

Agrovista
exclusive



Alvius wheat

CASE STUDIES 2022

With the UK area of sugar beet, potatoes and maize circa 400,000 hectares there is strong demand for varieties of wheat that can accommodate the difficult establishment conditions that these late-lifted break crops present.

Alvius is a new type of wheat, exclusive to Agrovista, bred specifically to meet the challenges of late-season drilling.

Alvius yield drilled November - April harvest 2021

Location	SUFFOLK	CAMBS	S. LINCS	S. LINCS	SUFFOLK	HEREFORD
Soil type	Heavy	Silt/Loam	Light	Light	Heavy	Heavy
Drilling date	23rd Nov	26th Nov	1st Dec	16th Mar	2nd Mar	21st Apr
ALVIUS	9.61	10.83	7.29	5.4	8.125	8.42
BELEPI	8.45	9.28	-	5.27	7.569	8.2
MULIKA	-	7.95	-	-	8.073	7.87
KWS EXTASE	9.39	9.85	-	-	-	-
SKYSCRAPER	8.56	-	-	-	-	-
GLEAM	9.33	-	-	-	-	-
KWS FIREFLY	8.87	-	-	-	-	-

Agrovista UK Ltd trials 2021

“Conditions following sugar beet lifting can often prove difficult for successful wheat establishment” says Stuart Cree, Technical Seed Specialist at Agrovista. “Day length tends to be getting shorter, moisture levels can increase rapidly and soil structure is often compromised” he continued. “Wheat varieties need to be able to maximise leaf cover as quickly as possible as the vegetative growth stage is often shorter, drilling after sugar beet than following wheat drilled in September or early October”.

Alvius has been specially bred in Germany to accommodate late-season drilling . It has high specific weight and good milling quality, though this is yet to be tested by UK millers. Trials by Agrovista in the UK across a range of sowing dates from October to March have produced

yields comparable to KWS Extase when drilled in October, and notably higher November-drilled onwards. Unlike a true winter wheat Alvius can also be drilled in the spring through to April.

Breeders have for a number of years, been looking for a replacement to Belepi wheat, which is recognised for its six-month drilling window.

Belepi is now entering its eleventh year and not surprisingly it is showing its age on yield against newer varieties, though it remains unique for its soft endosperm texture spring-drilled and its ability to compete against black grass.

Agrovista trials have placed Alvius directly against Belepi and have noted a constant yield advantage across all drilling positions.



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Drilled 26 November after sugar beet, Cambs.

Variety	Seed rate	Plants/m ²	Canopy cover %	Canopy cover %	Canopy cover %	Canopy cover %
		04/02/21	04/02/21	17/02/21	05/03/21	18/03/21
ALVIUS	450	219	7.42	8.09	16.23	27.65
KWS CRANIUM	450	183	4.24	5.91	12.24	19.18
MULIKA	450	206	7.52	9.16	15.72	24.62
SKYFALL	450	197	5.16	7.13	16.16	23.44
SISKIN	450	186	5.15	7.1	14.87	22.79
KWS EXTASE	450	189	6.06	7.72	17.21	26.38
CHAMPION	450	202	6.24	7.93	16.73	28.61
KWS KERRIN	450	192	6.14	7.88	14.97	24.82
RGT SAKI	450	194	3.99	5.17	11.44	19.37
SY INSITOR	450	188	4.96	5.58	11.47	19.38

Agrovista UK Trial 2021. Courtesy of AG Wright & Sons

Establishment and the ability to maximise green area quickly are important factors.

Visual assessments by variety at our fenland trial last season, where the plots were drilled 26th November in extremely challenging conditions after late-lifted sugar beet, illustrate Alvius' capabilities. Comparing with current and new AHDB Recommended List varieties Alvius produces green leaf faster than the majority and maintains increasing canopy size through early spring while others have slowed.

Alvius wheat does not require vernalisation and yet it has good winter hardiness allowing drilling from mid-October through to April.

Yield performance planted in October into ideal wheat-drilling conditions is on par with other winter wheat. Performance is particularly enhanced drilled November onwards, or where drilling conditions in October are compromised.



Harvest assessment 23 August 2021

Variety	Treated	
	Yield tonne/ha	Specific weight kg/hl
KWS CHAMPION*	11	59.5
ALVIUS	10.83	69
SY INSITOR*	10.57	62.9
KWS KERRIN	10.23	61.5
KWS EXTASE	9.85	63.1
KWS CRANIUM	9.74	57.7
RGT SAKI	9.72	58.6
LG FARRIER	9.66	63.1
SKYFALL	9.54	62.1
SISKIN	9.52	61.6

* seed was vibrance duo treated

Agrovista UK Ltd 2021. Drilled 26 November 2020 at 450 seeds/m² following sugar beet.

Alvius' speed of leaf production in the spring was notable with only Champion catching up with it by mid-March. By harvest both varieties were on par for yield, though the specific weight of Alvius proved notably higher.

Alvius is a German A wheat with high protein capability and high specific weight. Samples tested from our Suffolk site 2021 harvest compared to KWS Extase autumn sown and KWS Cochise

spring-sown highlighted the ability of Alvius to retain protein and Hagberg with good specific weight to match.

Alvius does not show any particular propensity to smother grass weeds, nor has the variety been assessed in controlled conditions.

The fenland trial detailed above had a flush of blackgrass across the site which it was not treated for. Observations made on the 21 June placed Alvius similar to other alternative wheats in the trial and notably better than the slower developing true winter varieties as the following picture shows where KWS Cranium is in the foreground and a sister-line variety to Alvius is beyond.



Agrovista UK Ltd. Visual assessment 12 June 2021 Haddenham KWS Cranium 600+ ears Blackgrass. Alvius 195

Quality analysis Alvius wheat Newmarket harvest 2021

OCTOBER SOWING					
Variety	Hagberg	Protein	kg/hl	Screenings through 2.0mm sieve	Yield t/ha
KWS EXTASE	310	12.61	67.17	0.7	9.788
ALVIUS	380	13.55	67.53	1.2	9.672

NOVEMBER SOWING					
Variety	Hagberg	Protein	kg/hl	Screenings through 2.0mm sieve	Yield t/ha
KWS EXTASE	336	12.64	69.61	0.9	9.388
ALVIUS	400	12.95	70.18	1	9.61

FEBRUARY SOWING					
Variety	Hagberg	Protein	kg/hl	Screenings through 2.0mm sieve	Yield t/ha
KWS COCHISE	242	12.82	67.8	0.8	8.076
ALVIUS	385	12.79	68.9	0.7	8.125