







### Winter Wheat Variety Trials 2024

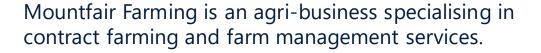
### Contents

Mountfair Farming
Trials Overview
Crop Protection Report
Group 2 Varieties
Group 3 Varieties
Soft Group 4 Varieties
Hard Group 4 Varieties
Notes









Managed by Jorin and Aidan Grimsdale, the brothers operate out of Mountfair Farm and Hilton Farm, managing more than 2,100 ha in the Scottish Borders and North Northumberland.

As a progressive and dynamic business, their aim is to maximise income and increase long-term productivity for the landowners while using a sustainable and environmental approach.

On the technical side, Jorin is responsible for the farm's management, while Aidan – a qualified mechanical engineer – is Operations Director.

He is responsible for the daily operations, workshop and machinery maintenance. The workshop also undertakes fabrication projects.

Both Jorin and Aidan have key interests in soil health and understand how important it is. Operating a 12m/36M controlled traffic farming system, less than 20% of the fields are driven which is helping to improve soil structure across the business.

Mountfair operates a non-inversion cultivation system to enhance soil organisms which, coupled with importing compost, cattle manure and hen manure, aims to increase organic matter levels.





### Trials Overview

Similar to last year, we have drilled varieties on separate dates to assess how drilling dates affect disease and maturity in different varieties. Nine plots were drilled on September 11 and 17 plots on September 27. There are three seed treatments this year on LG Skyscraper: Beret Gold, Latitude and Vibrance Duo. The winter wheat plots were sown with a 3m combi drill in good seedbed conditions.

The earlier drilled varieties established well after around 45mm of rain in September, with KWS Extase, LG Illuminate and SY Insitor showing signs of early vigour. The later drilled varieties were followed by around 132mm of rain in October, which were slower to establish as expected.



Earlier drilled varieties were sown at 150kg/ha, and the later at 200 kg/ha. T1 was applied in the last week of April at GS 31. Then a T1.5 was applied at GS 37, which included tebuconazole, folpet and a PGR. The effects of PGR can be seen especially between the treated and untreated plots of LG Skyscraper. The T2 was applied in the second last week of May at GS 39 and the T3 was applied in the second week of June.

High levels of Septoria tritici have been noticeable in the earlier drilled plots of LG Illuminate. Yellow rust was seen in May in the later drilled untreated plots of LG Skyscraper, SY Insitor, LG Redwald and Graham. The disease had dried up by the end of May, but it had reached the flag leaf.





Certified B <u>Corporation</u>



### **Crop Protection Report**

Activity Date / Timing	Operation	Advisor	Product	Rate	Total	Reason	Water	Area
20/09/2023 (plan date)	Spray Plan #40	David Cairns (E/4490/ICM)	Clayton Aspect XL (19721) Flufenacet (400 g/l); Diflufenican (100 g/l)	0.600 lts/ha	0.600 lts	Weed Control	200.00 lts/ha	1.00 ha
			Hurricane SC (16027) Diflufenican (500 g/l)	0.100 lts/ha	0.100 lts	Weed Control		
20/03/2024 (plan date) 22:2 tillers detectable	Spray Plan #41	David Cairns (E/4490/ICM)	Palio (18349) Pyroxsulam (7.1 % w/w); Florasulam (1.4 % w/w)	265.000 g/ha	265.000 g	Grassweed control	200.00 lts/ha	1.00 ha
			Bio Syl (ADJ0773) Polyoxyethylen-a-methyl-u-propylether (1 % w/w); Ethylene Oxide Condensate (32.67 % w/w)	1.000 lts/ha	1.000 lts	Adjuvant		
			YaraVita AMAZINC 600 (MBS1446) Zn (35 %); Mn (25 %); N (1.9 %)	2.000 lts/ha	2.000 Its	Trace Element		
22/04/2024 (plan date) 31:1st node detectable	Spray Plan #42	David Cairns (E/4490/ICM)	Vimoy (20727) Isoflucypram (50 g/l)	1.000 lts/ha	1.000 lts	T1 Disease Control	200.00 lts/ha	1.00 ha
			Titania (20775) Prothioconazole (175 g/l); Trifloxystrobin (88 g/l)	0.830 lts/ha	0.830 lts	T1 Disease Control		
			Belcocel 750 (19125) Chlormequat (750 g/l)	1.500 lts/ha	1.500 lts	Plant Growth Regulator		
			Sonis (16891) Trinexapac-ethyl (250 g/l)	0.150 lts/ha	0.150 Its	Growth regulation		
			YaraVita Gramitrel (MBS646) copper (50 g/l); Zinc (80 g/l); Magnesium (250 g/l); nitrogen (64 g/l); Manganese (150 g/l)	1.000 lts/ha	1.000 lts	Trace Element		
10/05/2024 (plan date) 37:Flag leaf visible	Spray Plan #43	David Cairns (E/4490/ICM)	Clayton Tebucon 250 EW (20372) Tebuconazole (250 g/l)	0.500 lts/ha	0.500 lts	Disease Control	200.00 lts/ha	1.00 ha
			Arizona (15318) Folpet (500 g/l)	1.000 lts/ha	1.000 lts	Disease Control		
			Canopy (16314) Mepiquat chloride (300 g/l); Prohexadione-calcium (50 g/l)	0.500 lts/ha	0.500 lts	Plant Growth Regulator		
20/05/2024 (plan date) 39:Flag leaf	Spray Plan #44	David Cairns (E/4490/ICM)	Univoq (19930) Fenpicoxamid (50 g/l); Prothioconazole (100 g/l)	1.250 lts/ha	1.250 Its	T2 Disease Control	200.00 lts/ha	1.00 ha
			YaraVita Magflo 300 (MBS191) Magnesium (300 g/l)	2.000 lts/ha	2.000 lts	Trace Element		
10/06/2024 (plan date) 59:Ears fully emerged	Spray Plan #45	David Cairns (E/4490/ICM)	Trinity 250 (19732) Prothioconazole (250 g/l)	0.700 lts/ha	0.700 lts	T3 Disease Control	200.00 lts/ha	1.00 ha
			Tesoro (20476) Tebuconazole (250 g/l)	0.500 lts/ha	0.500 lts	T3 Disease Control		





### **KWS** Extase

**Breeder:** KWS UK Ltd **Pedigree:** Boisseau v Solheio **Status:** AHDB RL Variety for UK since 2019

Market: UKFM Group 2, UK Bread Making, Export

Certified Seed Sales 2023 %: Eng & Wal 15.8 / Sco 4.1 Provisional Seed Area 2024 %: Eng & Wal 11.4 / Sco 6.9

### Positives

Exceptionally high untreated yield (93) – still the highest on the Recommended List

Very high Septoria tritici resistance (7.4)

Good yellow rust and mildew resistance

Early to mature; stiff straw

Superb grain quality – high specific weight (79.1kg/hl) and Hagberg (283)

#### Negatives

Average north region treated yield

Unsuitable for early drilling due to vigorous growth habit

May be a risk with sterility in some areas and situations - not suitable for exposed sites or the northern half of Scotland

Tall variety, though responds well to PGR

Susceptible to orange wheat blossom midge and eyespot

AHDB RL 2024 Treated Yield (UK): 101 AHDB RL 2024 Treated Yield (North Region): 99 AHDB RL 2024 Untreated Yield (UK): 93







### LG Illuminate

**Breeder:** Limagrain Europe **Pedigree:** (Cougar x Leeds) x Britannia **Status:** AHDB RL Variety for UK since 2021

Market: UKFM Group 3, UK Biscuit, Distilling (Medium), Export

Certified Seed Sales 2023 %: Eng & Wal 0.2 / Sco 3.8 Provisional Seed Area 2024 %: Eng & Wal 0.1 / Sco 0.0

### Positives

Suitable for both biscuit & distilling markets

Performs well when early sown

Versatile variety - good as a first and second wheat and on both light and heavy soils

Good sprouting resistance

Has proved popular locally as a potential successor to KWS Barrel in Group 3 market

#### Negatives

Septoria tritici rating is now fairly average Relatively poor mildew resistance

AHDB RL 2024 Treated Yield (UK): 98 AHDB RL 2024 Treated Yield (North Region): 100 AHDB RL 2024 Untreated Yield (UK): 83







### **RGT Wilkinson**

**Breeder:** RAGT Seeds Ltd **Pedigree:** RGT Pembroke x RW41297 **Status:** AHDB RL Variety for UK since 2023

Market: UKFM Group 3, UK Biscuit, Distilling (Medium), Export

Certified Seed Sales 2023 %: Eng & Wal 0.0 / Sco 0.4 Provisional Seed Area 2024 %: Eng & Wal 0.0 / Sco 0.0

#### Positives

Suitable for both biscuit & distilling markets

Good yellow rust and mildew resistance

Short, stiff straw

Flexible within the rotation, suits all soil types and sowing dates

### Negatives

Average northern yield Relatively weak Septoria tritici resistance

AHDB RL 2024 Treated Yield (UK): 100 AHDB RL 2024 Treated Yield (North Region): 99 AHDB RL 2024 Untreated Yield (UK): 83









Bamford

**Breeder:** Elsoms Seeds **Pedigree:** Moulton x EW129 **Status:** AHDB RL Variety for UK since 2024

Market: UKFM Group 3, UK Biscuit, Distilling (Medium), Export

Certified Seed Sales 2023 %: Eng & Wal 0.3 / Sco 0.7 Provisional Seed Area 2024 %: Eng & Wal 7.1 / Sco 13.9

# PositivesHighest yielding soft wheat for the north<br/>(106)Highest untreated yield of all soft wheats<br/>on the RL (92)Best Septoria tritici resistance score (6.7) of<br/>any soft wheat

Suitable for biscuit and distilling market with a high specific weight (78.5kg/hl)

Suitable for all soil types and drilling dates

Negatives
Lower protein content (10.9%) than other Group 3 options
Average mildew and fusarium resistance
Susceptible to orange wheat blossom midge
Seed availability will be extremely limited this year

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AHDB RL 2024 Treated Yield (UK): 106

AHDB RL 2024 Untreated Yield (UK): 92

AHDB RL 2024 Treated Yield (North Region): [105]





### LG Skyscraper

**Breeder:** Limagrain Europe **Pedigree:** (Cassius x NAWW 29) x KWS Santiago **Status:** AHDB RL Variety for UK since 2019

Market: Soft Group 4, Distilling (Medium), Feed

Certified Seed Sales 2023 %: Eng & Wal 2.9 / Sco 31.8 Provisional Seed Area 2024 %: Eng & Wal 3.2 / Sco 20.4

### Positives

Market leading variety in Scotland

Good reliable all-rounder which performs particularly well as a second wheat

Good resistance to mildew

Relatively early to mature compared to most other varieties in the market

### Negatives

Not suitable for early drilling

Resistance to Septoria tritici continues to decline year-on-year and is now poor

Poor brown rust & eyespot resistance

Tall, relatively weak strawed but responds well to PGR

AHDB RL 2024 Treated Yield (UK): 102 AHDB RL 2024 Treated Yield (North Region): 101 AHDB RL 2024 Untreated Yield (UK): 83







### **RGT Bairstow**

**Breeder:** RAGT Seeds Ltd **Pedigree:** (Revelation x KWS Santiago) x Cougar **Status:** AHDB RL Variety for UK since 2022

Market: Soft Group 4, Distilling (Good)

Certified Seed Sales 2023 %: Eng & Wal 0.5 / Sco 5.2 Provisional Seed Area 2024 %: Eng & Wal 0.7 / Sco 6.4

### Positives

Consistent performer, very good as a first and second wheat & on light and heavy soils

Decent all-round disease resistance

High tillering variety with good autumn vigour, quick to get away in spring with early ear emergence

Rated 'Good' for distilling

### Negatives

Not suited to very early drilling

Tall, relatively weak strawed, the same as LG Skyscraper – will need a PGR programme

Poor eyespot resistance

AHDB RL 2024 Treated Yield (UK): 102 AHDB RL 2024 Treated Yield (North Region): 102 AHDB RL 2024 Untreated Yield (UK): 84







### **RGT Stokes**

**Breeder:** RAGT Seeds Ltd **Pedigree:** (Cougar x KWS Santiago) x Revelation **Status:** AHDB RL Variety for UK since 2022

Market: Soft Group 4, Distilling (Good)

Certified Seed Sales 2023 %: Eng & Wal 0.0 / Sco 3.5 Provisional Seed Area 2024 %: Eng & Wal 0.0 / Sco 2.3

### Positives

Excellent northern yield (103%) making it a real regional specialist

Suitable for early drilling

Above average Septoria tritici resistance compared to other soft wheats

Rated 'Good' for distilling with one of the best alcohol yields of all varieties

### Negatives

Tall with average straw strength, although with PGR it is stiffer than LG Skyscraper

Poor mildew, brown rust & eyespot resistance

Susceptible to orange wheat blossom midge

Specific weight on the low side (76.2kg/hl)

AHDB RL 2024 Treated Yield (UK): 101 AHDB RL 2024 Treated Yield (North Region): 103 AHDB RL 2024 Untreated Yield (UK): 83







### LG Redwald

**Breeder:** Limagrain Europe **Pedigree:** Sundance x Generation **Status:** AHDB RL Variety for UK since 2023

Market: Soft Group 4, Feed, Distilling (Medium)

Certified Seed Sales 2023 %: Eng & Wal 1.1 / Sco 1.0 Provisional Seed Area 2024 %: Eng & Wal 0.8 / Sco 0.2

#### Positives

Second highest yielding soft wheat variety in the northern region

Very good untreated yield (89)

Exceptional yield potential in all situations – light or heavy ground, first or second cereal

One of the best Septoria tritici resistance scores (6.5)

#### Negatives

Late maturing but also unsuitable for early drilling due to very vigorous growth habit

Relatively tall with poor straw strength

Low specific weight (75.2kg/hl) so consideration needed around positioning on farm

Poorest Hagberg (147) on the RL

AHDB RL 2024 Treated Yield (UK): 106 AHDB RL 2024 Treated Yield (North Region): 104 AHDB RL 2024 Untreated Yield (UK): 89







### **KWS** Zealum

**Breeder:** KWS UK Ltd **Pedigree:** KWS Bassett x Reflection **Status:** AHDB RL Variety for UK since 2023

Market: Soft Group 4, Distilling (Medium)

Certified Seed Sales 2023 %: Eng & Wal 0.7 / Sco 5.1 Provisional Seed Area 2024 %: Eng & Wal 0.8 / Sco 8.0

#### Positives

Very competitive northern yield (102%) ahead of LG Skyscraper

Reasonably good untreated yield with good combined disease resistance

Well suited to early sowing

Performs best on heavy land & a good option as a second wheat

### Negatives

Septoria tritici resistance (6.1) is average Moderately susceptible to brown rust

AHDB RL 2024 Treated Yield (UK): 102 AHDB RL 2024 Treated Yield (North Region): 102 AHDB RL 2024 Untreated Yield (UK): 84









### Blackstone

**Breeder:** Elsoms Seeds **Pedigree:** Panacea x KWS Tempo **Status:** AHDB RL Variety for UK since 2024

Market: Soft Group 4, Distilling (Medium)

Certified Seed Sales 2023 %: Eng & Wal 0.1 / Sco 0.6 Provisional Seed Area 2024 %: Eng & Wal 0.9 / Sco 4.5

### Positives

Excellent northern (103%) and untreated (87%) yields, ahead of LG Skyscraper

Could potentially meet biscuit spec

Very good combined resistance to Septoria (6.2), yellow rust (9) & mildew (7)

Relatively tall but very stiff strawed

Offers excellent flexibility in sowing dates and can be sown up until end of Feb

#### Negatives

Slightly later maturing (+2) Seed availability may be limited this season

AHDB RL 2024 Treated Yield (UK): 103 AHDB RL 2024 Treated Yield (North Region): [103] AHDB RL 2024 Untreated Yield (UK): 87







### Graham

**Breeder:** Syngenta UK Ltd **Pedigree:** Premio x Expert **Status:** AHDB RL Variety for UK since 2016

Market: Hard Group 4, Feed

Certified Seed Sales 2023 %: Eng & Wal 5.4 / Sco 1.8 Provisional Seed Area 2024 %: Eng & Wal 4.7 / Sco 1.1

#### **Positives**

Very high untreated yield (89%) and respectable northern yield (103%)

Performs best as a first wheat & on lighter soils

Excellent option for early sowing

Above average resistance to the major diseases

Early maturity

### Negatives

Poor resistance to brown rust & eyespot

Susceptible to orange wheat blossom midge

Potential ear fertility issues in the far north, with breeder not recommending the drilling of the variety north of the Forth

AHDB RL 2024 Treated Yield (UK): 102 AHDB RL 2024 Treated Yield (North Region): 102 AHDB RL 2024 Untreated Yield (UK): 89







### SY Insitor

**Breeder:** Syngenta UK Ltd **Pedigree:** AB111-1011 x Hereford **Status:** AHDB RL Variety for UK since 2020

Market: Hard Group 4, Feed

Certified Seed Sales 2023 %: Eng & Wal 2.5 / Sco 8.0 Provisional Seed Area 2024 %: Eng & Wal 1.0 / Sco 10.2

### Positives

Popular hard wheat feed for the north

Performs best on lighter ground

Above average Septoria tritici resistance (6.4)

Good grain quality with high Hagberg and specific weight

#### **Negatives**

Very poor untreated yield (79%) Susceptible to yellow rust (4), brown rust (5) & eyespot (4)

Growth habit not suitable for early drilling

Very tall with average straw strength – PGR programme will be required

Poor sprouting resistance

AHDB RL 2024 Treated Yield (UK): 104 AHDB RL 2024 Treated Yield (North Region): 105 AHDB RL 2024 Untreated Yield (UK): 79









### **KWS** Dawsum

**Breeder:** KWS UK Ltd **Pedigree:** KWS Kerrin x Costello **Status:** AHDB RL Variety for UK since 2022

Market: Hard Group 4, Feed

Certified Seed Sales 2023 %: Eng & Wal 20.2 / Sco 14.9 Provisional Seed Area 2024 %: Eng & Wal 12.7 / Sco 16.2

### **Positives**

Very high untreated (91%) and Northern yield (105%)

Excellent as both a first and second wheat and on both heavy and especially lighter land

Very good resistance to mildew, yellow rust and brown rust

Well suited to early drilling

Superb grain quality (*inherited from Costello parentage*), with very high Hagberg (299) & specific weight (79.9kg/hl)

#### Negatives

Average resistance to Septoria tritici compared to some other hard wheats (6.3)

Susceptible to orange wheat blossom midge

On farm performance has possibly not lived up to expectations

AHDB RL 2024 Treated Yield (UK): 103 AHDB RL 2024 Treated Yield (North Region): 105 AHDB RL 2024 Untreated Yield (UK): 91







### Champion

**Breeder:** DSV Seeds **Pedigree:** Reflection x DSV 20122 **Status:** AHDB RL Variety for UK since 2022

Market: Hard Group 4, Feed

Certified Seed Sales 2023 %: Eng & Wal 9.8 / Sco 1.6 Provisional Seed Area 2024 %: Eng & Wal 9.2 / Sco 0.0

#### Positives

Highest Septoria resistance on RL (7.9)

Very high treated and untreated yields

Exceptional performance as both first & second wheat

Excellent performance on both light, and especially heavier land

Very good resistance to mildew and yellow rust

Early to mature

#### Negatives

Not suitable for early drilling due to very vigorous growth habit

Relatively tall with average straw strength but responds well to PGR

Poor brown rust & eyespot resistance

Low specific weight (75.4kg/hl) so consideration needed around positioning on farm

AHDB RL 2024 Treated Yield (UK): 106 AHDB RL 2024 Treated Yield (North Region): 103 AHDB RL 2024 Untreated Yield (UK): 90







## LG Typhoon

**Breeder:** Limagrain Europe **Pedigree:** Garrus x LGW88 **Status:** AHDB RL Variety for UK since 2022

Market: Hard Group 4, Feed

Certified Seed Sales 2023 %: Eng & Wal 4.7 / Sco 3.1 Provisional Seed Area 2024 %: Eng & Wal 4.7 / Sco 3.6

#### Positives

Performs better in the north over other areas in the UK

Good combined disease resistance gives it a strong untreated yield (89%)

Slow speed of development in the autumn makes it ideally suited to early sowing

#### Negatives

Average Northern yield (101%) compared to other hard feed varieties

Late maturing

AHDB RL 2024 Treated Yield (UK): 100 AHDB RL 2024 Treated Yield (North Region): 101 AHDB RL 2024 Untreated Yield (UK): 89









LG Beowulf

**Breeder:** Limagrain Europe **Pedigree:** Costello x Gleam **Status:** AHDB RL Variety for UK since 2024

Market: Hard Group 4, Feed

Certified Seed Sales 2023 %: Eng & Wal 0.3 / Sco 0.0 Provisional Seed Area 2024 %: Eng & Wal 7.5 / Sco 0.0

### Positives

Top yielding variety on the RL for the north (107%)

Excellent untreated yield (91%)

Very stiff straw

Good grain quality with a high specific weight (78.3kg/hl)

Looks to offer flexibility at sowing; can be sown early or late and suits different soil types

#### Negatives

Slightly later maturing (+2) Average mildew (6) and brown rust resistance (5) <complex-block>

AHDB RL 2024 Treated Yield (UK): 106

AHDB RL 2024 Untreated Yield (UK): 91

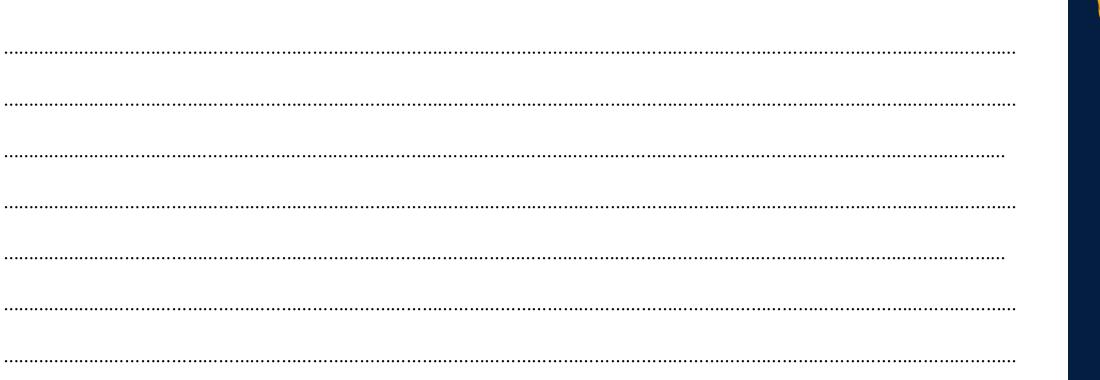
AHDB RL 2024 Treated Yield (North Region): [107]







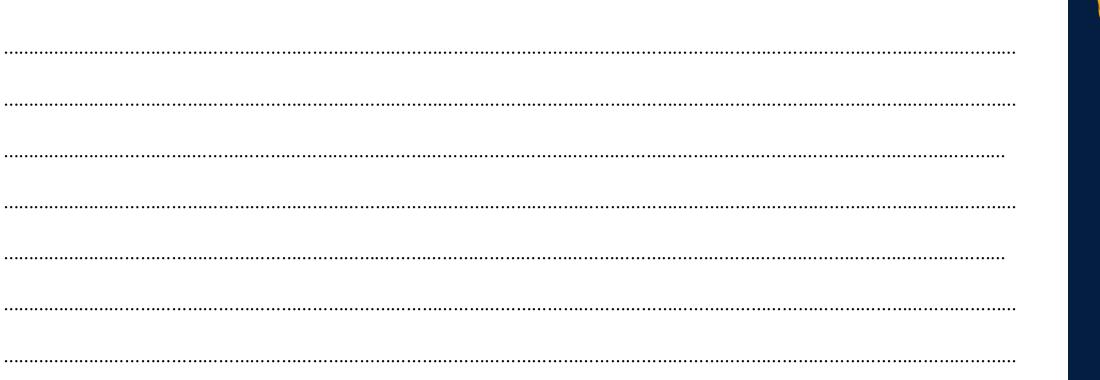


















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