TuYV trait.

Suitable for all soils and all regions. It has been proven in Agrii trials to perform across the UK especially in cabbage stem flea beetle affected

areas because of its vigorous growth habit. Consistently one of the most vigorous hybrids in the autumn (8) and quick to move away in the spring (8). Trials have shown that it is one of the best varieties to cope with cabbage flea beetle larval infestations. This pest has not gone away and the vigorous growth habit of DK Exsteel remains a major advantage.

Tall (155 cm), stiff canopy (8) and medium maturity (5). Excellent disease resistance with light leaf spot (8) and RLM7 stem canker resistance (8) and good tolerance to Verticillium wilt (6). It also carries the pod shatter resistance trait. Not resistant to Turnip Yellows Virus.

#### **BREEDER:**

BAYER CROP SCIENCE



### NEW RGT Kanzass

#### HYBRID OILSEED RAPE – EAST & WEST HIGH VSR

#### + A high yielding variety where CSFB larvae is present

#### + Outstanding resistance against light leaf spot

RGT Kanzzas just missed getting on to the AHDB Recommended List but was outstanding in Agrii trials last year largely due to its vigorous growth habit. It has high yields (108% treated, 105% untreated) and high oil content (45.4%). It was one of the highest yielding varieties at one site in Lincolnshire where very high levels of CSFB larvae were recorded.

Suitable for all soil types and best grown in the East and West region. Relatively tall (154 cm) but very good stem stiffness (8) and excellent lodging resistance (8) and average maturity (5). It is one of the fastest developing varieties in the autumn (8) and spring (8) which helps it grow away from the worst affects of larval attack.

The best light leaf spot resistance (8) of any variety tested by the

AHDB last year and this is reflected in its high untreated yield. It has average stem canker/phoma resistance (5) and no claim for either pod shatter or TuVY resistance. *Verticillium* wilt will be assessed this autumn.

REEDER: RAGT



AHDE

### Amarone

#### CONVENTIONAL OILSEED RAPE WITH TUYV RESISTANCE – UK-WIDE MEDIUM VSR

- Agrii's biggest selling conventional variety with an excellent agronomy package
- One of the few conventional varieties to carry the TuYV resistance trait

Amarone has a Northern AHDB Recommendation but it performed well across the UK in Agrii trials over the past three years (100% treated, 45.2% oil). From the same breeder as Aardvark, it has already become Agrii's most popular conventional variety.

Suitable for all soil types including more fertile situations. Relatively slow in the autumn (6) but quick to grow away in the spring (8). Relatively short (131 cm) and stiff (8) (9) and mid-maturity (5) (6).

Good all-round disease resistance with light leaf spot (7) (5) but weak against phoma/canker resistance (4) (6). It shows average susceptibility to *Verticillium* stem stripe (6) but, in spite of showing some symptoms, it appears to yield consistently well and clearly benefits from the TuYV resistance trait.

BREEDER: LIMAGRAIN UK

### Aardvark

#### CONVENTIONAL OILSEED RAPE – EAST & WEST MEDIUM VSR

- + High gross output conventional variety
- Very rapid spring regrowth to help reduce cabbage stem flea beetle larval damage

Selected five years ago specifically for its ability to grow vigorously in the autumn and quickly away in the spring. This type of growth habit has proven to be the most effective way to cope with cabbage stem flea beetle larval infestations. Consistently high yields (97% treated, 90% untreated, 45.3% oil) in Agrii trials and excellent feedback on its on-farm performance.

Suitable for all areas of the UK and all soils including more fertile sites. Suits the main drilling window through to

the end of the first week of September depending on soil conditions. Medium height (142 cm), excellent stem stiffness (8) and relatively early (7). Good disease resistance against light leaf spot (7) and phoma/stem canker (6) and average tolerance of *Verticillium* stem stripe (5). Unlike Amarone, it does not carry the TuYV resistance trait.

REEDER: LIMAGRAIN UK



AHDE



– EAST & WEST MEDIUM VSR

#### + A Clearfield hybrid that sets the benchmark for high yields

#### + Strong agronomic package including TuYV resistance

Matrix CL has been a game-changer variety and has quickly established itself as the go-to variety for the Clearfield system. Tested by Agrii over the past three years, it has consistently high yields (98% treated, 90% untreated, 46.7% oil) making it 8% higher yielding than InV1266 CL. It comes with RLM7 phoma, TuYV and pod shatter resistance, which all contribute to its higher yields.

Its best performance is in the East and West regions, which are also the main markets for the technology. Suitable for all soil types. Relatively tall (151 cm), moderately stiff (7) (6) and early maturity (6) (6). Like most Clearfield varieties it has an average light leaf spot rating (6) (5) but has RLM7 phoma/canker resistance (7) and reasonable tolerance to Verticillium wilt (6).

BREEDER: DSV UK



#### CLEARFIELD HYBRID OILSEED RAPE – UK-WIDE MEDIUM VSR

- + A non-Recommended List Clearfield variety with exceptional spring vigour
- Reasonable light leaf spot, good stem canker and pod shatter resistance

InV1266CL is Agrii's most popular Clearfield variety and it was identified three years ago for its stand-out autumn and spring vigour and suitability for areas at risk from cabbage stem flea beetle. Average yields (90% treated, 76% untreated) but high oil content (45.0%) in Agrii trials and it also performed well in a northern NIAB-TAG trials in 2021 (108%) where it outperformed all of the other Clearfield varieties including Matrix CL. This may have been due to its higher oil content and improved disease resistance.

Suitable for all soils but probably best grown no further north than Yorkshire. Its excellent crop vigour (6 autumn, 7 spring) complements the Clearfield System by providing early competition for difficult weeds and minimised CSFB damage. Average height (134 cm) with good stem stiffness (7) and mid-early maturity (6).

Average light leaf spot resistance (4) but it has the pod shatter trait and RLM7 phoma/stem canker (7) resistance.

BREEDER: BASF UK

### LG Anarion

#### CLUBROOT HYBRID OILSEED RAPE – UK-WIDE MEDIUM VSR

- + Very high yields from improved genetics and TuYV resistance
- + Stiff canopy, good disease resistance and pod shatter resistance

A non-Recommended List clubroot resistant variety with high yields (99% treated, 89% untreated, 44.5% oil). It is 3% higher yielding nationally than the UK market leader, Crome, and 20% higher yielding in Scottish trials last year. This is why it has quickly become Agrii's most popular clubroot-resistant variety within two years.

Suitable for all regions of the UK. Good autumn (6) and spring vigour (8) in Agrii trials over the past three years and excellent winter hardiness was confirmed in Polish trials. It is quick to grow away in the spring and grows to be relatively tall (148 cm) with excellent standing ability (9) and average maturity (5).

Average light leaf spot (5), RLM7 phoma/stem canker (6) and Verticillium stem stripe (6) resistance. It also incorporates the valuable pod shatter resistance trait which is now standard in all of the hybrids from Limagrain. Like all the clubroot varieties, LG Anarion should be used as part of an integrated approach using other cultural methods of control. Recommended for use on clubroot infected land only to help protect the longevity of this valuable genetic trait.

BREEDER:

LIMAGRAIN UK

### Crome

### AHDB

#### CLUBROOT HYBRID OILSEED RAPE – UK-WIDE LOW VSR

+ High gross output clubroot variety

#### + Stiff, reasonable light leaf spot resistance and early maturity

There continues to be strong demand for varieties with clubroot tolerance. This may reflect more cases of clubroot driven by the acidic soils in the North, wetter summers and stubble turnips in mixed farming areas or other brassicas in the rotation (e.g. in cover crops). Crome is valued for its consistent yield (96% treated, 86% untreated) with a very high oil content (45.8%).

It has a reasonable speed of development in the autumn (6) and grows away quickly in the spring (7.5). It is of moderate height (143 cm), with a stiff canopy (8) (8) and medium maturity (5) (6).

Reasonable light leaf spot resistance (6) (5) but weak against phoma/ stem canker (3), so this needs to be monitored in the autumn and

spring and sprayed for, as appropriate. Excellent tolerance of *Verticillium* wilt (7).

#### REEDER: LS PLANT BREEDING, GERMANY





#### + A HOLL variety for premium food-oil production

#### + Improved autumn vigour and good all-round agronomic profile

High Oleic, Low Linolenic (HOLL) oilseed rape varieties produce a more stable oil suitable for high temperature frying. V367OL is the number one HOLL variety in the Agrii portfolio with high gross output (99% treated, 95% untreated) and good agronomic profile. Its good autumn vigour (6) and speed to grow away in the spring (7) are important characteristics that help it to cope with challenging growing conditions and reduce the effects of cabbage stem flea beetle, pigeons and slugs.

It is moderately tall (147 cm) but with good stem stiffness (8) and medium maturity (6). It has average phoma/stem canker resistance (5), reasonable light leaf spot resistance (6) and carries the pod shatter resistance trait.

ne poù shaker resistance hak.

**BREEDER:** 

BAYER CROP SCIENCE

### Rocca

#### HEAR HYBRID OILSEED RAPE – UK-WIDE **NO VSR**

- + Agrii's leading HEAR rape for industrial oil production
- Ideal for the North with high vigour and good light leaf spot resistance

Oil from High Erucic Acid Rapeseed (HEAR) has a variety of industrial applications. Rocca is Agrii's leading HEAR variety, which has proven attractive, especially in the North, for its vigorous growth habit, improved light leaf spot resistance (7) and early maturity. Suitable for all soil types and best drilled in the main drilling window.

Medium height but it requires a robust PGR programme as it has only moderate stem stiffness. Average phoma/stem canker resistance, so monitor for this disease and spray as appropriate. If growers want to move back into '00' or HOLL contracts in the future then ensure an appropriate gap between oilseed rape crops and consider using Clearfield oilseed rape.

BREEDER:	PHYCOMAT, FRANCE
UK AGENT:	PREMIUM CROPS LTD

### LIGHT LEAF SPOT RESISTANCE, 2022

(1-9 score, where 9 is best)



Late Autumn Biomass



Source: Mean of 2 replicated sites (Mapperton, Dorset and Bridgend, South Wales)



## AGRII WINTER OILSEED RAPE MAIN VARIETY TRIAL, 2024

Source: Mean of 2 replicated sites (Mapperton, Dorset and Bridgend, South Wales)

Late Season Stem Health

#### VERTICILLIUM STEM STRIPE RANKING

(1-9 score, where 9 is best)



## **Tramlines Podcast**

Tramlines is the only farming podcast that delivers advice to growers on how to improve environmental performance and maximise farm profitability.

By tuning into Tramlines, you will benefit from listening to episodes that feature experts and experienced farmers, who share valuable information on best practices, new techniques, and the latest research in agriculture. Join the experts bi-weekly as they address common problems and solutions and stay up-to-date with the latest developments. With CPD points up for grabs on certain episodes, topics range from digital innovations to soil health and the discussions are supported by Agrii's extensive trials programme and environmental work.

#### Top 3 Variety Episodes



#### 1. Sustainable Decisions Start with Seed

**CLAIM CPD POINTS:** To claim 1 BASIS and NRoSO point for listening to this podcast, email **info@agrii.co.uk** with your membership number, full name, postcode and date of birth.



#### 2. VR Seed: Fail to Prepare or Prepare to Fail



#### 3. Seed Select: Unearthing Top Varieties for Autumn

**CLAIM CPD POINTS:** To claim 1 BASIS and NRoSO point for listening to this podcast, email **info@agrii.co.uk** with your membership number, full name, postcode and date of birth.

**Follow** on your favourite podcast platform **or listen at:** www.agrii.co.uk/our-services/tools-resources/tramlines-podcast



-lip-

Nutrition

OSR STARTER FERTILISER NPKS PLAN						
TIMING	PRODUCT	RATE/HA	NUTRIENTS KGS/HA			
						SO <sub>3</sub>
Seedbed	Agrii-Start OSR	139	30	40	0	0
Top Dress 1	Agrii-Start Nourish	250	44	0	59	36
Top Dress 2	Agrii-Start Enhance NS	290	116	0	0	41
		Total kgs/ha	190	40	59	77

OSR STARTER FERTILISER NPS PLAN								
TIMING	PRODUCT	RATE/HA	NUTRIENTS KGS/HA					
			N		K	SO3		
Seedbed	Agrii-Start OSR	139	30	40	0	0		
Top Dress 1	Agrii-Start Enhance NS	250	83	0	0	75		
Top Dress 2	Agrii-Start Enhance	168	77	0	0	0		
		Total kgs/ha	190	40	0	75		

OSR STARTER FERTILISER NPS PLAN USING FOLIAR NITROGEN								
TIMING	PRODUCT	RATE/HA	NUTRIENTS KGS/HA					
Seedbed	Agrii-Start OSR	139	30	40	<b>К</b> 0	<b>SO</b> 3		
Top Dress 1	Agrii-Start Enhance NS	250	83	0	0	75		
Top Dress 2	Agrii-Start Enhance	168	77	0	0	0		
Green Bud	Efficie-N28-t	20	7 0		0	0		
		Total kgs/ha	197	40	0	75		



This starter fertiliser is designed to supply the correct autumn nutrients for OSR with the addition of boron and Agrii Protected Phosphate (A.P.P) to improve speed of emergence.



Agrii-Start Nourish NKS+ is a size matched formulation designed for broadcast systems up to 36m.



Liquid Foliar Nitrogen Fertiliser. A unique Amide Nitrogen (NH<sub>2</sub>) formulation designed to provide effective crop uptake whilst maximising crop safety.

Nutrient rates are for guidance purposes only. For more info on nutrition, please speak to your local fertiliser product manager or email info@agrii.co.uk.



NPKS and NKS Drill+ fertilisers are designed specifically for use in placement drills. Suitable for all crops, Drill+ contains both NPKS, MgO, CaO with the added feature of controlled release technology to provide steady release of nutrients matched to the crop uptake.



Enhance is powered by Nutrisphere-N which stabilises the nitrogen and reduces the risks from volatilisation, leaching and nitrification.



A unique soil phosphorus complexing agent. Release can be used where growers are looking to omit or reduce phosphorus in fertiliser applications.

OSR FERTILISER NPKS PLAN								
TIMING	PRODUCT	RATE/HA	NUTRIENTS KGS/HA					
						SO <sub>3</sub>	CaO	
Seedbed	Agrii-Start Drill+ OSR	200	30	40	5	24	24	
Top Dress 1	Agrii-Start Drill+ NKS	250	50	0	50	30	10	
Top Dress 2	Agrii-Start Enhance	240	110	0	0	0	0	
		Total kgs/ha	190	40	55	54	34	

The Seeds to Grow your Farmi

OSR FERTILISER NPS PLAN								
TIMING	IG PRODUCT	RATE/HA	NUTRIENTS KGS/HA					
						SO <sub>3</sub>	CaO	
Seedbed	Agrii-Start Drill+ OSR	200	30	40	5	24	24	
Top Dress 1	Agrii-Start Enhance NS	180	59	0	0	54	0	
Top Dress 2	Agrii-Start Enhance	218	100	0	0	0	0	
		Total kgs/ha	189	40	5	78	24	

#### Cabbage Stem Flea Beetle

### 8-point Plan for Managing Cabbage Stem Flea Beetle

Over the past twenty years the industry has relied upon seed treatments and foliar insecticides to contain Cabbage Stem Flea Beetle (CSFB) but with their loss and/or reduced performance, cultural techniques are becoming far more important.

The following eight measures should be used together, in an integrated approach, to deliver the best chance of growing a successful crop.

#### **Consider rotation choices**

- + Broaden rotations to 1 year in 5 or more.
- Consider block cropping to isolate your new crop from old stubbles.
- + Look at sacrificial headlands (e.g. turnip rape) to limit pest movement.
- Leave rape volunteers in neighbouring fields to act as a diversionary food source.

#### 2 Avoid green on brown (adult flea beetle)

- Drill into tall straw (20 cm), chaff or into green cover.
- + Camouflage the crop and confuse the beetle.

#### 3 Moisture not calendar date

- If there is no moisture it is best to delay drilling.
- + Use minimal soil disturbance to conserve moisture.
- + Early drilled crops cope better with adult damage but carry higher larval numbers.

#### **4 Rapid growing varieties**

- + There is no genetic resistance to cabbage stem flea beetle.
- Select varieties with faster growth rates in autumn and spring.
- + Larger plants are more resilient to the effects of larval infestation.
- + Use normal seed rates as higher seed rates can often be counterproductive.

#### **5** Soil conditions and crop nutrition

- Check soil conditions are optimal for early growth with adequate levels of macro and micro nutrients, including boron.
- Apply seedbed nitrogen (30kg/ha) and phosphate (40kg/ha), ideally in bands, to stimulate roots to grow.
- Use ammonium nitrate, DAP or Agrii-Start OSR, which is specially formulated by Agrii.
- Alternatively use organic manures like chicken muck or digestate to give the crop an early boost.

#### **6** Companion and nurse cropping

- Companion crops appear to discourage the pest, reduce egg laying and overall larval numbers.
- Buckwheat is the most widely tested, but vetches and berseem clover can be used.
- Buckwheat can scavenge for phosphate and release this back to the growing crop.

#### 7 Seed and foliar biostimulants

- + Use Take Off OSR seed treatment as an establishment aid.
- Apply a foliar mix of macro and micro nutrients at the two-leaf stage to boost the crop further.

#### 8 Monitor crops and use spray thresholds

- Check for shot-holing and use yellow traps to assess pest pressure.
- Foliar insecticides provide only a weak tool to fall back on.



## Winter Beans

Winter beans offer a low growing cost compared to OSR and good cultural blackgrass control. Crops will leave good levels of residual nitrogen for the following cereal crop. A wide sowing window offers opportunity to spread the workload.



### There are a range of varieties suited to most parts of the country.

Ideally, crops can be sown from mid-October through to December, or if sown in January or February then seed rates should be adjusted upwards to allow for less branching – taking into account the breeder's latest safe sowing recommendations.

Establishment of crops is split equally between sowing on top and ploughing in, conventional plough and cultivate/min-till systems.

If crops are sown to a sufficient depth (around at least 10 cm) to enable good root growth over the winter, then this increases drought tolerance later in the growing season – this is where winter beans will usually perform better than their spring counterparts when under environmental pressure.

Some varieties have reasonable resistance to Ascochyta but other diseases can become an issue such as chocolate spot, rust and in some years, downy mildew.

Seed treatments are not regularly used on winter beans, however Take Off ST is available to aid establishment and early growth via improved root development, particularly in difficult conditions.

- As a nitrogen fixing crop, winter beans are a good addition to the rotation
- One of the lower risk break crops to grow and with excellent durability
- + A wide range of straightforward establishment methods can be used
- + Great soil structure improving capacity, leaving an excellent entry for wheat

### Vespa

Winter Beans

HIGH YIELDING, STIFF STRAWED VARIETY – TREATED YIELD 109%

- Vespa is a consistently high yielding variety which sits at the top of the PGRO Descriptive list.
- It yields considerably more than its predecessor Tundra.
- It is of average maturity and has robust disease resistance.
- Vespa has good seed size, slightly larger than Tundra and has strong standing ability at harvest.

#### BREEDER: SENOVA

### Vincent

NEW VARIETY – TREATED YIELD 107%

- + Vincent yields just 3% behind Vespα.
- Vincent has a good standing ability at harvest and has an average maturity score, alongside Vespa.
- It has good resistance to both Downy Mildew and Chocolate Spot
- It has a large seed size, which will suit export markets, along with a high protein content.

BREEDER: SENOVA

### Tundra

WIDELY GROWN, ESTABLISHED VARIETY – TREATED YIELD 93%

- Tundra has been the most widely grown variety in recent years.
- Now superseded by other varieties in terms of yield but Tundra has proven consistency on farm with good all round agronomics.
- Tundra has average maturity, similar to Vespa.
- Seed size is good and has been suited to export markets.

#### BREEDER: LIMAGRAIN UK

WINTER BEANS OPTIONS									
TIMING	PRODUCT	RATE/HA	NUTRIENTS KGS/HA						
			N	Р	К	SO <sub>3</sub>	MgO	CaO	
Seedbed	Agrii-Start PKS+ Pulses Poly	210	0	36	40	40	5	15	
Seedbed	Agrii-Start PKS+ Pulses KR	210	0	36	40	32	16	0	



Developed by Agrii specifically for use in pulses. Contains Agrii Protected Phosphate (A.P.P) – proven to increase phosphate availability and maximise root growth with chelating activity to free up nutrients from the soil.



A unique soil phosphorus complexing agent. Release can be used where growers are looking to omit or reduce phosphorus in fertiliser applications.

Nutrient rates are for guidance purposes only. For more info on nutrition, please speak to your local fertiliser product manager or email info@agrii.co.uk.
### Farm Saving Your Seed: The complete service from harvest to drilling



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At Agrii we pride ourselves in offering a first class service to our customers farm, saving their own seed. We value the importance not only of the quality of seed produced but of the whole service, including keeping our operators and your farm workers safe at all times.

# Farm Saved Seed made easy.



#### Initial contact made as harvest approaches

Only approximate and provisional requirements need to be obtained at this stage either directly or via agronomists. Finer details can be discussed when known and often at point of processing.

#### **Discounted seed testing service**

This process is simple with pre-paid postage and addressed sample bags. Whether a germination / Tetrazolium test is required or a comprehensive disease test.

#### **Timeliness**

As harvest progresses, communication is key in obtaining a 'required by date'. Our sales coordinators schedule accordingly.

### **Seed Treatments**

A comprehensive range of treatments are available and can be discussed with agronomists or coordinators tailoring each batch to growers requirements. (See Page 72)

### Processing

A two man team arrives on farm at a pre-agreed date and time. Samples can be fine-tuned and adjustments made in every case ensuring we meet your needs.

Treatments may be changed and quantities adjusted at this stage if required following a thousand grain weight test on the cleaned seed. Seed is fed to the machine from a trailer with a hatch.

Screenings can be bagged and simply returned to your heap of grain.

We ask for one person from your operation to operate your tele-handler to remove bags once filled, leaving our operators to continue with treatment application and producing the best seed sample.

Machines vary and on average process 8 – 12 tonne per hour making it a quick process.

All our machines are powered independently via generators.

We will fill farmers own bags providing they are safe to do so, and are free of vermin contamination.

Avoid using seed desiccated with Glyphosate.





### Fungicides and Insecticides

### **Redigo Pro** (Prothioconazole + tebuconazole) FOR WHEAT, OATS, RYE AND TRITICALE

A basic fungicidal treatment for seed and soil-borne diseases. Widely compatible.

### Beret Gold (Fludioxonil)

#### FOR WHEAT

Another basic fungicidal seed treatment for seed and soil-borne disease control. Widely compatible.

#### Rancona iMix (Ipconazole + Imazalil) FOR BARLEY

Rancona is the preferred base treatment for barley as it provides control of seedling blight, loose smut and the highest level of leaf stripe control. It can also be co-applied to boost the activity of Vibrance Duo against loose smut when used in seed production. It is widely compatible with other treatments.

### Vibrance Duo (Sedaxane + Fludioxonil) FOR WHEAT, BARLEY AND SPRING OATS

Controls the key seed and soil-borne diseases, stimulates root development and above ground biomass. Co-apply with Rancona iMix for full control of loose smut in barley. Also applied at half rate to spring oats to control loose smut.

### Latitude (Silthiofam)

The only product available for take-all control in cereals. It typically recovers half of the yield lost to the disease and improves specific weight in many situations. It must be applied with a base treatment to control seed-borne diseases.

### Integral Pro (Bacillus amyloliquefaciens) FOR OILSEED RAPE

The standard base-treatment for oilseed rape and the first biological seed treatment that controls common dampingoff diseases and stimulates the plant's own natural defences to improve early root and shoot biomass.

### **Signal** (Cypermethrin) FOR WHEAT AND BARLEY

Signal is the only remaining product for controlling wireworm and reducing the impact of wheat bulb fly and frit fly. Widely compatible with other treatments.

Seed Treatments 🚫

### Nutritional, Biostimulants and Polymers

#### i-Man (Manganese) FOR WHEAT, BARLEY, OATS AND RYE

i-Man applies manganese (Mn) at 450 g/tonne and delivers 20% more Mn than New Manganese Solution. It also contains a unique chelating agent which protects Mn from being locked up by the soil so more is taken up by the plant than with any other formulation.

### Zax (Zinc)

#### FOR WHEAT, BARLEY AND OATS

Zinc is an essential micronutrient. Harvested cereal grain and oat straw remove significant quantities of zinc from the soil. Zax delivers 450 g/tonne of readily available zinc. It has been tested by Agrii for the past seven years and is an exclusive product.

#### Fielder (Copper) FOR WHEAT, BARLEY AND OATS

Barley is particularly sensitive to copper deficiency. Fielder Copper provides a readily available source of copper to the emerging seedling, reduces the need for complex foliar tank mixes and it is compatible with other seed treatment products in the Agrii range.

### Take Off ST ® (Phosphite + PGA)

#### FOR CEREALS, PULSES, MAIZE AND OILSEED RAPE

Contains two complementary patented biostimulants; Phosphite to increase root biomass and root hair production, and Pyroglutamic Acid (PGA) to increase carbon fixation and nitrate utilisation. Take Off ST® increases early vigour and yield, especially under more challenging conditions. Exclusive to Agrii.

### Peridiam Active 315

#### FOR MAIZE AND PULSES

A seed coating, which improves the physical properties of the treated seeds.

Always handle treated seed with caution and thought for the environment and always wear the appropriate personal protective equipment. Avoid pouring the seed from height and ensure all seed is covered by soil and spillages are cleared away.





# Maize, Grass, Roots, Cover and Companion Crops

### MAIZE

**COVER CROPS** 

Market-leading technical advice and varieties to suit your needs.

Used correctly as part of your soil management strategy can deliver a range of benefits.

### GRASS

A full and comprehensive range of mixtures for all types of farming systems and regions.

### ROOTS

A wide range of root seeds for additional home-grown winter forage.

### **COMPANION CROPS**

Growing two or more crops together increases plant diversity and can provide advantages such as improved soil health or protection of the crop from pests.









MasterLeys





### Maize

Whether it's the data needed to choose a new maize variety for your system, material suitable for where you're farming within the UK, or practical advice and post-cropping options, we can help.

It's becoming more important than ever that maize crops grown in the UK are reliable, consistent, high performing and sustainable due to the ever-changing seasons and legislation that the industry faces on an annual basis.

Please request a copy of our 2024 Maize Guide for more information or download the digital version by scanning the QR code. Our Maize Guide also contains information on growing maize more sustainably.

# Thinking about cover crops?

Cover crops used correctly as part of your soil management strategy can deliver a range of benefits.

The key element in improving soil health and productivity in the long term, is to increase your soil organic matter content. This is best done by selecting the correct cover crops for your farming operation.

Discover more on page 86.





MAIZE STARTER FERTILISERS						
TIMING	PRODUCT	RATE/HA	NUTRIENTS KGS/HA			
			N	Р	к	SO3
Seedbed	Maize Kicka	62	11	12	0	17
Top Dress	Agrii-Start Enhance	300	138	0	0	0
		Total kgs/ha	149	12	0	17

MAIZE STARTER FERTILISER OPTIONS COMBINED WITH LATE FOLIAR NITROGEN						
TIMING	PRODUCT	RATE/HA	NUTRIENTS KGS/HA			
			N	Р	К	SO <sub>3</sub>
Seedbed	Maize Kicka	62	11	12	0	17
Top Dress	Agrii-Start Enhance	250	115	0	0	0
Late Season N	Efficie-N28-t	20	7	0	0	0
		Total kgs/ha	133	12	0	17

Nutrient rates are for guidance purposes only. For more info on nutrition, please speak to your local fertiliser product manager or email **info@agrii.co.uk**.



A granular compound 2-4 mm which is perfect for accurate placement. Treated with 'Kicka' – Methanoic Zinc Amonionate to promote root growth and help the plant access nutrients.



Enhance is powered by Nutrisphere-N which stabilises the nitrogen and reduces the risks from volatilisation, leaching and nitrification.



Liquid Foliar Nitrogen Fertiliser. A unique Amide Nitrogen (NH<sub>2</sub>) formulation designed to provide effective crop uptake whilst maximising crop safety.



A unique soil phosphorus complexing agent. Release can be used where growers are looking to omit or reduce phosphorus in fertiliser applications.

# Agrii's Seed Rate Calculator

Use the Agrii Seed Rate Calculator to help you plan your seed requirements and establishment goals.



Scan the QR Code to learn more

### Download instant results to your computer

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Agrii

Grass & Roots

# Master Leys

The Master Leys range of grass mixtures offers full and comprehensive options for all types of farming systems and regions of the UK.

Working closely with leading grass seed breeders throughout the UK and Europe, Agrii is able to access the best varieties for the Master Leys portfolio. In addition to this, Agrii grows and produces more than 80% of the seed used to produce Master Leys.

This gives us greater control over the quality of the seed we use and ensures that what goes into a Master Leys bag is of the highest possible standard. The best varieties from the Grass and Clover Recommended List are specifically chosen for each Master Leys mix. We're continually developing and innovating our variety choices and mixtures – ensuring that we provide the most resilient and best performing grass mixtures for your specific requirements and current climates.

### The story doesn't stop with the seed in the bag.

Agrii agronomists and crop input specialists provide advice throughout the lifetime of the ley to ensure the best possible returns from your grass. This covers nutrition, weed control and forage nutrient analysis, together with support on animal health and advice on storage. This integrated approach to making your grass work harder will help drive on farm profitability from your home grown forage.

Grass & Roots



MasterLeys

Agrii

Livestock

Agrii

2023/24

Please get in touch for more information about our grass mixtures, or for a copy of the Agrii Guide to Grass & Roots, or the Agrii Livestock Directory.

You can also scan the QR codes for the digital versions.

MasterLeys

### Grass, Maize & Cover Crops ず

# Roots Seed Selector

To help reduce reliance on bought-in winter feed, we also offer a wide range of root seeds, which will help provide additional home-grown winter forage.

By visiting trials sites and working closely with breeders, we are able to choose and offer the best varieties across all species of roots. Not only can we offer the best varieties, we can also offer advice on establishment techniques, nutrition for the crop and agrochemical inputs, to help you achieve maximum forage output.

Along with this, we can also offer advice on feeding the crop to help reduce wastage and to make sure the crop that you have grown is utilised to its full potential.

	SPECIES	SUGGESTED SEED RATE KG/ACRE	Suggested Seed Rate Kg/Ha	DRILL DATE	UTILISATION PERIOD	AVERAGE DM YIELD (T/HA)	average Fresh yield (T/ha)	DRY MATTER %	CRUDE PROTEIN %	DIGESTIBILITY VALUE %	METABOLISABLE ENERGY (MJ/KG DM)
	Fodder Beet	40,000 - 50,000 seeds Sold in 50,000 packs	100,000 seeds	Late March - Late Apri <b>l</b>	Oct - March	15 - 18	80 - 100	15 - 23	12 - 13	78	12.5 - 13
	Swedes	Precision Drill: 150g - 350g Drill: 1 kg Broadcast: 1.5 - 2 kg	Precision Dri <b>ll</b> : 370g - 860g Dri <b>ll</b> : 2.5 kg Broadcast: 3.7 - 5 kg	Apri <b>l</b> - June	Sept - March	7 - 10	70 - 90	10-13	10-11	82	12.8 - 13.1
	Kale	Dri <b>ll</b> : 1.5 - 2.0 kg Broadcast: 2.5 - 3 kg	Dri <b>ll</b> : 3.7 - 5 kg Broadcast: 6 kg - 7.5 kg	April - Early July	Late Aug - March	8 - 10	60 - 70	14 - 16	16-17	70 - 75	10-11
	Maincrop Turnips	Dri <b>ll</b> : 1 - 1.5 kg Broadcast: 2 kg	Dri <b>ll</b> : 2.5 - 3.7 kg Broadcast: 5 kg	June - July	Sept - Feb	5.5 - 6	50 - 60	9 - 10	17-18	68 - 70	10-11
	Stubble Turnips	Dri <b>ll</b> : 1.5 kg Broadcast: 2 kg	Dri <b>ll</b> : 3.7 kg Broadcast: 5 kg	May - End Aug	Ju <b>l</b> y - Dec	4 - 5.5	40 - 50	8 - 9	17-18	68 - 70	11
	Forage Rape	Dri <b>ll</b> : 2.5 kg Broadcast: 3 kg	Dri <b>ll</b> : 6 kg Broadcast: 7.5 kg	May - Early Sept	Ju <b>l</b> y - Dec	3.5 - 4	24 - 35	12 - 13	19 - 20	65	10-11
	Lamb Tonic (Limited data)	Dri <b>ll</b> : 4 kg Broadcast: 4 kg	Dri <b>ll</b> : 10 kg Broadcast: 10 kg	April - End Aug	Perennia (up to 4 years)	10 - 11	65 - 75	14 - 15	21 - 22	68 - 75	11 - 12
A	Autumn Keep (Limited data)	Dri <b>ll</b> : 2.5 kg Broadcast: 3 kg	Dri <b>ll</b> : 6 kg Broadcast: 7.5 kg	May - End Aug	July - Dec	5 - 6	45 - 55	10.5 - 11.5	18.5 - 19.5	65 - 70	10-11
ALC: NO	Meat Maker (Limited data)	Dri <b>ll</b> : 2.5 kg Broadcast: 3 kg	Dri <b>ll</b> : 6 kg Broadcast: 7.5 kg	May - End Aug	Aug - Jan	4.5 - 5.5	35 - 45	12 - 13	19 - 20	65 - 68	10-11
	Late Lamb (Limited data)	Dri <b>ll</b> : 7.5 kg Broadcast: 7.5 kg	Dri <b>ll</b> : 18 kg Broadcast: 18 kg	May - End Aug	Aug - Feb	11.5 - 12.5	65 - 75	16.5 - 17.5	15.5 - 16.5	65 - 70	10-11

The figures are a guide and will vary with location, environmental factors and pest pressure.

Master Leys Mixture Selector – England & Wales

MasterLeys

SHORT TERM BULK MASTER One to two year cutting Grazing: * Cutting: **** Hay: ****	MEDIUM TERM     CUT MASTER     Three to four year cutting     Grazing:   ***     Cutting:   ****     Cutting:   *****     Hay:   *	LONG TERM SWARD MASTER Six year plus intensive grazing Grazing: **** Cutting: *** Hay: ***	OVERSEEDING ST OVER MASTER Rejuvenate one to two year Grazing: * Cutting: ***** Hay: *	HORSE & PONY HORSE AND PONY PLUS PERENNIAL RYEGRASS Six plus years LAMI-LESS HORSE
SILAGE MASTER Two year cutting Grazing: ** Cutting: **** Hay: ***	PROTEIN MASTER     Three year cutting     Grazing:   ***     Cutting:   ****     Hay:   *	SWARD MASTER PLUSMulti-species grazing mixGrazing:*****Cutting:**Hay:*	MT OVER MASTER   Rejuvenate three to four year   Grazing: ***   Cutting: ****   Hay: *	AND PONY Six plus years ST HAY MASTER Two years
	DROUGHT MASTER     Five to six year cutting & grazing     Grazing:   * * * *     Cutting:   * * * *     Hay:   *	STOCK MASTERSix year plus cutting/grazingGrazing:****Cutting:****Hay:**	LT OVER MASTER Rejuvenate five plus years Grazing: *** Cutting: **** Hay: *	LT HAY MASTER Six plus years ST HAYLAGE MASTER One to two years LT HAYLAGE MASTER
	FORAGE MASTER     Five to six year cutting & grazing     Grazing:   ****     Cutting:   ****     Hay:   **	MULTI MASTER PLUS     Six year plus cutting     Grazing:   ***     Cutting:   *****     Hay:   *	Suitability sco ★ = less suita	Six plus years
	FIELD MASTER Five to six year cutting & grazing Grazing: **** Cutting: **** Hay: ***		White c	ver version available clover version available ver version available
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MasterLeys

Grass, Maize & Cover Crops 💰

## Master Leys Mixture Selector – Scotland

SHORT TERM	MEDIUM TERM	MEDIUM/LONG TERM OVERSEEDING	HORSE & PONY
BULK MASTER One to two year cutting Grazing: * Cutting: *****	CUT MASTER Three to four year cutting Grazing: *** Cutting: ****	SCOT MASTER     Four to seven year cutting/grazing     Grazing:   * * * *     Cutting:   * * * *	HORSE AND PONY PLUS PERENNIAL RYEGRASS Six plus years
Hay: **** 🗭	Hay: \star 🛞	Hay: ** 🔇 Hay: * 🔇	LAMI-LESS HORSE AND PONY
SHORT/MEDIUM TERM	SILAGE MASTER Four to six year cutting	LONG TERM MT OVER MASTER Rejuvenate three to four year	Six plus years
PROTEIN MASTER Two to three year cutting Grazing: ***	Grazing: *** Cutting: **** Hay: **	SWARD MASTER Grazing:   Seven year plus intensive grazing Cutting:   Grazing: ****   Mathematical interview of the seven year	ST HAY MASTER Two years
Cutting: **** Hay: *	TURBO MASTER Four to six year cutting/grazing	Cutting: *** Hay: ** © LT OVER MASTER Rejuvenate five plus years	LT HAY MASTER Six plus years
	Grazing: **** Cutting: ****	SWARD MASTER PLUS Grazing: ***   Multi-species grazing mix Cutting: ****	ST HAYLAGE MASTER One to two years
The at the set of the	Hay: <b>**</b> 🐼	Grazing: *****   Cutting: **   Hay: *	LT HAYLAGE MASTER Six plus years
Section States	Four to six year cutting/grazing Grazing: **** Cutting: ****	HILL MASTER Seven year plus hardy grazing Suitability sc	ores:
AN LOW Manuel	Hay: **** 🗭	Grazing: **** 🚱	able ***** = more suitable
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# **Cover and Companion Crops**

### THINKING ABOUT COVER CROPS?

Agrii started to conduct comprehensive trials of cover crop species in 2014, initially to establish whether they could successfully be incorporated into existing rotations and if they would provide positive agronomic and financial benefits to farmers.

During this time we have looked at all aspects of cover crop agronomy from establishment to termination and beyond, and through trial and error we have been able to select the most reliable species and actions to maximise cover crop performance. We continue to conduct a national network of cover crops trials to investigate the interaction of different species and mixtures with the soil biota to identify the most beneficial soil health outcomes.

Cover crops are not a quick fix to reverse declines in soil health and productivity but in the longer term, when used as an integral part of your farming strategy, they will improve farm sustainability by enhancing soil health, fertility and productivity whilst reducing input costs. The key elements for success are to increase organic matter content in the soil and maintain a diversity of living roots through the soil profile for as much of the year as possible. The use of a diverse cover crop mix in the periods between cash crops will help support and increase the quantity and diversity of soil biota in the soil, aiding nutrient cycling and carbon sequestration.

Please get in touch for details of mixtures or species that we recommend for specific crop rotations and soil issues or request a copy of our Cover Crops Technical guide to help make the most of your cover crops.





### **COMPANION CROPPING**

Another method to increase species diversity in cash crops is by the use of companion crops which will bring benefits to the cash crop and soil health.

A good example of this is the work Agrii has done in developing a companion crop for OSR to help reduce cabbage stem flea beetle (CSFB) damage. Following trials of different species, we identified Lifago buckwheat as the best option to reduce initial damage at establishment, but more importantly areatly reduce CSFB larvae damage in the spring. Along with these benefits, the Lifago buckwheat root exudates are able to mobilise phosphate in the soil, making it available to the OSR crop as well as helping to counteract the negative effect of OSB on some soil biota.



Innovation Crops

## Innovation Crops

#### We are always looking to investigate alternative crop options to offer our growers, to diversify their rotations.

We look for the best varieties to grow in the UK climate, optimise the agronomics through our R&D team, and work with end-users to identify markets to offer secure buy-back contracts.

Currently we offer buy-back contracts through our GB Seeds team for naked oats, linseed, and peas, but we also have two new crops entering our portfolio: lupins and haricot beans.

#### Find out more αt www.gbseeds.co.uk.

## NAKED OATS

Naked oats are grown exclusively on contract for Agrii/GB Seeds and are used in multiple sectors.

GB Seeds has been at the forefront of naked oats in the UK for many years, covering all aspects of the crop and focusing on the entire chain from seed production to the development of end markets.

We work closely with our end users and plant breeders to enhance and raise the profile of this high value quality product.

Lupins

Haricot beans

# **Crop Marketing**

In order to support our farmer customers and maximise returns through grain sales as well as agronomy, Agrii has a well established partnership with grain marketing specialist, Viterra UK Limited, as well as our own specialist grain marketing division, GB Seeds.



#### Viterra has port and storage facilities throughout England and Scotland and strategic links with most feed and milling consumers in all regions.

- Agrii's research into variety selection coupled with Viterra's detailed knowledge of the market, gives growers a selection of low risk, high output crop options.
- Marketing choices include buy-back contracts, pool marketing or movement at harvest with an option to price later.
- The Grainman sales and account management system at <u>www.grainman.co.uk</u> can be used to obtain prices and accept bids, view samples and monitor grain movements and payments.

### For more information please speak to your usual Agrii contact.

You can also get in touch directly with Viterra UK Ltd on 01844 261261 or by email at thame.origination@viterra.com or lucy.b-exley@viterra.com (Scotland).



### GB Seeds is the specialist grain marketing division of Agrii, specialising in working with added value crops and grain.

- GB Seeds works with a wide range of end users supplying specialist seeds and grains, enabling growers to diversify their cropping in a fast changing environment and allowing growers to capture both economic and environmental benefit.
- GB Seeds offers a range of buy-back opportunities please get in touch for more information.
- The GB Seeds team is working hard to bring innovation crops to market – find out more at <u>www.gbseeds.co.uk</u>.



# VITERRA THE AGRICULTURE NETWORK

Carlos Carlos

65+ Workforce

# Marketing offices

### Origination

Viterra have been buuing grain from

farmers in the UK for over 50 uears. Currentlu Viterra have 14 full time farm traders procuring grain from Aberdeenshire to Cornwall. The Origination team are involved in all UK grown combinable crops servicing the domestic and export market.

### Storage & handling

### Viterra have access

to inland storage and handling facilities which allows adding value to growers and consumers. As markets evolve; processing practices are adjusted accordingly; eq colour sorting machines to clean eroot from grains which recently has become a challenge for manu.

### Grainman



created in 2000 well ahead of its time. It's still thought of throughout the industry as the market leader allowing growers to sell 24/7. follow movement, payment details and much, much more.

### Port Terminals

Viterra have access to 11 port terminals in the UK ranging from deep

sea panamax facilities to tidal coaster ports stretching from the South coast of England to the North coast of Scotland. This allows both the export and import of commodities in a very efficient manner

### Logistics



network of third partu bulk lorries, vessels and containers allows execution of goods from the farm gate to the consumer either directlu or through one of their handling / processing facilities.

### Access to **1** Port terminals

# **25** Storage facilities

### Marketing

Viterra have three marketing offices: the



head office being in Thame. Oxfordshire There is also an office in Cheshire and an office in Portland, Dorset. Trading both UK produced grains and imported core animal feed products.

Source: Company information, 31 December 2022

2,300+ **Direct connections** with growers

### 50+ Years of experience in the UK



99,000+ Truck loads executed in 2023

### **Agrii iFarm Results Report:** Harvest 2023

The 22/23 season was undoubtedly a disease pressured year with variety choice being an important component to disease risk management.

Enclosed in this year's report, you will find variety results on our winter cereal and oilseed rape trials as well as a special feature on drones in action and variable rate nitrogen with RHIZA.

Our iFarm report covers all 16 iFarm sites and 6 Technology Centres and is categorised by region to ensure you can easily locate the trials reports most relevant to your farm and localised weather pressures, as well as a national overview. We hope you will find the information useful to inform future decisions on variety choice for disease, pest and lodging management.

### Download the report

Read the results report and claim CPD points by answering four questions. Details on how to participate enclosed in report.



iFarms





### Notes

### Notes

## Your local contacts

#### Local Contacts

А	Lincoln Seed Plant	01522 513351
В	Finmere Seed Plant	01280 848848
С	Moreton Seed Plant	01277 899700
D	GB Seeds	01284 729200
1	Lauren Rettie	07964 510067
2	Harriet Blakey	07593 385979
3	Rebecca White	07721 128172
4	Matt Richardson	07887 547287
5	Samantha Gallagher	07841 777026
6	Gavin Taylor	07973 854046

7	lan Roe	07866 142260
8	Sophie Dillon	07826 956226
9	Poppy Bunting	07967 593776
10	Rob Stuart	07563 390273
11	lan Davy	07890 550559
12	Angie Baker	07796 193895
13	Will Sanderson	07980 943538
14	Cas Sandy	07970 641741
15	Louise Rawlinson	07721 788943

#### Seed Commercial Team

Lee Robinson	Executive Director of Seed	07860 523109
Rodger Shirreff	National Seed Business Manager	07831 188500
Louise Rawlinson	Seed Commercial Operations Manager	07721 788943
Lauren Rettie	Regional Seed Manager – Scotland	07964 510067
Jess Preston	Seed Commercial Operations Support	07870 546599
Mark Taylor	National Farm Saved Seed Business Manager	07836 527251
Ben Lowe	National Forage Product Manager	07966 533374
Adam Simper	National Grass, Roots and Environmental Seeds Manager	07767 007021
Rebecca White	Specialist Break Crop Product Manager	07721 128172

#### Seed Technical Team

John Miles	Seed Technical Manager	07855 130439
David Leaper	Seed Technical Specialist	07972 188228
Simon Hobbs	Cover Crop, Environmental & Wildflower Seeds Technical Manager	07770 643365





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