



strube



Breeding progress
together

Wheat

**2023/24
Varieties**



Focus on quality

Preparing Agriculture for the future



The 'European Green Deal', fertilizer regulation, stricter requirements for plant protection, society's growing awareness and expectation for the quality and production conditions of their food – **farmers are facing enormous challenges to meet these demands sustainably.**

We are the farmers' dependable ally, dedicated to shaping agricultural transformation towards increased sustainability, resource conservation and improved climate resilience. Because we understand that future-proof varieties must deliver consistent high performance under challenging conditions through improved nutrient utilisation or resistance to biotic and abiotic stress. We breed and offer highperforming varieties that suit the demands of many different growing conditions across 20 countries, each with individual demands.

characteristics of our crosses long before their phenotypic expression in the adult plant. This reinforces our goal of increasing grain yield while continuously improving resistance to fungal pathogens, thus contributing to environmentally friendly and sustainable wheat production.

Breeding progress together

We do this by drawing on a broad genetic base and using new biotechnological analyses and diagnostic methods that can predict certain



Dr. Wessam Akel
Head of Wheat Breeding

Selected breeding targets

✓ Yield

✓ Quality

Protein
Falling number

✓ Resistance/Tolerance

Powdery mildew
Leaf septoria
DTR
Yellow rust
Brown rust
Fusarium

✓

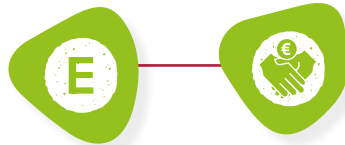
Other characteristics

Winter hardiness
Maturity
Resistance to lodging



Moschus

Winter wheat



Premium quality
bread wheat



Yield, Quality¹

Yield untreated 5

Yield treated 5

Protein content 9

Falling number 9

Zeleny value 9

Susceptibility to¹

Lodging 4

Fusarium 3

Powdery mildew 2

Yellow rust 3

Brown rust 4



Key points

> Top scores in Falling number, Protein content and Zeleny value.

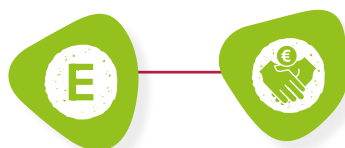
> Excellent leaf health.

> Reliable winter hardiness.

> Low-Input Wheat: Greatest variety in organic farming.

Ponticus

Winter wheat



Premium quality
bread wheat



Yield, Quality¹

Yield untreated 5

Yield treated 5

Protein content 8

Falling number 9

Zeleny value 9

Susceptibility to¹

Lodging 3

Fusarium 5

Powdery mildew 2

Yellow rust 3

Brown rust 4



Key points

> High lodging resistance and good winter hardiness.

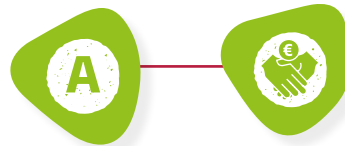
> Safe quality: Very high falling number and high protein content.

> Outstanding nitrogen efficiency.

¹very low (1) - (9) very high, according to scores of German Bundessortenamt

Absint

Winter wheat



Bread wheat



Yield, Quality¹

Yield untreated 6

Yield treated 6

Protein content 5

Falling number 9

Falling number stability ++

Susceptibility to¹

Lodging 3

Fusarium 4

Powdery mildew 3

Yellow rust 4

Brown rust 4



Key points

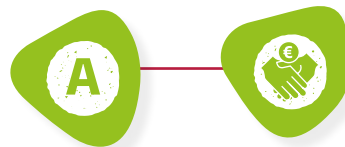
> Short with best lodging resistance.

> Combines good ear health with good A-quality.

> Nitrogen efficiency with reliable marketing quality.

Cayenne

Winter wheat



Bread wheat



Yield, Quality¹

Yield untreated 6

Yield treated 6

Protein content 5

Falling number 8

Water uptake 9

Susceptibility to¹

Lodging 4

Fusarium 4

Powdery mildew 2

Yellow rust 2

Brown rust 4



Key points

> Unique quality combination of falling number (8) and water absorption (9).

> Outstanding leaf and ear health.

> Extra benefit: Resistant against Eyespot (pch1).

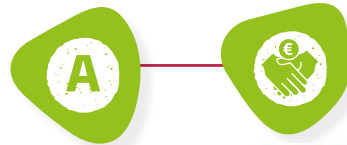
¹ very low (1) - (9) very high, according to scores of German Bundessortenamt





Pallas

Winter wheat



Bread wheat



Yield, Quality*

Yield untreated 7

Yield treated 7

Protein content 6

Falling number 8

Loaf volume 7

Susceptibility to*

Winter kill 4

Fusarium 4

Powdery mildew 3

Yellow rust 3

Septoria tritici 4



Key points

> Winterhardy wheat with pch1-resistance.

> Good fusarium resistance, suitable in maize rotation.

> Good baking properties with high protein content.

NEW

Pontiform

Winter wheat



Bread wheat



Yield, Quality*

Yield untreated 8

Yield treated 7

Protein content 6

Falling number 9

Loaf volume 7

Susceptibility to*

Lodging 3

Winter kill 3

Plant height 3

Powdery mildew 3

Yellow rust 2



Key points

> Short with excellent lodging resistance.

> Outstanding frost resistance.

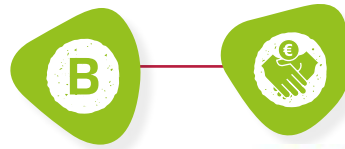
> Good resistance against yellow rust and mildew.

> Excellent falling number and stability and superior A-Quality.

* very low (1) - (9) very high, breeders' classification

Arevus

Winter wheat



Milling wheat



Yield, Quality*

Yield untreated 8

Yield treated 7

Protein content 4

Falling number 7

Loaf volume 6

Susceptibility to*

Lodging 4

Powdery mildew 2

Yellow rust 2

Brown rust 3

Septoria tritici 3



Key points

> Winterhardy and healthy wheat.

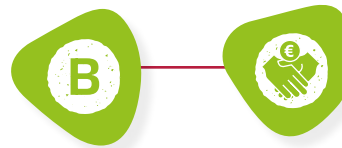
> Outstanding high TKW.

> Fungicide savings due to good leaf health.

> Extra benefit: Resistant against Eyespot (pch1).

Vagabund

Winter wheat



Milling wheat

strube



Yield, Quality*

Yield untreated 7

Yield treated 8

Protein content 3

Falling number 7

Specific weight 7

Susceptibility to*

Lodging 4

Fusarium 4

Powdery mildew 2

Yellow rust 2

Brown rust 4



Key points

> High yield with good agronomic characteristics.

> High falling number and good protein level.

> Good disease resistance package.

* very low (1) - (9) very high, breeders' classification



	Premium quality bread wheat (E)		Bread wheat (A)	
	Moschus	Ponticus	Absint	Cayenne
Registration	2016	2015	2022	2022
Yield				
Yield untreated	5	5	6	6
Yield treated	5	5	6	6
Ears / m ²	5	5	6	4
Number kernels / ear	5	6	5	8
Thousand kernel weight	6	5	6	5
Quality				
Specific weight	6	6	6	6
Falling number	9	9	9	8
Falling number stability	+	+	++	+
Protein content	9	8	5	5
Zeleny value	9	9	7	7
Water uptake	8	7	5	9
Flour yield	7	7	7	6
Loaf volume	8	8	7	7
Agronomy				
Heading	medium	medium	medium-late	medium-late
Ripening	medium	medium	medium	medium-late
Plant height	medium	medium-short	short	medium
Winter kill	4*	4	4*	4*
Lodging	4	3	3	4
Susceptibility				
Fusarium	3	5	4	4
Powdery mildew	2	2	3	2
Yellow rust	3	3	4	2
Brown rust	4	4	4	4
Septoria tritici	4	5	5	4
Tan spot (DTR)	4	4	5	4
Eye spot (Pseudocercospora)	5	6	5	4

very low (1) - (9) very high

Falling number stability: + = high; ++ = very high

* breeders' classification

n.a. value not available

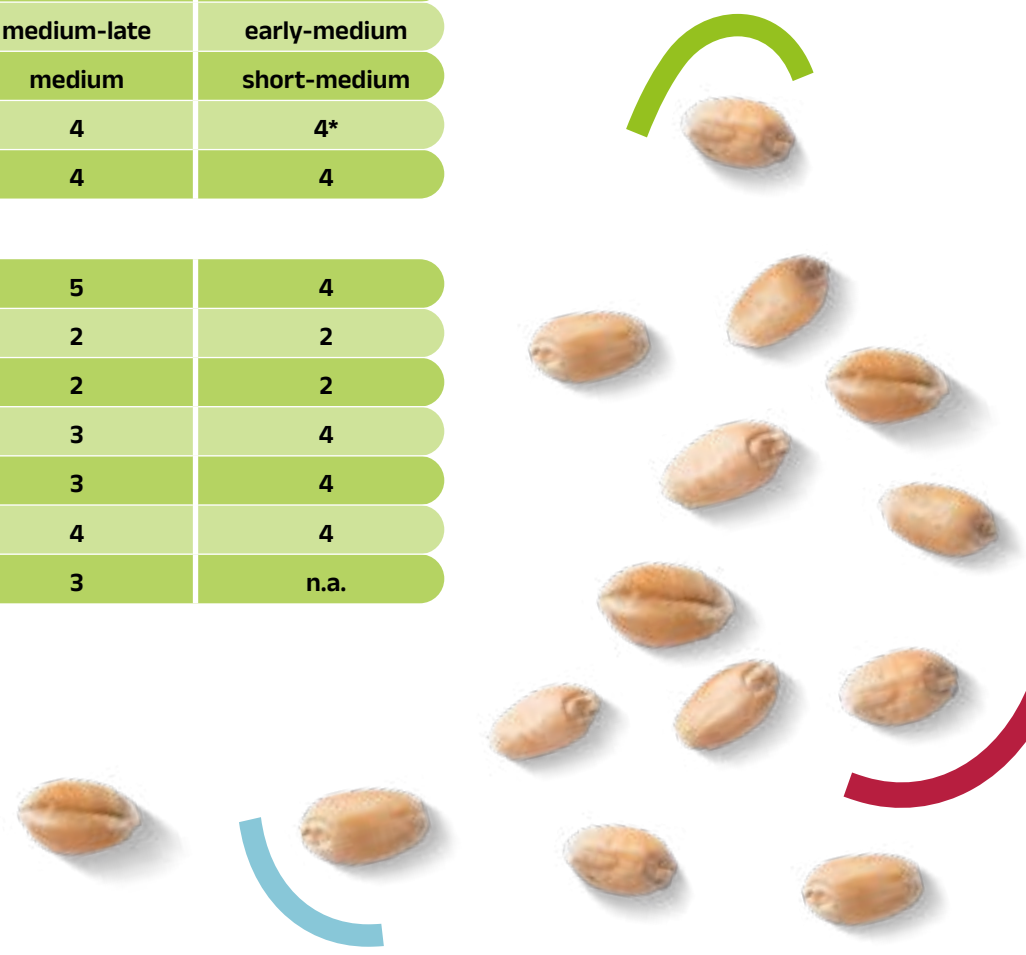
(E/A)		Milling wheat (B)	
Pallas	Pontiform	Arevus	Vagabund
2022	2023	2021	2022

7	8	8	7
7	7	7	8
3	6	4	n.a
5	5	4	n.a
7	8	7	5

n.a	7	n.a	7
8	9	7	7
+	++	+	+
6	6	4	3
6	8	6	4
n.a.	7	n.a.	5
n.a.	n.a.	n.a.	n.a.
7	7	6	5

early-medium	medium-late	medium-late	early-medium
medium	medium-late	medium-late	early-medium
medium	short	medium	short-medium
4	3*	4	4*
5	3	4	4

4	5	5	4
3	3	2	2
3	2	2	2
5	5	3	4
4	5	3	4
5	n.a.	4	4
4	5	3	n.a.



Alternative Wheat WeW[®] - maximum flexibility



When the weather conditions are not optimal or the previous crop is harvested late, it may get too late for sowing winter wheat. Strube's **Alternative Wheat*** offers a new option due to its exceptionally wide sowing window, from




end of October to mid-April because it does not require vernalisation.

Alternative Wheat combines the best properties of winter and spring wheat due to our unique crossing pedigree.



Alternative Wheat

Winter wheat

-  Yield potential
-  Winter hardiness
-  Tolerances/Resistances

Spring wheat

-  Vigour
-  Quality
-  Vitality



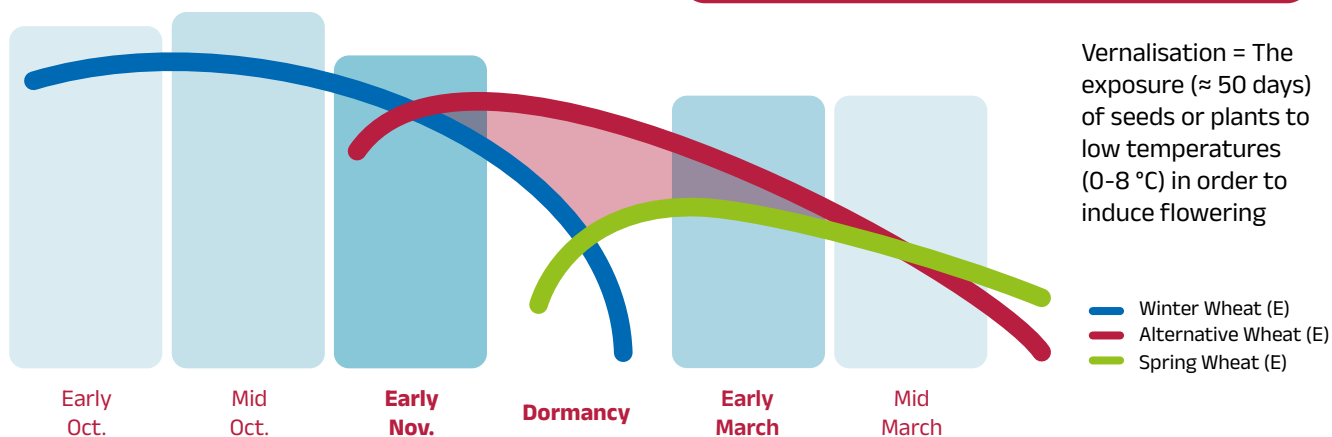
A more **flexible** crop rotation: Cultivate wheat even after late harvested leaf crops

Very **wide** sowing window, from end of October to late spring

Maximum sowing flexibility makes it possible to wait for optimal weather conditions

Alternative Wheat is offered exclusively in the higher quality classes **E** and **A** (Premium quality bread wheat and Bread wheat), thus providing optimum marketing opportunities

Optimum WeW[®] sowing time to maximise your profitability

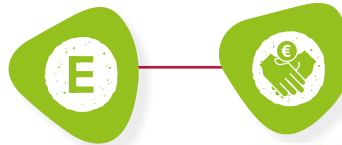


*WeW[®] is a registered trademark for Strube's "Wechselweizen" (Alternative Wheat)



Lennox

Alternative Wheat



Premium quality bread wheat



Yield, Quality¹

Yield untreated 6

Yield treated 4

Protein content 9

Falling number 8

Zeleny value 9

Susceptibility to¹

Lodging 3

Winter kill 5*

Plant height 2

Yellow rust 2

Brown rust 2



Key points

> Targeting late autumn sowing, with excellent baking quality.

> Very resistant against yellow rust and brown rust.

> Short with good lodging resistance.

NEW

Cheetah

Alternative Wheat



Bread wheat



Yield, Quality^{*}

Yield untreated 7

Yield treated 7

Protein content 6

Loaf volume 7

Zeleny value 8

Susceptibility to^{*}

Lodging 4

Winter kill 5

Plant height 3

Powdery mildew 4

Yellow rust 3



Key points

> High yield in both treated and untreated situations.

> Good lodging resistance.

> Good resistance against mildew and yellow rust.

> A-quality with very high zeleny value.

¹very low (1) - (9) very high, according to scores of German Bundessortenamt
*breeders' classification

	(E) Lennox	(A) Cheetah
Registration	2014	expected for 2024

Yield

Yield untreated	6	7
Yield treated	4	7
Ears / m ²	4	n.a.
Number kernels / ear	6	n.a.
Thousand kernel weight	6	6

Quality

Specific weight	n.a.	n.a.
Falling number	8	5
Falling number stability	+	o*
Protein content	9	6
Zeleny value	9	8
Water uptake	7	n.a.
Flour yield	6	n.a.
Loaf volume	8	7

Agronomy

Heading	medium	medium
Ripening	medium	medium
Plant height	very short-short	short
Winter kill	5*	5*
Lodging	3	4

Susceptibility

Fusarium	6	5
Powdery mildew	6	4
Yellow rust	2	3
Brown rust	2	5
Septoria tritici	5	5
Tan spot (DTR)	n.a.	n.a.
Eye spot (Pseudocercospora)	n.a.	n.a.

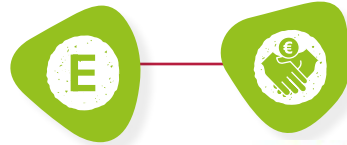
very low (1) - (9) very high
 Falling number stability: o = medium; + = high
 * breeders' classification
 n.a. value not available





SU Ahab

Spring Wheat



Premium quality
bread wheat



Yield, Quality¹

Yield untreated 5

Yield treated 5

Protein content 7

Falling number 8

Zeleny value 9

Susceptibility to¹

Lodging 4

Fusarium 5

Powdery mildew 5

Yellow rust 5

Brown rust 5



Key points

> E-quality spring wheat with top yield at the level of the best A-varieties.

> Medium maturity with good stability.

> Resistant against orange blossom midge.

SU Tarrafal

Spring Wheat



Premium quality
bread wheat



Yield, Quality¹

Yield untreated 5

Yield treated 4

Protein content 9

Falling number 8

Zeleny value 9

Susceptibility to¹

Lodging 3

Plant height 4

Fusarium 4

Yellow rust 3

Brown rust 4



Key points

> Outstanding combination of high yield with the highest protein content.

> Resistant against orange blossom midge.

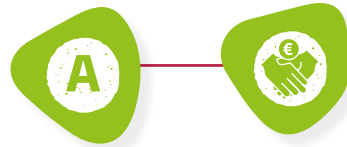
> Best N-efficiency of all spring wheat varieties with good marketing properties.

¹very low (1) - (9) very high, according to scores of German Bundessortenamt



Sibelius

Spring Wheat



Bread wheat



Yield, Quality*

Yield untreated 6

Yield treated 6

Protein content 8

Falling number 7

Zeleny value 8

Susceptibility to*

Lodging 3

Plant height 4

Powdery mildew 3

Yellow rust 2

Brown rust 3



Key points

> Medium maturity with short plant height and high lodging tolerance.

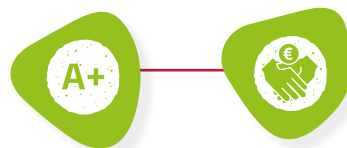
> Very good overall health, with remarkable yellow rust resistance.

> Very good baking quality.

NEW

Pireus

Spring Wheat



Bread wheat



Yield, Quality*

Yield untreated 8

Yield treated 8

Protein content 8

Falling number 7

Zeleny value 9

Susceptibility to*

Lodging 3

Powdery mildew 3

Yellow rust 4

Brown rust 3

Septoria tritici 4



Key points

> High yield in both tested intensities.

> Short with excellent lodging tolerance.

> Good resistance against all leaf diseases.

> Superior A-quality with very high protein content and zeleny value.

* very low (1) - (9) very high, breeders' classification

	Premium quality bread wheat (E)		Bread wheat (A)	
	SU Ahab	SU Tarrafal	Sibelius	Pireus
Registration	2019	2019	2017	2023
Yield				
Yield untreated	5	5	6	8
Yield treated	5	4	6	8
Ears / m ²	4	4	n.a.	n.a.
Number kernels / ear	5	6	n.a.	n.a.
Thousand kernel weight	7	4	6	6
Quality				
Specific weight	5	5	n.a.	n.a.
Falling number	8	8	7	7
Falling number stability	+	+	+	+
Protein content	7	9	8	8
Zeleny value	9	9	8	9
Water uptake	8	7	n.a.	n.a.
Flour yield	6	6	n.a.	n.a.
Loaf volume	8	8	7	8
Agronomy				
Heading	medium	medium	medium	medium
Ripening	medium	medium	medium	medium
Plant height	short-medium	short-medium	short-medium	short-medium
Lodging	4	3	3	3
Susceptibility				
Fusarium	5	4	6	5
Powdery mildew	5	7	3	3
Yellow rust	5	3	2	4
Brown rust	5	4	3	3
Septoria tritici	5	5	5	4

very low (1) - (9) very high
 Falling number stability: + = high
 * breeders' classification
 n.a. value not available



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