

CHARACTERS IN DETAIL

Ear

Colour	white
Length	short
Density	lax
Shape-side profile	tapering
Awns or scurs - presence	awns present
Awns or scurs - distribution	whole length
Awns or scurs - length	long to very long
Apical rachis segment - convex face hairiness	weak to medium
Anthers - anthocyanin colouration	absent

Lower glume

External surface	smooth
Extent of internal hairs	strong - Group 3
Beak length	medium to long
Beak curvature	moderately curved
Shoulder width	narrow to medium
Shoulder shape	elevated

Lower lemma

Beak curvature	slightly curved
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Grain

Colour	red
Colouration with phenol	dark to very dark

Straw

Length	medium
Wall thickness @20cms below ear	absent or very thin

Glaucosity

Flag leaf - sheath	weak
Flag leaf- blade (lower side)	very weak to weak
Culm - neck	weak
Ear	weak to medium

Plant growth characters

Coleoptile - anthocyanin colouration	very strong
Plant - growth habit	erect to semi-erect
Time of ear emergence	medium
Flag leaf - anthocyanin of auricles	

AC BARRIE

CHARACTERS IN DETAIL

Ear

Colour	white
Length	short to medium
Density	lax to medium
Shape-side profile	parallel sided
Awns or scurs - presence	scurs present
Awns or scurs - distribution	upper 1/2
Awns or scurs - length	long
Apical rachis segment - convex face hairiness	weak to medium
Anthers - anthocyanin colouration	absent

Lower glume

External surface	smooth
Extent of internal hairs	weak to medium (1+)
Beak length	short
Beak curvature	v.slightly curved
Shoulder width	narrow to medium
Shoulder shape	straight to elevated

Lower lemma

Beak curvature	straight to slightly curved
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Grain

Colour	red
Colouration with phenol	very light to light

Straw

Length	long to very long
Wall thickness @20cms below ear	absent or very thin

Glaucosity

Flag leaf - sheath	medium
Flag leaf- blade (lower side)	weak to medium
Culm - neck	medium
Ear	medium

Plant growth characters

Coleoptile - anthocyanin colouration	medium to strong
Plant - growth habit	erect to semi-erect
Time of ear emergence	very early to early
Flag leaf - anthocyanin of auricles	

Variety Name: Alicia

Crop: Spring Wheat

Breeder's Reference: SG-S775-11

AFP No:

Breeder: Selgen, a.s

Translated from: Czech Republic

Origin:

Date: 19 November 2018

Code: LICi

Coleoptile-anthocyanin colouration:

***Plant - growth habit:**

***Time ear emergence:**

Flag leaf - Anthocyanin colouration of auricles:

Frequency of plants with recurved flag leaves:

***Flag leaf - Glaucosity of sheath:**

Flag leaf - Glaucosity of leaf blade:

Anthers - anthocyanin colouration:

Glaucosity of neck:

Hairiness of uppermost node:

***Plant - height:**

***Straw - wall thickness @ 20cms below ear:**

***Ear - Glaucosity:**

Ear - Supernumerary spikelets - frequency:

***Ear - Colour:**

***Ear - Shape (side profile):**

Ear - Length:

***Ear - Density:**

***Awns or scurs - presence:**

Awns or scurs - distribution:

***Scurs at tip of ear - length:**

***Awns at tip of ear - length:**

Lower glume - Beak length:

Lower glume - Beak shape (curvature):

Lower glume - Beak tip:

Lower glume - Shoulder width:

Lower glume - Shoulder type:

Lower glume - External surface roughness:

Lower glume - Extent of internal hairs:

Lower glume - Internal imprint:

Lower lemma - Beak shape:

Lower lemma - Beak length-:

Lower lemma - Beak swelling:

Apical rachis segment - convex face hairiness:

***Grain - colour:**

Grain - Shape:

Grain - Brush hair length in dorsal view:

Grain - Colouration with phenol:

***Seasonal type:**

Extra characters:

Weak to medium

Semi erect to intermediate

Medium to late

Medium to high

Strong

Medium to strong

Medium to strong

Absent or very thin

Tapering

Medium to long

Medium

Scurs present

Short to medium

Short to medium

Slightly curved to moderately curved

Medium to broad

Slightly sloping to straight

Weak

Medium

Red

Medium to dark

Spring

* = Characteristics which should always be included in the description of the variety.

06 May 2020

Variety Name: AMANTIS

Crop: Spring Wheat

Breeder's Reference: SEC 425-03-04

AFP No:

Breeder: Secobra

Translated from: Danish

Origin:

Date: 15 May 2018

Code: AMAN

Coleoptile-anthocyanin colouration:

Medium

***Plant - growth habit:**

Intermediate to semi prostrate

***Time ear emergence:**

Medium to late

Flag leaf - Anthocyanin colouration of auricles:

Frequency of plants with recurved flag leaves:

Low

***Flag leaf - Glaucosity of sheath:**

Strong

Flag leaf - Glaucosity of leaf blade:

Medium

Anthers - anthocyanin colouration:

Glaucosity of neck:

Hairiness of uppermost node:

***Plant - height:**

Medium

***Straw - wall thickness @ 20cms below ear:**

Absent or very thin

***Ear - Glaucosity:**

Strong

Ear - Supernumerary spikelets - frequency:

***Ear - Colour:**

White

***Ear - Shape (side profile):**

Tapering

Ear - Length:

Short to medium

***Ear - Density:**

Medium

***Awns or scurs - presence:**

Present

Awns or scurs - distribution:

***Scurs at tip of ear - length:**

Short to medium

***Awns at tip of ear - length:**

Lower glume - Beak length:

Short to medium

Lower glume - Beak shape (curvature):

Slightly curved

Lower glume - Beak tip:

Lower glume - Shoulder width:

Medium

Lower glume - Shoulder type:

Straight to elevated

Lower glume - External surface roughness:

Lower glume - Extent of internal hairs:

Medium

Lower glume - Internal imprint:

Lower lemma - Beak shape:

Slightly curved

Lower lemma - Beak length-:

Lower lemma - Beak swelling:

Apical rachis segment - convex face hairiness:

Strong

***Grain - colour:**

Red

Grain - Shape:

Grain - Brush hair length in dorsal view:

Light to medium

Grain - Colouration with phenol:

Spring

***Seasonal type:**

Extra characters:

* = Characteristics which should always be included in the description of the variety.

06 May 2020

AMARETTO

CHARACTERS IN DETAIL

Ear

Colour:	white
Length:	medium to long
Density:	medium
Shape (side profile)	tapering
Awns or scurs - presence:	scurs present
Awns or scurs - distribution:	
Awns or Scurs - length:	short to medium
Apical rachis segment - convex face hairiness:	medium
Anthers - anthocyanin	

Lower Glume

External surface roughness:	
Extent of internal hairs:	strong - group 3
Beak length:	very short
Beak shape (curvature):	slightly curved
Shoulder width	narrow to medium
Shoulder shape	straight

Lower Lemma

Beak shape:	slightly to moderately curved
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Grain

Colour	red
Colouration with phenol:	medium

Straw

Length:	medium
Wall thickness @ 20cms below ear:	medium to thick

Glaucosity

Flag leaf - sheath:	strong
Flag leaf - blade (lower side):	strong
Culm neck:	strong
Ear - Glaucosity:	strong

Plant growth characters

Coleoptile-anthocyanin	absent or very weak
Plant - growth habit:	intermediate
Time ear emergence:	medium
Flag leaf - Anthocyanin colouration of auricles:	absent or very weak

Variety Name: Anabel

Crop:

Breeder's Reference: SG-S1257-09

AFP No:

Breeder: SELGEN

Translated from: CZECH

Origin:

Date: 20 February 2014

Code: ANAB

Coleoptile-anthocyanin colouration:

***Plant - growth habit:**

***Time ear emergence:**

Flag leaf - Anthocyanin colouration of auricles:

Frequency of plants with recurved flag leaves:

***Flag leaf - Glaucosity of sheath:**

Flag leaf - Glaucosity of leaf blade:

Anthers - anthocyanin colouration:

Glaucosity of neck:

Hairiness of uppermost node:

***Plant - height:**

***Straw - wall thickness @ 20cms below ear:**

***Ear - Glaucosity:**

Ear - Supernumerary spikelets - frequency:

***Ear - Colour:**

***Ear - Shape (side profile):**

Ear - Length:

***Ear - Density:**

***Awns or scurs - presence:**

Awns or scurs - distribution:

***Scurs at tip of ear - length:**

***Awns at tip of ear - length:**

Lower glume - Beak length:

Lower glume - Beak shape (curvature):

Lower glume - Beak tip:

Lower glume - Shoulder width:

Lower glume - Shoulder type:

Lower glume - External surface roughness:

Lower glume - Extent of internal hairs:

Lower glume - Internal imprint:

Lower lemma - Beak shape:

Lower lemma - Beak length:-

Lower lemma - Beak swelling:

Apical rachis segment - convex face hairiness:

***Grain - colour:**

Grain - Shape:

Grain - Brush hair length in dorsal view:

Grain - Colouration with phenol:

***Seasonal type:**

Extra characters:

Weak

Semi-erect to intermediate

Early to medium

Medium to high

Strong to very strong

Strong

Strong to very strong

Short to medium

Medium

Medium to strong

White

Tapering

Medium

Medium

Scurs present

Medium

Short

Medium to broad

Elevated

Weak

Medium

Red

Medium

Spring

* = Characteristics which should always be included in the description of the variety.

08 March 2016

ASHBY

CHARACTERS IN DETAIL

Ear

Colour	white
Length	medium
Density	lax to medium
Shape-side profile	tapering
Awns or scurs - presence	scurs present
Awns or scurs - distribution	upper 1/2
Awns or scurs - length	short to medium
Apical rachis segment - convex face hairiness	medium to strong
Anthers - anthocyanin colouration	absent

Lower glume

External surface	smooth
Extent of internal hairs	strong (group 3)
Beak length	medium
Beak curvature	moderately curved
Shoulder width	narrow to medium
Shoulder shape	straight

Lower lemma

Beak curvature	slightly to moderately curved
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Grain

Colour	red
Colouration with phenol	medium

Straw

Length	short to medium
Wall thickness @20cms below ear	very thick or filled

Glaucosity

Flag leaf - sheath	very strong
Flag leaf- blade (lower side)	
Culm - neck	strong to very strong
Ear	strong to very strong

Plant growth characters

Coleoptile - anthocyanin colouration	weak
Plant - growth habit	intermediate
Time of ear emergence	late
Flag leaf - anthocyanin of auricles	very weak

Variety Name: **Astrid**

Crop:

Breeder's Reference: SG-S 154-06

AFP No:

Breeder: DLF Trifolium Ltd

Translated from: Cz

Origin:

Date: 23 March 2017

Code: TRID

Coleoptile-anthocyanin colouration:

Weak to medium

*Plant - growth habit:

Semi erect to intermediate

*Time ear emergence:

Medium

Flag leaf - Anthocyanin colouration of auricles:

Frequency of plants with recurved flag leaves:

High

*Flag leaf - Glaucosity of sheath:

Flag leaf - Glaucosity of leaf blade:

Strong

Anthers - anthocyanin colouration:

Glaucosity of neck:

Medium to strong

Hairiness of uppermost node:

*Plant - height:

*Straw - wall thickness @ 20cms below ear:

Very thin to thin

*Ear - Glaucosity:

Medium to strong

Ear - Supernumerary spikelets - frequency:

*Ear - Colour:

White

*Ear - Shape (side profile):

Tapering

Ear - Length:

Medium to long

*Ear - Density:

Tapering

*Awns or scurs - presence:

Scurs present

Awns or scurs - distribution:

*Scurs at tip of ear - length:

Short

*Awns at tip of ear - length:

Short

Lower glume - Beak length:

Very short to short

Lower glume - Beak shape (curvature):

Slightly curved

Lower glume - Beak tip:

Lower glume - Shoulder width:

Narrow to medium

Lower glume - Shoulder type:

Straight

Lower glume - External surface roughness:

Lower glume - Extent of internal hairs:

Medium

Lower glume - Internal imprint:

Lower lemma - Beak shape:

Lower lemma - Beak length-:

Lower lemma - Beak swelling:

Apical rachis segment - convex face hairiness:

Weak

*Grain - colour:

Red

Grain - Shape:

Grain - Brush hair length in dorsal view:

Dark

Grain - Colouration with phenol:

Spring

*Seasonal type:

Extra characters:

* = Characteristics which should always be included in the description of the variety.

28 March 2017

AZURITE

CHARACTERS IN DETAIL

Ear

Colour	white
Length	short to medium
Density	medium
Shape-side profile	parallel sided
Awns or scurs - presence	scurs present
Awns or scurs - distribution	upper 1/4
Awns or scurs - length	medium
Apical rachis segment - convex face hairiness	medium to strong
Anthers - anthocyanin colouration	absent

Lower glume

External surface	
Extent of internal hairs	strong - Group 3
Beak length	short
Beak curvature	v.slightly curved
Shoulder width	narrow
Shoulder shape	straight

Lower lemma

Beak curvature	slightly curved
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Grain

Colour	red
Colouration with phenol	light to medium

Straw

Length	short
Wall thickness @20cms below ear	medium

Glaucosity

Flag leaf - sheath	medium to strong
Flag leaf- blade (lower side)	medium to strong
Culm - neck	strong
Ear	strong

Plant growth characters

Coleoptile - anthocyanin colouration	weak
Plant - growth habit	semi-erect
Time of ear emergence	medium
Flag leaf - anthocyanin of auricles	

BAYLISS

CHARACTERS IN DETAIL

Ear

Colour	white
Length	medium to long
Density	lax to medium
Shape-side profile	tapering
Awns or scurs - presence	scurs present
Awns or scurs - distribution	upper 1/2
Awns or scurs - length	long
Apical rachis segment - convex face hairiness	medium
Anthers - anthocyanin colouration	

Lower glume

External surface	smooth
Extent of internal hairs	strong (group 3)
Beak length	short to medium
Beak curvature	slight to moderately curved
Shoulder width	narrow
Shoulder shape	straight

Lower lemma

Beak curvature	moderately curved
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Grain

Colour	red
Colouration with phenol	medium to dark

Straw

Length	medium to long
Wall thickness @20cms below ear	medium

Glaucosity

Flag leaf - sheath	medium to strong
Flag leaf- blade (lower side)	medium
Culm - neck	medium to strong
Ear	medium

Plant growth characters

Coleoptile - anthocyanin colouration	absent or very weak
Plant - growth habit	semi-erect to intermediate
Time of ear emergence	medium to late
Flag leaf - anthocyanin of auricles	

BELVOIR

CHARACTERS IN DETAIL

Ear

Colour	white
Length	medium
Density	lax
Shape-side profile	tapering
Awns or scurs - presence	scurs present
Awns or scurs - distribution	upper 1/4
Awns or scurs - length	long to very long
Apical rachis segment - convex face hairiness	medium
Anthers - anthocyanin colouration	absent

Lower glume

External surface	smooth
Extent of internal hairs	strong - Group 3
Beak length	short to medium
Beak curvature	slightly curved
Shoulder width	narrow
Shoulder shape	straight

Lower lemma

Beak curvature	slightly to moderately curved
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Grain

Colour	red
Colouration with phenol	very dark

Straw

Length	medium
Wall thickness @20cms below ear	thin

Glaucosity

Flag leaf - sheath	strong to very strong
Flag leaf- blade (lower side)	
Culm - neck	strong to very strong
Ear	strong to very strong

Plant growth characters

Coleoptile - anthocyanin colouration	weak
Plant - growth habit	semi-erect to intermediate
Time of ear emergence	medium
Flag leaf - anthocyanin of auricles	weak

BONZER

CHARACTERS IN DETAIL

Ear

Colour	white
Length	short to medium
Density	medium
Shape-side profile	parallel sided
Awns or scurs - presence	scurs present
Awns or scurs - distribution	upper 1/4
Awns or scurs - length	long
Apical rachis segment - convex face hairiness	medium to strong
Anthers - anthocyanin colouration	

Lower glume

External surface	smooth
Extent of internal hairs	strong - Group 3
Beak length	medium
Beak curvature	slightly curved
Shoulder width	narrow
Shoulder shape	straight

Lower lemma

Beak curvature	slightly curved
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Grain

Colour	red
Colouration with phenol	medium to dark

Straw

Length	short to medium
Wall thickness @20cms below ear	very thick or filled

Glaucosity

Flag leaf - sheath	very weak to weak
Flag leaf- blade (lower side)	very weak to weak
Culm - neck	medium
Ear	medium

Plant growth characters

Coleoptile - anthocyanin colouration	medium
Plant - growth habit	semi-erect to intermediate
Time of ear emergence	medium to late
Flag leaf - anthocyanin of auricles	

CALIXO

CHARACTERS IN DETAIL

Ear

Colour	white
Length	medium
Density	very lax to lax
Shape-side profile	tapering
Awns or scurs - presence	scurs present
Awns or scurs - distribution	upper 3/4
Awns or scurs - length	long
Apical rachis segment - convex face hairiness	weak to medium
Anthers - anthocyanin colouration	

Lower glume

External surface	smooth
Extent of internal hairs	strong (3)
Beak length	short
Beak curvature	straight
Shoulder width	narrow to medium
Shoulder shape	elevated

Lower lemma

Beak curvature	slightly curved
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Grain

Colour	red
Colouration with phenol	dark

Straw

Length	long
Wall thickness @20cms below ear	medium

Glaucosity

Flag leaf - sheath	weak
Flag leaf- blade (lower side)	very weak to weak
Culm - neck	weak
Ear	weak to medium

Plant growth characters

Coleoptile - anthocyanin colouration	weak
Plant - growth habit	semi-erect
Time of ear emergence	early to medium
Flag leaf - anthocyanin of auricles	

COBBER

CHARACTERS IN DETAIL

Ear

Colour	white
Length	short to medium
Density	lax to medium
Shape-side profile	parallel sided
Awns or scurs - presence	scurs present
Awns or scurs - distribution	upper 1/4
Awns or scurs - length	medium to long
Apical rachis segment - convex face hairiness	strong
Anthers - anthocyanin colouration	

Lower glume

External surface	smooth
Extent of internal hairs	strong - Group 3
Beak length	short
Beak curvature	straight
Shoulder width	narrow
Shoulder shape	straight

Lower lemma

Beak curvature	slightly curved
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Grain

Colour	red
Colouration with phenol	medium to dark

Straw

Length	short to medium
Wall thickness @20cms below ear	very thick or filled

Glaucosity

Flag leaf - sheath	strong
Flag leaf- blade (lower side)	strong
Culm - neck	medium to strong
Ear	medium to strong

Plant growth characters

Coleoptile - anthocyanin colouration	medium
Plant - growth habit	intermediate
Time of ear emergence	medium to late
Flag leaf - anthocyanin of auricles	

CORNETTO**CHARACTERS IN DETAIL****Ear**

Colour	white
Length	medium
Density	lax to medium
Shape-side profile	tapering
Awns or scurs - presence	awns present
Awns or scurs - distribution	whole length
Awns or scurs - length	long to very long
Apical rachis segment - convex face hairiness	medium
Anthers - anthocyanin colouration	

Lower glume

External surface	smooth
Extent of internal hairs	strong (group 3)
Beak length	long to very long
Beak curvature	slightly curved
Shoulder width	very narrow to narrow
Shoulder shape	elevated

Lower lemma

Beak curvature	straight to slightly curved
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Grain

Colour	red
Colouration with phenol	dark to very dark

Straw

Length	long
Wall thickness @20cms below ear	absent or very thin

Glaucosity

Flag leaf - sheath	medium to strong
Flag leaf- blade (lower side)	weak to medium
Culm - neck	medium
Ear	medium to strong

Plant growth characters

Coleoptile - anthocyanin colouration	absent to weak
Plant - growth habit	semi-erect
Time of ear emergence	medium
Flag leaf - anthocyanin of auricles	

CHARACTERS IN DETAIL

Ear

Colour:	white
Length:	medium to long
Density:	lax to medium
Shape (side profile)	parallel sided
Awns or scurs - presence:	scurs present
Awns or scurs - distribution:	
Awns or Scurs - length:	short to medium short to medium
Apical rachis segment - convex face hairiness:	medium
Anthers - anthocyanin	

Lower Glume

External surface roughness:	
Extent of internal hairs:	medium to strong
Beak length:	very short to short
Beak shape (curvature):	straight to slightly curved
Shoulder width	medium to broad
Shoulder shape	slightly sloping to straight

Lower Lemma

Beak shape:

Grain

Colour	red
Colouration with phenol:	dark

Straw

Length:	medium to long
Wall thickness @ 20cms below ear:	thin

Glaucosity

Flag leaf - sheath:	strong
Flag leaf - blade (lower side):	medium to strong
Culm neck:	strong
Ear - Glaucosity:	strong

Plant growth characters

Coleoptile-anthocyanin	weak
Plant - growth habit:	semi-erect to intermediate
Time ear emergence:	medium
Flag leaf - Anthocyanin colouration of auricles:	

EQUITY

CHARACTERS IN DETAIL

Ear

Colour	white
Length	short to medium
Density	medium
Shape-side profile	parallel sided
Awns or scurs - presence	scurs present
Awns or scurs - distribution	upper 1/2
Awns or scurs - length	short to medium
Apical rachis segment - convex face hairiness	weak to medium
Anthers - anthocyanin colouration	absent

Lower glume

External surface	smooth
Extent of internal hairs	strong
Beak length	short to medium
Beak curvature	slightly curved
Shoulder width	narrow
Shoulder shape	straight

Lower lemma

Beak curvature	slightly curved
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Grain

Colour	white
Colouration with phenol	medium to dark

Straw

Length	very short to short
Wall thickness @20cms below ear	medium

Glaucosity

Flag leaf - sheath	strong
Flag leaf- blade (lower side)	medium
Culm - neck	medium to strong
Ear	strong

Plant growth characters

Coleoptile - anthocyanin colouration	absent to weak
Plant - growth habit	semi-erect
Time of ear emergence	medium
Flag leaf - anthocyanin of auricles	

ETHOS

CHARACTERS IN DETAIL

Ear

Colour	white
Length	medium
Density	lax
Shape-side profile	tapering
Awns or scurs - presence	scurs present
Awns or scurs - distribution	upper 1/4
Awns or scurs - length	medium to long
Apical rachis segment - convex face hairiness	weak to medium
Anthers - anthocyanin colouration	

Lower glume

External surface	smooth
Extent of internal hairs	medium (2)
Beak length	short to medium
Beak curvature	slightly curved
Shoulder width	narrow
Shoulder shape	elevated

Lower lemma

Beak curvature	slightly curved
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Grain

Colour	red
Colouration with phenol	medium to dark

Straw

Length	short to medium
Wall thickness @20cms below ear	absent or very thin

Glaucosity

Flag leaf - sheath	weak to medium
Flag leaf- blade (lower side)	weak
Culm - neck	weak to medium
Ear	weak

Plant growth characters

Coleoptile - anthocyanin colouration	weak to medium
Plant - growth habit	intermed. to semi-prostrate
Time of ear emergence	medium
Flag leaf - anthocyanin of auricles	

FALLER

CHARACTERS IN DETAIL

Ear

Colour	white
Length	short to medium
Density	very lax to lax
Shape-side profile	tapering
Awns or scurs - presence	awns present
Awns or scurs - distribution	
Awns or scurs - length	long to very long
Apical rachis segment - convex face hairiness	medium
Anthers - anthocyanin colouration	

Lower glume

External surface	smooth
Extent of internal hairs	weak to medium (group 1+)
Beak length	long
Beak curvature	slight to moderately curved
Shoulder width	narrow to medium
Shoulder shape	elev. to strongly elevated

Lower lemma

Beak curvature	
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Grain

Colour	red
Colouration with phenol	dark to very dark

Straw

Length	long
Wall thickness @20cms below ear	absent or very thin

Glaucosity

Flag leaf - sheath	weak
Flag leaf- blade (lower side)	very weak to weak
Culm - neck	weak
Ear	weak

Plant growth characters

Coleoptile - anthocyanin colouration	absent or very weak
Plant - growth habit	semi-erect to intermediate
Time of ear emergence	early
Flag leaf - anthocyanin of auricles	

GRAFFITI

CHARACTERS IN DETAIL

Ear

Colour	white
Length	medium
Density	lax to medium
Shape-side profile	parallel sided
Awns or scurs - presence	scurs present
Awns or scurs - distribution	upper 1/4
Awns or scurs - length	medium
Apical rachis segment - convex face hairiness	medium
Anthers - anthocyanin colouration	absent

Lower glume

External surface	smooth
Extent of internal hairs	strong - Group 3
Beak length	medium
Beak curvature	moderate to strongly curved
Shoulder width	narrow
Shoulder shape	elevated

Lower lemma

Beak curvature	slightly curved
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Grain

Colour	red
Colouration with phenol	dark

Straw

Length	medium to long
Wall thickness @20cms below ear	very thick or filled

Glaucosity

Flag leaf - sheath	very weak to weak
Flag leaf- blade (lower side)	very weak to weak
Culm - neck	very weak to weak
Ear	weak

Plant growth characters

Coleoptile - anthocyanin colouration	medium
Plant - growth habit	semi-erect
Time of ear emergence	medium
Flag leaf - anthocyanin of auricles	

GRANARY

CHARACTERS IN DETAIL

Ear

Colour	white
Length	medium
Density	medium
Shape-side profile	parallel sided
Awns or scurs - presence	scurs present
Awns or scurs - distribution	upper 1/4
Awns or scurs - length	long
Apical rachis segment - convex face hairiness	medium
Anthers - anthocyanin colouration	

Lower glume

External surface	smooth
Extent of internal hairs	strong - Group 3
Beak length	short to medium
Beak curvature	slightly curved
Shoulder width	narrow to medium
Shoulder shape	sl. sloping to straight

Lower lemma

Beak curvature	slightly curved
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Grain

Colour	red
Colouration with phenol	dark

Straw

Length	short to medium
Wall thickness @20cms below ear	very thick or filled

Glaucosity

Flag leaf - sheath	weak to medium
Flag leaf- blade (lower side)	weak to medium
Culm - neck	medium
Ear	medium

Plant growth characters

Coleoptile - anthocyanin colouration	weak to medium
Plant - growth habit	semi-erect
Time of ear emergence	medium
Flag leaf - anthocyanin of auricles	

HATHAWAY**CHARACTERS IN DETAIL****Ear**

Colour	white
Length	short to medium
Density	lax to medium
Shape-side profile	parallel sided
Awns or scurs - presence	scurs present
Awns or scurs - distribution	
Awns or scurs - length	medium
Apical rachis segment - convex face hairiness	medium
Anthers - anthocyanin colouration	absent

Lower glume

External surface	smooth
Extent of internal hairs	medium (group 2)
Beak length	medium
Beak curvature	slightly curved
Shoulder width	narrow
Shoulder shape	straight to elevated

Lower lemma

Beak curvature	slightly curved
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Grain

Colour	red
Colouration with phenol	medium to dark

Straw

Length	medium
Wall thickness @20cms below ear	medium

Glaucosity

Flag leaf - sheath	medium to strong
Flag leaf- blade (lower side)	medium
Culm - neck	medium to strong
Ear	medium to strong

Plant growth characters

Coleoptile - anthocyanin colouration	medium to strong
Plant - growth habit	intermediate
Time of ear emergence	late
Flag leaf - anthocyanin of auricles	

HEALEY**CHARACTERS IN DETAIL****Ear**

Colour	white
Length	medium
Density	lax
Shape-side profile	tapering
Awns or scurs - presence	scurs present
Awns or scurs - distribution	upper 1/2
Awns or scurs - length	long to very long
Apical rachis segment - convex face hairiness	medium to strong
Anthers - anthocyanin colouration	

Lower glume

External surface	smooth
Extent of internal hairs	strong (group 3)
Beak length	short
Beak curvature	slightly curved
Shoulder width	narrow
Shoulder shape	straight

Lower lemma

Beak curvature	slightly to moderately curved
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Grain

Colour	red
Colouration with phenol	light

Straw

Length	very long
Wall thickness @20cms below ear	absent or very thin

Glaucosity

Flag leaf - sheath	medium to strong
Flag leaf- blade (lower side)	medium
Culm - neck	medium to strong
Ear	medium to strong

Plant growth characters

Coleoptile - anthocyanin colouration	absent or very weak
Plant - growth habit	semi-erect
Time of ear emergence	medium
Flag leaf - anthocyanin of auricles	

HEXHAM**CHARACTERS IN DETAIL****Ear**

Colour	white
Length	medium to long
Density	lax
Shape-side profile	parallel sided
Awns or scurs - presence	scurs present
Awns or scurs - distribution	
Awns or scurs - length	long to very long
Apical rachis segment - convex face hairiness	medium to strong
Anthers - anthocyanin colouration	

Lower glume

External surface	smooth
Extent of internal hairs	strong (group 3)
Beak length	medium
Beak curvature	slight to moderately curved
Shoulder width	narrow
Shoulder shape	elevated

Lower lemma

Beak curvature	slightly curved
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Grain

Colour	red
Colouration with phenol	medium to dark

Straw

Length	long
Wall thickness @20cms below ear	absent or very thin

Glaucosity

Flag leaf - sheath	strong
Flag leaf- blade (lower side)	medium to strong
Culm - neck	medium to strong
Ear	medium to strong

Plant growth characters

Coleoptile - anthocyanin colouration	absent or very weak
Plant - growth habit	semi-erect to intermediate
Time of ear emergence	medium to late
Flag leaf - anthocyanin of auricles	

CHARACTERS IN DETAIL

Ear

Colour	white
Length	medium
Density	lax
Shape-side profile	tapering
Awns or scurs - presence	scurs present
Awns or scurs - distribution	upper 1/4
Awns or scurs - length	medium to long
Apical rachis segment - convex face hairiness	weak to medium
Anthers - anthocyanin colouration	

Lower glume

External surface	smooth
Extent of internal hairs	weak (1)
Beak length	short to medium
Beak curvature	slightly curved
Shoulder width	medium
Shoulder shape	elevated

Lower lemma

Beak curvature	slightly curved
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Grain

Colour	red
Colouration with phenol	dark

Straw

Length	long to very long
Wall thickness @20cms below ear	absent or very thin

Glaucosity

Flag leaf - sheath	medium
Flag leaf- blade (lower side)	weak
Culm - neck	medium
Ear	medium

Plant growth characters

Coleoptile - anthocyanin colouration	strong
Plant - growth habit	semi-erect
Time of ear emergence	very early to early
Flag leaf - anthocyanin of auricles	

INSIGNIA

CHARACTERS IN DETAIL

Ear

Colour	white
Length	short to medium
Density	lax
Shape-side profile	tapering
Awns or scurs - presence	scurs present
Awns or scurs - distribution	upper 1/2
Awns or scurs - length	medium to long
Apical rachis segment - convex face hairiness	medium to strong
Anthers - anthocyanin colouration	

Lower glume

External surface	smooth
Extent of internal hairs	strong (group 3)
Beak length	medium
Beak curvature	slightly curved
Shoulder width	narrow
Shoulder shape	straight

Lower lemma

Beak curvature	slightly to moderately curved
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Grain

Colour	red
Colouration with phenol	medium to dark

Straw

Length	short
Wall thickness @20cms below ear	absent or very thin

Glaucosity

Flag leaf - sheath	medium to strong
Flag leaf- blade (lower side)	medium to strong
Culm - neck	medium to strong
Ear	medium to strong

Plant growth characters

Coleoptile - anthocyanin colouration	absent or very weak
Plant - growth habit	semi-erect
Time of ear emergence	medium
Flag leaf - anthocyanin of auricles	

IVORY

CHARACTERS IN DETAIL

Ear

Colour	white
Length	long
Density	lax
Shape-side profile	tapering
Awns or scurs - presence	scurs present
Awns or scurs - distribution	upper 1/2
Awns or scurs - length	long
Apical rachis segment - convex face hairiness	weak to medium
Anthers - anthocyanin colouration	absent

Lower glume

External surface	smooth
Extent of internal hairs	strong (group 3)
Beak length	medium
Beak curvature	strongly curved
Shoulder width	narrow
Shoulder shape	elevated

Lower lemma

Beak curvature	strongly curved
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Grain

Colour	white
Colouration with phenol	medium

Straw

Length	short
Wall thickness @20cms below ear	absent or very thin

Glaucosity

Flag leaf - sheath	strong to very strong
Flag leaf- blade (lower side)	strong
Culm - neck	strong
Ear	strong

Plant growth characters

Coleoptile - anthocyanin colouration	medium
Plant - growth habit	intermediate
Time of ear emergence	late
Flag leaf - anthocyanin of auricles	

KABOT

CHARACTERS IN DETAIL

Ear

Colour	white
Length	medium to long
Density	lax
Shape-side profile	tapering
Awns or scurs - presence	scurs present
Awns or scurs - distribution	upper 3/4
Awns or scurs - length	medium to long
Apical rachis segment - convex face hairiness	weak to medium
Anthers - anthocyanin colouration	

Lower glume

External surface	smooth
Extent of internal hairs	medium to strong (group 2+)
Beak length	medium
Beak curvature	moderately curved
Shoulder width	medium
Shoulder shape	elevated

Lower lemma

Beak curvature	slightly to moderately curved
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Grain

Colour	red
Colouration with phenol	medium to dark

Straw

Length	long
Wall thickness @20cms below ear	absent or very thin

Glaucosity

Flag leaf - sheath	strong
Flag leaf- blade (lower side)	medium to strong
Culm - neck	strong
Ear	medium

Plant growth characters

Coleoptile - anthocyanin colouration	weak
Plant - growth habit	semi-erect
Time of ear emergence	medium to late
Flag leaf - anthocyanin of auricles	

KWS ALDERON**CHARACTERS IN DETAIL****Ear**

Colour	white
Length	short
Density	lax
Shape-side profile	parallel sided
Awns or scurs - presence	scurs present
Awns or scurs - distribution	upper 1/2
Awns or scurs - length	medium
Apical rachis segment - convex face hairiness	strong
Anthers - anthocyanin colouration	

Lower glume

External surface	smooth
Extent of internal hairs	strong - Group 3
Beak length	short
Beak curvature	slight to moderately curved
Shoulder width	narrow
Shoulder shape	straight

Lower lemma

Beak curvature	slightly curved
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Grain

Colour	red
Colouration with phenol	dark to very dark

Straw

Length	short
Wall thickness @20cms below ear	medium

Glaucosity

Flag leaf - sheath	strong
Flag leaf- blade (lower side)	strong
Culm - neck	strong
Ear	strong to very strong

Plant growth characters

Coleoptile - anthocyanin colouration	absent or very weak
Plant - growth habit	semi-erect
Time of ear emergence	medium
Flag leaf - anthocyanin of auricles	

KWS ALICIUM**CHARACTERS IN DETAIL****Ear**

Colour	white
Length	medium
Density	medium
Shape-side profile	parallel sided
Awns or scurs - presence	scurs present
Awns or scurs - distribution	upper 1/4
Awns or scurs - length	medium
Apical rachis segment - convex face hairiness	medium
Anthers - anthocyanin colouration	absent

Lower glume

External surface	smooth
Extent of internal hairs	strong (group 3)
Beak length	short
Beak curvature	v.slightly curved
Shoulder width	narrow
Shoulder shape	slightly elevated

Lower lemma

Beak curvature	moderately curved
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Grain

Colour	reddish
Colouration with phenol	dark

Straw

Length	long
Wall thickness @20cms below ear	thin

Glaucosity

Flag leaf - sheath	strong
Flag leaf- blade (lower side)	medium to strong
Culm - neck	medium
Ear	medium

Plant growth characters

Coleoptile - anthocyanin colouration	weak
Plant - growth habit	semi-erect
Time of ear emergence	early to medium
Flag leaf - anthocyanin of auricles	absent or very weak

KWS BEWLEY

CHARACTERS IN DETAIL

Ear

Colour	white
Length	medium
Density	lax
Shape-side profile	tapering
Awns or scurs - presence	scurs present
Awns or scurs - distribution	upper 1/4
Awns or scurs - length	medium to long
Apical rachis segment - convex face hairiness	weak to medium
Anthers - anthocyanin colouration	

Lower glume

External surface	smooth
Extent of internal hairs	strong (group 3)
Beak length	very short to short
Beak curvature	straight
Shoulder width	narrow
Shoulder shape	elevated

Lower lemma

Beak curvature	slightly curved
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Grain

Colour	white
Colouration with phenol	medium

Straw

Length	medium
Wall thickness @20cms below ear	absent or very thin

Glaucosity

Flag leaf - sheath	medium to strong
Flag leaf- blade (lower side)	medium to strong
Culm - neck	medium to strong
Ear	medium to strong

Plant growth characters

Coleoptile - anthocyanin colouration	absent to weak
Plant - growth habit	semi-erect
Time of ear emergence	medium to late
Flag leaf - anthocyanin of auricles	

KWS BITTERN

CHARACTERS IN DETAIL

Ear

Colour	white
Length	medium
Density	lax to medium
Shape-side profile	parallel sided
Awns or scurs - presence	scurs present
Awns or scurs - distribution	upper 1/2
Awns or scurs - length	medium to long
Apical rachis segment - convex face hairiness	medium to strong
Anthers - anthocyanin colouration	

Lower glume

External surface	smooth
Extent of internal hairs	strong - Group 3
Beak length	medium to long
Beak curvature	slight to moderately curved
Shoulder width	narrow
Shoulder shape	sl. sloping to straight

Lower lemma

Beak curvature	slightly curved
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Grain

Colour	red
Colouration with phenol	medium

Straw

Length	medium to long
Wall thickness @20cms below ear	thin

Glaucosity

Flag leaf - sheath	strong
Flag leaf- blade (lower side)	strong
Culm - neck	strong
Ear	medium to strong

Plant growth characters

Coleoptile - anthocyanin colouration	strong
Plant - growth habit	semi-erect to intermediate
Time of ear emergence	late
Flag leaf - anthocyanin of auricles	

KWS CHARING

CHARACTERS IN DETAIL

Ear

Colour	white
Length	short
Density	lax
Shape-side profile	parallel sided
Awns or scurs - presence	scurs present
Awns or scurs - distribution	upper 1/2
Awns or scurs - length	long
Apical rachis segment - convex face hairiness	medium to strong
Anthers - anthocyanin colouration	absent

Lower glume

External surface	smooth
Extent of internal hairs	strong
Beak length	short to medium
Beak curvature	slightly curved
Shoulder width	narrow
Shoulder shape	elevated

Lower lemma

Beak curvature	slightly curved
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Grain

Colour	white
Colouration with phenol	dark to very dark

Straw

Length	medium
Wall thickness @20cms below ear	medium

Glaucosity

Flag leaf - sheath	weak
Flag leaf- blade (lower side)	very weak to weak
Culm - neck	very weak to weak
Ear	weak

Plant growth characters

Coleoptile - anthocyanin colouration	medium
Plant - growth habit	semi-erect
Time of ear emergence	medium
Flag leaf - anthocyanin of auricles	

KWS CHILHAM

CHARACTERS IN DETAIL

Ear

Colour	white
Length	medium
Density	lax
Shape-side profile	tapering
Awns or scurs - presence	scurs present
Awns or scurs - distribution	upper 1/4
Awns or scurs - length	long
Apical rachis segment - convex face hairiness	strong
Anthers - anthocyanin colouration	

Lower glume

External surface	smooth
Extent of internal hairs	strong (group 3)
Beak length	short to medium
Beak curvature	slight to moderately curved
Shoulder width	narrow to medium
Shoulder shape	elevated

Lower lemma

Beak curvature	moderately curved
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Grain

Colour	red
Colouration with phenol	medium

Straw

Length	medium to long
Wall thickness @20cms below ear	absent or very thin

Glaucosity

Flag leaf - sheath	medium to strong
Flag leaf- blade (lower side)	medium
Culm - neck	medium to strong
Ear	medium to strong

Plant growth characters

Coleoptile - anthocyanin colouration	absent or very weak
Plant - growth habit	intermediate
Time of ear emergence	late
Flag leaf - anthocyanin of auricles	

KWS COCHISE**CHARACTERS IN DETAIL****Ear**

Colour	white
Length	medium
Density	lax
Shape-side profile	tapering
Awns or scurs - presence	scurs present
Awns or scurs - distribution	upper 3/4
Awns or scurs - length	very long
Apical rachis segment - convex face hairiness	medium to strong
Anthers - anthocyanin colouration	

Lower glume

External surface	smooth
Extent of internal hairs	strong (group 3)
Beak length	short to medium
Beak curvature	slightly curved
Shoulder width	medium
Shoulder shape	elevated

Lower lemma

Beak curvature	slightly to moderately curved
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Grain

Colour	red
Colouration with phenol	medium to dark

Straw

Length	very long
Wall thickness @20cms below ear	absent or very thin

Glaucosity

Flag leaf - sheath	strong
Flag leaf- blade (lower side)	medium
Culm - neck	medium to strong
Ear	medium to strong

Plant growth characters

Coleoptile - anthocyanin colouration	absent or very weak
Plant - growth habit	semi-erect to intermediate
Time of ear emergence	late
Flag leaf - anthocyanin of auricles	

KWS COLLIER

CHARACTERS IN DETAIL

Ear

Colour	white
Length	medium
Density	lax to medium
Shape-side profile	tapering
Awns or scurs - presence	scurs present
Awns or scurs - distribution	upper 1/2
Awns or scurs - length	medium to long
Apical rachis segment - convex face hairiness	weak to medium
Anthers - anthocyanin colouration	absent

Lower glume

External surface	smooth
Extent of internal hairs	strong
Beak length	short
Beak curvature	slightly curved
Shoulder width	narrow
Shoulder shape	straight to elevated

Lower lemma

Beak curvature	slightly curved
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Grain

Colour	white
Colouration with phenol	dark to very dark

Straw

Length	short to medium
Wall thickness @20cms below ear	absent or very thin

Glaucosity

Flag leaf - sheath	strong
Flag leaf- blade (lower side)	medium to strong
Culm - neck	strong
Ear	strong

Plant growth characters

Coleoptile - anthocyanin colouration	weak
Plant - growth habit	semi-erect
Time of ear emergence	early to medium
Flag leaf - anthocyanin of auricles	

KWS FIXUM

CHARACTERS IN DETAIL

Ear

Colour	white
Length	medium
Density	lax
Shape-side profile	parallel sided
Awns or scurs - presence	scurs present
Awns or scurs - distribution	upper 3/4
Awns or scurs - length	very long
Apical rachis segment - convex face hairiness	strong
Anthers - anthocyanin colouration	absent

Lower glume

External surface	smooth
Extent of internal hairs	strong to whole surface
Beak length	medium
Beak curvature	v.slightly curved
Shoulder width	narrow
Shoulder shape	straight to elevated

Lower lemma

Beak curvature	moderately curved
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Grain

Colour	red
Colouration with phenol	dark

Straw

Length	long
Wall thickness @20cms below ear	absent or very thin

Glaucosity

Flag leaf - sheath	strong
Flag leaf- blade (lower side)	strong
Culm - neck	strong
Ear	medium to strong

Plant growth characters

Coleoptile - anthocyanin colouration	absent or very weak
Plant - growth habit	semi-erect to intermediate
Time of ear emergence	medium to late
Flag leaf - anthocyanin of auricles	absent or very weak

KWS FLINT

CHARACTERS IN DETAIL

Ear

Colour	white
Length	medium
Density	medium
Shape-side profile	parallel sided
Awns or scurs - presence	scurs present
Awns or scurs - distribution	upper 1/4
Awns or scurs - length	medium
Apical rachis segment - convex face hairiness	strong
Anthers - anthocyanin colouration	

Lower glume

External surface	smooth
Extent of internal hairs	strong - Group 3
Beak length	short to medium
Beak curvature	v.slightly curved
Shoulder width	narrow
Shoulder shape	elevated

Lower lemma

Beak curvature	moderately curved
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Grain

Colour	red
Colouration with phenol	dark to very dark

Straw

Length	short
Wall thickness @20cms below ear	medium

Glaucosity

Flag leaf - sheath	strong
Flag leaf- blade (lower side)	strong
Culm - neck	strong
Ear	strong

Plant growth characters

Coleoptile - anthocyanin colouration	medium
Plant - growth habit	intermediate
Time of ear emergence	medium
Flag leaf - anthocyanin of auricles	

KWS GIRAFFE**CHARACTERS IN DETAIL****Ear**

Colour	white
Length	medium to long
Density	lax to medium
Shape-side profile	tapering
Awns or scurs - presence	scurs present
Awns or scurs - distribution	upper 1/4
Awns or scurs - length	long
Apical rachis segment - convex face hairiness	strong to very strong
Anthers - anthocyanin colouration	

Lower glume

External surface	smooth
Extent of internal hairs	strong to whole surface
Beak length	short to medium
Beak curvature	v.slightly curved
Shoulder width	narrow to medium
Shoulder shape	straight

Lower lemma

Beak curvature	straight to slightly curved
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Grain

Colour	red
Colouration with phenol	medium to dark

Straw

Length	medium to long
Wall thickness @20cms below ear	absent or very thin

Glaucosity

Flag leaf - sheath	strong to very strong
Flag leaf- blade (lower side)	strong
Culm - neck	strong to very strong
Ear	strong to very strong

Plant growth characters

Coleoptile - anthocyanin colouration	very weak to weak
Plant - growth habit	semi-erect to intermediate
Time of ear emergence	medium to late
Flag leaf - anthocyanin of auricles	

KWS HARSUM

CHARACTERS IN DETAIL

Ear

Colour	white
Length	short to medium
Density	lax to medium
Shape-side profile	parallel sided
Awns or scurs - presence	scurs present
Awns or scurs - distribution	upper 1/2
Awns or scurs - length	long to very long
Apical rachis segment - convex face hairiness	medium to large
Anthers - anthocyanin colouration	absent

Lower glume

External surface	smooth
Extent of internal hairs	strong (group 3)
Beak length	medium to long
Beak curvature	slightly curved
Shoulder width	narrow to medium
Shoulder shape	slightly elevated

Lower lemma

Beak curvature	moderately to strongly curved
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Grain

Colour	reddish
Colouration with phenol	dark

Straw

Length	long
Wall thickness @20cms below ear	thin

Glaucosity

Flag leaf - sheath	strong
Flag leaf- blade (lower side)	medium to strong
Culm - neck	medium
Ear	medium

Plant growth characters

Coleoptile - anthocyanin colouration	weak
Plant - growth habit	semi-erect to intermediate
Time of ear emergence	medium to late
Flag leaf - anthocyanin of auricles	absent or very weak

KWS HATTON

CHARACTERS IN DETAIL

Ear

Colour	white
Length	medium
Density	lax
Shape-side profile	parallel sided
Awns or scurs - presence	scurs present
Awns or scurs - distribution	upper 1/4
Awns or scurs - length	medium
Apical rachis segment - convex face hairiness	strong
Anthers - anthocyanin colouration	

Lower glume

External surface	smooth
Extent of internal hairs	strong (group 3)
Beak length	medium
Beak curvature	slight to moderately curved
Shoulder width	narrow
Shoulder shape	elevated

Lower lemma

Beak curvature	slightly to moderately curved
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Grain

Colour	red
Colouration with phenol	medium to dark

Straw

Length	long to very long
Wall thickness @20cms below ear	medium

Glaucosity

Flag leaf - sheath	medium to strong
Flag leaf- blade (lower side)	medium to strong
Culm - neck	medium
Ear	medium

Plant growth characters

Coleoptile - anthocyanin colouration	absent or very weak
Plant - growth habit	semi-erect to intermediate
Time of ear emergence	late
Flag leaf - anthocyanin of auricles	

KWS JEFFERSON**CHARACTERS IN DETAIL****Ear**

Colour	white
Length	medium to long
Density	lax
Shape-side profile	tapering
Awns or scurs - presence	scurs present
Awns or scurs - distribution	upper 1/4
Awns or scurs - length	short to medium
Apical rachis segment - convex face hairiness	medium to strong
Anthers - anthocyanin colouration	

Lower glume

External surface	smooth
Extent of internal hairs	medium to strong (group 2+)
Beak length	short to medium
Beak curvature	slightly curved
Shoulder width	narrow to medium
Shoulder shape	straight

Lower lemma

Beak curvature	
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Grain

Colour	red
Colouration with phenol	medium to dark

Straw

Length	long
Wall thickness @20cms below ear	absent or very thin

Glaucosity

Flag leaf - sheath	medium
Flag leaf- blade (lower side)	medium
Culm - neck	medium to strong
Ear	medium to strong

Plant growth characters

Coleoptile - anthocyanin colouration	medium
Plant - growth habit	semi-erect to intermediate
Time of ear emergence	medium to late
Flag leaf - anthocyanin of auricles	

KWS KILBURN

CHARACTERS IN DETAIL

Ear

Colour	white
Length	medium
Density	very lax to lax
Shape-side profile	tapering
Awns or scurs - presence	scurs present
Awns or scurs - distribution	upper 1/2
Awns or scurs - length	very long
Apical rachis segment - convex face hairiness	medium
Anthers - anthocyanin colouration	absent

Lower glume

External surface	smooth
Extent of internal hairs	strong - Group 3
Beak length	short to medium
Beak curvature	slightly curved
Shoulder width	narrow to medium
Shoulder shape	elevated

Lower lemma

Beak curvature	slightly curved
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Grain

Colour	red
Colouration with phenol	medium to dark

Straw

Length	medium
Wall thickness @20cms below ear	thin

Glaucosity

Flag leaf - sheath	medium to strong
Flag leaf- blade (lower side)	medium
Culm - neck	medium
Ear	medium to strong

Plant growth characters

Coleoptile - anthocyanin colouration	absent or very weak
Plant - growth habit	semi-erect to intermediate
Time of ear emergence	medium to late
Flag leaf - anthocyanin of auricles	

KWS LADUM

CHARACTERS IN DETAIL

Ear

Colour	white
Length	short to medium
Density	lax to medium
Shape-side profile	tapering
Awns or scurs - presence	scurs present
Awns or scurs - distribution	upper 1/4
Awns or scurs - length	medium
Apical rachis segment - convex face hairiness	medium to strong
Anthers - anthocyanin colouration	absent

Lower glume

External surface	smooth
Extent of internal hairs	strong to whole surface
Beak length	short
Beak curvature	v.slightly curved
Shoulder width	narrow
Shoulder shape	straight to elevated

Lower lemma

Beak curvature	slightly to moderately curved
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Grain

Colour	red
Colouration with phenol	dark

Straw

Length	medium
Wall thickness @20cms below ear	absent or very thin

Glaucosity

Flag leaf - sheath	very weak to weak
Flag leaf- blade (lower side)	very weak to weak
Culm - neck	very weak to weak
Ear	very weak to weak

Plant growth characters

Coleoptile - anthocyanin colouration	very weak to weak
Plant - growth habit	semi-erect to intermediate
Time of ear emergence	medium
Flag leaf - anthocyanin of auricles	absent or very weak

KWS LIGHTUM**CHARACTERS IN DETAIL****Ear**

Colour	white
Length	short to medium
Density	lax to medium
Shape-side profile	tapering
Awns or scurs - presence	scurs present
Awns or scurs - distribution	upper 1/4
Awns or scurs - length	medium to long
Apical rachis segment - convex face hairiness	large
Anthers - anthocyanin colouration	absent

Lower glume

External surface	smooth
Extent of internal hairs	strong (group 3)
Beak length	medium
Beak curvature	v.slightly curved
Shoulder width	narrow
Shoulder shape	slightly elevated

Lower lemma

Beak curvature	slightly to moderately curved
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Grain

Colour	reddish
Colouration with phenol	dark

Straw

Length	long to very long
Wall thickness @20cms below ear	thin

Glaucosity

Flag leaf - sheath	strong
Flag leaf- blade (lower side)	medium to strong
Culm - neck	medium
Ear	medium to strong

Plant growth characters

Coleoptile - anthocyanin colouration	weak to medium
Plant - growth habit	semi-erect to intermediate
Time of ear emergence	medium
Flag leaf - anthocyanin of auricles	absent or very weak

KWS MULLINS**CHARACTERS IN DETAIL****Ear**

Colour	white
Length	short to medium
Density	medium
Shape-side profile	parallel sided
Awns or scurs - presence	scurs present
Awns or scurs - distribution	upper 1/4
Awns or scurs - length	short to medium
Apical rachis segment - convex face hairiness	medium to strong
Anthers - anthocyanin colouration	

Lower glume

External surface	smooth
Extent of internal hairs	strong (3)
Beak length	short to medium
Beak curvature	v.slightly curved
Shoulder width	narrow to medium
Shoulder shape	elevated

Lower lemma

Beak curvature	slightly curved
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Grain

Colour	red
Colouration with phenol	dark

Straw

Length	very short
Wall thickness @20cms below ear	medium

Glaucosity

Flag leaf - sheath	medium to strong
Flag leaf- blade (lower side)	medium
Culm - neck	medium
Ear	medium

Plant growth characters

Coleoptile - anthocyanin colouration	absent to weak
Plant - growth habit	semi-erect to intermediate
Time of ear emergence	late
Flag leaf - anthocyanin of auricles	

KWS PENDULUM

CHARACTERS IN DETAIL

Ear

Colour	white
Length	medium to long
Density	very lax to lax
Shape-side profile	tapering
Awns or scurs - presence	scurs present
Awns or scurs - distribution	upper 1/4
Awns or scurs - length	medium
Apical rachis segment - convex face hairiness	medium to strong
Anthers - anthocyanin colouration	absent

Lower glume

External surface	smooth
Extent of internal hairs	strong to whole surface
Beak length	short to medium
Beak curvature	slight to moderately curved
Shoulder width	narrow to medium
Shoulder shape	elevated

Lower lemma

Beak curvature	slightly to moderately curved
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Grain

Colour	red
Colouration with phenol	very light to light

Straw

Length	long
Wall thickness @20cms below ear	absent or very thin

Glaucosity

Flag leaf - sheath	medium to strong
Flag leaf- blade (lower side)	medium to strong
Culm - neck	medium to strong
Ear	medium to strong

Plant growth characters

Coleoptile - anthocyanin colouration	weak to medium
Plant - growth habit	intermediate
Time of ear emergence	late
Flag leaf - anthocyanin of auricles	absent or very weak

KWS RECOLETA**CHARACTERS IN DETAIL****Ear**

Colour	white
Length	short to medium
Density	lax
Shape-side profile	tapering
Awns or scurs - presence	scurs present
Awns or scurs - distribution	upper 1/2
Awns or scurs - length	long
Apical rachis segment - convex face hairiness	strong
Anthers - anthocyanin colouration	

Lower glume

External surface	smooth
Extent of internal hairs	strong - Group 3
Beak length	short
Beak curvature	v.slightly curved
Shoulder width	narrow to medium
Shoulder shape	straight

Lower lemma

Beak curvature	slightly curved
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Grain

Colour	red
Colouration with phenol	dark to very dark

Straw

Length	short to medium
Wall thickness @20cms below ear	thin

Glaucosity

Flag leaf - sheath	strong
Flag leaf- blade (lower side)	medium to strong
Culm - neck	strong
Ear	medium to strong

Plant growth characters

Coleoptile - anthocyanin colouration	medium
Plant - growth habit	semi-erect to intermediate
Time of ear emergence	medium
Flag leaf - anthocyanin of auricles	

KWS RHINUM**CHARACTERS IN DETAIL****Ear**

Colour	white
Length	short to medium
Density	medium to dense
Shape-side profile	parallel sided
Awns or scurs - presence	scurs present
Awns or scurs - distribution	upper 1/4
Awns or scurs - length	medium
Apical rachis segment - convex face hairiness	medium to large
Anthers - anthocyanin colouration	absent

Lower glume

External surface	smooth
Extent of internal hairs	strong (group 3)
Beak length	short
Beak curvature	slightly curved
Shoulder width	narrow
Shoulder shape	slightly elevated

Lower lemma

Beak curvature	slightly to moderately curved
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Grain

Colour	reddish
Colouration with phenol	medium to dark

Straw

Length	medium to long
Wall thickness @20cms below ear	

Glaucosity

Flag leaf - sheath	strong
Flag leaf- blade (lower side)	strong
Culm - neck	strong
Ear	medium to strong

Plant growth characters

Coleoptile - anthocyanin colouration	weak
Plant - growth habit	semi-erect to intermediate
Time of ear emergence	medium
Flag leaf - anthocyanin of auricles	very weak

Variety Name: **KWS SCIROCCO**

Crop: **SPRING WHEAT**

Breeder's Reference:

AFP No: 1/

Breeder: KWS LOCHOW GMBH

Translated from:

Origin: GERMANY

Date: 22 March 2013

Code: KWSC

Coleoptile-anthocyanin colouration:

*Plant - growth habit:

*Time ear emergence:

Flag leaf - Anthocyanin colouration of auricles:

Frequency of plants with recurved flag leaves:

*Flag leaf - Glaucosity of sheath:

Flag leaf - Glaucosity of leaf blade:

Anthers - anthocyanin colouration:

Glaucosity of neck:

Hairiness of uppermost node:

*Plant - height:

*Straw - wall thickness @ 20cms below ear:

*Ear - Glaucosity:

Ear - Supernumerary spikelets - frequency:

*Ear - Colour:

*Ear - Shape (side profile):

Ear - Length:

*Ear - Density:

*Awns or scurs - presence:

Awns or scurs - distribution:

*Scurs at tip of ear - length:

*Awns at tip of ear - length:

Lower glume - Beak length:

Lower glume - Beak shape (curvature):

Lower glume - Beak tip:

Lower glume - Shoulder width:

Lower glume - Shoulder type:

Lower glume - External surface roughness:

Lower glume - Extent of internal hairs:

Lower glume - Internal imprint:

Lower lemma - Beak shape:

Lower lemma - Beak length-:

Lower lemma - Beak swelling:

Apical rachis segment - convex face hairiness:

*Grain - colour:

Grain - Shape:

Grain - Brush hair length in dorsal view:

Grain - Colouration with phenol:

*Seasonal type:

Extra characters:

ABSENT TO VERY WEAK

SEMI-ERECT TO INTERMEDIATE

EARLY TO MEDIUM

LOW

WEAK TO MEDIUM

VERY WEAK TO WEAK

WEAK TO MEDIUM

MEDIUM TO LONG

VERY THIN

WEAK

WHITE

PARELLEL SIDED

SHORT TO MEDIUM

LAX TO MEDIUM

SCURS PRESENT

SHORT

NARROW TO MEDIUM

SLIGHTLY SLOPING TO STRAIGHT

WEAK

SLIGHTLY CIRVED TO MODERATELY

VERY SHORT TO SHORT

STRONG

RED

LIGHT TO MEDIUM

SPRING

* = Characteristics which should always be included in the description of the variety.

30 March 2015

Variety Name: **KWS SHARKI**

Crop: Spring Wheat

Breeder's Reference: KW 535-2-12

AFP No:

Breeder: KWS LOCHOW GMBH

Translated from: German

Origin:

Date: 11 April 2019

Code: W2878

Coleoptile-anthocyanin colouration:

*Plant - growth habit:

*Time ear emergence:

Flag leaf - Anthocyanin colouration of auricles:

Frequency of plants with recurved flag leaves:

*Flag leaf - Glaucosity of sheath:

Flag leaf - Glaucosity of leaf blade:

Anthers - anthocyanin colouration:

Glaucosity of neck:

Hairiness of uppermost node:

*Plant - height:

*Straw - wall thickness @ 20cms below ear:

*Ear - Glaucosity:

Ear - Supernumerary spikelets - frequency:

*Ear - Colour:

*Ear - Shape (side profile):

Ear - Length:

*Ear - Density:

*Awns or scurs - presence:

Awns or scurs - distribution:

*Scurs at tip of ear - length:

*Awns at tip of ear - length:

Lower glume - Beak length:

Lower glume - Beak shape (curvature):

Lower glume - Beak tip:

Lower glume - Shoulder width:

Lower glume - Shoulder type:

Lower glume - External surface roughness:

Lower glume - Extent of internal hairs:

Lower glume - Internal imprint:

Lower lemma - Beak shape:

Lower lemma - Beak length-:

Lower lemma - Beak swelling:

Apical rachis segment - convex face hairiness:

*Grain - colour:

Grain - Shape:

Grain - Brush hair length in dorsal view:

Grain - Colouration with phenol:

*Seasonal type:

Extra characters:

Very weak to weak

Semi erect to intermediate

Medium

Low

Strong

Strong

Strong

Medium to long

Absent or very thin

Strong

White

Parallel

Medium

Medium

Scurs present

Short

Short

Short

Moderately curved

Narrow

Straight

Strong to very strong

Medium to strong

Red

Light

Spring

* = Characteristics which should always be included in the description of the variety.

11 April 2019

KWS SPINDRIFT

CHARACTERS IN DETAIL

Ear

Colour	white
Length	medium to long
Density	very lax to lax
Shape-side profile	tapering
Awns or scurs - presence	scurs present
Awns or scurs - distribution	upper 3/4
Awns or scurs - length	long
Apical rachis segment - convex face hairiness	weak to medium
Anthers - anthocyanin colouration	absent

Lower glume

External surface	smooth
Extent of internal hairs	strong (group 3)
Beak length	short to medium
Beak curvature	slightly curved
Shoulder width	narrow to medium
Shoulder shape	straight to elevated

Lower lemma

Beak curvature	slightly to moderately curved
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Grain

Colour	red
Colouration with phenol	medium to dark

Straw

Length	medium
Wall thickness @20cms below ear	absent or very thin

Glaucosity

Flag leaf - sheath	strong
Flag leaf- blade (lower side)	medium to strong
Culm - neck	strong
Ear	strong

Plant growth characters

Coleoptile - anthocyanin colouration	absent to weak
Plant - growth habit	intermed. to semi-prostrate
Time of ear emergence	late
Flag leaf - anthocyanin of auricles	

Variety Name: **KWS SUNNY**

Crop: Spring Wheat

Breeder's Reference: KWS W302

AFP No:

Breeder: KWS UK LTD

Translated from: Polish

Origin:

Date: 27 March 2018

Code: KSUN

Coleoptile-anthocyanin colouration:

*Plant - growth habit:

*Time ear emergence:

Flag leaf - Anthocyanin colouration of auricles:

Frequency of plants with recurved flag leaves:

*Flag leaf - Glaucosity of sheath:

Flag leaf - Glaucosity of leaf blade:

Anthers - anthocyanin colouration:

Glaucosity of neck:

Hairiness of uppermost node:

*Plant - height:

*Straw - wall thickness @ 20cms below ear:

*Ear - Glaucosity:

Ear - Supernumerary spikelets - frequency:

*Ear - Colour:

*Ear - Shape (side profile):

Ear - Length:

*Ear - Density:

*Awns or scurs - presence:

Awns or scurs - distribution:

*Scurs at tip of ear - length:

*Awns at tip of ear - length:

Lower glume - Beak length:

Lower glume - Beak shape (curvature):

Lower glume - Beak tip:

Lower glume - Shoulder width:

Lower glume - Shoulder type:

Lower glume - External surface roughness:

Lower glume - Extent of internal hairs:

Lower glume - Internal imprint:

Lower lemma - Beak shape:

Lower lemma - Beak length-:

Lower lemma - Beak swelling:

Apical rachis segment - convex face hairiness:

*Grain - colour:

Grain - Shape:

Grain - Brush hair length in dorsal view:

Grain - Colouration with phenol:

*Seasonal type:

Extra characters:

Strong

Intermediate

Medium to late

Absent or very weak

High

Strong

Medium

Strong

Short

Medium

Strong

White

Parallel

Short

Medium to dense

Present

Short to medium

Short

Slightly curved

Broad

Strong

Slightly curved

Red

Medium to dark

Spring

* = Characteristics which should always be included in the description of the variety.

28 March 2018

KWS SYWELL

CHARACTERS IN DETAIL

Ear

Colour	white
Length	medium
Density	lax
Shape-side profile	tapering
Awns or scurs - presence	scurs present
Awns or scurs - distribution	upper 1/4
Awns or scurs - length	medium to long
Apical rachis segment - convex face hairiness	strong
Anthers - anthocyanin colouration	

Lower glume

External surface	smooth
Extent of internal hairs	strong (group 3)
Beak length	short
Beak curvature	slightly curved
Shoulder width	narrow to medium
Shoulder shape	straight

Lower lemma

Beak curvature	slightly curved
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Grain

Colour	red
Colouration with phenol	medium

Straw

Length	medium
Wall thickness @20cms below ear	absent or very thin

Glaucosity

Flag leaf - sheath	weak
Flag leaf- blade (lower side)	weak
Culm - neck	weak
Ear	weak

Plant growth characters

Coleoptile - anthocyanin colouration	absent to weak
Plant - growth habit	semi-erect
Time of ear emergence	medium to late
Flag leaf - anthocyanin of auricles	

KWS TALISKER

CHARACTERS IN DETAIL

Ear

Colour	white
Length	medium
Density	lax
Shape-side profile	tapering
Awns or scurs - presence	scurs present
Awns or scurs - distribution	
Awns or scurs - length	long
Apical rachis segment - convex face hairiness	medium
Anthers - anthocyanin colouration	

Lower glume

External surface	smooth
Extent of internal hairs	medium (group 2)
Beak length	medium to long
Beak curvature	slight to moderately curved
Shoulder width	narrow
Shoulder shape	elevated

Lower lemma

Beak curvature	slightly to moderately curved
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Grain

Colour	red
Colouration with phenol	dark

Straw

Length	long to very long
Wall thickness @20cms below ear	absent or very thin

Glaucosity

Flag leaf - sheath	medium to strong
Flag leaf- blade (lower side)	medium
Culm - neck	medium to strong
Ear	medium to strong

Plant growth characters

Coleoptile - anthocyanin colouration	absent or very weak
Plant - growth habit	semi-erect to intermediate
Time of ear emergence	medium
Flag leaf - anthocyanin of auricles	

KWS TALLAND

CHARACTERS IN DETAIL

Ear

Colour	white
Length	medium to long
Density	lax
Shape-side profile	tapering
Awns or scurs - presence	scurs present
Awns or scurs - distribution	upper 1/2
Awns or scurs - length	medium
Apical rachis segment - convex face hairiness	medium to strong
Anthers - anthocyanin colouration	

Lower glume

External surface	smooth
Extent of internal hairs	strong (3)
Beak length	short to medium
Beak curvature	v.slightly curved
Shoulder width	narrow to medium
Shoulder shape	elevated

Lower lemma

Beak curvature	slightly to moderately curved
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Grain

Colour	red
Colouration with phenol	dark

Straw

Length	short
Wall thickness @20cms below ear	absent or very thin

Glaucosity

Flag leaf - sheath	strong
Flag leaf- blade (lower side)	medium
Culm - neck	medium to strong
Ear	strong

Plant growth characters

Coleoptile - anthocyanin colouration	absent to weak
Plant - growth habit	semi-erect
Time of ear emergence	medium
Flag leaf - anthocyanin of auricles	

KWS TORRIDON

CHARACTERS IN DETAIL

Ear

Colour	white
Length	medium
Density	medium
Shape-side profile	parallel sided
Awns or scurs - presence	scurs present
Awns or scurs - distribution	upper 1/4
Awns or scurs - length	short to medium
Apical rachis segment - convex face hairiness	medium to strong
Anthers - anthocyanin colouration	absent

Lower glume

External surface	smooth
Extent of internal hairs	strong - Group 3
Beak length	short to medium
Beak curvature	slight to moderately curved
Shoulder width	narrow to medium
Shoulder shape	elevated

Lower lemma

Beak curvature	moderately curved
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Grain

Colour	red
Colouration with phenol	dark

Straw

Length	short
Wall thickness @20cms below ear	thin

Glaucosity

Flag leaf - sheath	strong to very strong
Flag leaf- blade (lower side)	medium to strong
Culm - neck	strong
Ear	medium to strong

Plant growth characters

Coleoptile - anthocyanin colouration	medium
Plant - growth habit	semi-erect
Time of ear emergence	early
Flag leaf - anthocyanin of auricles	

KWS VALE

CHARACTERS IN DETAIL

Ear

Colour	white
Length	short to medium
Density	lax to medium
Shape-side profile	tapering
Awns or scurs - presence	scurs present
Awns or scurs - distribution	upper 1/4
Awns or scurs - length	short to medium
Apical rachis segment - convex face hairiness	medium to strong
Anthers - anthocyanin colouration	absent

Lower glume

External surface	smooth
Extent of internal hairs	strong - Group 3
Beak length	medium
Beak curvature	moderately curved
Shoulder width	narrow
Shoulder shape	elevated

Lower lemma

Beak curvature	moderately curved
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Grain

Colour	red
Colouration with phenol	dark

Straw

Length	medium
Wall thickness @20cms below ear	thin

Glaucosity

Flag leaf - sheath	medium to strong
Flag leaf- blade (lower side)	medium
Culm - neck	medium
Ear	medium to strong

Plant growth characters

Coleoptile - anthocyanin colouration	strong
Plant - growth habit	semi-erect to intermediate
Time of ear emergence	medium to late
Flag leaf - anthocyanin of auricles	

KWS WESTFIELD

CHARACTERS IN DETAIL

Ear

Colour	white
Length	medium
Density	lax to medium
Shape-side profile	parallel sided
Awns or scurs - presence	scurs present
Awns or scurs - distribution	upper 3/4
Awns or scurs - length	long
Apical rachis segment - convex face hairiness	medium
Anthers - anthocyanin colouration	absent

Lower glume

External surface	smooth
Extent of internal hairs	strong - Group 3
Beak length	short to medium
Beak curvature	slightly curved
Shoulder width	narrow
Shoulder shape	elevated

Lower lemma

Beak curvature	moderately curved
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Grain

Colour	red
Colouration with phenol	medium to dark

Straw

Length	medium
Wall thickness @20cms below ear	thin

Glaucosity

Flag leaf - sheath	medium to strong
Flag leaf- blade (lower side)	medium
Culm - neck	medium
Ear	medium to strong

Plant growth characters

Coleoptile - anthocyanin colouration	absent to weak
Plant - growth habit	semi-erect
Time of ear emergence	medium to late
Flag leaf - anthocyanin of auricles	

KWS WILLOW

CHARACTERS IN DETAIL

Ear

Colour	white
Length	medium
Density	lax to medium
Shape-side profile	tapering
Awns or scurs - presence	scurs present
Awns or scurs - distribution	upper 1/4
Awns or scurs - length	short to medium
Apical rachis segment - convex face hairiness	medium to strong
Anthers - anthocyanin colouration	

Lower glume

External surface	smooth
Extent of internal hairs	strong - Group 3
Beak length	short
Beak curvature	slight to moderately curved
Shoulder width	narrow
Shoulder shape	sl. sloping to straight

Lower lemma

Beak curvature	strongly curved
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Grain

Colour	red
Colouration with phenol	medium

Straw

Length	medium
Wall thickness @20cms below ear	thin

Glaucosity

Flag leaf - sheath	strong
Flag leaf- blade (lower side)	weak to medium
Culm - neck	medium to strong
Ear	medium to strong

Plant growth characters

Coleoptile - anthocyanin colouration	medium
Plant - growth habit	intermed. to semi-prostrate
Time of ear emergence	medium
Flag leaf - anthocyanin of auricles	

LENNOX

CHARACTERS IN DETAIL

Ear

Colour	white
Length	medium
Density	lax
Shape-side profile	tapering
Awns or scurs - presence	scurs present
Awns or scurs - distribution	upper 1/4
Awns or scurs - length	medium
Apical rachis segment - convex face hairiness	weak to medium
Anthers - anthocyanin colouration	

Lower glume

External surface	smooth
Extent of internal hairs	strong - Group 3
Beak length	short
Beak curvature	straight
Shoulder width	narrow
Shoulder shape	elevated

Lower lemma

Beak curvature	slightly curved
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Grain

Colour	red
Colouration with phenol	very dark

Straw

Length	short to medium
Wall thickness @20cms below ear	thin

Glaucosity

Flag leaf - sheath	strong
Flag leaf- blade (lower side)	strong
Culm - neck	strong
Ear	strong

Plant growth characters

Coleoptile - anthocyanin colouration	medium
Plant - growth habit	semi-erect to intermediate
Time of ear emergence	medium
Flag leaf - anthocyanin of auricles	

LINTON

CHARACTERS IN DETAIL

Ear

Colour	white
Length	short to medium
Density	medium to dense
Shape-side profile	parallel sided
Awns or scurs - presence	scurs present
Awns or scurs - distribution	upper 1/2
Awns or scurs - length	medium
Apical rachis segment - convex face hairiness	medium to strong
Anthers - anthocyanin colouration	

Lower glume

External surface	smooth
Extent of internal hairs	strong (3)
Beak length	short to medium
Beak curvature	slightly curved
Shoulder width	very narrow to narrow
Shoulder shape	straight

Lower lemma

Beak curvature	slightly to moderately curved
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Grain

Colour	red
Colouration with phenol	medium to dark

Straw

Length	short to medium
Wall thickness @20cms below ear	medium

Glaucosity

Flag leaf - sheath	weak
Flag leaf- blade (lower side)	weak
Culm - neck	weak
Ear	weak

Plant growth characters

Coleoptile - anthocyanin colouration	absent to weak
Plant - growth habit	semi-erect to intermediate
Time of ear emergence	late
Flag leaf - anthocyanin of auricles	

MULIKA

CHARACTERS IN DETAIL

Ear

Colour	white
Length	medium
Density	medium
Shape-side profile	parallel sided
Awns or scurs - presence	scurs present
Awns or scurs - distribution	upper 1/4
Awns or scurs - length	medium
Apical rachis segment - convex face hairiness	strong
Anthers - anthocyanin colouration	

Lower glume

External surface	smooth
Extent of internal hairs	strong - Group 3
Beak length	medium
Beak curvature	moderately curved
Shoulder width	narrow to medium
Shoulder shape	straight to elevated

Lower lemma

Beak curvature	strongly curved
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Grain

Colour	red
Colouration with phenol	dark

Straw

Length	short to medium
Wall thickness @20cms below ear	medium

Glaucosity

Flag leaf - sheath	weak
Flag leaf- blade (lower side)	weak
Culm - neck	weak
Ear	weak to medium

Plant growth characters

Coleoptile - anthocyanin colouration	weak
Plant - growth habit	semi-erect to intermediate
Time of ear emergence	medium
Flag leaf - anthocyanin of auricles	

Variety Name: **MV KARIZMA**

Crop: **SPRING WHEAT**

Breeder's Reference:

AFP No: 1/

Breeder: MTA MEZOGAZDASAGI

Translated from:

Origin: HUNGREY

Date: 22 March 2013

Code: KRZM

Coleoptile-anthocyanin colouration:

*Plant - growth habit:

*Time ear emergence:

Flag leaf - Anthocyanin colouration of auricles:

Frequency of plants with recurved flag leaves:

*Flag leaf - Glaucosity of sheath:

Flag leaf - Glaucosity of leaf blade:

Anthers - anthocyanin colouration:

Glaucosity of neck:

Hairiness of uppermost node:

*Plant - height:

*Straw - wall thickness @ 20cms below ear:

*Ear - Glaucosity:

Ear - Supernumerary spikelets - frequency:

*Ear - Colour:

*Ear - Shape (side profile):

Ear - Length:

*Ear - Density:

*Awns or scurs - presence:

Awns or scurs - distribution:

*Scurs at tip of ear - length:

*Awns at tip of ear - length:

Lower glume - Beak length:

Lower glume - Beak shape (curvature):

Lower glume - Beak tip:

Lower glume - Shoulder width:

Lower glume - Shoulder type:

Lower glume - External surface roughness:

Lower glume - Extent of internal hairs:

Lower glume - Internal imprint:

Lower lemma - Beak shape:

Lower lemma - Beak length-:

Lower lemma - Beak swelling:

Apical rachis segment - convex face hairiness:

*Grain - colour:

Grain - Shape:

Grain - Brush hair length in dorsal view:

Grain - Colouration with phenol:

*Seasonal type:

Extra characters:

ABSENT OR VERY WEAK

SEMI ERECT TO INTERMEDIATE

EARLY

LOW TO MEDIUM

STRONG

MEDIUM

STRONG

MEDIUM

THIN TO MEDIUM

WEAK

WHITE

TAPERING

LONG

VERY LAX TO LAX

AWNS PRESENT

MEDIUM

MEDIUM

SLIGHTLY CURVED

NARROW TO MEDIUM

STRAIGHT TO ELEVATED

WEAK

MEDIUM

RED

DARK

SPRING

* = Characteristics which should always be included in the description of the variety.

30 March 2015

SPRING WHEAT

AFP 1/2986

NISSABA

CHARACTERS IN DETAIL

Ear

Colour	white
Length	medium
Density	lax to medium
Shape-side profile	parallel sided
Awns or scurs - presence	scurs present
Awns or scurs - distribution	upper 1/4
Awns or scurs - length	short to medium
Apical rachis segment - convex face hairiness	strong to very strong
Anthers - anthocyanin colouration	absent

Lower glume

External surface	smooth
Extent of internal hairs	strong (group 3)
Beak length	medium to long
Beak curvature	slight to moderately curved
Shoulder width	narrow
Shoulder shape	straight to elevated

Lower lemma

Beak curvature	moderately to strongly curved
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Grain

Colour	red
Colouration with phenol	dark

Straw

Length	medium
Wall thickness @20cms below ear	medium

Glaucosity

Flag leaf - sheath	medium to strong
Flag leaf- blade (lower side)	weak to medium
Culm - neck	medium
Ear	medium

Plant growth characters

Coleoptile - anthocyanin colouration	absent or very weak
Plant - growth habit	semi-erect to intermediate
Time of ear emergence	medium to late
Flag leaf - anthocyanin of auricles	absent or very weak

SPRING WHEAT

AFP 1/1059

PARAGON

CHARACTERS IN DETAIL

Ear

Colour	white
Length	long
Density	lax to medium
Shape-side profile	parallel sided
Awns or scurs - presence	scurs present
Awns or scurs - distribution	upper 1/4
Awns or scurs - length	short
Apical rachis segment - convex face hairiness	medium
Anthers - anthocyanin colouration	absent

Lower glume

External surface	smooth
Extent of internal hairs	medium to strong - Group 2+
Beak length	short
Beak curvature	v.slightly curved
Shoulder width	medium
Shoulder shape	sl. sloping to straight

Lower lemma

Beak curvature	straight to slightly curved
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Grain

Colour	red
Colouration with phenol	medium to dark

Straw

Length	medium
Wall thickness @20cms below ear	thin

Glaucosity

Flag leaf - sheath	medium to strong
Flag leaf- blade (lower side)	
Culm - neck	medium to strong
Ear	medium to strong

Plant growth characters

Coleoptile - anthocyanin colouration	very strong
Plant - growth habit	semi-erect
Time of ear emergence	late to very late
Flag leaf - anthocyanin of auricles	absent or very weak

Variety Name: **Pexeso**

Crop: **Wheat**

Breeder's Reference: SG-S49-13

AFP No:

Breeder: SELGEN

Translated from:

Origin:

Date: 06 May 2021

Code: PEXE

Coleoptile-anthocyanin colouration:

***Plant - growth habit:**

***Time ear emergence:**

Flag leaf - Anthocyanin colouration of auricles:

Frequency of plants with recurved flag leaves:

***Flag leaf - Glaucosity of sheath:**

Flag leaf - Glaucosity of leaf blade:

Anthers - anthocyanin colouration:

Glaucosity of neck:

Hairiness of uppermost node:

***Plant - height:**

***Straw - wall thickness @ 20cms below ear:**

***Ear - Glaucosity:**

Ear - Supernumerary spikelets - frequency:

***Ear - Colour:**

***Ear - Shape (side profile):**

Ear - Length:

***Ear - Density:**

***Awns or scurs - presence:**

Awns or scurs - distribution:

***Scurs at tip of ear - length:**

***Awns at tip of ear - length:**

Lower glume - Beak length:

Lower glume - Beak shape (curvature):

Lower glume - Beak tip:

Lower glume - Shoulder width:

Lower glume - Shoulder type:

Lower glume - External surface roughness:

Lower glume - Extent of internal hairs:

Lower glume - Internal imprint:

Lower lemma - Beak shape:

Lower lemma - Beak length:-

Lower lemma - Beak swelling:

Apical rachis segment - convex face hairiness:

***Grain - colour:**

Grain - Shape:

Grain - Brush hair length in dorsal view:

Grain - Colouration with phenol:

***Seasonal type:**

Extra characters:

Weak to medium

Semi erect to intermediate

Medium to late

High

Medium to strong

Strong

Medium to strong

Medium to long

Absent or very thin

Strong

White

Tapering

Medium to long

Medium to dense

Scurs present

Medium

Medium

Medium

Short to medium

Slightly curved

Medium

Slightly sloping to straight

Weak

Weak to medium

Red

Medium dark

Spring

* = Characteristics which should always be included in the description of the variety.

12 May 2021

RAFFLES

CHARACTERS IN DETAIL

Ear

Colour	white
Length	short to medium
Density	lax to medium
Shape-side profile	parallel sided
Awns or scurs - presence	scurs present
Awns or scurs - distribution	upper 1/2
Awns or scurs - length	medium
Apical rachis segment - convex face hairiness	medium
Anthers - anthocyanin colouration	absent

Lower glume

External surface	smooth
Extent of internal hairs	strong - Group 3
Beak length	short to medium
Beak curvature	slightly curved
Shoulder width	narrow
Shoulder shape	straight to elevated

Lower lemma

Beak curvature	slightly curved
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Grain

Colour	red
Colouration with phenol	dark

Straw

Length	short
Wall thickness @20cms below ear	medium

Glaucosity

Flag leaf - sheath	medium
Flag leaf- blade (lower side)	
Culm - neck	weak to medium
Ear	medium

Plant growth characters

Coleoptile - anthocyanin colouration	medium
Plant - growth habit	semi-erect
Time of ear emergence	medium to late
Flag leaf - anthocyanin of auricles	very weak

RGT DOUBLESHOT**CHARACTERS IN DETAIL****Ear**

Colour	white
Length	medium
Density	lax to medium
Shape-side profile	tapering
Awns or scurs - presence	scurs present
Awns or scurs - distribution	upper 3/4
Awns or scurs - length	long
Apical rachis segment - convex face hairiness	medium to strong
Anthers - anthocyanin colouration	

Lower glume

External surface	slightly rough
Extent of internal hairs	strong (3)
Beak length	short
Beak curvature	slightly curved
Shoulder width	medium to broad
Shoulder shape	straight

Lower lemma

Beak curvature	moderately curved
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Grain

Colour	red
Colouration with phenol	light

Straw

Length	medium
Wall thickness @20cms below ear	absent or very thin

Glaucosity

Flag leaf - sheath	medium
Flag leaf- blade (lower side)	medium
Culm - neck	medium
Ear	medium

Plant growth characters

Coleoptile - anthocyanin colouration	weak to medium
Plant - growth habit	semi-erect
Time of ear emergence	medium to late
Flag leaf - anthocyanin of auricles	

Variety Name: **Servus**

Crop: Spring wheat

Breeder's Reference: STRU 112230.1

AFP No:

Breeder: Strube Research GmbH & Co

Translated from: German

Origin:

Date: 28 April 2020

Code: SERV

Coleoptile-anthocyanin colouration:

*Plant - growth habit:

*Time ear emergence:

Flag leaf - Anthocyanin colouration of auricles:

Frequency of plants with recurved flag leaves:

*Flag leaf - Glaucosity of sheath:

Flag leaf - Glaucosity of leaf blade:

Anthers - anthocyanin colouration:

Glaucosity of neck:

Hairiness of uppermost node:

*Plant - height:

*Straw - wall thickness @ 20cms below ear:

*Ear - Glaucosity:

Ear - Supernumerary spikelets - frequency:

*Ear - Colour:

*Ear - Shape (side profile):

Ear - Length:

*Ear - Density:

*Awns or scurs - presence:

Awns or scurs - distribution:

*Scurs at tip of ear - length:

*Awns at tip of ear - length:

Lower glume - Beak length:

Lower glume - Beak shape (curvature):

Lower glume - Beak tip:

Lower glume - Shoulder width:

Lower glume - Shoulder type:

Lower glume - External surface roughness:

Lower glume - Extent of internal hairs:

Lower glume - Internal imprint:

Lower lemma - Beak shape:

Lower lemma - Beak length-:

Lower lemma - Beak swelling:

Apical rachis segment - convex face hairiness:

*Grain - colour:

Grain - Shape:

Grain - Brush hair length in dorsal view:

Grain - Colouration with phenol:

*Seasonal type:

Extra characters:

Medium to strong

Intermediate

Medium

Low

Strong to very strong

Medium to strong

Strong to very strong

Short to medium

Very thick or filled

Strong to very strong

White

Parallel sided

Short

Medium to dense

Scurs present

Very short

Very short

Straight to slightly curved

Narrow

Straight

Strong to very strong

Strong

Red

Medium to dark

Spring

* = Characteristics which should always be included in the description of the variety.

06 May 2020

SHACKLETON**CHARACTERS IN DETAIL****Ear**

Colour	white
Length	medium
Density	lax to medium
Shape-side profile	tapering
Awns or scurs - presence	scurs present
Awns or scurs - distribution	tip only
Awns or scurs - length	short
Apical rachis segment - convex face hairiness	strong to very strong
Anthers - anthocyanin colouration	

Lower glume

External surface	smooth
Extent of internal hairs	strong to whole surface
Beak length	short
Beak curvature	slightly curved
Shoulder width	narrow
Shoulder shape	straight to elevated

Lower lemma

Beak curvature	slightly curved
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Grain

Colour	red
Colouration with phenol	medium to dark

Straw

Length	short to medium
Wall thickness @20cms below ear	medium

Glaucosity

Flag leaf - sheath	medium to strong
Flag leaf- blade (lower side)	weak to medium
Culm - neck	strong
Ear	strong

Plant growth characters

Coleoptile - anthocyanin colouration	medium to strong
Plant - growth habit	semi-erect to intermediate
Time of ear emergence	late
Flag leaf - anthocyanin of auricles	

SLINKI

CHARACTERS IN DETAIL

Ear

Colour	white
Length	short to medium
Density	medium to dense
Shape-side profile	parallel sided
Awns or scurs - presence	scurs present
Awns or scurs - distribution	upper 1/2
Awns or scurs - length	medium to long
Apical rachis segment - convex face hairiness	weak to medium
Anthers - anthocyanin colouration	absent

Lower glume

External surface	smooth
Extent of internal hairs	strong
Beak length	medium
Beak curvature	slight to moderately curved
Shoulder width	very narrow to narrow
Shoulder shape	straight

Lower lemma

Beak curvature	moderately curved
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Grain

Colour	white
Colouration with phenol	dark

Straw

Length	short
Wall thickness @20cms below ear	very thick or filled

Glaucosity

Flag leaf - sheath	weak
Flag leaf- blade (lower side)	weak
Culm - neck	weak to medium
Ear	medium

Plant growth characters

Coleoptile - anthocyanin colouration	weak
Plant - growth habit	semi-erect to intermediate
Time of ear emergence	medium to late
Flag leaf - anthocyanin of auricles	

Variety Name: **SONETT**

Crop: **SPRING WHEAT**

Breeder's Reference:

AFP No: 1

Breeder: LANTMANNEN SW SEED

Translated from:

Origin: GERMANY

Date: 16 April 2013

Code: SONE

Coleoptile-anthocyanin colouration:

STRONG

***Plant - growth habit:**

SEMI-ERECT TO INTERMEDIATE

***Time ear emergence:**

EARLY TO MEDIUM

Flag leaf - Anthocyanin colouration of auricles:

Frequency of plants with recurved flag leaves:

HIGH TO VERY HIGH

***Flag leaf - Glaucosity of sheath:**

MEDIUM TO STRONG

Flag leaf - Glaucosity of leaf blade:

WEAK TO MEDIUM

Anthers - anthocyanin colouration:

Glaucosity of neck:

MEDIUM

Hairiness of uppermost node:

***Plant - height:**

MEDIUM

***Straw - wall thickness @ 20cms below ear:**

VERY THIN

***Ear - Glaucosity:**

WEAK TO MEDIUM

Ear - Supernumerary spikelets - frequency:

***Ear - Colour:**

WHITE

***Ear - Shape (side profile):**

TAPERING

Ear - Length:

MEDIUM TO LONG

***Ear - Density:**

LAX

***Awns or scurs - presence:**

SCURS PRESENT

Awns or scurs - distribution:

***Scurs at tip of ear - length:**

SHORT TO MEDIUM

***Awns at tip of ear - length:**

Lower glume - Beak length:

Lower glume - Beak shape (curvature):

Lower glume - Beak tip:

NARROW TO MEDIUM

Lower glume - Shoulder width:

SLIGHTLY SLOPING

Lower glume - Shoulder type:

Lower glume - External surface roughness:

STRONG TO VERY STRONG

Lower glume - Extent of internal hairs:

Lower glume - Internal imprint:

Lower lemma - Beak shape:

STRAIGHT

Lower lemma - Beak length-:

VERY SHORT

Lower lemma - Beak swelling:

Apical rachis segment - convex face hairiness:

STRONG

***Grain - colour:**

RED

Grain - Shape:

Grain - Brush hair length in dorsal view:

LIGHT TO MEDIUM

Grain - Colouration with phenol:

***Seasonal type:**

SPRING

Extra characters:

* = Characteristics which should always be included in the description of the variety.

30 March 2015

SPARROW

CHARACTERS IN DETAIL

Ear

Colour	white
Length	medium
Density	lax to medium
Shape-side profile	parallel sided
Awns or scurs - presence	scurs present
Awns or scurs - distribution	upper 1/2
Awns or scurs - length	long
Apical rachis segment - convex face hairiness	strong
Anthers - anthocyanin colouration	absent

Lower glume

External surface	slightly rough
Extent of internal hairs	strong - Group 3
Beak length	medium
Beak curvature	slightly curved
Shoulder width	narrow
Shoulder shape	elevated

Lower lemma

Beak curvature	straight
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Grain

Colour	
Colouration with phenol	medium to dark

Straw

Length	long
Wall thickness @20cms below ear	thin

Glaucosity

Flag leaf - sheath	weak
Flag leaf- blade (lower side)	weak
Culm - neck	medium
Ear	medium

Plant growth characters

Coleoptile - anthocyanin colouration	
Plant - growth habit	semi-erect
Time of ear emergence	medium
Flag leaf - anthocyanin of auricles	

STR CHEETAH**CHARACTERS IN DETAIL****Ear**

Colour	white
Length	medium
Density	lax to medium
Shape-side profile	tapering
Awns or scurs - presence	scurs present
Awns or scurs - distribution	upper 1/2
Awns or scurs - length	medium
Apical rachis segment - convex face hairiness	small to medium
Anthers - anthocyanin colouration	absent

Lower glume

External surface	smooth
Extent of internal hairs	strong (group 3)
Beak length	short
Beak curvature	v.slightly curved
Shoulder width	very narrow to narrow
Shoulder shape	slightly elevated

Lower lemma

Beak curvature	slightly curved
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Grain

Colour	reddish
Colouration with phenol	dark to very dark

Straw

Length	long
Wall thickness @20cms below ear	thin

Glaucosity

Flag leaf - sheath	strong
Flag leaf- blade (lower side)	strong
Culm - neck	strong
Ear	medium to strong

Plant growth characters

Coleoptile - anthocyanin colouration	weak
Plant - growth habit	semi-erect to intermediate
Time of ear emergence	medium
Flag leaf - anthocyanin of auricles	absent or very weak

STRAVINSKY

CHARACTERS IN DETAIL

Ear

Colour	white
Length	medium
Density	lax to medium
Shape-side profile	tapering
Awns or scurs - presence	scurs present
Awns or scurs - distribution	upper 1/2
Awns or scurs - length	medium to long
Apical rachis segment - convex face hairiness	medium
Anthers - anthocyanin colouration	

Lower glume

External surface	smooth
Extent of internal hairs	strong (3)
Beak length	medium
Beak curvature	moderately curved
Shoulder width	medium
Shoulder shape	elevated

Lower lemma

Beak curvature	moderately to strongly curved
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Grain

Colour	red
Colouration with phenol	medium

Straw

Length	medium
Wall thickness @20cms below ear	absent or very thin

Glaucosity

Flag leaf - sheath	strong
Flag leaf- blade (lower side)	medium to strong
Culm - neck	medium to strong
Ear	strong

Plant growth characters

Coleoptile - anthocyanin colouration	absent to weak
Plant - growth habit	semi-erect to intermediate
Time of ear emergence	late
Flag leaf - anthocyanin of auricles	

Variety Name: SU Ahab

Crop: Spring Wheat

Breeder's Reference: STRU 093755s 15

AFP No:

Breeder: Strube Research GmbH & Co

Translated from: German

Origin:

Date: 28 April 2020

Code: AHAB

Coleoptile-anthocyanin colouration:

***Plant - growth habit:**

***Time ear emergence:**

Flag leaf - Anthocyanin colouration of auricles:

Frequency of plants with recurved flag leaves:

***Flag leaf - Glaucosity of sheath:**

Flag leaf - Glaucosity of leaf blade:

Anthers - anthocyanin colouration:

Glaucosity of neck:

Hairiness of uppermost node:

***Plant - height:**

***Straw - wall thickness @ 20cms below ear:**

***Ear - Glaucosity:**

Ear - Supernumerary spikelets - frequency:

***Ear - Colour:**

***Ear - Shape (side profile):**

Ear - Length:

***Ear - Density:**

***Awns or scurs - presence:**

Awns or scurs - distribution:

***Scurs at tip of ear - length:**

***Awns at tip of ear - length:**

Lower glume - Beak length:

Lower glume - Beak shape (curvature):

Lower glume - Beak tip:

Lower glume - Shoulder width:

Lower glume - Shoulder type:

Lower glume - External surface roughness:

Lower glume - Extent of internal hairs:

Lower glume - Internal imprint:

Lower lemma - Beak shape:

Lower lemma - Beak length-:

Lower lemma - Beak swelling:

Apical rachis segment - convex face hairiness:

***Grain - colour:**

Grain - Shape:

Grain - Brush hair length in dorsal view:

Grain - Colouration with phenol:

***Seasonal type:**

Extra characters:

Absent to very weak

Semi prostrate

Early to medium

Low to medium

Strong

Strong to very strong

Strong

Medium to long

Absent or very thin

Medium to strong

White

Tapering

Short to medium

Medium

Scurs present

Very short to short

Short

Slightly curved to moderately curved

Narrow to medium

Slightly sloping top straight

Strong to very strong

Medium

Red

Medium to dark

Spring

* = Characteristics which should always be included in the description of the variety.

06 May 2020

Variety Name: **SU Alvius**

Crop: Spring Wheat

Breeder's Reference: STRU 05-500-01109

AFP No:

Breeder: Strube Research GmbH

Translated from: German

Origin:

Date: 20 April 2023

Code: SUAL

Coleoptile-anthocyanin colouration:

*Plant - growth habit:

*Time ear emergence:

Flag leaf - Anthocyanin colouration of auricles:

Frequency of plants with recurved flag leaves:

*Flag leaf - Glaucosity of sheath:

Flag leaf - Glaucosity of leaf blade:

Anthers - anthocyanin colouration:

Glaucosity of neck:

Hairiness of uppermost node:

*Plant - height:

*Straw - wall thickness @ 20cms below ear:

*Ear - Glaucosity:

Ear - Supernumerary spikelets - frequency:

*Ear - Colour:

*Ear - Shape (side profile):

Ear - Length:

*Ear - Density:

*Awns or scurs - presence:

Awns or scurs - distribution:

*Scurs at tip of ear - length:

*Awns at tip of ear - length:

Lower glume - Beak length:

Lower glume - Beak shape (curvature):

Lower glume - Beak tip:

Lower glume - Shoulder width:

Lower glume - Shoulder type:

Lower glume - External surface roughness:

Lower glume - Extent of internal hairs:

Lower glume - Internal imprint:

Lower lemma - Beak shape:

Lower lemma - Beak length-:

Lower lemma - Beak swelling:

Apical rachis segment - convex face hairiness:

*Grain - colour:

Grain - Shape:

Grain - Brush hair length in dorsal view:

Grain - Colouration with phenol:

*Seasonal type:

Extra characters:

very weak to weak

semi-erect to intermediate

early to medium

low

very strong

strong to very strong

very strong

medium

medium

strong to very strong

white

parallel

short

dense to very dense

present

very short to short

very short to short

slightly to moderately curved

narrow

slightly sloping to straight

strong

red

medium to dark

Spring

* = Characteristics which should always be included in the description of the variety.

20 April 2023

Variety Name: **SU Tarrafal**

Crop: Spring wheat

Breeder's Reference: STRU 093744 s 15

AFP No:

Breeder: Strube Research GmbH & Co

Translated from: German

Origin:

Date: 28 April 2020

Code: TARR

Coleoptile-anthocyanin colouration:

*Plant - growth habit:

*Time ear emergence:

Flag leaf - Anthocyanin colouration of auricles:

Frequency of plants with recurved flag leaves:

*Flag leaf - Glaucosity of sheath:

Flag leaf - Glaucosity of leaf blade:

Anthers - anthocyanin colouration:

Glaucosity of neck:

Hairiness of uppermost node:

*Plant - height:

*Straw - wall thickness @ 20cms below ear:

*Ear - Glaucosity:

Ear - Supernumerary spikelets - frequency:

*Ear - Colour:

*Ear - Shape (side profile):

Ear - Length:

*Ear - Density:

*Awns or scurs - presence:

Awns or scurs - distribution:

*Scurs at tip of ear - length:

*Awns at tip of ear - length:

Lower glume - Beak length:

Lower glume - Beak shape (curvature):

Lower glume - Beak tip:

Lower glume - Shoulder width:

Lower glume - Shoulder type:

Lower glume - External surface roughness:

Lower glume - Extent of internal hairs:

Lower glume - Internal imprint:

Lower lemma - Beak shape:

Lower lemma - Beak length-:

Lower lemma - Beak swelling:

Apical rachis segment - convex face hairiness:

*Grain - colour:

Grain - Shape:

Grain - Brush hair length in dorsal view:

Grain - Colouration with phenol:

*Seasonal type:

Extra characters:

Strong

Intermediate to semi prostrate

Early to medium

Medium

Medium to strong

Medium

Medium to strong

Medium

Absent or very thin

Weak to medium

White

Tapering

Medium

Medium

Scurs present

Very short

Narrow to medium

Slightly sloping to straight

Strong to very strong

Slightly curved

Very short to short

Medium to strong

Red

Medium to dark

Spring

* = Characteristics which should always be included in the description of the variety.

06 May 2020

THURIO

CHARACTERS IN DETAIL

Ear

Colour	white
Length	medium to long
Density	lax
Shape-side profile	parallel sided
Awns or scurs - presence	awns present
Awns or scurs - distribution	whole length
Awns or scurs - length	very long
Apical rachis segment - convex face hairiness	medium
Anthers - anthocyanin colouration	absent

Lower glume

External surface	slightly rough
Extent of internal hairs	strong (3)
Beak length	long to very long
Beak curvature	moderately curved
Shoulder width	absent or very narrow
Shoulder shape	elevated

Lower lemma

Beak curvature	slightly curved
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Grain

Colour	red
Colouration with phenol	medium

Straw

Length	medium
Wall thickness @20cms below ear	very thick or filled

Glaucosity

Flag leaf - sheath	medium to strong
Flag leaf- blade (lower side)	medium
Culm - neck	medium to strong
Ear	medium to strong

Plant growth characters

Coleoptile - anthocyanin colouration	weak to medium
Plant - growth habit	semi-erect
Time of ear emergence	medium
Flag leaf - anthocyanin of auricles	

TOLSTOY**CHARACTERS IN DETAIL****Ear**

Colour	white
Length	short to medium
Density	lax
Shape-side profile	parallel sided
Awns or scurs - presence	scurs present
Awns or scurs - distribution	upper 1/4
Awns or scurs - length	long
Apical rachis segment - convex face hairiness	strong
Anthers - anthocyanin colouration	absent

Lower glume

External surface	smooth
Extent of internal hairs	strong (group 3)
Beak length	short to medium
Beak curvature	slightly curved
Shoulder width	medium
Shoulder shape	straight

Lower lemma

Beak curvature	slightly curved
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Grain

Colour	red
Colouration with phenol	dark

Straw

Length	short
Wall thickness @20cms below ear	medium

Glaucosity

Flag leaf - sheath	strong to very strong
Flag leaf- blade (lower side)	strong to very strong
Culm - neck	strong
Ear	strong

Plant growth characters

Coleoptile - anthocyanin colouration	weak
Plant - growth habit	intermediate
Time of ear emergence	late to very late
Flag leaf - anthocyanin of auricles	

TYBALT**CHARACTERS IN DETAIL****Ear**

Colour	white
Length	medium
Density	medium
Shape-side profile	tapering
Awns or scurs - presence	scurs present
Awns or scurs - distribution	
Awns or scurs - length	short
Apical rachis segment - convex face hairiness	absent or very weak
Anthers - anthocyanin colouration	

Lower glume

External surface	
Extent of internal hairs	strong - Group 3
Beak length	short
Beak curvature	slightly curved
Shoulder width	medium
Shoulder shape	sl. sloping to straight

Lower lemma

Beak curvature	straight
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Grain

Colour	red
Colouration with phenol	medium

Straw

Length	short
Wall thickness @20cms below ear	medium

Glaucosity

Flag leaf - sheath	strong
Flag leaf- blade (lower side)	
Culm - neck	medium to strong
Ear	medium to strong

Plant growth characters

Coleoptile - anthocyanin colouration	weak
Plant - growth habit	semi-erect
Time of ear emergence	medium to late
Flag leaf - anthocyanin of auricles	

VARSIITY

CHARACTERS IN DETAIL

Ear

Colour	white
Length	medium to long
Density	lax
Shape-side profile	parallel sided
Awns or scurs - presence	scurs present
Awns or scurs - distribution	upper 1/2
Awns or scurs - length	medium to long
Apical rachis segment - convex face hairiness	strong
Anthers - anthocyanin colouration	

Lower glume

External surface	slightly rough
Extent of internal hairs	strong (3)
Beak length	medium
Beak curvature	moderately curved
Shoulder width	narrow to medium
Shoulder shape	elevated

Lower lemma

Beak curvature	moderately curved
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Grain

Colour	red
Colouration with phenol	medium to dark

Straw

Length	very short to short
Wall thickness @20cms below ear	medium

Glaucosity

Flag leaf - sheath	medium to strong
Flag leaf- blade (lower side)	medium to strong
Culm - neck	medium to strong
Ear	medium to strong

Plant growth characters

Coleoptile - anthocyanin colouration	absent to weak
Plant - growth habit	semi-erect
Time of ear emergence	medium to late
Flag leaf - anthocyanin of auricles	

WICKEN**CHARACTERS IN DETAIL****Ear**

Colour	white
Length	long
Density	very lax to lax
Shape-side profile	tapering
Awns or scurs - presence	scurs present
Awns or scurs - distribution	upper 1/2
Awns or scurs - length	long to very long
Apical rachis segment - convex face hairiness	medium to strong
Anthers - anthocyanin colouration	

Lower glume

External surface	smooth
Extent of internal hairs	strong to whole surface
Beak length	long
Beak curvature	slight to moderately curved
Shoulder width	narrow to medium
Shoulder shape	straight to elevated

Lower lemma

Beak curvature	slightly curved
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Grain

Colour	red
Colouration with phenol	medium to dark

Straw

Length	long
Wall thickness @20cms below ear	absent or very thin

Glaucosity

Flag leaf - sheath	medium to strong
Flag leaf- blade (lower side)	medium to strong
Culm - neck	medium to strong
Ear	strong

Plant growth characters

Coleoptile - anthocyanin colouration	strong
Plant - growth habit	semi-erect to intermediate
Time of ear emergence	late
Flag leaf - anthocyanin of auricles	

WPB ARCADE

CHARACTERS IN DETAIL

Ear

Colour	white
Length	short to medium
Density	lax to medium
Shape-side profile	tapering
Awns or scurs - presence	scurs present
Awns or scurs - distribution	upper 1/4
Awns or scurs - length	medium to long
Apical rachis segment - convex face hairiness	strong
Anthers - anthocyanin colouration	absent

Lower glume

External surface	smooth
Extent of internal hairs	strong to whole surface
Beak length	short
Beak curvature	straight
Shoulder width	narrow to medium
Shoulder shape	straight to elevated

Lower lemma

Beak curvature	
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Grain

Colour	red
Colouration with phenol	very light to light

Straw

Length	medium
Wall thickness @20cms below ear	absent or very thin

Glaucosity

Flag leaf - sheath	strong to very strong
Flag leaf- blade (lower side)	strong
Culm - neck	strong
Ear	strong

Plant growth characters

Coleoptile - anthocyanin colouration	very weak to weak
Plant - growth habit	semi-erect to intermediate
Time of ear emergence	medium to late
Flag leaf - anthocyanin of auricles	absent or very weak

WPB ESCAPE**CHARACTERS IN DETAIL****Ear**

Colour	white
Length	medium to long
Density	lax to medium
Shape-side profile	tapering
Awns or scurs - presence	scurs present
Awns or scurs - distribution	upper 1/4
Awns or scurs - length	medium to long
Apical rachis segment - convex face hairiness	strong
Anthers - anthocyanin colouration	absent

Lower glume

External surface	smooth
Extent of internal hairs	strong to whole surface
Beak length	medium
Beak curvature	v.slightly curved
Shoulder width	narrow
Shoulder shape	elevated

Lower lemma

Beak curvature	slightly to moderately curved
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Grain

Colour	red
Colouration with phenol	very light to light

Straw

Length	medium
Wall thickness @20cms below ear	absent or very thin

Glaucosity

Flag leaf - sheath	medium to strong
Flag leaf- blade (lower side)	medium to strong
Culm - neck	medium to strong
Ear	medium to strong

Plant growth characters

Coleoptile - anthocyanin colouration	very weak to weak
Plant - growth habit	semi-erect to intermediate
Time of ear emergence	medium to late
Flag leaf - anthocyanin of auricles	absent or very weak

WPB PASCOE

CHARACTERS IN DETAIL

Ear

Colour	white
Length	medium
Density	lax
Shape-side profile	tapering
Awns or scurs - presence	awns present
Awns or scurs - distribution	
Awns or scurs - length	long to very long
Apical rachis segment - convex face hairiness	medium
Anthers - anthocyanin colouration	

Lower glume

External surface	smooth
Extent of internal hairs	strong to whole surface
Beak length	long to very long
Beak curvature	v.slightly curved
Shoulder width	very narrow to narrow
Shoulder shape	straight to elevated

Lower lemma

Beak curvature	slightly curved
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Grain

Colour	red
Colouration with phenol	dark to very dark

Straw

Length	medium to long
Wall thickness @20cms below ear	medium

Glaucosity

Flag leaf - sheath	medium
Flag leaf- blade (lower side)	medium
Culm - neck	medium to strong
Ear	strong

Plant growth characters

Coleoptile - anthocyanin colouration	very weak to weak
Plant - growth habit	semi-erect to intermediate
Time of ear emergence	medium
Flag leaf - anthocyanin of auricles	

WPB POINTER

CHARACTERS IN DETAIL

Ear

Colour	white
Length	medium
Density	lax
Shape-side profile	tapering
Awns or scurs - presence	scurs present
Awns or scurs - distribution	upper 3/4
Awns or scurs - length	long to very long
Apical rachis segment - convex face hairiness	medium to strong
Anthers - anthocyanin colouration	absent

Lower glume

External surface	smooth
Extent of internal hairs	strong (group 3)
Beak length	medium
Beak curvature	slightly curved
Shoulder width	narrow
Shoulder shape	straight to elevated

Lower lemma

Beak curvature	slightly curved
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Grain

Colour	red
Colouration with phenol	dark

Straw

Length	long to very long
Wall thickness @20cms below ear	absent or very thin

Glaucosity

Flag leaf - sheath	medium to strong
Flag leaf- blade (lower side)	medium
Culm - neck	medium to strong
Ear	medium to strong

Plant growth characters

Coleoptile - anthocyanin colouration	absent to weak
Plant - growth habit	intermediate
Time of ear emergence	medium
Flag leaf - anthocyanin of auricles	

WPB ROVER**CHARACTERS IN DETAIL****Ear**

Colour	white
Length	short to medium
Density	medium
Shape-side profile	parallel sided
Awns or scurs - presence	scurs present
Awns or scurs - distribution	upper 1/4
Awns or scurs - length	medium to long
Apical rachis segment - convex face hairiness	large
Anthers - anthocyanin colouration	absent

Lower glume

External surface	smooth
Extent of internal hairs	strong (group 3)
Beak length	medium
Beak curvature	slightly curved
Shoulder width	narrow to medium
Shoulder shape	slightly elevated

Lower lemma

Beak curvature	moderately curved
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Grain

Colour	reddish
Colouration with phenol	dark

Straw

Length	short
Wall thickness @20cms below ear	medium

Glaucosity

Flag leaf - sheath	strong
Flag leaf- blade (lower side)	medium to strong
Culm - neck	medium to strong
Ear	medium to strong

Plant growth characters

Coleoptile - anthocyanin colouration	weak
Plant - growth habit	semi-erect
Time of ear emergence	medium
Flag leaf - anthocyanin of auricles	absent or very weak

YUNUHE**CHARACTERS IN DETAIL****Ear**

Colour	white
Length	medium
Density	medium
Shape-side profile	tapering
Awns or scurs - presence	scurs present
Awns or scurs - distribution	upper 1/4
Awns or scurs - length	short
Apical rachis segment - convex face hairiness	small to medium
Anthers - anthocyanin colouration	absent

Lower glume

External surface	smooth
Extent of internal hairs	strong (group 3)
Beak length	short to medium
Beak curvature	slight to moderately curved
Shoulder width	narrow
Shoulder shape	horizontal

Lower lemma

Beak curvature	moderately to strongly curved
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Grain

Colour	reddish
Colouration with phenol	dark to very dark

Straw

Length	long
Wall thickness @20cms below ear	

Glaucosity

Flag leaf - sheath	strong
Flag leaf- blade (lower side)	strong
Culm - neck	strong
Ear	strong

Plant growth characters

Coleoptile - anthocyanin colouration	weak
Plant - growth habit	intermediate
Time of ear emergence	medium to late
Flag leaf - anthocyanin of auricles	absent or very weak

ZIRCON

CHARACTERS IN DETAIL

Ear

Colour	white
Length	medium
Density	lax to medium
Shape-side profile	parallel sided
Awns or scurs - presence	scurs present
Awns or scurs - distribution	upper 1/4
Awns or scurs - length	medium
Apical rachis segment - convex face hairiness	weak to medium
Anthers - anthocyanin colouration	absent

Lower glume

External surface	smooth
Extent of internal hairs	medium - Group 2
Beak length	short
Beak curvature	slightly curved
Shoulder width	medium
Shoulder shape	straight to elevated

Lower lemma

Beak curvature	slightly curved
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Grain

Colour	red
Colouration with phenol	medium

Straw

Length	short to medium
Wall thickness @20cms below ear	medium

Glaucosity

Flag leaf - sheath	strong
Flag leaf- blade (lower side)	
Culm - neck	strong
Ear	strong

Plant growth characters

Coleoptile - anthocyanin colouration	
Plant - growth habit	intermediate
Time of ear emergence	medium to late
Flag leaf - anthocyanin of auricles	absent or very weak

ZOLA

CHARACTERS IN DETAIL

Ear

Colour	white
Length	medium
Density	lax
Shape-side profile	tapering
Awns or scurs - presence	scurs present
Awns or scurs - distribution	upper 1/2
Awns or scurs - length	medium
Apical rachis segment - convex face hairiness	medium
Anthers - anthocyanin colouration	absent

Lower glume

External surface	smooth
Extent of internal hairs	strong (group 3)
Beak length	medium
Beak curvature	strongly curved
Shoulder width	medium
Shoulder shape	straight to elevated

Lower lemma

Beak curvature	slightly curved
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Grain

Colour	red
Colouration with phenol	dark to very dark

Straw

Length	short
Wall thickness @20cms below ear	absent or very thin

Glaucosity

Flag leaf - sheath	strong
Flag leaf- blade (lower side)	strong
Culm - neck	medium
Ear	medium

Plant growth characters

Coleoptile - anthocyanin colouration	medium
Plant - growth habit	semi-erect to intermediate
Time of ear emergence	medium
Flag leaf - anthocyanin of auricles	