CHARACTERS IN DETAIL

Ear
- Number of rows: two
- Density: medium
- Length: short
- Shape: tapering

Awn
- Length compared to ear: long (longer than ear)

Rachis
- Length of first segment: medium to long
- Curvature of first segment: medium

Spikelet
- Sterile spikelet - attitude: divergent
- Sterile spikelet - development: full
- Median spikelet - length of glume+awn cf grain: longer

Grain
- Kernel - colour of aleurone layer: whitish ("white")
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: absent/v, weak (0-2 per nerve)
- Rachilla hair type: long
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: clapping ("collar" type)

Anthocyanin colouration
- Flag leaf - auricles: strong
- Lemma nerves - at early dough: medium to strong
- Awn tips: strong

Plant growth characters
- Plant - growth habit: semi-erect to intermediate
- Plant - length: short
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: early to medium
- Flag leaf - glaucosity of sheath: strong
- Ear - glaucosity: medium
- Ear - attitude 21 days after ear emerg.: semi-erect
CHARACTERS IN DETAIL

Ear
Number of rows two
Density medium
Length short to medium
Shape parallel

Awn
Length compared to ear long to very long

Rachis
Length of first segment short
Curvature of first segment weak

Spikelet
Sterile spikelet - attitude divergent
Sterile spikelet - development full
Median spikelet - length of glume+awn cf grain equal

Grain
Kernel - colour of aleurone layer whitish
Husk - presence after harvest present
Spiculation of inner lateral nerves absent or v. weak
Rachilla hair type short
Ventral furrow - presence of hairs absent
Disposition of lodicules clasping

Anthocyanin colouration
Flag leaf - auricles strong
Lemma nerves - at early dough absent or very weak
Awn tips medium

Plant growth characters
Plant - growth habit intermediate
Plant - length medium
Lower leaf - hairiness of sheaths absent
Time of ear emergence late
Flag leaf - glaucosity of sheath medium to strong
Ear - glaucosity medium
Ear - attitude 21 days after ear emerg. semi-erect
CHARACTERS IN DETAIL

Ear
- Number of rows: two
- Density: medium
- Length: medium
- Shape: parallel

Awn
- Length compared to ear: +/- equal to longer

Rachis
- Length of first segment: medium
- Curvature of first segment: weak to medium

Spikelet
- Sterile spikelet - attitude: divergent
- Sterile spikelet - development: full
- Median spikelet - length of glume+awn cf grain: equal

Grain
- Kernel - colour of aleurone layer: whitish ("white")
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: absent/v. weak (0-2 per nerve)
- Rachilla hair type: short
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: clasping ("collar" type)

Anthocyanin colouration
- Flag leaf - auricles: medium to strong
- Lemma nerves - at early dough: medium to strong
- Awn tips: medium

Plant growth characters
- Plant - growth habit: intermediate
- Plant - length: medium
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: medium
- Flag leaf - glaucosity of sheath: medium to strong
- Ear - glaucosity: medium
- Ear - attitude 21 days after ear emerg.: erect to semi-erect
CHARACTERS IN DETAIL

Ear
Number of rows: two
Density: lax to medium
Length: medium to long
Shape: parallel

Awn
Length compared to ear: long (longer than ear)

Rachis
Length of first segment: short to medium
Curvature of first segment: weak

Spikelet
Sterile spikelet - attitude: divergent
Sterile spikelet - development: full
Median spikelet - length of glume+awn cf grain: longer

Grain
Kernel - colour of aleurone layer: whitish ("white")
Husk - presence after harvest: present
Spiculation of inner lateral nerves: absent/v. weak (0-2 per nerve)
Rachilla hair type: short
Ventral furrow - presence of hairs: absent
Disposition of lodicules: clapping ("collar" type)

Anthocyanin colouration
Flag leaf - auricles: medium to strong
Lemma nerves - at early dough: medium to strong
Awn tips: medium

Plant growth characters
Plant - growth habit: intermediate
Plant - length: medium
Lower leaf - hairiness of sheaths: absent
Time of ear emergence: early to medium
Flag leaf - glaucosity of sheath: medium to strong
Ear - glaucosity: medium
Ear - attitude 21 days after ear emerg.: erect to semi-erect
CHARACTERS IN DETAIL

**Ear**
- Number of rows: two
- Density: medium
- Length: medium
- Shape: parallel

**Awn**
- Length compared to ear: long

**Rachis**
- Length of first segment: medium
- Curvature of first segment: weak

**Spikelet**
- Sterile spikelet - attitude: divergent
- Sterile spikelet - development: full
- Median spikelet - length of glume+awn cf grain: equal

**Grain**
- Kernel - colour of aleurone layer: whitish
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: absent or v. weak
- Rachilla hair type: short
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: clasping

**Anthocyanin colouration**
- Flag leaf - auricles: strong
- Lemma nerves - at early dough: strong
- Awn tips: medium

**Plant growth characters**
- Plant - growth habit: intermediate
- Plant - length: short to medium
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: medium
- Flag leaf - glaucosity of sheath: medium to strong
- Ear - glaucosity: medium to strong
- Ear - attitude 21 days after ear emerg.: erect to semi-erect
Variety Name: Amalika

Breeders Reference:

Breeder: nordic Seed A/S

Origin:

Code: AMAL

*Plant - growth habit: Intermediate to semi prostrate
*Lower leaves - hairiness of leaf sheaths: Absent
*Time of ear emergence:
*Flag leaf- anthocyanin colouration of auricles: Strong
Frequency of plants with recurved flag leaves:
Flag leaf- glaucosity of sheath:
*Ear- glaucosity:
Ear- attitude:
Ear- length:
*Ear- number of rows: Two
*Ear- density: Medium to dense
Ear- shape:
*Awn- anthocyanin colouration of the tips: Medium
*Awn- length compared to ear: Parallel
Awn- spiculation of margins:
*Sterile spikelet-attitude: Non or rudimentary
Sterile spikelet-shape of tip:
Sterile spikelet- length of lemma:
Median spikelet- length of glume + awn cf grain: Equal
Lemma nerves- anthocyanin colouration: Medium
*Plant height: Medium
Collar type:
Rachis- length of first segment: Short
Rachis- width of first segment:
Rachis- curvature of first segment:
Rachis- shape of first segment:
Rachis(2-row)- humping of segments (mid third):
Rachis(6-row)- degree of zig-zag (mid third):
Kernel- colour of aleurone layer: Whitish
*Grain- rachilla hair type: Long
Grain- rachilla length:
Grain- rachilla - length of tip hairs:
Grain- spiculation of inner lateral nerves:
Grain- spiculation of outer lateral nerves:
Grain- anthocyanin colouration of lemma nerves: Medium
*Grain- ventral furrow - presence of hairs: Absent
*Grain- husk: Present
Grain- length of lodicles ("collar" type only): Clasping
Grain- disposition of lodicules:
*Seasonal type: Spring
Extra characters:

* = Characteristics which should always be included in the description of the variety. 30 March 2015
SPRING BARLEY

ARMADA

CHARACTERS IN DETAIL

Ear
- Number of rows: two
- Density: medium to dense
- Length: long
- Shape: tapering

Awn
- Length compared to ear: medium (+/- equal to ear) to long

Rachis
- Length of first segment: short to medium
- Curvature of first segment: weak

Spikelet
- Sterile spikelet - attitude: n/a
- Sterile spikelet - development: none or rudimentary (deficiens)
- Median spikelet - length of glume+awn cf grain: longer

Grain
- Kernel - colour of aleurone layer: whitish ("white")
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: absent/v. weak (0-2 per nerve)
- Rachilla hair type: long
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: frontal ("bib" type)

Anthocyanin colouration
- Flag leaf - auricles: strong to very strong
- Lemma nerves - at early dough: strong
- Awn tips: strong to very strong

Plant growth characters
- Plant - growth habit: semi-erect to intermediate
- Plant - length: medium to long
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: early to medium
- Flag leaf - glaucosity of sheath: strong
- Ear - glaucosity: strong to very strong
- Ear - attitude 21 days after ear emerg.: semi-erect to horizontal
CHARACTERS IN DETAIL

Ear
- Number of rows: two
- Density: lax
- Length: medium to long
- Shape: tapering

Awn
- Length compared to ear: long

Rachis
- Length of first segment: medium
- Curvature of first segment: weak

Spikelet
- Sterile spikelet - attitude: n/a
- Sterile spikelet - development: none or rudimentary
- Median spikelet - length of glume+awn cf grain: equal

Grain
- Kernel - colour of aleurone layer: whitish
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: absent or v. weak
- Rachilla hair type: short
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: clasping

Anthocyanin colouration
- Flag leaf - auricles: medium to strong
- Lemma nerves - at early dough: medium
- Awn tips: medium

Plant growth characters
- Plant - growth habit: intermediate
- Plant - length: very short
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: early to medium
- Flag leaf - glaucosity of sheath: medium to strong
- Ear - glaucosity: strong
- Ear - attitude 21 days after ear emerg.: erect to semi-erect
SPRING BARLEY

CHARACTERS IN DETAIL

Ear
Number of rows: two
Density: medium
Length: medium to long
Shape: parallel

Awn
Length compared to ear: medium to long

Rachis
Length of first segment: short to medium
Curvature of first segment: medium

Spikelet
Sterile spikelet - attitude: n/a
Sterile spikelet - development: none or rudimentary
Median spikelet - length of glume+awn cf grain: equal

Grain
Kernel - colour of aleurone layer: whitish
Husk - presence after harvest: present
Spiculation of inner lateral nerves: absent or v. weak
Rachilla hair type: long
Ventral furrow - presence of hairs: absent
Disposition of lodicules: clasping

Anthocyanin colouration
Flag leaf - auricles: medium to strong
Lemma nerves - at early dough: strong
Awn tips: medium to strong

Plant growth characters
Plant - growth habit: intermediate
Plant - length: short
Lower leaf - hairiness of sheaths: absent
Time of ear emergence: early to medium
Flag leaf - glaucosity of sheath: medium to strong
Ear - glaucosity: strong
Ear - attitude 21 days after ear emerg.: semi-erect
**Variety Name:** Arwen

**Breeders Reference:** Br 11037 y 5

**Breeder:** Senova Ltd

**AFP No:** 2/2678

**Translated from:** German

**Origin:**

**Code:** ARWN

**Crop:**

**Date:** 23 March 2017

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*Plant - growth habit:

*Lower leaves - hairiness of leaf sheaths:

*Time of ear emergence:

*Flag leaf- anthocyanin colouration of auricles:

Frequency of plants with recurved flag leaves:

Flag leaf- glaucosity of sheath:

*Ear- glaucosity:

Ear- attitude:

Ear- length:

*Ear- number of rows:

*Ear- density:

Ear- shape:

*Awn- anthocyanin colouration of the tips:

*Awn- length compared to ear:

Awn- spiculation of margins:

*Sterile spikelet-attitude:

Sterile spikelet-shape of tip:

Sterile spikelet- length of lemma:

Median spikelet- length of glume + awn cf grain:

Lemma nerves- anthocyanin colouration:

*Plant height:

Collar type:

Rachis- length of first segment:

Rachis- width of first segment:

Rachis- curvature of first segment:

Rachis- shape of first segment:

Rachis(2-row)- lumping of segments (mid third):

Rachis(6-row)- degree of zig-zag (mid third):

Kernel- colour of aleurone layer:

*Grain- rachilla hair type:

Grain- rachilla length:

Grain- rachilla - length of tip hairs:

Grain- spiculation of inner lateral nerves:

Grain- spiculation of outer lateral nerves:

Grain- anthocyanin colouration of lemma nerves:

*Grain- ventral furrow - presence of hairs:

*Grain- husk:

Grain- length of lodicles ("collar" type only):

Grain- disposition of lodicules:

*Seasonal type:

*Extra characters:

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

28 March 2017
CHARACTERS IN DETAIL

Ear
- Number of rows: two
- Density: lax to medium
- Length: long
- Shape: parallel

Awn
- Length compared to ear: medium (+/- equal to ear)

Rachis
- Length of first segment: short to medium
- Curvature of first segment: weak to medium

Spikelet
- Sterile spikelet - attitude: divergent
- Sterile spikelet - development: full
- Median spikelet - length of glume+awn cf grain: equal

Grain
- Kernel - colour of aleurone layer: whitish ("white")
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: absent/v, weak (0-2 per nerve)
- Rachilla hair type: long
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: clasping ("collar" type)

Anthocyanin colouration
- Flag leaf - auricles: strong
- Lemma nerves - at early dough: medium
- Awn tips: medium to strong

Plant growth characters
- Plant - growth habit: intermediate
- Plant - length: medium
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: medium
- Flag leaf - glaucosity of sheath: strong
- Ear - glaucosity: medium to strong
- Ear - attitude 21 days after ear emerg.: semi-erect to horizontal
CHARACTERS IN DETAIL

**Ear**
- Number of rows: two
- Density: lax to medium
- Length: short
- Shape: tapering

**Awn**
- Length compared to ear: long

**Rachis**
- Length of first segment: medium
- Curvature of first segment: medium

**Spikelet**
- Sterile spikelet - attitude: n/a
- Sterile spikelet - development: none or rudimentary
- Median spikelet - length of glume+awn cf grain: equal

**Grain**
- Kernel - colour of aleurone layer: whitish
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: absent or v. weak
- Rachilla hair type: short
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: clasping

**Anthocyanin colouration**
- Flag leaf - auricles: medium
- Lemma nerves - at early dough: strong
- Awn tips: medium to strong

**Plant growth characters**
- Plant - growth habit: semi-erect to intermediate
- Plant - length: short
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: medium
- Flag leaf - glaucosity of sheath: medium to strong
- Ear - glaucosity: medium to strong
- Ear - attitude 21 days after ear emerg.: semi-erect
Variety Name: **Beatrix**

**Crop:** Spring Barley

**Breeders Reference:** NORD 01/2449

**Breeder:** Noordstat Saatzuchtgesellschaft

**AFP No:** 2/2047

**Translated from:** German

**Date:** 22 March 2004

**Code:** BEAT

*Plant - growth habit:*
*Lower leaves - hairiness of leaf sheaths:*
*Time of ear emergence:*
*Flag leaf- anthocyanin colouration of auricles:*
Frequency of plants with recurved flag leaves:
Flag leaf- glaucosity of sheath:
*Ear- glaucosity:*
Ear- attitude:
Ear- length:
*Ear- number of rows:*
*Ear- density:*
Ear- shape:
*Awn- anthocyanin colouration of the tips:*
*Awn- length compared to ear:*
Awn- spiculation of margins:
*Sterile spikelet-attitude:*
Sterile spikelet-shape of tip:
Sterile spikelet- length of lemma:
Median spikelet- length of glume + awn cf grain:
Lemma nerves- anthocyanin colouration:
*Plant height:*
Collar type:
Rachis- length of first segment:
Rachis- width of first segment:
Rachis- curvature of first segment:
Rachis- shape of first segment:
Rachis(2-row)- humping of segments (mid third):
Rachis(6-row)- degree of zig-zag (mid third):
Kernel- colour of aleurone layer:
*Grain- rachilla hair type:*
Grain- rachilla length:
Grain- rachilla - length of tip hairs:
Grain- spiculation of inner lateral nerves:
Grain- spiculation of outer lateral nerves:
Grain- anthocyanin colouration of lemma nerves:
*Grain- ventral furrow - presence of hairs:*
*Grain- husk:*
Grain- length of lodicles ("collar" type only):
Grain- disposition of lodicles:
*Seasonal type:*
Extra characters:

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

16 May 2018
CHARACTERS IN DETAIL

**Ear**
- Number of rows: two
- Density: medium
- Length: medium
- Shape: parallel

**Awn**
- Length compared to ear: long (longer than ear)

**Rachis**
- Length of first segment: long
- Curvature of first segment: weak to medium

**Spikelet**
- Sterile spikelet - attitude: divergent
- Sterile spikelet - development: full
- Median spikelet - length of glume+awn cf grain: equal

**Grain**
- Kernel - colour of aleurone layer: whitish ("white")
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: absent/v. weak (0-2 per nerve)
- Rachilla hair type: short
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: claspings ("collar" type)

**Anthocyanin colouration**
- Flag leaf - auricles: strong
- Lemma nerves - at early dough: very weak to weak
- Awn tips: weak to medium

**Plant growth characters**
- Plant - growth habit: intermediate
- Plant - length: short to medium
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: medium
- Flag leaf - glaucosity of sheath: strong
- Ear - glaucosity: medium to strong
- Ear - attitude 21 days after ear emerg.: horizontal
CHARACTERS IN DETAIL

Ear

Number of rows two
Density medium
Length medium
Shape parallel

Awn
Length compared to ear long

Rachis
Length of first segment short to medium
Curvature of first segment medium

Spikelet
Sterile spikelet - attitude divergent
Sterile spikelet - development full
Median spikelet - length of glume+awn cf grain equal

Grain
Kernel - colour of aleurone layer whitish
Husk - presence after harvest present
Spiculation of inner lateral nerves absent or v. weak
Rachilla hair type short
Ventral furrow - presence of hairs absent
Disposition of lodicules clasping

Anthocyanin colouration
Flag leaf - auricles medium to strong
Lemma nerves - at early dough medium to strong
Awn tips strong

Plant growth characters
Plant - growth habit intermediate
Plant - length short to medium
Lower leaf - hairiness of sheaths absent
Time of ear emergence early
Flag leaf - glaucosity of sheath strong
Ear - glaucosity medium to strong
Ear - attitude 21 days after ear emerg. semi-erect
CHARACTERS IN DETAIL

Ear
- Number of rows: two
- Density: medium
- Length: medium
- Shape: tapering

Awn
- Length compared to ear: medium

Rachis
- Length of first segment: medium to long
- Curvature of first segment: weak to medium

Spikelet
- Sterile spikelet - attitude: divergent
- Sterile spikelet - development: full
- Median spikelet - length of glume+awn cf grain: equal

Grain
- Kernel - colour of aleurone layer: whitish
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: absent or v. weak
- Rachilla hair type: short
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: clasping

Anthocyanin colouration
- Flag leaf - auricles: medium
- Lemma nerves - at early dough: medium to strong
- Awn tips: medium

Plant growth characters
- Plant - growth habit: semi-erect
- Plant - length: medium to long
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: medium
- Flag leaf - glaucosity of sheath: medium to strong
- Ear - glaucosity: medium
- Ear - attitude 21 days after ear emerg.: erect to semi-erect
CHARACTERS IN DETAIL

Ear
Number of rows: two
Density: lax
Length: medium
Shape: tapering

Awn
Length compared to ear: long

Rachis
Length of first segment: medium
Curvature of first segment: medium

Spikelet
Sterile spikelet - attitude: n/a
Sterile spikelet - development: none or rudimentary
Median spikelet - length of glume+awn cf grain: equal

Grain
Kernel - colour of aleurone layer: whitish
Husk - presence after harvest: present
Spiculation of inner lateral nerves: absent or v. weak
Rachilla hair type: short
Ventral furrow - presence of hairs: absent
Disposition of lodicules: clasping

Anthocyanin colouration
Flag leaf - auricles: medium to strong
Lemma nerves - at early dough: medium
Awn tips: weak to medium

Plant growth characters
Plant - growth habit: intermediate
Plant - length: short
Lower leaf - hairiness of sheaths: absent
Time of ear emergence: medium to late
Flag leaf - glaucosity of sheath: medium to strong
Ear - glaucosity: medium to strong
Ear - attitude 21 days after ear emerg.: erect to semi-erect
CHARACTERS IN DETAIL

Ear
- Number of rows: two
- Density: lax to medium
- Length: medium
- Shape: parallel

Awn
- Length compared to ear: long

Rachis
- Length of first segment: medium
- Curvature of first segment: strong

Spikelet
- Sterile spikelet - attitude: divergent
- Sterile spikelet - development: full
- Median spikelet - length of glume+awn cf grain: equal

Grain
- Kernel - colour of aleurone layer: whitish
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: absent or v. weak
- Rachilla hair type: long
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: clasping

Anthocyanin colouration
- Flag leaf - auricles: medium to strong
- Lemma nerves - at early dough: medium to strong
- Awn tips: strong

Plant growth characters
- Plant - growth habit: semi-erect
- Plant - length: medium
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: early
- Flag leaf - glaucosity of sheath: medium to strong
- Ear - glaucosity: medium
- Ear - attitude 21 days after ear emerg.: horizontal
CHARACTERS IN DETAIL

Ear
- Number of rows: two
- Density: lax to medium
- Length: medium to long
- Shape: parallel

Awn
- Length compared to ear: medium (+/- equal to ear)

Rachis
- Length of first segment: short to medium
- Curvature of first segment: medium

Spikelet
- Sterile spikelet - attitude: n/a
- Sterile spikelet - development: none or rudimentary (deficiens)
- Median spikelet - length of glume+awn cf grain: equal

Grain
- Kernel - colour of aleurone layer: whitish ("white")
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: absent/v, weak (0-2 per nerve)
- Rachilla hair type: long
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: clasping ("collar" type)

Anthocyanin colouration
- Flag leaf - auricles: strong to very strong
- Lemma nerves - at early dough: weak to medium
- Awn tips: strong to very strong

Plant growth characters
- Plant - growth habit: intermediate to semi-prostrate
- Plant - length: medium
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: early
- Flag leaf - glaucosity of sheath: strong to very strong
- Ear - glaucosity: strong
- Ear - attitude 21 days after ear emerg.: horizontal to semi-recurved
CHARACTERS IN DETAIL

Ear
- Number of rows: two
- Density: medium
- Length: short
- Shape: parallel

Awn
- Length compared to ear: long to very long

Rachis
- Length of first segment: medium
- Curvature of first segment: medium

Spikelet
- Sterile spikelet - attitude: n/a
- Sterile spikelet - development: none or rudimentary
- Median spikelet - length of glume+awn cf grain: longer

Grain
- Kernel - colour of aleurone layer: whitish
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: absent or v. weak
- Rachilla hair type: long
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: clamping

Anthocyanin colouration
- Flag leaf - auricles: medium to strong
- Lemma nerves - at early dough: medium to strong
- Awn tips: medium

Plant growth characters
- Plant - growth habit: semi-erect to intermediate
- Plant - length: short to medium
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: medium to late
- Flag leaf - glaucosity of sheath: medium to strong
- Ear - glaucosity: medium
- Ear - attitude 21 days after ear emerg.: semi-erect
**CHARACTERS IN DETAIL**

**Ear**
- Number of rows: two
- Density: lax to medium
- Length: short to medium
- Shape: tapering

**Awn**
- Length compared to ear: long

**Rachis**
- Length of first segment: short to medium
- Curvature of first segment: medium to strong

**Spikelet**
- Sterile spikelet - attitude: n/a
- Sterile spikelet - development: none or rudimentary
- Median spikelet - length of glume+awn cf grain: equal

**Grain**
- Kernel - colour of aleurone layer: whitish
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: absent or v. weak
- Rachilla hair type: short
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: clasping

**Anthocyanin colouration**
- Flag leaf - auricles: strong
- Lemma nerves - at early dough: strong
- Awn tips: medium to strong

**Plant growth characters**
- Plant - growth habit: semi-erect to intermediate
- Plant - length: very short to short
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: early to medium
- Flag leaf - glaucosity of sheath: medium to strong
- Ear - glaucosity: medium to strong
- Ear - attitude 21 days after ear emerg.: semi-erect to horizontal
### CHARACTERS IN DETAIL

#### Ear
- **Number of rows**: two
- **Density**: medium
- **Length**: medium
- **Shape**: parallel

#### Awn
- **Length compared to ear**: long (longer than ear)

#### Rachis
- **Length of first segment**: short to medium
- **Curvature of first segment**: medium

#### Spikelet
- **Sterile spikelet - attitude**: divergent
- **Sterile spikelet - development**: full
- **Median spikelet - length of glume+awn cf grain**: equal

#### Grain
- **Kernel - colour of aleurone layer**: present
- **Husk - presence after harvest**: absent/v, weak (0-2 per nerve)
- **Spiculation of inner lateral nerves**: absent/v, weak (0-2 per nerve)
- **Rachilla hair type**: short
- **Ventral furrow - presence of hairs**: absent
- **Disposition of lodicules**: clasping ("collar" type)

#### Anthocyanin colouration
- **Flag leaf - auricles**: strong to very strong
- **Lemma nerves - at early dough**: strong
- **Awn tips**: strong

#### Plant growth characters
- **Plant - growth habit**: intermediate to semi-prostrate
- **Plant - length**: medium to long
- **Lower leaf - hairiness of sheaths**: absent
- **Time of ear emergence**: medium
- **Flag leaf - glaucosity of sheath**: strong
- **Ear - glaucosity**: strong
- **Ear - attitude 21 days after ear emerg.**: horizontal to semi-recurved
# CHARACTERS IN DETAIL

## Ear
- Number of rows: two
- Density: medium to dense
- Length: long
- Shape: parallel

## Awn
- Length compared to ear: medium (+/- equal to ear)

## Rachis
- Length of first segment: short
- Curvature of first segment: medium

## Spikelet
- Sterile spikelet - attitude: divergent
- Sterile spikelet - development: full
- Median spikelet - length of glume+awn cf grain: equal

## Grain
- Kernel - colour of aleurone layer: whitish ("white")
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: absent/v. weak (0-2 per nerve)
- Rachilla hair type: long
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: clasping ("collar" type)

## Anthocyanin colouration
- Flag leaf - auricles: strong
- Lemma nerves - at early dough: weak
- Awn tips: strong to very strong

## Plant growth characters
- Plant - growth habit: intermediate to semi-prostrate
- Plant - length: short to medium
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: medium
- Flag leaf - glaucosity of sheath: strong
- Ear - glaucosity: strong to very strong
- Ear - attitude 21 days after ear emerg.: semi-recurved
## CHARACTERS IN DETAIL

### Ear
- Number of rows: two
- Density: dense
- Length: medium to long
- Shape: parallel

### Awn
- Length compared to ear: long

### Rachis
- Length of first segment: medium
- Curvature of first segment: medium

### Spikelet
- Sterile spikelet - attitude: divergent
- Sterile spikelet - development: full
- Median spikelet - length of glume+awn cf grain: equal

### Grain
- Kernel - colour of aleurone layer: whitish
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: absent or v. weak
- Rachilla hair type: long
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: clasping

### Anthocyanin colouration
- Flag leaf - auricles: medium
- Lemma nerves - at early dough: weak
- Awn tips: strong

### Plant growth characters
- Plant - growth habit: intermediate to semi-prostrate
- Plant - length: short to medium
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: early to medium
- Flag leaf - glaucosity of sheath: strong
- Ear - glaucosity: medium
- Ear - attitude 21 days after ear emerg.: semi-erect
CHARACTERS IN DETAIL

Ear
- Number of rows: two
- Density: medium
- Length: medium
- Shape: parallel

Awn
- Length compared to ear: medium to long

Rachis
- Length of first segment: short
- Curvature of first segment: medium

Spikelet
- Sterile spikelet - attitude: n/a
- Sterile spikelet - development: none or rudimentary(deficiens)
- Median spikelet - length of glume+awn cf grain: equal

Grain
- Kernel - colour of aleurone layer: whitish ("white")
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: absent/v, weak (0-2 per nerve)
- Rachilla hair type: long
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: clapping ("collar" type)

Anthocyanin colouration
- Flag leaf - auricles: very strong
- Lemma nerves - at early dough: weak to medium
- Awn tips: strong to very strong

Plant growth characters
- Plant - growth habit: intermediate to semi-prostrate
- Plant - length: medium
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: medium
- Flag leaf - glaucosity of sheath: strong to very strong
- Ear - glaucosity: strong to very strong
- Ear - attitude 21 days after ear emerg.: horizontal to semi-recurved
CHARACTERS IN DETAIL

Ear
- Number of rows: two
- Density: lax to medium
- Length: short to medium
- Shape: parallel

Awn
- Length compared to ear: +/- equal to longer

Rachis
- Length of first segment: short
- Curvature of first segment: medium

Spikelet
- Sterile spikelet - attitude: n/a
- Sterile spikelet - development: none or rudimentary (deficiens)
- Median spikelet - length of glume+awn cf grain: equal

Grain
- Kernel - colour of aleurone layer: whitish ("white")
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: absent/v, weak (0-2 per nerve)
- Rachilla hair type: long
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: clapping ("collar" type)

Anthocyanin colouration
- Flag leaf - auricles: strong to very strong
- Lemma nerves - at early dough: medium
- Awn tips: strong

Plant growth characters
- Plant - growth habit: intermediate to semi-prostrate
- Plant - length: medium
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: early to medium
- Flag leaf - glaucosity of sheath: strong
- Ear - glaucosity: strong
- Ear - attitude 21 days after ear emerg.: horizontal
## CHARACTERS IN DETAIL

### Ear
- Number of rows: two
- Density: lax
- Length: medium
- Shape: parallel

### Awn
- Length compared to ear: long

### Rachis
- Length of first segment: medium
- Curvature of first segment: weak to medium

### Spikelet
- Sterile spikelet - attitude: n/a
- Sterile spikelet - development: none or rudimentary
- Median spikelet - length of glume+awn cf grain: equal

### Grain
- Kernel - colour of aleurone layer: whitish
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: absent or v. weak
- Rachilla hair type: short
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: clasping

### Anthocyanin colouration
- Flag leaf - auricles: strong
- Lemma nerves - at early dough: medium
- Awn tips: medium to strong

### Plant growth characters
- Plant - growth habit: intermediate to semi-prostrate
- Plant - length: short to medium
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: medium to late
- Flag leaf - glaucosity of sheath: strong
- Ear - glaucosity: medium
- Ear - attitude: semi-erect to horizontal
CHARACTERS IN DETAIL

Ear
- Number of rows: two
- Density: medium
- Length: medium
- Shape: parallel

Awn
- Length compared to ear: long (longer than ear)

Rachis
- Length of first segment: medium
- Curvature of first segment: weak to medium

Spikelet
- Sterile spikelet - attitude: divergent
- Sterile spikelet - development: full
- Median spikelet - length of glume+awn cf grain: equal

Grain
- Kernel - colour of aleurone layer: whitish ("white")
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: absent/v. weak (0-2 per nerve)
- Rachilla hair type: short
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: clapping ("collar" type)

Anthocyanin colouration
- Flag leaf - auricles: strong
- Lemma nerves - at early dough: weak to medium
- Awn tips: medium to strong

Plant growth characters
- Plant - growth habit: semi-erect to intermediate
- Plant - length: short to medium
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: early
- Flag leaf - glaucosity of sheath: strong
- Ear - glaucosity: medium
- Ear - attitude 21 days after ear emerg.: erect to semi-erect
CHARACTERS IN DETAIL

Ear
- Number of rows: two
- Density: lax
- Length: medium
- Shape: tapering

Awn
- Length compared to ear: long (longer than ear)

Rachis
- Length of first segment: medium
- Curvature of first segment: medium to strong

Spikelet
- Sterile spikelet - attitude: divergent
- Sterile spikelet - development
- Median spikelet - length of glume+awn cf grain: equal

Grain
- Kernel - colour of aleurone layer: whitish ("white")
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: absent/v. weak (0-2 per nerve)
- Rachilla hair type: long
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: claping ("collar" type)

Anthocyanin colouration
- Flag leaf - auricles: strong to very strong
- Lemma nerves - at early dough: medium
- Awn tips: medium

Plant growth characters
- Plant - growth habit: semi-erect to intermediate
- Plant - length: short to medium
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: medium
- Flag leaf - glaucosity of sheath: strong
- Ear - glaucosity: medium to strong
- Ear - attitude 21 days after ear emerg.: semi-erect to horizontal
CHARACTERS IN DETAIL

Ear
Number of rows: two
Density: medium
Length: medium
Shape: parallel

Awn
Length compared to ear: long

Rachis
Length of first segment: medium
Curvature of first segment: medium

Spikelet
Sterile spikelet - attitude: divergent
Sterile spikelet - development: full
Median spikelet - length of glume+awn cf grain: equal

Grain
Kernel - colour of aleurone layer: weakly coloured
Husk - presence after harvest: present
Spiculation of inner lateral nerves: v. weak to weak
Rachilla hair type: short
Ventral furrow - presence of hairs: absent
Disposition of lodicules: clasping

Anthocyanin colouration
Flag leaf - auricles: strong
Lemma nerves - at early dough: very weak to weak
Awn tips: weak

Plant growth characters
Plant - growth habit: intermediate
Plant - length: short
Lower leaf - hairiness of sheaths: absent
Time of ear emergence: early to medium
Flag leaf - glaucosity of sheath: strong
Ear - glaucosity: medium
Ear - attitude: erect to semi-erect
CHARACTERS IN DETAIL

EAR
Number of rows                  two
Density                        lax to medium
Length                         short to medium
Shape                          parallel

AWN
Length compared to ear          long

RACHIS
Length of first segment         medium
Curvature of first segment      weak to medium

SPIKELET
Sterile spikelet - attitude     n/a
Sterile spikelet - development  none or rudimentary
Median spikelet - length of glume+awn cf grain  longer

GRAIN
Kernel - colour of aleurone layer whitish
Husk - presence after harvest   present
Spiculation of inner lateral nerves absent or v. weak
Rachilla hair type              short
Ventral furrow - presence of hairs absent
Disposition of lodicules        clasping

ANTHOCYANIN COLOURATION
Flag leaf - auricles            strong
Lemma nerves - at early dough   weak to medium
Awn tips                       medium to strong

PLANT GROWTH CHARACTERS
Plant - growth habit            intermediate
Plant - length                  very short
Lower leaf - hairiness of sheaths absent
Time of ear emergence           medium
Flag leaf - glaucosity of sheath medium to strong
Ear - glaucosity                medium
Ear - attitude 21 days after ear emerg. semi-erect
Variety Name: Cosmopolitan

Crop: Spring Barley

Breeders Reference: SJ 152037

Breeder: Sejet

Origin:

Code: COSM

*Plant - growth habit: Intermediate to semi prostrate
*Lower leaves - hairiness of leaf sheaths: Absent
*Time of ear emergence: Medium
*Flag leaf- anthocyanin colouration of auricles: Strong
Frequency of plants with recurved flag leaves:
Flag leaf- glaucosity of sheath: Strong to very strong
*Ear- glaucosity: Medium to strong
Ear- attitude: Erect to semi erect
Ear- length: Short to medium
*Ear- number of rows: Two
*Ear- density: Medium
Ear- shape: Parallel
*Ear- anthocyanin colouration of the tips: Strong
*Ear- length compared to ear: Long
Awn- spiculation of margins:
*Sterile spikelet-attitude: N/A
Sterile spikelet-shape of tip:
Sterile spikelet- length of lemma: Equal
Median spikelet- length of glume + awn cf grain:
Lemma nerves- anthocyanin colouration:
*Plant height:
Collar type:
Rachis- length of first segment: Short to medium
Rachis- width of first segment: Medium
Rachis- curvature of first segment:
Rachis- shape of first segment:
Rachis(2-row)- humping of segments (mid third):
Rachis(6-row)- degree of zig-zag (mid third):
Kernel- colour of aleurone layer: Whitish
*Grain- rachilla hair type: Long
Grain- rachilla length:
Grain- rachilla - length of tip hairs: Absent or very weak
Grain- spiculation of inner lateral nerves:
Grain- spiculation of outer lateral nerves:
Grain- anthocyanin colouration of lemma nerves:
*Grain- ventral furrow - presence of hairs: Absent
*Grain- husk: Present
Grain- length of lodicles ("collar" type only):
Grain- disposition of lodicles: Clasping
*Seasonal type:
Extra characters:

* = Characteristics which should always be included in the description of the variety. 16 May 2018
CHARACTERS IN DETAIL

**Ear**
- Number of rows: two
- Density: lax
- Length: medium to long
- Shape: parallel

**Awn**
- Length compared to ear: medium

**Rachis**
- Length of first segment: medium
- Curvature of first segment: weak

**Spikelet**
- Sterile spikelet - attitude: divergent
- Sterile spikelet - development: full
- Median spikelet - length of glume+awn cf grain: equal

**Grain**
- Kernel - colour of aleurone layer: weakly coloured
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: absent or v. weak
- Rachilla hair type: short
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: clasping

**Anthocyanin colouration**
- Flag leaf - auricles: strong
- Lemma nerves - at early dough: weak
- Awn tips: medium

**Plant growth characters**
- Plant - growth habit: semi-erect to intermediate
- Plant - length: short to medium
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: medium
- Flag leaf - glaucosity of sheath: medium to strong
- Ear - glaucosity: medium
- Ear - attitude: semi-erect
Variety Name: **Cristalia**

Crop: **Spring Barley**

**Breeders Reference:**

**Breeder:** Ets Claude Camille Benoist SA

**Origin:**

**Code:** CRST

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*Plant - growth habit:*

*Lower leaves - hairiness of leaf sheaths:*

*Time of ear emergence:*

*Flag leaf- anthocyanin colouration of auricles:*

Frequency of plants with recurved flag leaves:

*Flag leaf- glaucosity of sheath:*

*Ear- glaucosity:*

Ear- attitude:

Ear- length:

*Ear- number of rows:*

*Ear- density:*

Ear- shape:

*Awn- anthocyanin colouration of the tips:*

*Awn- length compared to ear:*

Awn- spiculation of margins:

*Sterile spikelet-attitude:*

Sterile spikelet-shape of tip:

Sterile spikelet- length of lemma:

Median spikelet- length of glume + awn cf grain:

Lemma nerves- anthocyanin colouration:

*Plant height:*

Collar type:

Rachis- length of first segment:

Rachis- width of first segment:

Rachis- curvature of first segment:

Rachis- shape of first segment:

Rachis(2-row)- humping of segments (mid third):

Rachis(6-row) - degree of zig-zag (mid third):

Kernel- colour of aleurone layer:

*Grain- rachilla hair type:*

Grain- rachilla length:

Grain- rachilla - length of tip hairs:

Grain- spiculation of inner lateral nerves:

Grain- spiculation of outer lateral nerves:

Grain- anthocyanin colouration of lemma nerves:

*Grain- ventral furrow - presence of hairs:*

*Grain- husk:*

Grain- length of lodicles ("collar" type only):

Grain- disposition of lodicules:

*Seasonal type:*

Extra characters:

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

30 March 2015
CHARACTERS IN DETAIL

Ear
- Number of rows: two
- Density: medium
- Length: short
- Shape: parallel

Awn
- Length compared to ear: long (longer than ear)

Rachis
- Length of first segment: medium
- Curvature of first segment: weak to medium

Spikelet
- Sterile spikelet - attitude: divergent
- Sterile spikelet - development: full
- Median spikelet - length of glume+awn cf grain: equal

Grain
- Kernel - colour of aleurone layer: whitish ("white")
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: absent/v. weak (0-2 per nerve)
- Rachilla hair type: long
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: clasping ("collar" type)

Anthocyanin colouration
- Flag leaf - auricles: strong
- Lemma nerves - at early dough: absent or very weak
- Awn tips: strong

Plant growth characters
- Plant - growth habit: intermediate
- Plant - length: very short to short
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: medium
- Flag leaf - glaucosity of sheath: strong
- Ear - glaucosity: strong
- Ear - attitude 21 days after ear emerg.: erect to semi-erect
CHARACTERS IN DETAIL

**Ear**
- Number of rows: two
- Density: medium
- Length: medium
- Shape: parallel

**Awn**
- Length compared to ear: long

**Rachis**
- Length of first segment: medium
- Curvature of first segment: weak to medium

**Spikelet**
- Sterile spikelet - attitude: divergent
- Sterile spikelet - development: full
- Median spikelet - length of glume+awn cf grain: equal

**Grain**
- Kernel - colour of aleurone layer: whitish
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: v. weak to weak
- Rachilla hair type: short
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: clasping

**Anthocyanin colouration**
- Flag leaf - auricles: strong
- Lemma nerves - at early dough: weak to medium
- Awn tips: medium

**Plant growth characters**
- Plant - growth habit: intermediate
- Plant - length: very short to short
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: medium
- Flag leaf - glaucosity of sheath: strong
- Ear - glaucosity: medium
- Ear - attitude 21 days after ear emerg.: horizontal
SPRING BARLEY

CUPITO

CHARACTERS IN DETAIL

Ear
Number of rows: two
Density: lax
Length: medium
Shape:

Awn
Length compared to ear: medium to long

Rachis
Length of first segment: medium
Curvature of first segment: medium to strong

Spikelet
Sterile spikelet - attitude: n/a
Sterile spikelet - development: none or rudimentary
Median spikelet - length of glume+awn cf grain: equal

Grain
Kernel - colour of aleurone layer: whitish
Husk - presence after harvest: present
Spiculation of inner lateral nerves: absent or v. weak
Rachilla hair type: long
Ventral furrow - presence of hairs: absent
Disposition of lodicules: clasping

Anthocyanin colouration
Flag leaf - auricles: strong to very strong
Lemma nerves - at early dough: strong
Awn tips: strong

Plant growth characters
Plant - growth habit: intermediate
Plant - length: medium
Lower leaf - hairiness of sheaths: absent
Time of ear emergence: early to medium
Flag leaf - glaucosity of sheath: strong
Ear - glaucosity: strong
Ear - attitude 21 days after ear emerg.: horizontal
CHARACTERS IN DETAIL

Ear
Number of rows two
Density medium
Length medium to long
Shape parallel

Awn
Length compared to ear long (longer than ear)

Rachis
Length of first segment short
Curvature of first segment weak to medium

Spikelet
Sterile spikelet - attitude divergent
Sterile spikelet - development equal
Median spikelet - length of glume+awn cf grain

Grain
Kernel - colour of aleurone layer whitish ("white")
Husk - presence after harvest present
Spiculation of inner lateral nerves absent/v, weak (0-2 per nerve)
Rachilla hair type short
Ventral furrow - presence of hairs absent
Disposition of lodicules clasping ("collar" type)

Anthocyanin colouration
Flag leaf - auricles strong
Lemma nerves - at early dough weak to medium
Awn tips medium

Plant growth characters
Plant - growth habit erect to semi-erect
Plant - length medium
Lower leaf - hairiness of sheaths absent
Time of ear emergence early
Flag leaf - glaucosity of sheath medium to strong
Ear - glaucosity medium to strong
Ear - attitude 21 days after ear emerg. semi-erect
**CHARACTERS IN DETAIL**

**Ear**

- Number of rows: two
- Density: lax to medium
- Length: medium
- Shape: tapering

**Awn**

- Length compared to ear: long

**Rachis**

- Length of first segment: medium
- Curvature of first segment: weak

**Spikelet**

- Sterile spikelet - attitude: divergent
- Sterile spikelet - development: full
- Median spikelet - length of glume+awn cf grain: equal

**Grain**

- Kernel - colour of aleurone layer: weakly coloured
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: absent or v. weak
- Rachilla hair type: short
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: clasping

**Anthocyanin colouration**

- Flag leaf - auricles: strong
- Lemma nerves - at early dough: medium to strong
- Awn tips: medium to strong

**Plant growth characters**

- Plant - growth habit: intermediate
- Plant - length: short to medium
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: medium
- Flag leaf - glaucosity of sheath: strong
- Ear - glaucosity: medium to strong
- Ear - attitude 21 days after ear emerg.: semi-erect to horizontal
CHARACTERS IN DETAIL

Ear
- Number of rows: two
- Density: medium
- Length: short to medium
- Shape: tapering

Awn
- Length compared to ear: medium to long

Rachis
- Length of first segment: medium
- Curvature of first segment: medium to strong

Spikelet
- Sterile spikelet - attitude: divergent
- Sterile spikelet - development: full
- Median spikelet - length of glume+awn cf grain: equal

Grain
- Kernel - colour of aleurone layer: whitish
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: absent or v. weak
- Rachilla hair type: short
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: clasping

Anthocyanin colouration
- Flag leaf - auricles: strong
- Lemma nerves - at early dough: weak
- Awn tips: medium to strong

Plant growth characters
- Plant - growth habit: intermediate
- Plant - length: medium
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: medium to late
- Flag leaf - glaucosity of sheath: medium
- Ear - glaucosity: weak to medium
- Ear - attitude 21 days after ear emerg.: semi-erect
CHARACTERS IN DETAIL

Ear
- Number of rows: two
- Density: lax
- Length: short to medium
- Shape: tapering

Awn
- Length compared to ear: long

Rachis
- Length of first segment: short to medium
- Curvature of first segment: weak

Spikelet
- Sterile spikelet - attitude: n/a
- Sterile spikelet - development: none or rudimentary
- Median spikelet - length of glume+awn cf grain: equal

Grain
- Kernel - colour of aleurone layer: whitish
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: absent or v. weak
- Rachilla hair type: short
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: clasping

Anthocyanin colouration
- Flag leaf - auricles: strong
- Lemma nerves - at early dough: absent or very weak
- Awn tips: medium to strong

Plant growth characters
- Plant - growth habit: intermediate
- Plant - length: very short
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: medium to late
- Flag leaf - glaucosity of sheath: medium to strong
- Ear - glaucosity: medium to strong
- Ear - attitude 21 days after ear emerg.: erect to semi-erect
CHARACTERS IN DETAIL

**Ear**
- Number of rows: two
- Density: medium
- Length: short to medium
- Shape: tapering

**Awn**
- Length compared to ear: long

**Rachis**
- Length of first segment: medium
- Curvature of first segment: weak

**Spikelet**
- Sterile spikelet - attitude: n/a
- Sterile spikelet - development: none or rudimentary
- Median spikelet - length of glume+awn cf grain: equal

**Grain**
- Kernel - colour of aleurone layer: whitish
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: absent or v. weak
- Rachilla hair type: short
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: clasping

**Anthocyanin colouration**
- Flag leaf - auricles: strong
- Lemma nerves - at early dough: medium to strong
- Awn tips: medium

**Plant growth characters**
- Plant - growth habit: intermediate
- Plant - length: short
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: medium to late
- Flag leaf - glaucosity of sheath: medium to strong
- Ear - glaucosity: medium
- Ear - attitude: erect to semi-erect
### CHARACTERS IN DETAIL

#### Ear
- **Number of rows**: two
- **Density**: lax to medium
- **Length**: medium to long
- **Shape**: tapering to parallel

#### Awn
- **Length compared to ear**: +/- equal to longer

#### Rachis
- **Length of first segment**: medium
- **Curvature of first segment**: medium to strong

#### Spikelet
- **Sterile spikelet - attitude**: divergent
- **Sterile spikelet - development**: equal
- **Median spikelet - length of glume+awn cf grain**: equal

#### Grain
- **Kernel - colour of aleurone layer**: whitish ("white")
- **Husk - presence after harvest**: present
- **Spiculation of inner lateral nerves**: absent/v. weak (0-2 per nerve)
- **Rachilla hair type**: long
- **Ventral furrow - presence of hairs**: absent
- **Disposition of lodicules**: clasping ("collar" type)

#### Anthocyanin colouration
- **Flag leaf - auricles**: strong
- **Lemma nerves - at early dough**: medium to strong
- **Awn tips**: medium to strong

#### Plant growth characters
- **Plant - growth habit**: semi-erect
- **Plant - length**: short to medium
- **Lower leaf - hairiness of sheaths**: absent
- **Time of ear emergence**: medium to late
- **Flag leaf - glaucosity of sheath**: strong to very strong
- **Ear - glaucosity**: medium
- **Ear - attitude 21 days after ear emerg.**: semi-erect to horizontal
### CHARACTERS IN DETAIL

#### Ear
- Number of rows: two
- Density: medium
- Length: short to medium
- Shape: tapering

#### Awn
- Length compared to ear: long

#### Rachis
- Length of first segment: short to medium
- Curvature of first segment: weak to medium

#### Spikelet
- Sterile spikelet - attitude: n/a
- Sterile spikelet - development: none or rudimentary
- Median spikelet - length of glume+awn cf grain: equal

#### Grain
- Kernel - colour of aleurone layer: whitish
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: absent or v. weak
- Rachilla hair type: long
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: clasping

#### Anthocyanin colouration
- Flag leaf - auricles: medium
- Lemma nerves - at early dough: weak
- Awn tips: medium

#### Plant growth characters
- Plant - growth habit: intermediate
- Plant - length: very short to short
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: late
- Flag leaf - glaucosity of sheath: medium to strong
- Ear - glaucosity: medium to strong
- Ear - attitude 21 days after ear emerg.: erect to semi-erect
CHARACTERS IN DETAIL

**Ear**
- Number of rows: two
- Density: lax
- Length: medium to long
- Shape: parallel

**Awn**
- Length compared to ear: long

**Rachis**
- Length of first segment: long
- Curvature of first segment: medium

**Spikelet**
- Sterile spikelet - attitude: n/a
- Sterile spikelet - development: none or rudimentary
- Median spikelet - length of glume+awn cf grain: longer

**Grain**
- Kernel - colour of aleurone layer: whitish
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: absent or v. weak
- Rachilla hair type: long
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: clasping

**Anthocyanin colouration**
- Flag leaf - auricles: strong
- Lemma nerves - at early dough: medium to strong
- Awn tips: medium to strong

**Plant growth characters**
- Plant - growth habit: intermediate
- Plant - length: short to medium
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: early to medium
- Flag leaf - glaucosity of sheath: medium to strong
- Ear - glaucosity: medium
- Ear - attitude 21 days after ear emerg.: semi-erect to horizontal
Variety Name: **EMBRACE**  
Crop: Spring Barley  

**Breeders Reference:** SJ 148377  
**Breeder:** SEJET  
**Origin:**  
**Code:** EMBR

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Plant - growth habit:</em></td>
<td>Intermediate to semi prostrate</td>
</tr>
<tr>
<td><em>Lower leaves - hairiness of leaf sheaths:</em></td>
<td>Strong</td>
</tr>
<tr>
<td><em>Time of ear emergence:</em></td>
<td>Strong to very strong</td>
</tr>
<tr>
<td><em>Flag leaf- anthocyanin colouration of auricles:</em></td>
<td>Erect to semi erect</td>
</tr>
<tr>
<td>Frequency of plants with recurved flag leaves:</td>
<td>Short to medium</td>
</tr>
<tr>
<td>Flag leaf- glaucosity of sheath:</td>
<td>Medium</td>
</tr>
<tr>
<td><em>Ear- glaucosity:</em></td>
<td>Parallel</td>
</tr>
<tr>
<td>Ear- attitude:</td>
<td>Strong</td>
</tr>
<tr>
<td>Ear- length:</td>
<td>Long</td>
</tr>
<tr>
<td><em>Ear- number of rows:</em></td>
<td>Non or rudimentary</td>
</tr>
<tr>
<td><em>Ear- density:</em></td>
<td>Equal</td>
</tr>
<tr>
<td>Ear- shape:</td>
<td>Medium</td>
</tr>
<tr>
<td><em>Awn- anthocyanin colouration of the tips:</em></td>
<td>Whitish</td>
</tr>
<tr>
<td><em>Awn- length compared to ear:</em></td>
<td>Short</td>
</tr>
<tr>
<td>Awn- spiculation of margins:</td>
<td>Absent or very weak</td>
</tr>
<tr>
<td><em>Sterile spikelet-attitude:</em></td>
<td>Weak to medium</td>
</tr>
<tr>
<td>Sterile spikelet-shape of tip:</td>
<td>Present</td>
</tr>
<tr>
<td>Sterile spikelet- length of lemma:</td>
<td>Clasping</td>
</tr>
<tr>
<td>Median spikelet- length of glume + awn cf grain:</td>
<td>Absent</td>
</tr>
<tr>
<td>Lemma nerves- anthocyanin colouration:</td>
<td>Present</td>
</tr>
<tr>
<td><em>Plant height:</em></td>
<td>Present</td>
</tr>
<tr>
<td>Collar type:</td>
<td>Present</td>
</tr>
<tr>
<td>Rachis- length of first segment:</td>
<td>Present</td>
</tr>
<tr>
<td>Rachis- width of first segment:</td>
<td>Present</td>
</tr>
<tr>
<td>Rachis- curvature of first segment:</td>
<td>Present</td>
</tr>
<tr>
<td>Rachis- shape of first segment:</td>
<td>Present</td>
</tr>
<tr>
<td>Rachis(2-row)- humping of segments (mid third):</td>
<td>Present</td>
</tr>
<tr>
<td>Rachis(6-row)- degree of zig-zag (mid third):</td>
<td>Present</td>
</tr>
<tr>
<td>Kernel- colour of aleurone layer:</td>
<td>Present</td>
</tr>
<tr>
<td><em>Grain- rachilla hair type:</em></td>
<td>Present</td>
</tr>
<tr>
<td>Grain- rachilla length:</td>
<td>Present</td>
</tr>
<tr>
<td>Grain- rachilla - length of tip hairs:</td>
<td>Present</td>
</tr>
<tr>
<td>Grain- spiculation of inner lateral nerves:</td>
<td>Present</td>
</tr>
<tr>
<td>Grain- spiculation of outer lateral nerves:</td>
<td>Present</td>
</tr>
<tr>
<td>Grain- anthocyanin colouration of lemma nerves:</td>
<td>Present</td>
</tr>
<tr>
<td><em>Grain- ventral furrow - presence of hairs:</em></td>
<td>Present</td>
</tr>
<tr>
<td><em>Grain- husk:</em></td>
<td>Present</td>
</tr>
<tr>
<td>Grain- length of lodicles (&quot;collar&quot; type only):</td>
<td>Present</td>
</tr>
<tr>
<td>Grain- disposition of lodicles:</td>
<td>Present</td>
</tr>
<tr>
<td><em>Seasonal type:</em></td>
<td>Present</td>
</tr>
<tr>
<td>Extra characters:</td>
<td>Present</td>
</tr>
</tbody>
</table>

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

16 May 2018
Variety Name: EVELINA

Crop: Spring Barley

Breeders Reference: SE 501/05SG

Breeder: Landwirtschaftliche Fachschule
Edelhof Saatzucht

Origin:

Code: EVEL

*Plant - growth habit:
*Lower leaves - hairiness of leaf sheaths:
*Time of ear emergence:
*Flag leaf- anthocyanin colouration of auricles:
Frequency of plants with recurved flag leaves:
Flag leaf- glaucosity of sheath:
*Ear- glaucosity:
Ear- attitude:
Ear- length:
*Ear- number of rows:
*Ear- density:
Ear- shape:
*Awn- anthocyanin colouration of the tips:
*Awn- length compared to ear:
Awn- spiculation of margins:
*Sterile spikelet-attitude:
Sterile spikelet-shape of tip:
Sterile spikelet- length of lemma:
Median spikelet- length of glume + awn cf grain:
Lemma nerves- anthocyanin colouration:
*Plant height:
Collar type:
Rachis- length of first segment:
Rachis- width of first segment:
Rachis- curvature of first segment:
Rachis- shape of first segment:
Rachis(2-row)- humping of segments (mid third):
Rachis(6-row)- degree of zig-zag (mid third):
Kernel- colour of aleurone layer:
*Grain- rachilla hair type:
Grain- rachilla length:
Grain- rachilla - length of tip hairs:
Grain- spiculation of inner lateral nerves:
Grain- spiculation of outer lateral nerves:
Grain- anthocyanin colouration of lemma nerves:
*Grain- ventral furrow - presence of hairs:
*Grain- husk:
Grain- length of lodicles ("collar" type only):
Grain- disposition of lodicles:
*Seasonal type:
Extra characters:

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

08 March 2016
Variety Name: EVERGREEN

Crop:

Breeders Reference:

Breeder: NORDIC SEED A/S

Origin: Br6920b115*QUENCH

Code: EVER

*Plant - growth habit: Intermediate to semi prostrate
*Lower leaves - hairiness of leaf sheaths: Absent
*Time of ear emergence: Medium
*Flag leaf- anthocyanin colouration of auricles: Strong to very strong
Frequency of plants with recurved flag leaves: Medium
Flag leaf- glaucosity of sheath: Strong
*Ear- glaucosity: Horizontal
Ear- attitude: Medium
*Ear- number of rows: Two
*Ear- density: Lax to medium
Ear- shape: Parallel
*Ear- anthocyanin colouration of the tips: Strong
*Awn- length compared to ear: Medium to long
Awn- spiculation of margins: Divergent
*Sterile spikelet-attitude: Divergent
Sterile spikelet-shape of tip: Equal
Sterile spikelet- length of lemma: Medium
Median spikelet- length of glume + awn cf grain: Medium
Lemma nerves- anthocyanin colouration: Medium to strong
*Plant height: Medium
Collar type:
Rachis- length of first segment: Short
Rachis- width of first segment: Medium
Rachis- curvature of first segment: Medium
Rachis- shape of first segment: Medium
Rachis(2-row)- humping of segments (mid third): Medium
Rachis(6-row)- degree of zig-zag (mid third): Medium
Kernel- colour of aleurone layer: Whitish
*Grain- rachilla hair type: Long
Grain- rachilla length:
Grain- rachilla - length of tip hairs: Absent or very weak
Grain- spiculation of inner lateral nerves: Medium to strong
Grain- spiculation of outer lateral nerves: Medium to strong
Grain- anthocyanin colouration of lemma nerves: Medium to strong
*Grain- ventral furrow - presence of hairs: Absent
*Grain- husk: Present
Grain- length of lodicles ("collar" type only): Clasping
Grain- disposition of lodicles: Spring
*Seasonal type: Spring
Extra characters:

* = Characteristics which should always be included in the description of the variety. 30 March 2015
Variety Name: Explorer  
Crop: Spring Barley

Breeders Reference:

Breeder: Secobra Recherches

Origin:

Code: EXPL

*Plant - growth habit: Intermediate  
*Lower leaves - hairiness of leaf sheaths: Absent  
*Time of ear emergence: Early to medium  
*Flag leaf- anthocyanin colouration of auricles: Strong to very strong  
Frequency of plants with recurved flag leaves: Medium  
Flag leaf- glaucosity of sheath: Strong to very strong  
*Ear- glaucosity: Semi erect to horizontal  
Ear- attitude: Short to medium  
Ear- length: Two  
*Ear- number of rows: Medium  
*Ear- density: Parallel  
Ear- shape:  
*Ear- number of rows: Medium  
*Ear- density: Medium  
Ear- shape:  
*Awn- anthocyanin colouration of the tips: Medium to strong  
*Awn- length compared to ear: Medium to long  
Awn- spiculation of margins:  
*Sterile spikelet-attitude:  
Sterile spikelet-shape of tip:  
Sterile spikelet- length of lemma: Equal  
Median spikelet- length of glume + awn cf grain:  
Lemma nerves- anthocyanin colouration:  
*Plant height:  
Collar type:  
Rachis- length of first segment: Medium  
Rachis- width of first segment: Medium  
Rachis- curvature of first segment: Medium  
Rachis- shape of first segment:  
Rachis(2-row)- humping of segments (mid third):  
Rachis(6-row)- degree of zig-zag (mid third):  
Kernel- colour of aleurone layer: Whitish  
*Grain- rachilla hair type: Long  
Grain- rachilla length:  
Grain- rachilla - length of tip hairs:  
Grain- spiculation of inner lateral nerves: Absent or very weak  
Grain- spiculation of outer lateral nerves:  
Grain- anthocyanin colouration of lemma nerves: Medium to strong  
*Grain- ventral furrow - presence of hairs: Absent  
*Grain- husk: Present  
Grain- length of lodicles ("collar" type only): Clasping  
Grain- disposition of lodicles:  
*Seasonal type: Spring  
Extra characters:  

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

30 March 2015
CHARACTERS IN DETAIL

**Ear**
- Number of rows: two
- Density: lax
- Length: medium
- Shape: tapering

**Awn**
- Length compared to ear: medium

**Rachis**
- Length of first segment: medium to long
- Curvature of first segment: medium

**Spikelet**
- Sterile spikelet - attitude: divergent
- Sterile spikelet - development: full
- Median spikelet - length of glume+awn cf grain: equal

**Grain**
- Kernel - colour of aleurone layer: whitish
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: absent or v. weak
- Rachilla hair type: long
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: clasping

**Anthocyanin colouration**
- Flag leaf - auricles: medium to strong
- Lemma nerves - at early dough: medium to strong
- Awn tips: medium

**Plant growth characters**
- Plant - growth habit: semi-erect to intermediate
- Plant - length: short
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: early to medium
- Flag leaf - glaucosity of sheath: strong
- Ear - glaucosity: medium
- Ear - attitude 21 days after ear emerg.: semi-erect
CHARACTERS IN DETAIL

Ear
- Number of rows: two
- Density: medium
- Length: medium
- Shape: tapering to parallel

Awn
- Length compared to ear: long (longer than ear)

Rachis
- Length of first segment: short to medium
- Curvature of first segment: weak

Spikelet
- Sterile spikelet - attitude: divergent
- Sterile spikelet - development: full
- Median spikelet - length of glume+awn cf grain: equal

Grain
- Kernel - colour of aleurone layer: whitish ("white")
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: absent/v. weak (0-2 per nerve)
- Rachilla hair type: short
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: clasping ("collar" type)

Anthocyanin colouration
- Flag leaf - auricles: medium to strong
- Lemma nerves - at early dough: medium to strong
- Awn tips: medium to strong

Plant growth characters
- Plant - growth habit: intermediate to semi-prostrate
- Plant - length: medium to long
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: early to medium
- Flag leaf - glaucosity of sheath: medium to strong
- Ear - glaucosity: medium
- Ear - attitude 21 days after ear emerg.: erect to semi-erect
CHARACTERS IN DETAIL

Ear
- Number of rows: two
- Density: lax
- Length: medium
- Shape: parallel

Awn
- Length compared to ear: long

Rachis
- Length of first segment: medium
- Curvature of first segment: medium

Spikelet
- Sterile spikelet - attitude: parallel to weakly divergent
- Sterile spikelet - development: full
- Median spikelet - length of glume+awn cf grain: equal

Grain
- Kernel - colour of aleurone layer: whitish
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: v. weak to weak
- Rachilla hair type: short
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: clasping

Anthocyanin colouration
- Flag leaf - auricles: strong
- Lemma nerves - at early dough: weak
- Awn tips: medium

Plant growth characters
- Plant - growth habit: intermediate
- Plant - length: very short
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: medium to late
- Flag leaf - glaucosity of sheath: strong
- Ear - glaucosity: medium
- Ear - attitude 21 days after ear emerg.: semi-erect to horizontal
# SPRING BARLEY

**GARNER**

## CHARACTERS IN DETAIL

### Ear

<table>
<thead>
<tr>
<th>Character</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of rows</td>
<td>two</td>
</tr>
<tr>
<td>Density</td>
<td>lax</td>
</tr>
<tr>
<td>Length</td>
<td>medium</td>
</tr>
<tr>
<td>Shape</td>
<td>parallel</td>
</tr>
</tbody>
</table>

### Awn

<table>
<thead>
<tr>
<th>Character</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length compared to ear</td>
<td>long (longer than ear)</td>
</tr>
</tbody>
</table>

### Rachis

<table>
<thead>
<tr>
<th>Character</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length of first segment</td>
<td>medium</td>
</tr>
<tr>
<td>Curvature of first segment</td>
<td>weak to medium</td>
</tr>
</tbody>
</table>

### Spikelet

<table>
<thead>
<tr>
<th>Character</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sterile spikelet - attitude</td>
<td>n/a</td>
</tr>
<tr>
<td>Sterile spikelet - development</td>
<td>none or rudimentary(deficiens)</td>
</tr>
<tr>
<td>Median spikelet - length of glume+awn cf grain</td>
<td>equal</td>
</tr>
</tbody>
</table>

### Grain

<table>
<thead>
<tr>
<th>Character</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kernel - colour of aleurone layer</td>
<td>whitish (&quot;white&quot;)</td>
</tr>
<tr>
<td>Husk - presence after harvest</td>
<td>present</td>
</tr>
<tr>
<td>Spiculation of inner lateral nerves</td>
<td>absent/v, weak (0-2 per nerve)</td>
</tr>
<tr>
<td>Rachilla hair type</td>
<td>long</td>
</tr>
<tr>
<td>Ventral furrow - presence of hairs</td>
<td>absent</td>
</tr>
<tr>
<td>Disposition of lodicules</td>
<td>clamping (&quot;collar&quot; type)</td>
</tr>
</tbody>
</table>

### Anthocyanin colouration

<table>
<thead>
<tr>
<th>Character</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flag leaf - auricles</td>
<td>strong</td>
</tr>
<tr>
<td>Lemma nerves - at early dough</td>
<td>weak to medium</td>
</tr>
<tr>
<td>Awn tips</td>
<td>medium to strong</td>
</tr>
</tbody>
</table>

### Plant growth characters

<table>
<thead>
<tr>
<th>Character</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plant - growth habit</td>
<td>intermediate to semi-prostrate</td>
</tr>
<tr>
<td>Plant - length</td>
<td>medium</td>
</tr>
<tr>
<td>Lower leaf - hairiness of sheaths</td>
<td>absent</td>
</tr>
<tr>
<td>Time of ear emergence</td>
<td>early</td>
</tr>
<tr>
<td>Flag leaf - glaucosity of sheath</td>
<td>medium to strong</td>
</tr>
<tr>
<td>Ear - glaucosity</td>
<td>weak to medium</td>
</tr>
<tr>
<td>Ear - attitude 21 days after ear emerg.</td>
<td>semi-erect to horizontal</td>
</tr>
</tbody>
</table>
### Characters in Detail

#### Ear
- **Number of rows**: two
- **Density**: medium
- **Length**: medium
- **Shape**: parallel

#### Awn
- **Length compared to ear**: long (longer than ear)

#### Rachis
- **Length of first segment**: short to medium
- **Curvature of first segment**: weak

#### Spikelet
- **Sterile spikelet - attitude**: divergent
- **Sterile spikelet - development**: full
- **Median spikelet - length of glume+awn cf grain**: equal

#### Grain
- **Kernel - colour of aleurone layer**: whitish ("white")
- **Husk - presence after harvest**: present
- **Spiculation of inner lateral nerves**: absent/v. weak (0-2 per nerve)
- **Rachilla hair type**: short
- **Ventral furrow - presence of hairs**: absent
- **Disposition of lodicules**: clasping ("collar" type)

#### Anthocyanin Colouration
- **Flag leaf - auricles**: strong
- **Lemma nerves - at early dough**: very weak to weak
- **Awn tips**: strong

#### Plant Growth Characters
- **Plant - growth habit**: intermediate
- **Plant - length**: short to medium
- **Lower leaf - hairiness of sheaths**: absent
- **Time of ear emergence**: early
- **Flag leaf - glaucosity of sheath**: strong
- **Ear - glaucosity**: medium to strong
- **Ear - attitude 21 days after ear emerg.**: erect to semi-erect
CHARACTERS IN DETAIL

Ear
- Number of rows: two
- Density: medium
- Length: short to medium
- Shape: tapering to parallel

Awn
- Length compared to ear: +/- equal to longer

Rachis
- Length of first segment: short to medium
- Curvature of first segment: weak

Spikelet
- Sterile spikelet - attitude: divergent
- Sterile spikelet - development: full
- Median spikelet - length of glume+awn cf grain: equal

Grain
- Kernel - colour of aleurone layer: whitish ("white")
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: absent/v. weak (0-2 per nerve)
- Rachilla hair type: short
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: claspning ("collar" type)

Anthocyanin colouration
- Flag leaf - auricles: medium to strong
- Lemma nerves - at early dough: weak to medium
- Awn tips: medium

Plant growth characters
- Plant - growth habit: intermediate
- Plant - length: medium
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: medium
- Flag leaf - glaucosity of sheath: medium to strong
- Ear - glaucosity: medium
- Ear - attitude 21 days after ear emerg.: erect to semi-erect
CHARACTERS IN DETAIL

Ear
- Number of rows: two
- Density: lax to medium
- Length: short to medium
- Shape: parallel

Awn
- Length compared to ear: short (shorter than ear)

Rachis
- Length of first segment: medium to long
- Curvature of first segment: very weak

Spikelet
- Sterile spikelet - attitude: divergent
- Sterile spikelet - development
- Median spikelet - length of glume+awn cf grain: equal

Grain
- Kernel - colour of aleurone layer: whitish ("white")
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: absent/v. weak (0-2 per nerve)
- Rachilla hair type: long
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: frontal ("bib" type)

Anthocyanin colouration
- Flag leaf - auricles: medium
- Lemma nerves - at early dough: weak to medium
- Awn tips: medium

Plant growth characters
- Plant - growth habit: erect
- Plant - length: medium
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: early to medium
- Flag leaf - glaucosity of sheath: strong
- Ear - glaucosity: strong
- Ear - attitude 21 days after ear emerg.: semi-erect
### CHARACTERS IN DETAIL

#### Ear
- **Number of rows**: two
- **Density**: medium
- **Length**: medium
- **Shape**: parallel

#### Awn
- **Length compared to ear**: long to very long

#### Rachis
- **Length of first segment**: short to medium
- **Curvature of first segment**: weak to medium

#### Spikelet
- **Sterile spikelet - attitude**: n/a
- **Sterile spikelet - development**: none or rudimentary
- **Median spikelet - length of glume+awn cf grain**: equal

#### Grain
- **Kernel - colour of aleurone layer**: whitish
- **Husk - presence after harvest**: present
- **Spiculation of inner lateral nerves**: absent or v. weak
- **Rachilla hair type**: long
- **Ventral furrow - presence of hairs**: absent
- **Disposition of lodicules**: clasping

#### Anthocyanin colouration
- **Flag leaf - auricles**: strong
- **Lemma nerves - at early dough**: medium to strong
- **Awn tips**: medium to strong

#### Plant growth characters
- **Plant - growth habit**: intermediate to semi-prostrate
- **Plant - length**: short
- **Lower leaf - hairiness of sheaths**: absent
- **Time of ear emergence**: early to medium
- **Flag leaf - glaucosity of sheath**: strong
- **Ear - glaucosity**: medium to strong
- **Ear - attitude**: semi-erect
CHARACTERS IN DETAIL

**Ear**
- **Number of rows**: two
- **Density**: medium
- **Length**: medium to long
- **Shape**: parallel

**Awn**
- **Length compared to ear**: medium to long

**Rachis**
- **Length of first segment**: short to medium
- **Curvature of first segment**: weak to medium

**Spikelet**
- **Sterile spikelet - attitude**: divergent
- **Sterile spikelet - development**: full
- **Median spikelet - length of glume+awn cf grain**: equal

**Grain**
- **Kernel - colour of aleurone layer**: whitish
- **Husk - presence after harvest**: present
- **Spiculation of inner lateral nerves**: absent or v. weak
- **Rachilla hair type**: short
- **Ventral furrow - presence of hairs**: absent
- **Disposition of lodicules**: clasping

**Anthocyanin colouration**
- **Flag leaf - auricles**: medium
- **Lemma nerves - at early dough**: medium
- **Awn tips**: medium to strong

**Plant growth characters**
- **Plant - growth habit**: intermediate
- **Plant - length**: short to medium
- **Lower leaf - hairiness of sheaths**: absent
- **Time of ear emergence**: early to medium
- **Flag leaf - glaucosity of sheath**: medium to strong
- **Ear - glaucosity**: medium
- **Ear - attitude 21 days after ear emerg.**: erect to semi-erect
Variety Name: HAMBO

Breeders Reference: NORD 13/2330

Breeders: NORDSAAT

Origin:

Code: HAMB

Crop: Spring Barley

AFP No:

Translated from: German

Date: 15 May 2018

*Plant - growth habit:
Intermediate to semi prostrate

*Lower leaves - hairiness of leaf sheaths:
Absent

*Time of ear emergence:
Early to medium

*Flag leaf- anthocyanin colouration of auricles:
Strong to very strong

Frequency of plants with recurved flag leaves:

Flag leaf- glaucosity of sheath:

*Ear- glaucosity:
Strong

Ear- attitude:

Ear- length:

*Ear- number of rows:
Semi recurved

*Ear- density:
Medium to long

Ear- shape:

*Ear- anthocyanin colouration of the tips:
Two

*Ear- length compared to ear:

Awn- spiculation of margins:

*Sterile spikelet-attitude:
Non or rudimentary

Sterile spikelet-shape of tip:

Sterile spikelet-length of lemma:

Median spikelet-length of glume + awn cf grain:

Lemma nerves- anthocyanin colouration:

*Plant height:

Short to medium

Collar type:

Rachis- length of first segment:
Medium

Rachis- width of first segment:

Rachis- curvature of first segment:
Medium to strong

Rachis- shape of first segment:

Rachis(2-row)- humping of segments (mid third):

Rachis(6-row)- degree of zig-zag (mid third):

Kernel- colour of aleurone layer:

Whitish

*Grain- rachilla hair type:

Long

Grain- rachilla length:

Grain- rachilla - length of tip hairs:

Grain- spiculation of inner lateral nerves:

Absence or very weak

Grain- spiculation of outer lateral nerves:

Grain- anthocyanin colouration of lemma nerves:

Strong

*Grain- ventral furrow - presence of hairs:

Absent

*Grain- husk:

Present

Grain- length of lodicles ("collar" type only):

Clasping

Grain- disposition of lodicules:

Spring

Seasonal type:

Spring

Extra characters:

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

16 May 2018
CHARACTERS IN DETAIL

**Ear**
- Number of rows: two
- Density: lax
- Length: medium
- Shape: tapering

**Awn**
- Length compared to ear: long

**Rachis**
- Length of first segment: medium
- Curvature of first segment: weak to medium

**Spikelet**
- Sterile spikelet - attitude: n/a
- Sterile spikelet - development: none or rudimentary
- Median spikelet - length of glume+awn cf grain: equal

**Grain**
- Kernel - colour of aleurone layer: whitish
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: absent or v. weak
- Rachilla hair type: short
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: clasping

**Anthocyanin colouration**
- Flag leaf - auricles: strong
- Lemma nerves - at early dough: weak to medium
- Awn tips: medium to strong

**Plant growth characters**
- Plant - growth habit: intermediate
- Plant - length: medium
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: medium to late
- Flag leaf - glaucosity of sheath: medium
- Ear - glaucosity: strong
- Ear - attitude 21 days after ear emerg.: semi-erect
**CHARACTERS IN DETAIL**

**Ear**

<table>
<thead>
<tr>
<th>Character</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of rows</td>
<td>two</td>
</tr>
<tr>
<td>Density</td>
<td>lax</td>
</tr>
<tr>
<td>Length</td>
<td>medium to long</td>
</tr>
<tr>
<td>Shape</td>
<td>parallel</td>
</tr>
</tbody>
</table>

**Awn**

<table>
<thead>
<tr>
<th>Character</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length compared to ear</td>
<td>+/- equal to longer</td>
</tr>
</tbody>
</table>

**Rachis**

<table>
<thead>
<tr>
<th>Character</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length of first segment</td>
<td>medium to long</td>
</tr>
<tr>
<td>Curvature of first segment</td>
<td>weak</td>
</tr>
</tbody>
</table>

**Spikelet**

<table>
<thead>
<tr>
<th>Character</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sterile spikelet - attitude</td>
<td>n/a</td>
</tr>
<tr>
<td>Sterile spikelet - development</td>
<td>none or rudimentary (deficiens)</td>
</tr>
<tr>
<td>Median spikelet - length of glume + awn of grain</td>
<td>longer</td>
</tr>
</tbody>
</table>

**Grain**

<table>
<thead>
<tr>
<th>Character</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kernel - colour of aleurone layer</td>
<td>whitish (&quot;white&quot;)</td>
</tr>
<tr>
<td>Husk - presence after harvest</td>
<td>present</td>
</tr>
<tr>
<td>Spiculation of inner lateral nerves</td>
<td>absent/v, weak (0-2 per nerve)</td>
</tr>
<tr>
<td>Rachilla hair type</td>
<td>short</td>
</tr>
<tr>
<td>Ventral furrow - presence of hairs</td>
<td>absent</td>
</tr>
<tr>
<td>Disposition of lodicules</td>
<td>clapping (&quot;collar&quot; type)</td>
</tr>
</tbody>
</table>

**Anthocyanin colouration**

<table>
<thead>
<tr>
<th>Character</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flag leaf - auricles</td>
<td>strong</td>
</tr>
<tr>
<td>Lemma nerves - at early dough</td>
<td>weak to medium</td>
</tr>
<tr>
<td>Awn tips</td>
<td>medium to strong</td>
</tr>
</tbody>
</table>

**Plant growth characters**

<table>
<thead>
<tr>
<th>Character</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plant - growth habit</td>
<td>intermediate</td>
</tr>
<tr>
<td>Plant - length</td>
<td>medium to long</td>
</tr>
<tr>
<td>Lower leaf - hairiness of sheaths</td>
<td>absent</td>
</tr>
<tr>
<td>Time of ear emergence</td>
<td>early to medium</td>
</tr>
<tr>
<td>Flag leaf - glaucosity of sheath</td>
<td>medium to strong</td>
</tr>
<tr>
<td>Ear - glaucosity</td>
<td>medium to strong</td>
</tr>
<tr>
<td>Ear - attitude 21 days after ear emerg.</td>
<td>semi-erect</td>
</tr>
</tbody>
</table>
### CHARACTERS IN DETAIL

#### Ear
- **Number of rows**: two
- **Density**: medium
- **Length**: medium to long
- **Shape**: parallel

#### Awn
- **Length compared to ear**: medium to long

#### Rachis
- **Length of first segment**: medium
- **Curvature of first segment**: medium

#### Spikelet
- **Sterile spikelet - attitude**: divergent
- **Sterile spikelet - development**: equal
- **Median spikelet - length of glume+awn cf grain**: equal

#### Grain
- **Kernel - colour of aleurone layer**: strongly coloured
- **Husk - presence after harvest**: present
- **Spiculation of inner lateral nerves**: medium
- **Rachilla hair type**: long
- **Ventral furrow - presence of hairs**: absent
- **Disposition of lodicules**: clasping

#### Anthocyanin colouration
- **Flag leaf - auricles**: strong
- **Lemma nerves - at early dough**: weak to medium
- **Awn tips**: medium

#### Plant growth characters
- **Plant - growth habit**: intermediate
- **Plant - length**: medium
- **Lower leaf - hairiness of sheaths**: absent
- **Time of ear emergence**: very early to early
- **Flag leaf - glaucosity of sheath**: strong
- **Ear - glaucosity**: medium
- **Ear - attitude 21 days after ear emerg.**: horizontal
CHARACTERS IN DETAIL

Ear
- Number of rows: two
- Density: medium
- Length: medium to long
- Shape: parallel

Awn
- Length compared to ear: +/- equal to longer

Rachis
- Length of first segment: short to medium
- Curvature of first segment: very weak

Spikelet
- Sterile spikelet - attitude: divergent
- Sterile spikelet - development: full
- Median spikelet - length of glume+awn cf grain: equal

Grain
- Kernel - colour of aleurone layer: whitish ("white")
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: absent/v. weak (0-2 per nerve)
- Rachilla hair type: short
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: clasping ("collar" type)

Anthocyanin colouration
- Flag leaf - auricles: strong
- Lemma nerves - at early dough: medium
- Awn tips: medium to strong

Plant growth characters
- Plant - growth habit: intermediate
- Plant - length: short to medium
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: early to medium
- Flag leaf - glaucosity of sheath: strong
- Ear - glaucosity: medium
- Ear - attitude 21 days after ear emerg.: semi-erect
CHARACTERS IN DETAIL

Ear
Number of rows two
Density medium
Length medium
Shape parallel

Awn
Length compared to ear long

Rachis
Length of first segment short to medium
Curvature of first segment weak to medium

Spikelet
Sterile spikelet - attitude divergent
Sterile spikelet - development full
Median spikelet - length of glume+awn cf grain equal

Grain
Kernel - colour of aleurone layer whitish
Husk - presence after harvest present
Spiculation of inner lateral nerves absent or v. weak
Rachilla hair type short
Ventral furrow - presence of hairs absent
Disposition of lodicules clasping

Anthocyanin colouration
Flag leaf - auricles strong
Lemma nerves - at early dough weak to medium
Awn tips medium

Plant growth characters
Plant - growth habit intermediate
Plant - length short
Lower leaf - hairiness of sheaths absent
Time of ear emergence medium to late
Flag leaf - glaucosity of sheath medium to strong
Ear - glaucosity medium
Ear - attitude 21 days after ear emerg. erect to semi-erect
### CHARACTERS IN DETAIL

#### Ear
- Number of rows: two
- Density: medium
- Length: short to medium
- Shape: parallel

#### Awn
- Length compared to ear: long

#### Rachis
- Length of first segment: short to medium
- Curvature of first segment: medium to strong

#### Spikelet
- Sterile spikelet - attitude: n/a
- Sterile spikelet - development: none or rudimentary
- Median spikelet - length of glume+awn cf grain: equal

#### Grain
- Kernel - colour of aleurone layer: whitish
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: absent or v. weak
- Rachilla hair type: long
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: clasping

#### Anthocyanin colouration
- Flag leaf - auricles: strong
- Lemma nerves - at early dough: medium to strong
- Awn tips: medium

#### Plant growth characters
- Plant - growth habit: semi-erect to intermediate
- Plant - length: very short
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: early to medium
- Flag leaf - glaucosity of sheath: medium to strong
- Ear - glaucosity: weak to medium
- Ear - attitude 21 days after ear emerg.: erect to semi-erect
Variety Name: Invictus

Breeders Reference:

Breeder: Sejt Planteforædling I/S

Origin:

Code: Invi

*Plant - growth habit: Immediate to semi prostrate

*Lower leaves - hairiness of leaf sheaths:

*Time of ear emergence:

*Flag leaf- anthocyanin colouration of auricles: Strong

Frequency of plants with recurved flag leaves:

Flag leaf- glaucosity of sheath:

*Ear- glaucosity: Medium

Ear- attitude:

Ear- length:

*Ear- number of rows: Two

*Ear- density: Lax to medium

Ear- shape:

*Ear- number of rows:

*Ear- length compared to ear:

Awn- spiculation of margins:

*Sterile spikelet-attitude: Non or rudimentary

Sterile spikelet-shape of tip:

Sterile spikelet- length of lemma:

Median spikelet- length of glume + awn cf grain:

Lemma nerves- anthocyanin colouration:

*Plant height:

Collar type:

Rachis- length of first segment:

Rachis- width of first segment:

Rachis- curvature of first segment:

Rachis- shape of first segment:

Rachis(2-row)- humping of segments (mid third):

Rachis(6-row)- degree of zig-zag (mid third):

Kernel- colour of aleurone layer:

*Grain- rachilla hair type: Short

Grain- rachilla length:

Grain- rachilla - length of tip hairs:

Grain- spiculation of inner lateral nerves:

Grain- spiculation of outer lateral nerves:

Grain- anthocyanin colouration of lemma nerves:

*Grain- ventral furrow - presence of hairs:

*Grain- husk: Present

Grain- length of lodicles ("collar" type only):

Grain- disposition of lodicules:

*Seasonal type: Spring

Extra characters:

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

Translated from: Dutch

Date: 23 March 2015

APF No: 2/2681

NIAB

16/05/2018 V1
CHARACTERS IN DETAIL

**Ear**
- Number of rows: two
- Density: lax
- Length: short to medium
- Shape: parallel

**Awn**
- Length compared to ear: long (longer than ear)

**Rachis**
- Length of first segment: medium
- Curvature of first segment: weak

**Spikelet**
- Sterile spikelet - attitude: n/a
- Sterile spikelet - development: none or rudimentary (deficiens)
- Median spikelet - length of glume+awn cf grain: longer

**Grain**
- Kernel - colour of aleurone layer: whitish ("white")
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: absent/v. weak (0-2 per nerve)
- Rachilla hair type: short
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: clasping ("collar" type)

**Anthocyanin colouration**
- Flag leaf - auricles: strong
- Lemma nerves - at early dough: strong
- Awn tips: medium to strong

**Plant growth characters**
- Plant - growth habit: semi-erect to intermediate
- Plant - length: medium
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: early to medium
- Flag leaf - glaucosity of sheath: strong
- Ear - glaucosity: medium to strong
- Ear - attitude 21 days after ear emerg.: semi-erect
# SPRING BARLEY

**CHARACTERS IN DETAIL**

**Ear**
- Number of rows: two
- Density: medium
- Length: short to medium
- Shape

**Awn**
- Length compared to ear: long

**Rachis**
- Length of first segment: medium
- Curvature of first segment: medium to strong

**Spikelet**
- Sterile spikelet - attitude: n/a
- Sterile spikelet - development: none or rudimentary
- Median spikelet - length of glume+awn cf grain: equal

**Grain**
- Kernel - colour of aleurone layer: whitish
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: absent or v. weak
- Rachilla hair type: long
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: clasping

**Anthocyanin colouration**
- Flag leaf - auricles: medium to strong
- Lemma nerves - at early dough: medium to strong
- Awn tips: medium to strong

**Plant growth characters**
- Plant - growth habit: semi-prostrate
- Plant - length: short to medium
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: medium
- Flag leaf - glaucosity of sheath: strong to very strong
- Ear - glaucosity: strong to very strong
- Ear - attitude 21 days after ear emerg.: horizontal
CHARACTERS IN DETAIL

Ear
- Number of rows: two
- Density: medium
- Length: medium
- Shape: parallel

Awn
- Length compared to ear: long (longer than ear)

Rachis
- Length of first segment: medium
- Curvature of first segment: medium

Spikelet
- Sterile spikelet - attitude: n/a
- Sterile spikelet - development: none or rudimentary(deficiens)
- Median spikelet - length of glume+awn cf grain: equal

Grain
- Kernel - colour of aleurone layer: whitish ("white")
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: absent/v. weak (0-2 per nerve)
- Rachilla hair type: short
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: clasper ("collar" type)

Anthocyanin colouration
- Flag leaf - auricles: medium
- Lemma nerves - at early dough: medium
- Awn tips: medium to strong

Plant growth characters
- Plant - growth habit: intermediate to semi-prostrate
- Plant - length: short to medium
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: early to medium
- Flag leaf - glaucosity of sheath: medium to strong
- Ear - glaucosity: medium to strong
- Ear - attitude 21 days after ear emerg.: erect to semi-erect
CHARACTERS IN DETAIL

Ear
Number of rows: two
Density: lax
Length: short
Shape: tapering

Awn
Length compared to ear: long

Rachis
Length of first segment: medium
Curvature of first segment: weak to medium

Spikelet
Sterile spikelet - attitude: n/a
Sterile spikelet - development: none or rudimentary
Median spikelet - length of glume+awn cf grain: longer

Grain
Kernel - colour of aleurone layer: whitish
Husk - presence after harvest: present
Spiculation of inner lateral nerves: absent or v. weak
Rachilla hair type: short
Ventral furrow - presence of hairs: absent
Disposition of lodicules: clasping

Anthocyanin colouration
Flag leaf - auricles: medium to strong
Lemma nerves - at early dough: medium
Awn tips: medium

Plant growth characters
Plant - growth habit: semi-erect
Plant - length: very short
Lower leaf - hairiness of sheaths: absent
Time of ear emergence: medium to late
Flag leaf - glaucosity of sheath: medium to strong
Ear - glaucosity: weak to medium
Ear - attitude 21 days after ear emerg.: erect to semi-erect
CHARACTERS IN DETAIL

Ear
Number of rows two
Density lax to medium
Length medium
Shape tapering

Awn
Length compared to ear long

Rachis
Length of first segment short
Curvature of first segment medium

Spikelet
Sterile spikelet - attitude divergent
Sterile spikelet - development full
Median spikelet - length of glume+awn cf grain equal

Grain
Kernel - colour of aleurone layer whitish
Husk - presence after harvest present
Spiculation of inner lateral nerves absent or v. weak
Rachilla hair type short
Ventral furrow - presence of hairs absent
Disposition of lodicules clasping

Anthocyanin colouration
Flag leaf - auricles medium to strong
Lemma nerves - at early dough weak to medium
Awn tips medium to strong

Plant growth characters
Plant - growth habit intermediate to semi-prostrate
Plant - length short to medium
Lower leaf - hairiness of sheaths absent
Time of ear emergence early to medium
Flag leaf - glaucosity of sheath strong
Ear - glaucosity medium to strong
Ear - attitude horizontal
CHARACTERS IN DETAIL

Ear
<table>
<thead>
<tr>
<th>Character</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of rows</td>
<td>two</td>
</tr>
<tr>
<td>Density</td>
<td>medium</td>
</tr>
<tr>
<td>Length</td>
<td>medium</td>
</tr>
<tr>
<td>Shape</td>
<td>parallel</td>
</tr>
</tbody>
</table>

Awn
<table>
<thead>
<tr>
<th>Character</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length compared to ear</td>
<td>medium (± equal to ear)</td>
</tr>
</tbody>
</table>

Rachis
<table>
<thead>
<tr>
<th>Character</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length of first segment</td>
<td>short to medium</td>
</tr>
<tr>
<td>Curvature of first segment</td>
<td>medium</td>
</tr>
</tbody>
</table>

Spikelet
<table>
<thead>
<tr>
<th>Character</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sterile spikelet - attitude</td>
<td>n/a</td>
</tr>
<tr>
<td>Sterile spikelet - development</td>
<td>none or rudimentary (deficiens)</td>
</tr>
<tr>
<td>Median spikelet - length of glume+awn cf grain</td>
<td>equal</td>
</tr>
</tbody>
</table>

Grain
<table>
<thead>
<tr>
<th>Character</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kernel - colour of aleurone layer</td>
<td>whitish (&quot;white&quot;)</td>
</tr>
<tr>
<td>Husk - presence after harvest</td>
<td>present</td>
</tr>
<tr>
<td>Spiculation of inner lateral nerves</td>
<td>absent/v, weak (0-2 per nerve)</td>
</tr>
<tr>
<td>Rachilla hair type</td>
<td>long</td>
</tr>
<tr>
<td>Ventral furrow - presence of hairs</td>
<td>absent</td>
</tr>
<tr>
<td>Disposition of lodicules</td>
<td>clapping (&quot;collar&quot; type)</td>
</tr>
</tbody>
</table>

Anthocyanin colouration
<table>
<thead>
<tr>
<th>Character</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flag leaf - auricles</td>
<td>medium</td>
</tr>
<tr>
<td>Lemma nerves - at early dough</td>
<td>medium to strong</td>
</tr>
<tr>
<td>Awn tips</td>
<td>medium to strong</td>
</tr>
</tbody>
</table>

Plant growth characters
<table>
<thead>
<tr>
<th>Character</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plant - growth habit</td>
<td>intermediate</td>
</tr>
<tr>
<td>Plant - length</td>
<td>short to medium</td>
</tr>
<tr>
<td>Lower leaf - hairiness of sheaths</td>
<td>absent</td>
</tr>
<tr>
<td>Time of ear emergence</td>
<td>early to medium</td>
</tr>
<tr>
<td>Flag leaf - glaucosity of sheath</td>
<td>medium to strong</td>
</tr>
<tr>
<td>Ear - glaucosity</td>
<td>medium to strong</td>
</tr>
<tr>
<td>Ear - attitude 21 days after ear emerg.</td>
<td>erect to semi-erect</td>
</tr>
</tbody>
</table>
**CHARACTERS IN DETAIL**

**Ear**
- Number of rows: two
- Density: medium
- Length: medium to long
- Shape: parallel

**Awn**
- Length compared to ear: long (longer than ear)

**Rachis**
- Length of first segment: medium
- Curvature of first segment: medium

**Spikelet**
- Sterile spikelet - attitude: divergent
- Sterile spikelet - development: full
- Median spikelet - length of glume+awn cf grain: longer

**Grain**
- Kernel - colour of aleurone layer: whitish ("white")
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: absent/v. weak (0-2 per nerve)
- Rachilla hair type: long
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: clasping ("collar" type)

**Anthocyanin colouration**
- Flag leaf - auricles: medium
- Lemma nerves - at early dough: medium
- Awn tips: medium

**Plant growth characters**
- Plant - growth habit: intermediate to semi-prostrate
- Plant - length: medium to long
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: medium
- Flag leaf - glaucosity of sheath: medium to strong
- Ear - glaucosity: medium
- Ear - attitude 21 days after ear emerg.: erect to semi-erect
### CHARACTERS IN DETAIL

#### Ear
- Number of rows: two
- Density: dense
- Length: short
- Shape: tapering

#### Awn
- Length compared to ear: long to very long

#### Rachis
- Length of first segment: short to medium
- Curvature of first segment: weak

#### Spikelet
- Sterile spikelet - attitude: n/a
- Sterile spikelet - development: none or rudimentary
- Median spikelet - length of glume+awn cf grain: equal

#### Grain
- Kernel - colour of aleurone layer: whitish
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: absent or v. weak
- Rachilla hair type: long
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: clasping

#### Anthocyanin colouration
- Flag leaf - auricles: strong
- Lemma nerves - at early dough: medium
- Awn tips: medium

#### Plant growth characters
- Plant - growth habit: semi-erect to intermediate
- Plant - length: short to medium
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: medium
- Flag leaf - glaucosity of sheath: strong
- Ear - glaucosity: medium to strong
- Ear - attitude 21 days after ear emerg.: semi-erect to horizontal
CHARACTERS IN DETAIL

Ear
- Number of rows: two
- Density: medium
- Length: short
- Shape: tapering

Awn
- Length compared to ear: long (longer than ear)

Rachis
- Length of first segment: medium
- Curvature of first segment: weak

Spikelet
- Sterile spikelet - attitude: n/a
- Sterile spikelet - development: none or rudimentary (deficiens)
- Median spikelet - length of glume+awn cf grain: equal

Grain
- Kernel - colour of aleurone layer: whitish ("white")
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: absent/v, weak (0-2 per nerve)
- Rachilla hair type: long
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: clasping ("collar" type)

Anthocyanin colouration
- Flag leaf - auricles: medium to strong
- Lemma nerves - at early dough: weak to medium
- Awn tips: strong

Plant growth characters
- Plant - growth habit: semi-erect to intermediate
- Plant - length: short
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: early to medium
- Flag leaf - glaucosity of sheath: strong
- Ear - glaucosity: strong
- Ear - attitude 21 days after ear emerg.: erect to semi-erect
CHARACTERS IN DETAIL

**Ear**
- Number of rows: two
- Density: medium
- Length: medium
- Shape: tapering

**Awn**
- Length compared to ear: long

**Rachis**
- Length of first segment: short to medium
- Curvature of first segment: weak

**Spikelet**
- Sterile spikelet - attitude: divergent
- Sterile spikelet - development: full
- Median spikelet - length of glume+awn cf grain: equal

**Grain**
- Kernel - colour of aleurone layer: whitish
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: absent or v. weak
- Rachilla hair type: long
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: clasping

**Anthocyanin colouration**
- Flag leaf - auricles: strong
- Lemma nerves - at early dough: very weak to weak
- Awn tips: medium

**Plant growth characters**
- Plant - growth habit: intermediate
- Plant - length: short to medium
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: medium to late
- Flag leaf - glaucosity of sheath: medium to strong
- Ear - glaucosity: medium to strong
- Ear - attitude 21 days after ear emerg.: erect to semi-erect
### CHARACTERS IN DETAIL

#### Ear
- **Number of rows**: two
- **Density**: lax
- **Length**: medium
- **Shape**: tapering

#### Awn
- **Length compared to ear**: long

#### Rachis
- **Length of first segment**: short to medium
- **Curvature of first segment**: weak

#### Spikelet
- **Sterile spikelet - attitude**: n/a
- **Sterile spikelet - development**: none or rudimentary
- **Median spikelet - length of glume+awn cf grain**: equal

#### Grain
- **Kernel - colour of aleurone layer**: whitish
- **Husk - presence after harvest**: present
- **Spiculation of inner lateral nerves**: absent or v. weak
- **Rachilla hair type**: short
- **Ventral furrow - presence of hairs**: absent
- **Disposition of lodicules**: clasping

#### Anthocyanin colouration
- **Flag leaf - auricles**: strong
- **Lemma nerves - at early dough**: medium
- **Awn tips**: medium

#### Plant growth characters
- **Plant - growth habit**: semi-erect to intermediate
- **Plant - length**: short
- **Lower leaf - hairiness of sheaths**: absent
- **Time of ear emergence**: early to medium
- **Flag leaf - glaucosity of sheath**: medium to strong
- **Ear - glaucosity**: medium to strong
- **Ear - attitude 21 days after ear emerg.**: erect to semi-erect
CHARACTERS IN DETAIL

Ear
Number of rows: two
Density: lax
Length: medium
Shape: parallel

Awn
Length compared to ear: medium

Rachis
Length of first segment: medium
Curvature of first segment: weak to medium

Spikelet
Sterile spikelet - attitude: n/a
Sterile spikelet - development: none or rudimentary
Median spikelet - length of glume+awn cf grain: equal

Grain
Kernel - colour of aleurone layer: whitish
Husk - presence after harvest: present
Spiculation of inner lateral nerves: absent or v. weak
Rachilla hair type: short
Ventral furrow - presence of hairs: absent
Disposition of lodicules: clasping

Anthocyanin colouration
Flag leaf - auricles: medium
Lemma nerves - at early dough: medium
Awn tips: medium to strong

Plant growth characters
Plant - growth habit: intermediate
Plant - length: short to medium
Lower leaf - hairiness of sheaths: absent
Time of ear emergence: medium to late
Flag leaf - glaucosity of sheath: medium to strong
Ear - glaucosity: strong
Ear - attitude 21 days after ear emerg.: semi-erect
CHARACTERS IN DETAIL

Ear
Number of rows: two
Density: medium
Length: short to medium
Shape: parallel

Awn
Length compared to ear: long

Rachis
Length of first segment: medium to long
Curvature of first segment: medium

Spikelet
Sterile spikelet - attitude: n/a
Sterile spikelet - development: none or rudimentary
Median spikelet - length of glume+awn cf grain: equal

Grain
Kernel - colour of aleurone layer: whitish
Husk - presence after harvest: present
Spiculation of inner lateral nerves: absent or v. weak
Rachilla hair type: short
Ventral furrow - presence of hairs: absent
Disposition of lodicules: clasping

Anthocyanin colouration
Flag leaf - auricles: strong
Lemma nerves - at early dough: medium
Awn tips: medium

Plant growth characters
Plant - growth habit: semi-erect to intermediate
Plant - length: short
Lower leaf - hairiness of sheaths: absent
Time of ear emergence: medium
Flag leaf - glaucosity of sheath: medium to strong
Ear - glaucosity: medium to strong
Ear - attitude 21 days after ear emerg.: erect to semi-erect
CHARACTERS IN DETAIL

Ear
- Number of rows: two
- Density: lax to medium
- Length: short to medium
- Shape: parallel

Awn
- Length compared to ear: long

Rachis
- Length of first segment: medium
- Curvature of first segment: weak to medium

Spikelet
- Sterile spikelet - attitude: n/a
- Sterile spikelet - development: none or rudimentary
- Median spikelet - length of glume+awn cf grain: equal

Grain
- Kernel - colour of aleurone layer: whitish
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: absent or v. weak
- Rachilla hair type: short
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: clasping

Anthocyanin colouration
- Flag leaf - auricles: strong
- Lemma nerves - at early dough: weak to medium
- Awn tips: medium

Plant growth characters
- Plant - growth habit: intermediate to semi-prostrate
- Plant - length: medium
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: medium to late
- Flag leaf - glaucosity of sheath: medium to strong
- Ear - glaucosity: medium to strong
- Ear - attitude: erect to semi-erect
CHARACTERS IN DETAIL

Ear
- Number of rows: two
- Density: lax to medium
- Length: short to medium
- Shape: parallel

Awn
- Length compared to ear: long

Rachis
- Length of first segment: short to medium
- Curvature of first segment: weak

Spikelet
- Sterile spikelet - attitude: n/a
- Sterile spikelet - development: none or rudimentary
- Median spikelet - length of glume+awn cf grain: longer

Grain
- Kernel - colour of aleurone layer: whitish
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: absent or v. weak
- Rachilla hair type: short
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: clasping

Anthocyanin colouration
- Flag leaf - auricles: strong
- Lemma nerves - at early dough: strong
- Awn tips: medium

Plant growth characters
- Plant - growth habit: semi-erect to intermediate
- Plant - length: very short to short
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: medium to late
- Flag leaf - glaucosity of sheath: medium to strong
- Ear - glaucosity: medium
- Ear - attitude 21 days after ear emerg.: semi-erect
CHARACTERS IN DETAIL

Ear
- Number of rows: two
- Density: medium
- Length: very short
- Shape: tapering

Awn
- Length compared to ear: long to very long

Rachis
- Length of first segment: short to medium
- Curvature of first segment: medium

Spikelet
- Sterile spikelet - attitude: divergent
- Sterile spikelet - development: full
- Median spikelet - length of glume+awn cf grain: equal

Grain
- Kernel - colour of aleurone layer: whitish
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: absent or v. weak
- Rachilla hair type: short
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: clasping

Anthocyanin colouration
- Flag leaf - auricles: strong
- Lemma nerves - at early dough: medium
- Awn tips: medium

Plant growth characters
- Plant - growth habit: intermediate
- Plant - length: very short
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: late
- Flag leaf - glaucosity of sheath: strong
- Ear - glaucosity: medium to strong
- Ear - attitude 21 days after ear emerg.: semi-erect
CHARACTERS IN DETAIL

Ear
- Number of rows: two
- Density: medium
- Length: medium
- Shape: parallel

Awn
- Length compared to ear: long

Rachis
- Length of first segment: medium to long
- Curvature of first segment: medium

Spikelet
- Sterile spikelet - attitude: n/a
- Sterile spikelet - development: none or rudimentary
- Median spikelet - length of glume+awn cf grain: equal

Grain
- Kernel - colour of aleurone layer: whitish
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: absent or v. weak
- Rachilla hair type: short
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: clasping

Anthocyanin colouration
- Flag leaf - auricles: medium to strong
- Lemma nerves - at early dough: medium
- Awn tips: medium

Plant growth characters
- Plant - growth habit: intermediate to semi-prostrate
- Plant - length: short to medium
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: medium
- Flag leaf - glaucosity of sheath: strong
- Ear - glaucosity: medium to strong
- Ear - attitude: erect to semi-erect
## CHARACTERS IN DETAIL

### Ear
- **Number of rows**: two
- **Density**: lax to medium
- **Length**: short to medium
- **Shape**: tapering

### Awn
- **Length compared to ear**: long

### Rachis
- **Length of first segment**: medium to long
- **Curvature of first segment**: medium to strong

### Spikelet
- **Sterile spikelet - attitude**: n/a
- **Sterile spikelet - development**: none or rudimentary
- **Median spikelet - length of glume+awn cf grain**: equal

### Grain
- **Kernel - colour of aleurone layer**: weakly coloured
- **Husk - presence after harvest**: present
- **Spiculation of inner lateral nerves**: absent or v. weak
- **Rachilla hair type**: short
- **Ventral furrow - presence of hairs**: absent
- **Disposition of lodicules**: clasping

### Anthocyanin colouration
- **Flag leaf - auricles**: weak to medium
- **Lemma nerves - at early dough**: absent or very weak
- **Awn tips**: weak to medium

### Plant growth characters
- **Plant - growth habit**: semi-erect to intermediate
- **Plant - length**: short
- **Lower leaf - hairiness of sheaths**: absent
- **Time of ear emergence**: early to medium
- **Flag leaf - glaucosity of sheath**: strong
- **Ear - glaucosity**: medium
- **Ear - attitude 21 days after ear emerg.**: erect to semi-erect
Variety Name: Lucienne

Breeders Reference: BE2007011006

Breeder: LS Plant Breeding Ltd

AFP No: 2/2885

Translated from: German

Date: 23 March 2017

Code: LUCI

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

**Plant** - growth habit: Semi prostrate
*Lower leaves - hairiness of leaf sheaths: Present
*Time of ear emergence: Medium
*Flag leaf - anthocyanin colouration of auricles: Medium
Frequency of plants with recurved flag leaves:
Flag leaf - glaucosity of sheath: Strong
*Ear - glaucosity: Absent or very weak
Ear - attitude: Semi erect to horizontal
Ear - length: Short
*Ear - number of rows: More than two
*Ear - density: Medium
Ear - shape: Parallel
*Wax - anthocyanin colouration of the tips: Medium to strong
*Wax - length compared to ear: Long
Wax - spiculation of margins:
Sterile spikelet - shape of tip: Semi prostrate
Sterile spikelet - length of lemma: Medium to long
Median spikelet - length of glume + awn cf grain:
Lemma nerves - anthocyanin colouration:
*Plant height: Long to very long
Collar type:
Rachis - length of first segment: Medium to long
Rachis - width of first segment: Weak to medium
Rachis - curvature of first segment: Weak to medium
Rachis - shape of first segment: Weak to medium
Rachis(2-row) - humping of segments (mid third): Weak to medium
Rachis(6-row) - degree of zig-zag (mid third): Weak to medium
Kernel - colour of aleurone layer: Weakly coloured
*Grain - rachilla hair type: Long
Grain - rachilla length:
Grain - rachilla - length of tip hairs: Weak to medium
Grain - spiculation of inner lateral nerves: Weak to medium
Grain - spiculation of outer lateral nerves: Weak to medium
Grain - anthocyanin colouration of lemma nerves:
*Grain - ventral furrow - presence of hairs: Present
*Grain - husk: Present
Grain - length of lodicles ("collar" type only): Clasping
Grain - disposition of lodicules: Winter
*Seasonal type: Winter
Extra characters:

28 March 2017
CHARACTERS IN DETAIL

Ear
- Number of rows: two
- Density: lax to medium
- Length: medium
- Shape: parallel

Awn
- Length compared to ear: long

Rachis
- Length of first segment: short to medium
- Curvature of first segment: weak to medium

Spikelet
- Sterile spikelet - attitude: n/a
- Sterile spikelet - development: none or rudimentary
- Median spikelet - length of glume+awn cf grain: equal

Grain
- Kernel - colour of aleurone layer: whitish
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: absent or v. weak
- Rachilla hair type: long
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: clasping

Anthocyanin colouration
- Flag leaf - auricles: medium to strong
- Lemma nerves - at early dough: medium
- Awn tips: medium to strong

Plant growth characters
- Plant - growth habit: intermediate to semi-prostrate
- Plant - length: medium
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: early to medium
- Flag leaf - glaucosity of sheath: strong
- Ear - glaucosity: medium to strong
- Ear - attitude: semi-erect to horizontal
CHARACTERS IN DETAIL

Ear
- Number of rows: two
- Density: medium
- Length: medium to long
- Shape: parallel

Awn
- Length compared to ear: medium to long

Rachis
- Length of first segment: medium
- Curvature of first segment: medium to strong

Spikelet
- Sterile spikelet - attitude: divergent
- Sterile spikelet - development: full
- Median spikelet - length of glume+awn cf grain: equal

Grain
- Kernel - colour of aleurone layer: whitish
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: absent or v. weak
- Rachilla hair type: short
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: clasping

Anthocyanin colouration
- Flag leaf - auricles: medium
- Lemma nerves - at early dough: medium
- Awn tips: medium to strong

Plant growth characters
- Plant - growth habit: intermediate
- Plant - length: short to medium
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: late
- Flag leaf - glaucosity of sheath: medium to strong
- Ear - glaucosity: medium
- Ear - attitude 21 days after ear emerg.: erect to semi-erect
# SPRING BARLEY

**MARACCA**

## CHARACTERS IN DETAIL

### Ear
- **Number of rows**: two
- **Density**: medium
- **Length**: medium to long
- **Shape**: 

### Awn
- **Length compared to ear**: medium to long

### Rachis
- **Length of first segment**: medium
- **Curvature of first segment**: medium to strong

### Spikelet
- **Sterile spikelet - attitude**: divergent
- **Sterile spikelet - development**: 
- **Median spikelet - length of glume+awn cf grain**: equal

### Grain
- **Kernel - colour of aleurone layer**: whitish
- **Husk - presence after harvest**: present
- **Spiculation of inner lateral nerves**: absent or v. weak
- **Rachilla hair type**: long
- **Ventral furrow - presence of hairs**: absent
- **Disposition of lodicules**: clasping

### Anthocyanin colouration
- **Flag leaf - auricles**: strong
- **Lemma nerves - at early dough**: medium
- **Awn tips**: medium to strong

### Plant growth characters
- **Plant - growth habit**: semi-erect
- **Plant - length**: short to medium
- **Lower leaf - hairiness of sheaths**: absent
- **Time of ear emergence**: medium to late
- **Flag leaf - glaucosity of sheath**: strong
- **Ear - glaucosity**: weak to medium
- **Ear - attitude 21 days after ear emerg.**: horizontal
Variety Name: *Maresi*  
Crop: Spring Barley

**Breeders Reference:** VSB 347  
**AFP No:** 2/1036

**Breeders Reference:** VSB 347  
**Breeder:** VEB

**Origin:**

**Code:** MSI

**Dates:**

**Date:** 01 February 1993

**Plant - growth habit:** intermediate to semi-prostrate

**Time of ear emergence:** medium to late

**Flag leaf - anthocyanin colouration of auricles:** strong

**Frequency of plants with recurved flag leaves:** low

**Flag leaf - glaucosity of sheath:** strong

**Ear - glaucosity:** medium

**Ear - attitude:** horizontal to semi-recurved

**Ear- length:**

**Ear- number of rows:** two

**Ear- density:** medium

**Ear - shape:**

**Awn - anthocyanin colouration of the tips:**

**Awn - length compared to ear:** present

**Awn - spiculation of margins:** parallel to weakly divergent

**Sterile spikelet-attitude:** rounded

**Sterile spikelet-shape of tip:**

**Median spikelet - length of lemma:**

**Median spikelet- length of glume + awn cf grain:**

**Lemma nerves- anthocyanin colouration:**

**Plant height:** short

**Collar type:**

**Rachis- length of first segment:**

**Rachis- width of first segment:**

**Rachis- curvature of first segment:**

**Rachis- shape of first segment:**

**Rachis(2-row) - humping of segments (mid third):**

**Rachis(6-row) - degree of zig-zag (mid third):**

**Kernel - colour of aleurone layer:**

**Kernel - ventral furrow - presence of hairs:**

**Grain- husk:**

**Grain - length of lodicles ("collar" type only):**

**Grain- disposition of lodicules:**

**Seasonal type:**

**Extra characters:**

Length of leaf blade short to medium; width of leaf blade medium to broad.

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

*28 March 2017*
CHARACTERS IN DETAIL

Ear
- Number of rows: two
- Density: lax to medium
- Length: medium
- Shape: parallel

Awn
- Length compared to ear: long

Rachis
- Length of first segment: medium to long
- Curvature of first segment: medium to strong

Spikelet
- Sterile spikelet - attitude: n/a
- Sterile spikelet - development: none or rudimentary
- Median spikelet - length of glume+awn cf grain: equal

Grain
- Kernel - colour of aleurone layer: whitish
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: absent or v. weak
- Rachilla hair type: long
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: clasping

Anthocyanin colouration
- Flag leaf - auricles: strong
- Lemma nerves - at early dough: weak to medium
- Awn tips: medium to strong

Plant growth characters
- Plant - growth habit: semi-erect to intermediate
- Plant - length: medium to long
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: early
- Flag leaf - glaucosity of sheath: strong
- Ear - glaucosity: medium to strong
- Ear - attitude 21 days after ear emerg.: semi-erect to horizontal
CHARACTERS IN DETAIL

Ear
- Number of rows: two
- Density: lax to medium
- Length: medium
- Shape: parallel

Awn
- Length compared to ear: long

Rachis
- Length of first segment: short to medium
- Curvature of first segment: weak to medium

Spikelet
- Sterile spikelet - attitude: n/a
- Sterile spikelet - development: none or rudimentary
- Median spikelet - length of glume+awn cf grain: equal

Grain
- Kernel - colour of aleurone layer: whitish
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: absent or v. weak
- Rachilla hair type: long
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: clasping

Anthocyanin colouration
- Flag leaf - auricles: medium to strong
- Lemma nerves - at early dough: medium
- Awn tips: medium to strong

Plant growth characters
- Plant - growth habit: intermediate to semi-prostrate
- Plant - length: medium
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: early to medium
- Flag leaf - glaucosity of sheath: strong
- Ear - glaucosity: medium to strong
- Ear - attitude: semi-erect to horizontal
CHARACTERS IN DETAIL

Ear
- Number of rows: two
- Density: medium
- Length: medium
- Shape: parallel

Awn
- Length compared to ear: long (longer than ear)

Rachis
- Length of first segment: short to medium
- Curvature of first segment: weak to medium

Spikelet
- Sterile spikelet - attitude: divergent
- Sterile spikelet - development: full
- Median spikelet - length of glume+awn cf grain: equal

Grain
- Kernel - colour of aleurone layer: whitish ("white")
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: absent/v, weak (0-2 per nerve)
- Rachilla hair type: short
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: clapping ("collar" type)

Anthocyanin colouration
- Flag leaf - auricles: medium to strong
- Lemma nerves - at early dough: medium
- Awn tips: medium

Plant growth characters
- Plant - growth habit: intermediate to semi-prostrate
- Plant - length: medium
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: medium
- Flag leaf - glaucosity of sheath: medium to strong
- Ear - glaucosity: medium
- Ear - attitude 21 days after ear emerg: erect to semi-erect
CHARACTERS IN DETAIL

Ear
- Number of rows: two
- Density: medium
- Length: medium
- Shape: parallel

Awn
- Length compared to ear: long

Rachis
- Length of first segment: short to medium
- Curvature of first segment: medium

Spikelet
- Sterile spikelet - attitude: divergent
- Sterile spikelet - development: full
- Median spikelet - length of glume+awn cf grain: equal

Grain
- Kernel - colour of aleurone layer: whitish
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: absent or v. weak
- Rachilla hair type: short
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: clasping

Anthocyanin colouration
- Flag leaf - auricles: medium to strong
- Lemma nerves - at early dough: strong
- Awn tips: medium to strong

Plant growth characters
- Plant - growth habit: intermediate
- Plant - length: medium to long
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: early to medium
- Flag leaf - glaucosity of sheath: medium to strong
- Ear - glaucosity: medium to strong
- Ear - attitude 21 days after ear emerg.: erect to semi-erect
CHARACTERS IN DETAIL

Ear
- Number of rows: two
- Density: lax
- Length: medium to long
- Shape: parallel

Awn
- Length compared to ear: long (longer than ear)

Rachis
- Length of first segment: medium
- Curvature of first segment: weak to medium

Spikelet
- Sterile spikelet - attitude: n/a
- Sterile spikelet - development: none or rudimentary (deficiens)
- Median spikelet - length of glume+awn cf grain: equal

Grain
- Kernel - colour of aleurone layer: whitish ("white")
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: absent/v. weak (0-2 per nerve)
- Rachilla hair type: long
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: clasper ("collar" type)

Anthocyanin colouration
- Flag leaf - auricles: weak to medium
- Lemma nerves - at early dough: weak to medium
- Awn tips: medium

Plant growth characters
- Plant - growth habit: intermediate
- Plant - length: medium
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: early to medium
- Flag leaf - glaucosity of sheath: medium to strong
- Ear - glaucosity: strong
- Ear - attitude 21 days after ear emerg.: semi-erect
CHARACTERS IN DETAIL

Ear
Number of rows two
Density medium
Length short
Shape parallel

Awn
Length compared to ear long (longer than ear)

Rachis
Length of first segment medium
Curvature of first segment weak to medium

Spikelet
Sterile spikelet - attitude divergent
Sterile spikelet - development full
Median spikelet - length of glume+awn cf grain longer

Grain
Kernel - colour of aleurone layer whitish ("white")
Husk - presence after harvest present
Spiculation of inner lateral nerves absent/v, weak (0-2 per nerve)
Rachilla hair type long
Ventral furrow - presence of hairs absent
Disposition of lodicules clasping ("collar" type)

Anthocyanin colouration
Flag leaf - auricles medium to strong
Lemma nerves - at early dough medium to strong
Awn tips strong

Plant growth characters
Plant - growth habit semi-erect to intermediate
Plant - length very short to short
Lower leaf - hairiness of sheaths absent
Time of ear emergence early to medium
Flag leaf - glaucosity of sheath strong
Ear - glaucosity strong
Ear - attitude 21 days after ear emerg. erect to semi-erect
Variety Name: Milford

Crop: Spring Barley

Breeders Reference:

Breeder: Saatzucht Josef Breun

AFP No:

Translated from: German

Origin: 15 September 2011

Code: MILF

*Plant - growth habit: Semi erect to intermediate
*Lower leaves - hairiness of leaf sheaths: Absent
*Time of ear emergence: Early to medium
*Flag leaf- anthocyanin colouration of auricles: Weak to medium
Frequency of plants with recurved flag leaves: Very low to low
Flag leaf- glaucosity of sheath: Strong
*Ear- glaucosity: Absent or very weak
Ear- number of rows: Semi erect
Ear- length: Short to medium
*Ear- density: Two
Ear- shape: Medium
*Ear- glaucosity: Parallel
*Ear- length compared to ear: Medium to long
Awn- spiculation of margins: Medium
Sterile spikelet-attitude:
Sterile spikelet- shape of tip:
Sterile spikelet- length of lemma: Equal
Median spikelet- length of glume + awn cf grain:
Lemma nerves- anthocyanin colouration:
*Plant height:
Collar type:
Rachis- length of first segment: Medium to long
Rachis- width of first segment:
Rachis- curvature of first segment: Medium
Rachis- shape of first segment:
Rachis(2-row)- humping of segments (mid third):
Rachis(6-row)- degree of zig-zag (mid third):
Kernel- colour of aleurone layer: Whitish
*Grain- rachilla hair type: Long
Grain- rachilla length:
Grain- rachilla - length of tip hairs:
Grain- spiculation of inner lateral nerves: Absent or very weak
Grain- spiculation of outer lateral nerves:
Grain- anthocyanin colouration of lemma nerves: Weak
*Grain- ventral furrow - presence of hairs: Absent
*Grain- husk:
Grain- length of lodicles ("collar" type only):
Grain- disposition of lodicules: Clasping
*Seasonal type: Spring
Extra characters:

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

30 March 2015
### CHARACTERS IN DETAIL

**Ear**
- Number of rows: two
- Density: medium to dense
- Length: medium
- Shape: parallel

**Awn**
- Length compared to ear: long (longer than ear)

**Rachis**
- Length of first segment: medium to long
- Curvature of first segment: medium

**Spikelet**
- Sterile spikelet - attitude: divergent
- Sterile spikelet - development
- Median spikelet - length of glume+awn cf grain: equal

**Grain**
- Kernel - colour of aleurone layer: strongly coloured ("blue")
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: weak (1-2 per nerve)
- Rachilla hair type: short
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: clasping ("collar" type)

**Anthocyanin colouration**
- Flag leaf - auricles: strong
- Lemma nerves - at early dough: weak to medium
- Awn tips: medium

**Plant growth characters**
- Plant - growth habit: semi-erect to intermediate
- Plant - length: short to medium
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: early
- Flag leaf - glaucosity of sheath: strong
- Ear - glaucosity: medium
- Ear - attitude 21 days after ear emerg.: semi-erect
**CHARACTERS IN DETAIL**

**Ear**
- Number of rows: two
- Density: medium
- Length: short to medium
- Shape: tapering to parallel

**Awn**
- Length compared to ear: long (longer than ear)

**Rachis**
- Length of first segment: medium
- Curvature of first segment: weak to medium

**Spikelet**
- Sterile spikelet - attitude: divergent
- Sterile spikelet - development: full
- Median spikelet - length of glume+awn cf grain: equal

**Grain**
- Kernel - colour of aleurone layer: strongly coloured ("blue")
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: absent/v. weak (0-2 per nerve)
- Rachilla hair type: short
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: clapping ("collar" type)

**Anthocyanin colouration**
- Flag leaf - auricles: medium to strong
- Lemma nerves - at early dough: very weak to weak
- Awn tips: medium

**Plant growth characters**
- Plant - growth habit: intermediate
- Plant - length: medium
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: early to medium
- Flag leaf - glaucosity of sheath: medium to strong
- Ear - glaucosity: medium
- Ear - attitude 21 days after ear emerg.: erect to semi-erect
## CHARACTERS IN DETAIL

### Ear
- **Number of rows**: two
- **Density**: medium
- **Length**: short
- **Shape**: tapering

### Awn
- **Length compared to ear**: long (longer than ear)

### Rachis
- **Length of first segment**: medium
- **Curvature of first segment**: weak to medium

### Spikelet
- **Sterile spikelet - attitude**: divergent
- **Sterile spikelet - development**: full
- **Median spikelet - length of glume+awn cf grain**: longer

### Grain
- **Kernel - colour of aleurone layer**: whitish ("white")
- **Husk - presence after harvest**: present
- **Spiculation of inner lateral nerves**: absent/v. weak (0-2 per nerve)
- **Rachilla hair type**: short
- **Ventral furrow - presence of hairs**: absent
- **Disposition of lodicules**: clasping ("collar" type)

### Anthocyanin colouration
- **Flag leaf - auricles**: strong
- **Lemma nerves - at early dough**: medium
- **Awn tips**: medium to strong

### Plant growth characters
- **Plant - growth habit**: intermediate
- **Plant - length**: short to medium
- **Lower leaf - hairiness of sheaths**: absent
- **Time of ear emergence**: early to medium
- **Flag leaf - glaucosity of sheath**: strong
- **Ear - glaucosity**: medium to strong
- **Ear - attitude 21 days after ear emerg.**: semi-erect
CHARACTERS IN DETAIL

**Ear**
- Number of rows: two
- Density: lax to medium
- Length: long
- Shape: parallel

**Awn**
- Length compared to ear: +/- equal to longer

**Rachis**
- Length of first segment: long
- Curvature of first segment: medium

**Spikelet**
- Sterile spikelet - attitude: divergent
- Sterile spikelet - development: full
- Median spikelet - length of glume+awn cf grain: equal

**Grain**
- Kernel - colour of aleurone layer: whitish ("white")
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: absent/v, weak (0-2 per nerve)
- Rachilla hair type: long
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: clasping ("collar" type)

**Anthocyanin colouration**
- Flag leaf - auricles: strong
- Lemma nerves - at early dough: strong
- Awn tips: strong

**Plant growth characters**
- Plant - growth habit: intermediate
- Plant - length: short
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: early
- Flag leaf - glaucosity of sheath: strong
- Ear - glaucosity: medium
- Ear - attitude 21 days after ear emerg.: semi-erect to horizontal
CHARACTERS IN DETAIL

Ear
- Number of rows: two
- Density: lax
- Length: medium
- Shape: parallel

Awn
- Length compared to ear: long (longer than ear)

Rachis
- Length of first segment: medium
- Curvature of first segment: medium to strong

Spikelet
- Sterile spikelet - attitude: divergent
- Sterile spikelet - development: full
- Median spikelet - length of glume+awn cf grain: equal

Grain
- Kernel - colour of aleurone layer: whitish ("white")
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: absent/v. weak (0-2 per nerve)
- Rachilla hair type: long
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: clapping ("collar" type)

Anthocyanin colouration
- Flag leaf - auricles: strong to very strong
- Lemma nerves - at early dough: medium
- Awn tips: strong to very strong

Plant growth characters
- Plant - growth habit: semi-prostrate
- Plant - length: short to medium
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: medium
- Flag leaf - glaucosity of sheath: medium to strong
- Ear - glaucosity: medium to strong
- Ear - attitude 21 days after ear emerg.: semi-erect
## CHARACTERS IN DETAIL

### Ear
- Number of rows: two
- Density: lax to medium
- Length: medium
- Shape: parallel

### Awn
- Length compared to ear: long (longer than ear)

### Rachis
- Length of first segment: medium
- Curvature of first segment: medium

### Spikelet
- Sterile spikelet - attitude: divergent
- Sterile spikelet - development
- Median spikelet - length of glume+awn cf grain: equal

### Grain
- Kernel - colour of aleurone layer: whitish ("white")
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: absent/v. weak (0-2 per nerve)
- Rachilla hair type: short
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: clasping ("collar" type)

### Anthocyanin colouration
- Flag leaf - auricles: medium to strong
- Lemma nerves - at early dough: weak to medium
- Awn tips: medium to strong

### Plant growth characters
- Plant - growth habit: semi-erect
- Plant - length: short to medium
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: medium
- Flag leaf - glaucosity of sheath
- Ear - glaucosity
- Ear - attitude 21 days after ear emerg.: semi-erect
CHARACTERS IN DETAIL

**Ear**
- Number of rows: two
- Density: medium
- Length: medium to long
- Shape: tapering

**Awn**
- Length compared to ear: medium

**Rachis**
- Length of first segment: medium
- Curvature of first segment: medium

**Spikelet**
- Sterile spikelet - attitude: divergent
- Sterile spikelet - development: full
- Median spikelet - length of glume+awn cf grain: equal

**Grain**
- Kernel - colour of aleurone layer: whitish
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: absent or v. weak
- Rachilla hair type: short
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: clasping

**Anthocyanin colouration**
- Flag leaf - auricles: medium to strong
- Lemma nerves - at early dough: medium
- Awn tips: medium to strong

**Plant growth characters**
- Plant - growth habit: intermediate
- Plant - length: medium
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: late
- Flag leaf - glaucosity of sheath: medium to strong
- Ear - glaucosity: medium
- Ear - attitude 21 days after ear emerg.: erect to semi-erect
CHARACTERS IN DETAIL

Ear
- Number of rows: two
- Density: medium
- Length: short to medium
- Shape: tapering

Awn
- Length compared to ear: long

Rachis
- Length of first segment: medium
- Curvature of first segment: weak to medium

Spikelet
- Sterile spikelet - attitude: divergent
- Sterile spikelet - development: full
- Median spikelet - length of glume+awn cf grain: equal

Grain
- Kernel - colour of aleurone layer: whitish
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: absent or v. weak
- Rachilla hair type: short
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: clasping

Anthocyanin colouration
- Flag leaf - auricles: strong
- Lemma nerves - at early dough: weak to medium
- Awn tips: medium

Plant growth characters
- Plant - growth habit: intermediate
- Plant - length: very short to short
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: medium to late
- Flag leaf - glaucosity of sheath: medium to strong
- Ear - glaucosity: medium
- Ear - attitude 21 days after ear emerg.: erect to semi-erect
CHARACTERS IN DETAIL

Ear
- Number of rows: two
- Density: medium
- Length: medium
- Shape: parallel

Awn
- Length compared to ear: long (longer than ear)

Rachis
- Length of first segment: medium to long
- Curvature of first segment: weak to medium

Spikelet
- Sterile spikelet - attitude: divergent
- Sterile spikelet - development: full
- Median spikelet - length of glume+awn cf grain: equal

Grain
- Kernel - colour of aleurone layer: whitish ("white")
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: absent/v. weak (0-2 per nerve)
- Rachilla hair type: short
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: clasping ("collar" type)

Anthocyanin colouration
- Flag leaf - auricles: strong
- Lemma nerves - at early dough: medium
- Awn tips: strong

Plant growth characters
- Plant - growth habit: intermediate
- Plant - length: short to medium
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: early to medium
- Flag leaf - glaucosity of sheath: strong
- Ear - glaucosity: medium
- Ear - attitude 21 days after ear emerg.: erect to semi-erect
CHARACTERS IN DETAIL

Ear
- Number of rows: two
- Density: lax
- Length: short to medium
- Shape: tapering

Awn
- Length compared to ear: long

Rachis
- Length of first segment: medium
- Curvature of first segment: weak

Spikelet
- Sterile spikelet - attitude: n/a
- Sterile spikelet - development: none or rudimentary
- Median spikelet - length of glume+awn cf grain: equal

Grain
- Kernel - colour of aleurone layer: whitish
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: absent or v. weak
- Rachilla hair type: short
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: clasping

Anthocyanin colouration
- Flag leaf - auricles: strong
- Lemma nerves - at early dough: medium
- Awn tips: medium to strong

Plant growth characters
- Plant - growth habit: intermediate
- Plant - length: very short
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: medium to late
- Flag leaf - glaucosity of sheath: medium to strong
- Ear - glaucosity: strong
- Ear - attitude 21 days after ear emerg.: erect to semi-erect
**CHARACTERS IN DETAIL**

**Ear**
- Number of rows: two
- Density: medium
- Length: medium to long
- Shape: parallel

**Awn**
- Length compared to ear: long (longer than ear)

**Rachis**
- Length of first segment: medium
- Curvature of first segment: weak

**Spikelet**
- Sterile spikelet - attitude: divergent
- Sterile spikelet - development:
- Median spikelet - length of glume+awn cf grain: equal

**Grain**
- Kernel - colour of aleurone layer: whitish ("white")
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: strong (5-10 per nerve)
- Rachilla hair type: long
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: clasping ("collar" type)

**Anthocyanin colouration**
- Flag leaf - auricles: weak to medium
- Lemma nerves - at early dough: weak
- Awn tips: weak

**Plant growth characters**
- Plant - growth habit: intermediate
- Plant - length: medium
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: medium
- Flag leaf - glaucosity of sheath: strong
- Ear - glaucosity: medium to strong
- Ear - attitude 21 days after ear emerg.: semi-recurved
### CHARACTERS IN DETAIL

#### Ear
- Number of rows: two
- Density: very lax
- Length: medium to long
- Shape: tapering

#### Awn
- Length compared to ear: medium

#### Rachis
- Length of first segment: medium
- Curvature of first segment: weak to medium

#### Spikelet
- Sterile spikelet - attitude: n/a
- Sterile spikelet - development: none or rudimentary
- Median spikelet - length of glume+awn cf grain: longer

#### Grain
- Kernel - colour of aleurone layer: whitish
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: absent or v. weak
- Rachilla hair type: short
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: clasping

#### Anthocyanin colouration
- Flag leaf - auricles: medium to strong
- Lemma nerves - at early dough: medium to strong
- Awn tips: medium

#### Plant growth characters
- Plant - growth habit: intermediate
- Plant - length: short to medium
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: medium to late
- Flag leaf - glaucosity of sheath: medium
- Ear - glaucosity: weak to medium
- Ear - attitude 21 days after ear emerg.: semi-erect
CHARACTERS IN DETAIL

Ear
Number of rows: two
Density: medium
Length: short to medium
Shape: parallel

Awn
Length compared to ear: long

Rachis
Length of first segment: short
Curvature of first segment: very weak

Spikelet
Sterile spikelet - attitude: n/a
Sterile spikelet - development: none or rudimentary
Median spikelet - length of glume+awn cf grain: longer

Grain
Kernel - colour of aleurone layer: whitish
Husk - presence after harvest: present
Spiculation of inner lateral nerves: absent or v. weak
Rachilla hair type: short
Ventral furrow - presence of hairs: absent
Disposition of lodicules: clasping

Anthocyanin colouration
Flag leaf - auricles: strong
Lemma nerves - at early dough: weak to medium
Awn tips: weak to medium

Plant growth characters
Plant - growth habit: intermediate
Plant - length: short
Lower leaf - hairiness of sheaths: absent
Time of ear emergence: medium to late
Flag leaf - glaucosity of sheath: medium
Ear - glaucosity: medium
Ear - attitude 21 days after ear emerg.: semi-erect
## CHARACTERS IN DETAIL

### Ear
- **Number of rows**: two
- **Density**: lax to medium
- **Length**: medium
- **Shape**: parallel

### Awn
- **Length compared to ear**: long

### Rachis
- **Length of first segment**: short to medium
- **Curvature of first segment**: weak

### Spikelet
- **Sterile spikelet - attitude**: n/a
- **Sterile spikelet - development**: none or rudimentary
- **Median spikelet - length of glume+awn cf grain**: equal

### Grain
- **Kernel - colour of aleurone layer**: whitish
- **Husk - presence after harvest**: present
- **Spiculation of inner lateral nerves**: absent or v. weak
- **Rachilla hair type**: long
- **Ventral furrow - presence of hairs**: absent
- **Disposition of lodicules**: clasping

### Anthocyanin colouration
- **Flag leaf - auricles**: medium to strong
- **Lemma nerves - at early dough**: medium
- **Awn tips**: medium to strong

### Plant growth characters
- **Plant - growth habit**: semi-erect to intermediate
- **Plant - length**: short
- **Lower leaf - hairiness of sheaths**: absent
- **Time of ear emergence**: medium
- **Flag leaf - glaucosity of sheath**: medium to strong
- **Ear - glaucosity**: medium
- **Ear - attitude 21 days after ear emerg.**: semi-erect
CHARACTERS IN DETAIL

Ear
- Number of rows: two
- Density: medium
- Length: medium
- Shape: parallel

Awn
- Length compared to ear: long (longer than ear)

Rachis
- Length of first segment: medium
- Curvature of first segment: weak

Spikelet
- Sterile spikelet - attitude: divergent
- Sterile spikelet - development: full
- Median spikelet - length of glume+awn cf grain: equal

Grain
- Kernel - colour of aleurone layer: whitish ("white")
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: absent/v. weak (0-2 per nerve)
- Rachilla hair type: short
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: clapping ("collar" type)

Anthocyanin colouration
- Flag leaf - auricles: strong
- Lemma nerves - at early dough: absent or very weak
- Awn tips: strong

Plant growth characters
- Plant - growth habit: semi-erect to intermediate
- Plant - length: short to medium
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: early to medium
- Flag leaf - glaucosity of sheath: strong
- Ear - glaucosity: medium
- Ear - attitude 21 days after ear emerg.: erect to semi-erect
SPRING BARLEY

AFP 2/2632

PANDA

CHARACTERS IN DETAIL

Ear
Number of rows two
Density lax
Length short to medium
Shape parallel

Awn
Length compared to ear medium (+/- equal to ear)

Rachis
Length of first segment medium
Curvature of first segment weak

Spikelet
Sterile spikelet - attitude n/a
Sterile spikelet - development none or rudimentary(deficiens)
Median spikelet - length of glume+awn cf grain equal

Grain
Kernel - colour of aleurone layer whitish ("white")
Husk - presence after harvest present
Spiculation of inner lateral nerves absent/v, weak (0-2 per nerve)
Rachilla hair type long
Ventral furrow - presence of hairs absent
Disposition of lodicules clasping ("collar" type)

Anthocyanin colouration
Flag leaf - auricles medium
Lemma nerves - at early dough medium
Awn tips medium to strong

Plant growth characters
Plant - growth habit intermediate
Plant - length short
Lower leaf - hairiness of sheaths absent
Time of ear emergence early to medium
Flag leaf - glaucosity of sheath medium to strong
Ear - glaucosity absent or very weak
Ear - attitude 21 days after ear emerg. erect to semi-erect
### CHARACTERS IN DETAIL

#### Ear
- **Number of rows**: two
- **Density**: lax to medium
- **Length**: medium to long
- **Shape**: parallel

#### Awn
- **Length compared to ear**: long (longer than ear)

#### Rachis
- **Length of first segment**: medium to long
- **Curvature of first segment**: medium

#### Spikelet
- **Sterile spikelet - attitude**: divergent
- **Sterile spikelet - development**: full
- **Median spikelet - length of glume+awn cf grain**: equal

#### Grain
- **Kernel - colour of aleurone layer**: whitish ("white")
- **Husk - presence after harvest**: present
- **Spiculation of inner lateral nerves**: absent/v. weak (0-2 per nerve)
- **Rachilla hair type**: short
- **Ventral furrow - presence of hairs**: absent
- **Disposition of lodicules**: clapping ("collar" type)

#### Anthocyanin colouration
- **Flag leaf - auricles**: strong
- **Lemma nerves - at early dough**: very weak to weak
- **Awn tips**: strong

#### Plant growth characters
- **Plant - growth habit**: intermediate
- **Plant - length**: short
- **Lower leaf - hairiness of sheaths**: absent
- **Time of ear emergence**: early
- **Flag leaf - glaucosity of sheath**: medium to strong
- **Ear - glaucosity**: medium
- **Ear - attitude 21 days after ear emerg.**: semi-erect
CHARACTERS IN DETAIL

Ear
Number of rows two
Density lax to medium
Length short to medium
Shape parallel

Awn
Length compared to ear medium to long

Rachis
Length of first segment medium
Curvature of first segment weak to medium

Spikelet
Sterile spikelet - attitude n/a
Sterile spikelet - development none or rudimentary
Median spikelet - length of glume+awn cf grain equal

Grain
Kernel - colour of aleurone layer whitish
Husk - presence after harvest present
Spiculation of inner lateral nerves absent or v. weak
Rachilla hair type long
Ventral furrow - presence of hairs absent
Disposition of lodicules clasping

Anthocyanin colouration
Flag leaf - auricles weak to medium
Lemma nerves - at early dough weak
Awn tips medium

Plant growth characters
Plant - growth habit intermediate
Plant - length very short
Lower leaf - hairiness of sheaths absent
Time of ear emergence medium to late
Flag leaf - glaucosity of sheath medium to strong
Ear - glaucosity strong
Ear - attitude 21 days after ear emerg. semi-erect
# CHARACTERS IN DETAIL

## Ear
- **Number of rows**: two
- **Density**: medium
- **Length**: medium
- **Shape**: tapering

## Awn
- **Length compared to ear**: medium to long

## Rachis
- **Length of first segment**: medium to long
- **Curvature of first segment**: strong

## Spikelet
- **Sterile spikelet - attitude**: divergent
- **Sterile spikelet - development**: full
- **Median spikelet - length of glume+awn cf grain**: longer

## Grain
- **Kernel - colour of aleurone layer**: whitish
- **Husk - presence after harvest**: absent
- **Spiculation of inner lateral nerves**: absent or v. weak
- **Rachilla hair type**: long
- **Ventral furrow - presence of hairs**: absent
- **Disposition of lodicules**: clasping

## Anthocyanin colouration
- **Flag leaf - auricles**: strong
- **Lemma nerves - at early dough**: weak
- **Awn tips**: medium

## Plant growth characters
- **Plant - growth habit**: semi-erect to intermediate
- **Plant - length**: short to medium
- **Lower leaf - hairiness of sheaths**: absent
- **Time of ear emergence**: medium
- **Flag leaf - glaucosity of sheath**: medium
- **Ear - glaucosity**: medium to strong
- **Ear - attitude 21 days after ear emerg.**: semi-erect to horizontal
CHARACTERS IN DETAIL

Ear
- Number of rows: two
- Density: medium
- Length: medium
- Shape: tapering

Awn
- Length compared to ear: long

Rachis
- Length of first segment: medium
- Curvature of first segment: medium

Spikelet
- Sterile spikelet - attitude: divergent
- Sterile spikelet - development: equal
- Median spikelet - length of glume+awn cf grain: equal

Grain
- Kernel - colour of aleurone layer: whitish
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: absent or v. weak
- Rachilla hair type: long
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: clasping

Anthocyanin colouration
- Flag leaf - auricles: weak to medium
- Lemma nerves - at early dough: medium
- Awn tips: medium

Plant growth characters
- Plant - growth habit: semi-erect to intermediate
- Plant - length: short
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: medium
- Flag leaf - glaucosity of sheath: strong
- Ear - glaucosity: medium
- Ear - attitude 21 days after ear emerg.: horizontal
CHARACTERS IN DETAIL

**Ear**
- Number of rows: two
- Density: lax to medium
- Length: medium
- Shape: parallel

**Awn**
- Length compared to ear: medium to long

**Rachis**
- Length of first segment: short
- Curvature of first segment: medium

**Spikelet**
- Sterile spikelet - attitude: divergent
- Sterile spikelet - development: full
- Median spikelet - length of glume+awn cf grain: equal

**Grain**
- Kernel - colour of aleurone layer: whitish ("white")
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: absent/v. weak (0-2 per nerve)
- Rachilla hair type: short
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: clapping ("collar" type)

**Anthocyanin colouration**
- Flag leaf - auricles: strong to v. strong
- Lemma nerves - at early dough: weak
- Awn tips: very strong

**Plant growth characters**
- Plant - growth habit: intermediate to semi prostrate
- Plant - length: medium to long
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: early to medium
- Flag leaf - glaucosity of sheath: strong
- Ear - glaucosity: medium to strong
- Ear - attitude 21 days after ear emerg.: horizontal
CHARACTERS IN DETAIL

Ear
- Number of rows: two
- Density: lax
- Length: medium
- Shape: tapering

Awn
- Length compared to ear: long

Rachis
- Length of first segment: short to medium
- Curvature of first segment: weak

Spikelet
- Sterile spikelet - attitude: n/a
- Sterile spikelet - development: none or rudimentary
- Median spikelet - length of glume+awn cf grain: equal

Grain
- Kernel - colour of aleurone layer: whitish
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: absent or v. weak
- Rachilla hair type: short
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: clasping

Anthocyanin colouration
- Flag leaf - auricles: medium to strong
- Lemma nerves - at early dough: weak to medium
- Awn tips: medium to strong

Plant growth characters
- Plant - growth habit: intermediate
- Plant - length: short
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: medium to late
- Flag leaf - glaucosity of sheath: medium to strong
- Ear - glaucosity: strong
- Ear - attitude 21 days after ear emerg.: erect to semi-erect
Variety Name: Pirona

Crop: Spring Barley

Breeders Reference: DZMHVN

Breeder: Gesellschaft

Origin:

Code: PIRO

*Plant - growth habit:
*Semi erect to intermediate

*Lower leaves - hairiness of leaf sheaths:
*Absent

*Time of ear emergence:
*Early

*Flag leaf- anthocyanin colouration of auricles:
*Very weak to weak

Frequency of plants with recurved flag leaves:
*High

Flag leaf- glaucosity of sheath:
*Medium to strong

*Ear- glaucosity:
*Weak to medium

Ear- attitude:
*Semi erect to horizontal

Ear- length:
*Long

*Ear- number of rows:
*Two

*Ear- density:
*Lax

Ear- shape:
*Tapering to parallel

*Awn- anthocyanin colouration of the tips:
*Very weak to weak

*Awn- length compared to ear:
*Short to medium

Awn- spiculation of margins:

*Sterile spikelet-attitude:

Sterile spikelet-shape of tip:
*Parallel

Stellite spikelet- length of lemma:
*Equal

Median spikelet- length of glume + awn cf grain:

Lemma nerves- anthocyanin colouration:

*Plant height:

Collar type:

Rachis- length of first segment:
*Long

Rachis- width of first segment:

Rachis- curvature of first segment:
*Medium

Rachis- shape of first segment:

Rachis(2-row)- humping of segments (mid third):

Rachis(6-row)- degree of zig-zag (mid third):

Kernel- colour of aleurone layer:
*Whitish

*Grain- rachilla hair type:
*Short

Grain- rachilla length:

Grain- rachilla - length of tip hairs:

Grain- spiculation of inner lateral nerves:
*Absent or very weak

Grain- spiculation of outer lateral nerves:

Grain- anthocyanin colouration of lemma nerves:
*Weak to medium

*Grain- ventral furrow - presence of hairs:
*Absent

*Grain- husk:

Grain- length of lodicles ("collar" type only):

Grain- disposition of lodicules:
*Clasping

*Seasonal type:
*Spring

Extra characters:

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

28 March 2018
# CHARACTERS IN DETAIL

## Ear
- **Number of rows**: two
- **Density**: lax
- **Length**: medium
- **Shape**: tapering to parallel

## Awn
- **Length compared to ear**: long (longer than ear)

## Rachis
- **Length of first segment**: medium
- **Curvature of first segment**: weak to medium

## Spikelet
- **Sterile spikelet - attitude**: divergent
- **Sterile spikelet - development**: full
- **Median spikelet - length of glume+awn cf grain**: equal

## Grain
- **Kernel - colour of aleurone layer**: whitish ("white")
- **Husk - presence after harvest**: present
- **Spiculation of inner lateral nerves**: absent/v. weak (0-2 per nerve)
- **Rachilla hair type**: long
- **Ventral furrow - presence of hairs**: absent
- **Disposition of lodicules**: clapping ("collar" type)

## Anthocyanin colouration
- **Flag leaf - auricles**: weak to medium
- **Lemma nerves - at early dough**: very weak to weak
- **Awn tips**: weak

## Plant growth characters
- **Plant - growth habit**: semi-erect
- **Plant - length**: short
- **Lower leaf - hairiness of sheaths**: absent
- **Time of ear emergence**: medium to late
- **Flag leaf - glaucosity of sheath**: medium to strong
- **Ear - glaucosity**: medium to strong
- **Ear - attitude 21 days after ear emerg.**: semi-erect
CHARACTERS IN DETAIL

Ear
Number of rows two
Density lax to medium
Length short
Shape parallel

Awn
Length compared to ear long

Rachis
Length of first segment short to medium
Curvature of first segment weak to medium

Spikelet
Sterile spikelet - attitude divergent
Sterile spikelet - development full
Median spikelet - length of glume+awn cf grain equal

Grain
Kernel - colour of aleurone layer whitish
Husk - presence after harvest present
Spiculation of inner lateral nerves absent or v. weak
Rachilla hair type short
Ventral furrow - presence of hairs absent
Disposition of lodicules frontal

Anthocyanin colouration
Flag leaf - auricles medium to strong
Lemma nerves - at early dough medium to strong
Awn tips strong

Plant growth characters
Plant - growth habit semi-erect
Plant - length medium
Lower leaf - hairiness of sheaths absent
Time of ear emergence early
Flag leaf - glaucosity of sheath strong
Ear - glaucosity strong
Ear - attitude 21 days after ear emerg. semi-erect
**SPRING BARLEY**

**CHARACTERS IN DETAIL**

**Ear**
- Number of rows: two
- Density: medium
- Length: medium
- Shape: parallel

**Awn**
- Length compared to ear: long (longer than ear)

**Rachis**
- Length of first segment: short to medium
- Curvature of first segment: weak

**Spikelet**
- Sterile spikelet - attitude: divergent
- Sterile spikelet - development: full
- Median spikelet - length of glume+awn cf grain: equal

**Grain**
- Kernel - colour of aleurone layer: whitish ("white")
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: absent/v. weak (0-2 per nerve)
- Rachilla hair type: short
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: clasping ("collar" type)

**Anthocyanin colouration**
- Flag leaf - auricles: strong
- Lemma nerves - at early dough: medium
- Awn tips: medium to strong

**Plant growth characters**
- Plant - growth habit: intermediate
- Plant - length: medium
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: very early to early
- Flag leaf - glaucosity of sheath: strong
- Ear - glaucosity: weak to medium
- Ear - attitude 21 days after ear emerg.: semi-erect to horizontal
CHARACTERS IN DETAIL

**Ear**
- Number of rows: two
- Density: lax
- Length: medium
- Shape: parallel

**Awn**
- Length compared to ear: long (longer than ear)

**Rachis**
- Length of first segment: medium
- Curvature of first segment: weak to medium

**Spikelet**
- Sterile spikelet - attitude: divergent
- Sterile spikelet - development: full
- Median spikelet - length of glume+awn cf grain: equal

**Grain**
- Kernel - colour of aleurone layer: whitish ("white")
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: v. weak to weak
- Rachilla hair type: long
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: clasping ("collar" type)

**Anthocyanin colouration**
- Flag leaf - auricles: medium to strong
- Lemma nerves - at early dough: medium
- Awn tips: medium

**Plant growth characters**
- Plant - growth habit: intermediate
- Plant - length: short to medium
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: medium to late
- Flag leaf - glaucosity of sheath: medium
- Ear - glaucosity: medium to strong
- Ear - attitude 21 days after ear emerg.: horizontal
CHARACTERS IN DETAIL

Ear
Number of rows  two
Density  lax
Length  medium
Shape  parallel

Awn
Length compared to ear  long (longer than ear)

Rachis
Length of first segment  short to medium
Curvature of first segment  weak to medium

Spikelet
Sterile spikelet - attitude  divergent
Sterile spikelet - development  full
Median spikelet - length of glume+awn cf grain  equal

Grain
Kernel - colour of aleurone layer  whitish ("white")
Husk - presence after harvest  present
Spiculation of inner lateral nerves  absent/v. weak (0-2 per nerve)
Rachilla hair type  short
Ventral furrow - presence of hairs  absent
Disposition of lodicules  claspings ("collar" type)

Anthocyanin colouration
Flag leaf - auricles  medium to strong
Lemma nerves - at early dough  weak to medium
Awn tips  medium

Plant growth characters
Plant - growth habit  intermediate
Plant - length  medium
Lower leaf - hairiness of sheaths  absent
Time of ear emergence  medium
Flag leaf - glaucosity of sheath  medium
Ear - glaucosity  medium
Ear - attitude 21 days after ear emerg.  semi-erect to horizontal
CHARACTERS IN DETAIL

**Ear**
- Number of rows: two
- Density: very lax to lax
- Length: medium to long
- Shape: parallel

**Awn**
- Length compared to ear: medium to long

**Rachis**
- Length of first segment: medium to long
- Curvature of first segment: medium to strong

**Spikelet**
- Sterile spikelet - attitude: n/a
- Sterile spikelet - development: none or rudimentary
- Median spikelet - length of glume+awn cf grain: longer

**Grain**
- Kernel - colour of aleurone layer: whitish
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: absent or v. weak
- Rachilla hair type: long
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: clasping

**Anthocyanin colouration**
- Flag leaf - auricles: very strong
- Lemma nerves - at early dough: medium to strong
- Awn tips: medium to strong

**Plant growth characters**
- Plant - growth habit: intermediate to semi-prostrate
- Plant - length: medium
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: very late
- Flag leaf - glaucosity of sheath: strong
- Ear - glaucosity: strong
- Ear - attitude 21 days after ear emerg.: horizontal to semi-recurved
CHARACTERS IN DETAIL

Ear
- Number of rows: two
- Density: medium
- Length: medium
- Shape: tapering to parallel

Awn
- Length compared to ear: long (longer than ear)

Rachis
- Length of first segment: short to medium
- Curvature of first segment: weak to medium

Spikelet
- Sterile spikelet - attitude: divergent
- Sterile spikelet - development: full
- Median spikelet - length of glume+awn cf grain: equal

Grain
- Kernel - colour of aleurone layer: whitish ("white")
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: absent/v. weak (0-2 per nerve)
- Rachilla hair type: short
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: clasping ("collar" type)

Anthocyanin colouration
- Flag leaf - auricles: strong
- Lemma nerves - at early dough: medium to strong
- Awn tips: medium

Plant growth characters
- Plant - growth habit: intermediate
- Plant - length: medium
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: early to medium
- Flag leaf - glaucosity of sheath: medium to strong
- Ear - glaucosity: medium
- Ear - attitude 21 days after ear emerg.: erect to semi-erect
CHARACTERS IN DETAIL

Ear
- Number of rows: two
- Density: lax to medium
- Length: medium
- Shape: parallel

Awn
- Length compared to ear: long

Rachis
- Length of first segment: short to medium
- Curvature of first segment: weak

Spikelet
- Sterile spikelet - attitude: n/a
- Sterile spikelet - development: none or rudimentary
- Median spikelet - length of glume+awn cf grain: equal

Grain
- Kernel - colour of aleurone layer: whitish
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: absent or v. weak
- Rachilla hair type: short
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: clasping

Anthocyanin colouration
- Flag leaf - auricles: medium to strong
- Lemma nerves - at early dough: weak to medium
- Awn tips: medium to strong

Plant growth characters
- Plant - growth habit: intermediate to semi-prostrate
- Plant - length: medium to long
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: medium to late
- Flag leaf - glaucosity: strong
- Ear - glaucosity: medium to strong
- Ear - attitude: erect to semi-erect
Variety Name: **RGT BAZILLE**  
Crop: Spring Barley

**Breeders Reference:** LSB 0976-10  
**Breeders:** RAGT 2n

**Origin:**

**Code:** BAZI

*Plant - growth habit:*  
Intermediate to semi prostrate

*Lower leaves - hairiness of leaf sheaths:*  
Absent

*Time of ear emergence:*  
Medium to late

*Flag leaf- anthocyanin colouration of auricles:*  
Very strong

*Frequency of plants with recurved flag leaves:*  
Strong

Flag leaf- glaucosity of sheath:  
Medium to strong

*Ear- glaucosity:*  
Semi erect

*Ear- number of rows:*  
Two

*Ear- density:*  
Medium

*Ear- shape:*  
Parallel

*Awn- anthocyanin colouration of the tips:*  
Strong to very strong

*Awn- length compared to ear:*  
Medium to long

*Awn- spiculation of margins:*  
Divergent

*Sterile spikelet-shape of tip:*  
Divergent

*Sterile spikelet- length of lemma:*  
Equal

*Median spikelet- length of glume + awn cf grain:*  
Equal

*Lemma nerves- anthocyanin colouration:*  
Short to medium

*Plant height:*  
Short to medium

**Collar type:**

*Rachis- length of first segment:*  
Medium

*Rachis- width of first segment:*  
Medium

*Rachis- curvature of first segment:*  
Medium

*Rachis- shape of first segment:*  
Medium

*Rachis(2-row)- humping of segments (mid third):*  
Medium

*Rachis(6-row)- degree of zig-zag (mid third):*  
Medium

*Kernel- colour of aleurone layer:*  
Medium

*Grain- rachilla hair type:*  
Long

*Grain- rachilla length:*  
Medium

*Grain- rachilla - length of tip hairs:*  
Absent or very weak

*Grain- spiculation of inner lateral nerves:*  
Medium to strong

*Grain- spiculation of outer lateral nerves:*  
Weak to medium

*Grain- anthocyanin colouration of lemma nerves:*  
Absent

*Grain- ventral furrow - presence of hairs:*  
Present

*Grain- husk:*  
Present

*Grain- length of lodicles ("collar" type only):*  
Clasping

*Grain- disposition of lodicules:*  
Spring

*Seasonal type:*  
Spring

*Extra characters:*  

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

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28 March 2018
**SPRING BARLEY**

**CHARACTERS IN DETAIL**

**Ear**
- Number of rows: two
- Density: lax
- Length: short to medium
- Shape: parallel

**Awn**
- Length compared to ear: long

**Rachis**
- Length of first segment: medium
- Curvature of first segment: weak

**Spikelet**
- Sterile spikelet - attitude: n/a
- Sterile spikelet - development: none or rudimentary
- Median spikelet - length of glume+awn cf grain: equal

**Grain**
- Kernel - colour of aleurone layer: whitish
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: absent or v. weak
- Rachilla hair type: short
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: clasping

**Anthocyanin colouration**
- Flag leaf - auricles: strong
- Lemma nerves - at early dough: weak to medium
- Awn tips: medium

**Plant growth characters**
- Plant - growth habit: intermediate
- Plant - length: medium
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: medium to late
- Flag leaf - glaucosity of sheath: medium to strong
- Ear - glaucosity: medium to strong
- Ear - attitude 21 days after ear emerg.: erect to semi-erect
CHARACTERS IN DETAIL

Ear
- Number of rows: two
- Density: lax to medium
- Length: short to medium
- Shape: parallel

Awn
- Length compared to ear: long

Rachis
- Length of first segment: medium
- Curvature of first segment: weak

Spikelet
- Sterile spikelet - attitude: n/a
- Sterile spikelet - development: none or rudimentary
- Median spikelet - length of glume+awn cf grain: equal

Grain
- Kernel - colour of aleurone layer: whitish
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: absent or v. weak
- Rachilla hair type: short
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: clasping

Anthocyanin colouration
- Flag leaf - auricles: medium to strong
- Lemma nerves - at early dough: strong
- Awn tips: medium

Plant growth characters
- Plant - growth habit: intermediate
- Plant - length: medium to long
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: early to medium
- Flag leaf - glaucosity of sheath: strong
- Ear - glaucosity: medium
- Ear - attitude: semi-erect to horizontal
Variety Name: **RGT PLANET**

Breeders Reference:

Breeders: RAGT 2n

Code: RGTP

Crop:

APF No:

Translated from: French

Date: 02 April 2015

*Plant - growth habit:

*Lower leaves - hairiness of leaf sheaths:

*Time of ear emergence:

*Flag leaf- anthocyanin colouration of auricles:

Frequency of plants with recurved flag leaves:

Flag leaf- glaucosity of sheath:

*Ear- glaucosity:

Ear- attitude:

Ear- length:

*Ear- number of rows:

*Ear- density:

Ear- shape:

*Awn- anthocyanin colouration of the tips:

*Awn- length compared to ear:

Awn- spiculation of margins:

*Sterile spikelet-attitude:

Sterile spikelet-shape of tip:

Sterile spikelet- length of lemma:

Median spikelet- length of glume + awn cf grain:

Lemma nerves- anthocyanin colouration:

*Plant height:

Collar type:

Rachis- length of first segment:

Rachis- width of first segment:

Rachis- curvature of first segment:

Rachis- shape of first segment:

Rachis(2-row)- humping of segments (mid third):

Rachis(6-row)- degree of zig-zag (mid third):

Kernel- colour of aleurone layer:

*Grain- rachilla hair type:

Grain- rachilla length:

Grain- rachilla - length of tip hairs:

Grain- spiculation of inner lateral nerves:

Grain- spiculation of outer lateral nerves:

Grain- anthocyanin colouration of lemma nerves:

*Grain- ventral furrow - presence of hairs:

*Grain- husk:

Grain- length of lodicles ("collar" type only):

Grain- disposition of lodicules:

*Seasonal type:

Extra characters:

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

09 April 2015
### CHARACTERS IN DETAIL

#### Ear
- **Number of rows**: two
- **Density**: very lax to lax
- **Length**: medium
- **Shape**: parallel

#### Awn
- **Length compared to ear**: long (longer than ear)

#### Rachis
- **Length of first segment**: medium to long
- **Curvature of first segment**: medium

#### Spikelet
- **Sterile spikelet - attitude**: divergent
- **Sterile spikelet - development**: full
- **Median spikelet - length of glume+awn cf grain**: equal

#### Grain
- **Kernel - colour of aleurone layer**: whitish ("white")
- **Husk - presence after harvest**: present
- **Spiculation of inner lateral nerves**: absent/v, weak (0-2 per nerve)
- **Rachilla hair type**: short
- **Ventral furrow - presence of hairs**: absent
- **Disposition of lodicules**: clasping ("collar" type)

#### Anthocyanin colouration
- **Flag leaf - auricles**: strong
- **Lemma nerves - at early dough**: weak to medium
- **Awn tips**: strong

#### Plant growth characters
- **Plant - growth habit**: semi-erect to intermediate
- **Plant - length**: short
- **Lower leaf - hairiness of sheaths**: absent
- **Time of ear emergence**: early
- **Flag leaf - glaucosity of sheath**: strong
- **Ear - glaucosity**: strong
- **Ear - attitude 21 days after ear emerg.**: erect to semi-erect
CHARACTERS IN DETAIL

Ear
Number of rows: two
Density: medium to dense
Length: medium
Shape: parallel

Awn
Length compared to ear: long (longer than ear)

Rachis
Length of first segment: medium
Curvature of first segment: medium to strong

Spikelet
Sterile spikelet - attitude: divergent
Sterile spikelet - development: equal
Median spikelet - length of glume+awn cf grain:

Grain
Kernel - colour of aleurone layer: whitish ("white")
Husk - presence after harvest: present
Spiculation of inner lateral nerves: absent/v. weak (0-2 per nerve)
Rachilla hair type: long
Ventral furrow - presence of hairs: absent
Disposition of lodicules: clasping ("collar" type)

Anthocyanin colouration
Flag leaf - auricles: medium
Lemma nerves - at early dough: weak
Awn tips: weak to medium

Plant growth characters
Plant - growth habit: semi-erect to intermediate
Plant - length: short to medium
Lower leaf - hairiness of sheaths: absent
Time of ear emergence: early
Flag leaf - glaucosity of sheath: strong to very strong
Ear - glaucosity: medium to strong
Ear - attitude 21 days after ear emerg.: semi-erect to horizontal
CHARACTERS IN DETAIL

Ear
- Number of rows: two
- Density: medium
- Length: short
- Shape: tapering

Awn
- Length compared to ear: long

Rachis
- Length of first segment: medium
- Curvature of first segment: weak

 Spikelet
- Sterile spikelet - attitude: n/a
- Sterile spikelet - development: none or rudimentary
- Median spikelet - length of glume+awn cf grain: equal

Grain
- Kernel - colour of aleurone layer: whitish
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: absent or v. weak
- Rachilla hair type: short
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: clasping

Anthocyanin colouration
- Flag leaf - auricles: strong
- Lemma nerves - at early dough: medium
- Awn tips: strong

Plant growth characters
- Plant - growth habit: intermediate
- Plant - length: short
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: early to medium
- Flag leaf - glaucosity of sheath: strong
- Ear - glaucosity: strong
- Ear - attitude: erect to semi-erect
SPRING BARLEY

CHARACTERS IN DETAIL

Ear
- Number of rows: two
- Density: lax
- Length: short to medium
- Shape: tapering

Awn
- Length compared to ear: medium

Rachis
- Length of first segment: medium
- Curvature of first segment: medium to strong

Spikelet
- Sterile spikelet - attitude: n/a
- Sterile spikelet - development: none or rudimentary
- Median spikelet - length of glume+awn cf grain: equal

Grain
- Kernel - colour of aleurone layer: whitish
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: absent or v. weak
- Rachilla hair type: long
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: clasping

Anthocyanin colouration
- Flag leaf - auricles: strong
- Lemma nerves - at early dough: weak
- Awn tips: medium to strong

Plant growth characters
- Plant - growth habit: intermediate
- Plant - length: very short
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: medium
- Flag leaf - glaucosity of sheath: medium to strong
- Ear - glaucosity: medium to strong
- Ear - attitude 21 days after ear emerg.: erect to semi-erect
CHARACTERS IN DETAIL

Ear
Number of rows: two
Density: lax
Length: medium to long
Shape: parallel

Awn
Length compared to ear: medium (+/- equal to ear)

Rachis
Length of first segment: medium
Curvature of first segment: medium

Spikelet
Sterile spikelet - attitude: n/a
Sterile spikelet - development: none or rudimentary (deficiens)
Median spikelet - length of glume + awn cf grain: equal

Grain
Kernel - colour of aleurone layer: whitish ("white")
Husk - presence after harvest: present
Spiculation of inner lateral nerves: absent/v, weak (0-2 per nerve)
Rachilla hair type: short
Ventral furrow - presence of hairs: absent
Disposition of lodicules: clapping ("collar" type)

Anthocyanin colouration
Flag leaf - auricles: medium
Lemma nerves - at early dough: medium
Awn tips: medium

Plant growth characters
Plant - growth habit: intermediate
Plant - length: short
Lower leaf - hairiness of sheaths: absent
Time of ear emergence: early to medium
Flag leaf - glaucosity of sheath: medium to strong
Ear - glaucosity: medium
Ear - attitude 21 days after ear emerg.: erect to semi-erect
Variety Name: Shakira

Crop: Spring Barley

Breeders Reference: AC 99373/19

Breeder: Dr. J. Ackermann & Co

AFP No: 2/2110

Translated from: German

Origin: 12 May 2005

Code: SHAK

*Plant - growth habit: semi-erect to intermediate
*Lower leaves - hairiness of leaf sheaths: absent
*Time of ear emergence: early to medium
*Flag leaf- anthocyanin colouration of auricles: medium
Frequency of plants with recurved flag leaves: very low to low
Flag leaf- glaucosity of sheath: medium to strong
*Ear- glaucosity: horizontal
Ear- attitude: short to medium
*Ear- number of rows: two
*Ear- density: lax to medium
Ear- shape: tapering to parallel
*Ear- glaucosity: medium
*Ear- length: short to medium (shorter than ear to +/- equal)
Ear- number of rows: two
*Ear- shape: medium to strong
*Ear- attitude: parallel to weakly divergent
*Ear- glaucosity: parallel to weakly divergent
Sterile spikelet-shape of tip: parallel to weakly divergent
Sterile spikelet- length of lemma: parallel to weakly divergent
Median spikelet- length of glume + awn cf grain: equal
Lemma nerves- anthocyanin colouration: parallel to weakly divergent
*Plant height: short
Collar type: parallel to weakly divergent
Rachis- length of first segment: medium
Rachis- width of first segment: moderately curved
Rachis- curvature of first segment: moderately curved
Rachis- shape of first segment: moderately curved
Rachis(2-row)- humping of segments (mid third): moderately curved
Rachis(6-row)- degree of zig-zag (mid third): moderately curved
Kernel- colour of aleurone layer: whitish ("white")
*Grain- rachilla hair type: long
Grain- rachilla length: long
Grain- rachilla - length of tip hairs: long
Grain- spiculation of inner lateral nerves: absent or very weak
Grain- spiculation of outer lateral nerves: absent or very weak
Grain- anthocyanin colouration of lemma nerves: strong
*Grain- ventral furrow - presence of hairs: absent
*Grain- husk: present
Grain- length of lodicles ("collar" type only): clasping ("collar" type)
Grain- disposition of lodicules: spring
*Seasonal type: spring
Extra characters: spring

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

16 May 2018
CHARACTERS IN DETAIL

Ear
Number of rows: two
Density: medium
Length: medium
Shape: parallel

Awn
Length compared to ear: long

Rachis
Length of first segment: medium
Curvature of first segment: medium

Spikelet
Sterile spikelet - attitude: divergent
Sterile spikelet - development: full
Median spikelet - length of glume+awn cf grain: equal

Grain
Kernel - colour of aleurone layer: whitish
Husk - presence after harvest: present
Spiculation of inner lateral nerves: absent or v. weak
Rachilla hair type: short
Ventral furrow - presence of hairs: absent
Disposition of lodicules: clasping

Anthocyanin colouration
Flag leaf - auricles: strong
Lemma nerves - at early dough: medium
Awn tips: medium to strong

Plant growth characters
Plant - growth habit: intermediate
Plant - length: short to medium
Lower leaf - hairiness of sheaths: absent
Time of ear emergence: medium
Flag leaf - glaucosity of sheath: strong
Ear - glaucosity: medium to strong
Ear - attitude 21 days after ear emerg.: erect to semi-erec
CHARACTERS IN DETAIL

**Ear**
- Number of rows: two
- Density: medium
- Length: medium to long
- Shape: parallel

**Awn**
- Length compared to ear: long (longer than ear)

**Rachis**
- Length of first segment: medium to long
- Curvature of first segment: medium

**Spikelet**
- Sterile spikelet - attitude: divergent
- Sterile spikelet - development: full
- Median spikelet - length of glume+awn cf grain: equal

**Grain**
- Kernel - colour of aleurone layer: whitish ("white")
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: absent/v. weak (0-2 per nerve)
- Rachilla hair type: long
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: clasping ("collar" type)

**Anthocyanin colouration**
- Flag leaf - auricles: medium to strong
- Lemma nerves - at early dough: weak to medium
- Awn tips: medium to strong

**Plant growth characters**
- Plant - growth habit: intermediate
- Plant - length: medium
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: early to medium
- Flag leaf - glaucosity of sheath: medium to strong
- Ear - glaucosity: medium
- Ear - attitude 21 days after ear emerg.: erect to semi-erect
CHARACTERS IN DETAIL

Ear
Number of rows two
Density medium
Length medium
Shape parallel

Awn
Length compared to ear medium to long

Rachis
Length of first segment short to medium
Curvature of first segment weak to medium

Spikelet
Sterile spikelet - attitude n/a
Sterile spikelet - development none or rudimentary
Median spikelet - length of glume+awn cf grain longer

Grain
Kernel - colour of aleurone layer whitish
Husk - presence after harvest present
Spiculation of inner lateral nerves v. weak to weak
Rachilla hair type long
Ventral furrow - presence of hairs absent
Disposition of lodicules clasping

Anthocyanin colouration
Flag leaf - auricles strong
Lemma nerves - at early dough weak to medium
Awn tips strong

Plant growth characters
Plant - growth habit semi-erect to intermediate
Plant - length short to medium
Lower leaf - hairiness of sheaths absent
Time of ear emergence very early to early
Flag leaf - glaucosity of sheath strong to very strong
Ear - glaucosity medium
Ear - attitude 21 days after ear emerg. erect to semi-erect
CHARACTERS IN DETAIL

Ear
- Number of rows: two
- Density: medium
- Length: short to medium
- Shape: parallel

Awn
- Length compared to ear: long

Rachis
- Length of first segment: medium
- Curvature of first segment: weak

Spikelet
- Sterile spikelet - attitude: n/a
- Sterile spikelet - development: none or rudimentary
- Median spikelet - length of glume+awn cf grain: equal

Grain
- Kernel - colour of aleurone layer: whitish
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: absent or v. weak
- Rachilla hair type: long
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: clasping

Anthocyanin coloured
- Flag leaf - auricles: strong
- Lemma nerves - at early dough: weak to medium
- Awn tips: medium

Plant growth characters
- Plant - growth habit: intermediate
- Plant - length: medium
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: medium to late
- Flag leaf - glaucosity of sheath: medium to strong
- Ear - glaucosity: medium
- Ear - attitude 21 days after ear emerg.: semi-erect
CHARACTERS IN DETAIL

Ear
- Number of rows: two
- Density: medium
- Length: medium
- Shape: parallel

Awn
- Length compared to ear: long (longer than ear)

Rachis
- Length of first segment: medium
- Curvature of first segment: weak to medium

Spikelet
- Sterile spikelet - attitude: divergent
- Sterile spikelet - development: full
- Median spikelet - length of glume+awn cf grain: equal

Grain
- Kernel - colour of aleurone layer: whitish ("white")
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: absent/v, weak (0-2 per nerve)
- Rachilla hair type: short
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: claping ("collar" type)

Anthocyanin colouration
- Flag leaf - auricles: strong
- Lemma nerves - at early dough: very weak to weak

Plant growth characters
- Plant - growth habit: intermediate
- Plant - length: short to medium
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: early
- Flag leaf - glaucosity of sheath: strong
- Ear - glaucosity: medium
- Ear - attitude 21 days after ear emerg.: semi-erect
### SPRING BARLEY

**AFP 2/2697**

**SIENNA**

### CHARACTERS IN DETAIL

#### Ear
- **Number of rows**: two
- **Density**: medium
- **Length**: short
- **Shape**: parallel

#### Awn
- **Length compared to ear**: long

#### Rachis
- **Length of first segment**: medium
- **Curvature of first segment**: weak

#### Spikelet
- **Sterile spikelet - attitude**: divergent
- **Sterile spikelet - development**: full
- **Median spikelet - length of glume+awn cf grain**: equal

#### Grain
- **Kernel - colour of aleurone layer**: whitish
- **Husk - presence after harvest**: present
- **Spiculation of inner lateral nerves**: absent or v. weak
- **Rachilla hair type**: short
- **Ventral furrow - presence of hairs**: absent
- **Disposition of lodicules**: clasping

#### Anthocyanin colouration
- **Flag leaf - auricles**: strong
- **Lemma nerves - at early dough**: weak
- **Awn tips**: medium

#### Plant growth characters
- **Plant - growth habit**: intermediate
- **Plant - length**: short to medium
- **Lower leaf - hairiness of sheaths**: absent
- **Time of ear emergence**: medium to late
- **Flag leaf - glaucosity of sheath**: medium to strong
- **Ear - glaucosity**: medium
- **Ear - attitude 21 days after ear emerg.**: erect to semi-erect
CHARACTERS IN DETAIL

**Ear**
- Number of rows: two
- Density: lax to medium
- Length: medium
- Shape: parallel

**Awn**
- Length compared to ear: +/- equal to longer

**Rachis**
- Length of first segment: medium
- Curvature of first segment: medium

**Spikelet**
- Sterile spikelet - attitude: divergent
- Sterile spikelet - development: full
- Median spikelet - length of glume+awn cf grain: equal

**Grain**
- Kernel - colour of aleurone layer: whitish ("white")
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: v. weak to weak
- Rachilla hair type: long
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: clasping ("collar" type)

**Anthocyanin colouration**
- Flag leaf - auricles: weak to medium
- Lemma nerves - at early dough: weak
- Awn tips: weak to medium

**Plant growth characters**
- Plant - growth habit: intermediate
- Plant - length: very short to short
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: medium to late
- Flag leaf - glaucosity of sheath: strong
- Ear - glaucosity: strong
- Ear - attitude 21 days after ear emerg.: semi-erect
SPRING BARLEY

CHARACTERS IN DETAIL

Ear
Number of rows two
Density medium
Length medium
Shape

Awn
Length compared to ear long

Rachis
Length of first segment medium to long
Curvature of first segment medium to strong

Spikelet
Sterile spikelet - attitude n/a
Sterile spikelet - development none or rudimentary
Median spikelet - length of glume+awn cf grain equal

Grain
Kernel - colour of aleurone layer whitish
Husk - presence after harvest present
Spiculation of inner lateral nerves absent or v. weak
Rachilla hair type long
Ventral furrow - presence of hairs absent
Disposition of lodicules clasping

Anthocyanin colouration
Flag leaf - auricles strong to very strong
Lemma nerves - at early dough medium to strong
Awn tips strong

Plant growth characters
Plant - growth habit semi-erect to intermediate
Plant - length short to medium
Lower leaf - hairiness of sheaths absent
Time of ear emergence medium to late
Flag leaf - glaucosity of sheath medium to strong
Ear - glaucosity medium
Ear - attitude 21 days after ear emerg. semi-erect to horizontal
SPRING BARLEY

SPARKLE

CHARACTERS IN DETAIL

Ear
- Number of rows: two
- Density: medium
- Length: short to medium
- Shape: parallel

Awn
- Length compared to ear: long (longer than ear)

Rachis
- Length of first segment: medium
- Curvature of first segment: weak to medium

Spikelet
- Sterile spikelet - attitude: divergent
- Sterile spikelet - development: full
- Median spikelet - length of glume+awn cf grain: longer

Grain
- Kernel - colour of aleurone layer: whitish ("white")
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: absent/v. weak (0-2 per nerve)
- Rachilla hair type: long
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: clasping ("collar" type)

Anthocyanin colouration
- Flag leaf - auricles: strong
- Lemma nerves - at early dough: absent or very weak
- Awn tips: medium

Plant growth characters
- Plant - growth habit: semi-erect to intermediate
- Plant - length: short to medium
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: early to medium
- Flag leaf - glaucosity of sheath: strong to very strong
- Ear - glaucosity: medium
- Ear - attitude 21 days after ear emerg.: semi-erect
CHARACTERS IN DETAIL

**Ear**
- Number of rows: two
- Density: medium
- Length: short to medium
- Shape: parallel

**Awn**
- Length compared to ear: long

**Rachis**
- Length of first segment: medium
- Curvature of first segment: very weak

**Spikelet**
- Sterile spikelet - attitude: n/a
- Sterile spikelet - development: none or rudimentary
- Median spikelet - length of glume+awn cf grain: equal

**Grain**
- Kernel - colour of aleurone layer: whitish
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: absent or v. weak
- Rachilla hair type: short
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: clasper

**Anthocyanin colouration**
- Flag leaf - auricles: strong
- Lemma nerves - at early dough: weak
- Awn tips: medium to strong

**Plant growth characters**
- Plant - growth habit: intermediate to semi-prostrate
- Plant - length: very short to short
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: early
- Flag leaf - glaucosity of sheath: strong to very strong
- Ear - glaucosity: medium
- Ear - attitude 21 days after ear emerg.: semi-erect
CHARACTERS IN DETAIL

Ear
- Number of rows: two
- Density: medium
- Length: medium
- Shape: parallel

Awn
- Length compared to ear: long (longer than ear)

Rachis
- Length of first segment: medium
- Curvature of first segment: medium

Spikelet
- Sterile spikelet - attitude: divergent
- Sterile spikelet - development: full
- Median spikelet - length of glume+awn cf grain: equal

Grain
- Kernel - colour of aleurone layer: whitish ("white")
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: absent/v. weak (0-2 per nerve)
- Rachilla hair type: long
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: clasping ("collar" type)

Anthocyanin colouration
- Flag leaf - auricles: medium
- Lemma nerves - at early dough: absent or very weak
- Awn tips: weak

Plant growth characters
- Plant - growth habit: semi-erect
- Plant - length: medium
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: medium
- Flag leaf - glaucosity of sheath: strong
- Ear - glaucosity: weak
- Ear - attitude 21 days after ear emerg.: semi-erect
CHARACTERS IN DETAIL

Ear
- **Number of rows**: two
- **Density**: medium
- **Length**: medium
- **Shape**: parallel

Awn
- **Length compared to ear**: long (longer than ear)

Rachis
- **Length of first segment**: medium
- **Curvature of first segment**: medium

Spikelet
- **Sterile spikelet - attitude**: divergent
- **Sterile spikelet - development**: full
- **Median spikelet - length of glume+awn cf grain**: equal

Grain
- **Kernel - colour of aleurone layer**: whitish ("white")
- **Husk - presence after harvest**: present
- **Spiculation of inner lateral nerves**: absent/v. weak (0-2 per nerve)
- **Rachilla hair type**: long
- **Ventral furrow - presence of hairs**: absent
- **Disposition of lodicules**: clasping ("collar" type)

Anthocyanin colouration
- **Flag leaf - auricles**: medium
- **Lemma nerves - at early dough**: absent or very weak
- **Awn tips**: weak

Plant growth characters
- **Plant - growth habit**: intermediate
- **Plant - length**: medium
- **Lower leaf - hairiness of sheaths**: absent
- **Time of ear emergence**: medium
- **Flag leaf - glaucosity of sheath**: strong
- **Ear - glaucosity**: weak
- **Ear - attitude 21 days after ear emerg.**: semi-erect
CHARACTERS IN DETAIL

**Ear**
- Number of rows: two
- Density: lax to medium
- Length: medium to long
- Shape: parallel

**Awn**
- Length compared to ear: long

**Rachis**
- Length of first segment: medium
- Curvature of first segment: weak

**Spikelet**
- Sterile spikelet - attitude: divergent
- Sterile spikelet - development: full
- Median spikelet - length of glume+awn cf grain: equal

**Grain**
- Kernel - colour of aleurone layer: whitish
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: absent or v. weak
- Rachilla hair type: short
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: clasping

**Anthocyanin colouration**
- Flag leaf - auricles: strong
- Lemma nerves - at early dough: weak
- Awn tips: medium to strong

**Plant growth characters**
- Plant - growth habit: intermediate
- Plant - length: short to medium
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: early
- Flag leaf - glaucosity of sheath: strong to very strong
- Ear - glaucosity: medium
- Ear - attitude 21 days after ear emerg.: semi-erect
### CHARACTERS IN DETAIL

#### Ear
- Number of rows: two
- Density: medium
- Length: medium
- Shape:

#### Awn
- Length compared to ear: long

#### Rachis
- Length of first segment: medium
- Curvature of first segment: weak

#### Spikelet
- Sterile spikelet - attitude: divergent
- Sterile spikelet - development: full
- Median spikelet - length of glume+awn cf grain: equal

#### Grain
- Kernel - colour of aleurone layer: whitish
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: absent or v. weak
- Rachilla hair type: long
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: clasping

#### Anthocyanin colouration
- Flag leaf - auricles: strong
- Lemma nerves - at early dough: weak to medium
- Awn tips: strong to very strong

#### Plant growth characters
- Plant - growth habit: intermediate
- Plant - length: medium
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: early to medium
- Flag leaf - glaucosity of sheath: medium to strong
- Ear - glaucosity: medium
- Ear - attitude 21 days after ear emerg.: semi-erect
CHARACTERS IN DETAIL

**Ear**
- Number of rows: two
- Density: lax to medium
- Length: short to medium
- Shape: parallel

**Awn**
- Length compared to ear: long

**Rachis**
- Length of first segment: long
- Curvature of first segment: weak to medium

**Spikelet**
- Sterile spikelet - attitude: n/a
- Sterile spikelet - development: none or rudimentary
- Median spikelet - length of glume+awn cf grain: equal

**Grain**
- Kernel - colour of aleurone layer: whitish
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: absent or v. weak
- Rachilla hair type: short
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: clasping

**Anthocyanin colouration**
- Flag leaf - auricles: strong
- Lemma nerves - at early dough: medium
- Awn tips: medium to strong

**Plant growth characters**
- Plant - growth habit: intermediate to semi-prostrate
- Plant - length: short
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: medium
- Flag leaf - glaucosity of sheath: strong
- Ear - glaucosity: medium to strong
- Ear - attitude: semi-erect
CHARACTERS IN DETAIL

Ear
- Number of rows: two
- Density: medium
- Length: short to medium
- Shape: parallel

Awn
- Length compared to ear: long

Rachis
- Length of first segment: medium to long
- Curvature of first segment: weak to medium

Spikelet
- Sterile spikelet - attitude: n/a
- Sterile spikelet - development: none or rudimentary
- Median spikelet - length of glume+awn cf grain: equal

Grain
- Kernel - colour of aleurone layer: whitish
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: absent or v. weak
- Rachilla hair type: short
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: clasping

Anthocyanin colouration
- Flag leaf - auricles: strong
- Lemma nerves - at early dough: medium to strong
- Awn tips: medium to strong

Plant growth characters
- Plant - growth habit: intermediate to semi-prostrate
- Plant - length: short to medium
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: medium
- Flag leaf - glaucosity of sheath: strong
- Ear - glaucosity: medium to strong
- Ear - attitude: semi-erect to horizontal
### CHARACTERS IN DETAIL

#### Ear
- **Number of rows**: two
- **Density**: lax
- **Length**: medium
- **Shape**: parallel

#### Awn
- **Length compared to ear**: long

#### Rachis
- **Length of first segment**: medium to long
- **Curvature of first segment**: weak to medium

#### Spikelet
- **Sterile spikelet - attitude**: n/a
- **Sterile spikelet - development**: none or rudimentary
- **Median spikelet - length of glume+awn cf grain**: longer

#### Grain
- **Kernel - colour of aleurone layer**: whitish
- **Husk - presence after harvest**: present
- **Spiculation of inner lateral nerves**: absent or v. weak
- **Rachilla hair type**: long
- **Ventral furrow - presence of hairs**: absent
- **Disposition of lodicules**: clasping

#### Anthocyanin colouration
- **Flag leaf - auricles**: strong
- **Lemma nerves - at early dough**: weak
- **Awn tips**: medium to strong

#### Plant growth characters
- **Plant - growth habit**: intermediate
- **Plant - length**: short to medium
- **Lower leaf - hairiness of sheaths**: absent
- **Time of ear emergence**: early to medium
- **Flag leaf - glaucosity of sheath**: strong
- **Ear - glaucosity**: medium to strong
- **Ear - attitude 21 days after ear emerg.**: erect to semi-erect
CHARACTERS IN DETAIL

**Ear**
- Number of rows: two
- Density: medium
- Length: short to medium
- Shape: parallel

**Awn**
- Length compared to ear: long

**Rachis**
- Length of first segment: medium to long
- Curvature of first segment: weak to medium

**Spikelet**
- Sterile spikelet - attitude: n/a
- Sterile spikelet - development: none or rudimentary
- Median spikelet - length of glume+awn cf grain: equal

**Grain**
- Kernel - colour of aleurone layer: whitish
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: absent or v. weak
- Rachilla hair type: short
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: clasping

**Anthocyanin colouration**
- Flag leaf - auricles: strong
- Lemma nerves - at early dough: medium
- Awn tips: medium to strong

**Plant growth characters**
- Plant - growth habit: intermediate to semi-prostrate
- Plant - length: short
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: medium
- Flag leaf - glaucosity of sheath: strong
- Ear - glaucosity: medium to strong
- Ear - attitude: erect to semi-erect
### Characters in Detail

**Ear**
- Number of rows: two
- Density: medium
- Length: short to medium
- Shape: parallel

**Awn**
- Length compared to ear: long

**Rachis**
- Length of first segment: short to medium
- Curvature of first segment: weak to medium

**Spikelet**
- Sterile spikelet - attitude: n/a
- Sterile spikelet - development: none or rudimentary
- Median spikelet - length of glume+awn cf grain: equal

**Grain**
- Kernel - colour of aleurone layer: whitish
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: absent or v. weak
- Rachilla hair type: short
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: clasping

**Anthocyanin colouration**
- Flag leaf - auricles: medium to strong
- Lemma nerves - at early dough: medium to strong
- Awn tips: medium

**Plant growth characters**
- Plant - growth habit: intermediate
- Plant - length: short to medium
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: medium
- Flag leaf - glaucosity of sheath: strong
- Ear - glaucosity: medium
- Ear - attitude: semi-erect to horizontal
CHARACTERS IN DETAIL

Ear
Number of rows: two
Density: lax to medium
Length: medium to long
Shape: parallel

Awn
Length compared to ear: long (longer than ear)

Rachis
Length of first segment: long
Curvature of first segment: weak to medium

Spikelet
Sterile spikelet - attitude: divergent
Sterile spikelet - development: full
Median spikelet - length of glume+awn cf grain: longer

Grain
Kernel - colour of aleurone layer: whitish ("white")
Husk - presence after harvest: present
Spiculation of inner lateral nerves: absent/v. weak (0-2 per nerve)
Rachilla hair type: short
Ventral furrow - presence of hairs: absent
Disposition of lodicules: clasping ("collar" type)

Anthocyanin colouration
Flag leaf - auricles: strong
Lemma nerves - at early dough: very weak to weak
Awn tips: strong

Plant growth characters
Plant - growth habit: intermediate
Plant - length: medium
Lower leaf - hairiness of sheaths: absent
Time of ear emergence: early
Flag leaf - glaucosity of sheath: strong to very strong
Ear - glaucosity: medium
Ear - attitude 21 days after ear emerg.: semi-erect
CHARACTERS IN DETAIL

<table>
<thead>
<tr>
<th>Ear</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of rows</td>
<td>two</td>
<td></td>
</tr>
<tr>
<td>Density</td>
<td>medium</td>
<td></td>
</tr>
<tr>
<td>Length</td>
<td>short to medium</td>
<td></td>
</tr>
<tr>
<td>Shape</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Awn                  |                  |      |
| Length compared to ear | long            |      |

| Rachis               |                  |      |
| Length of first segment | medium         |      |
| Curvature of first segment | weak to medium |      |

| Spikelet             |                  |      |
| Sterile spikelet - attitude | divergent     |      |
| Sterile spikelet - development | full         |      |
| Median spikelet - length of glume+awn cf grain | longer |      |

| Grain                |                  |      |
| Kernel - colour of aleurone layer | whitish |      |
| Husk - presence after harvest | present |      |
| Spiculation of inner lateral nerves | absent or v. weak |      |
| Rachilla hair type    | short            |      |
| Ventral furrow - presence of hairs | absent |      |
| Disposition of lodicules | clapping |      |

| Anthocyanin colouration |                  |      |
| Flag leaf - auricles  | medium to strong |      |
| Lemma nerves - at early dough | medium |      |
| Awn tips              | strong           |      |

| Plant growth characters |                  |      |
| Plant - growth habit   | semi-erect to intermediate |      |
| Plant - length         | medium            |      |
| Lower leaf - hairiness of sheaths | absent |      |
| Time of ear emergence  | early             |      |
| Flag leaf - glaucosity of sheath | strong |      |
| Ear - glaucosity       | medium            |      |
| Ear - attitude 21 days after ear emerg. | semi-erect |      |
CHARACTERS IN DETAIL

Ear
Number of rows two
Density medium
Length medium
Shape tapering

Awn
Length compared to ear long

Rachis
Length of first segment long
Curvature of first segment very weak

Spikelet
Sterile spikelet - attitude n/a
Sterile spikelet - development none or rudimentary
Median spikelet - length of glume+awn cf grain equal

Grain
Kernel - colour of aleurone layer whitish
Husk - presence after harvest present
Spiculation of inner lateral nerves absent or v. weak
Rachilla hair type long
Ventral furrow - presence of hairs absent
Disposition of lodicules clasping

Anthocyanin colouration
Flag leaf - auricles strong
Lemma nerves - at early dough medium
Awn tips strong

Plant growth characters
Plant - growth habit intermediate
Plant - length short to medium
Lower leaf - hairiness of sheaths absent
Time of ear emergence early to medium
Flag leaf - glaucosity of sheath strong
Ear - glaucosity medium to strong
Ear - attitude 21 days after ear emerg. semi-erect
CHARACTERS IN DETAIL

**Ear**
- Number of rows: two
- Density: medium
- Length: short to medium
- Shape: tapering

**Awn**
- Length compared to ear: long

**Rachis**
- Length of first segment: short to medium
- Curvature of first segment: weak to medium

**Spikelet**
- Sterile spikelet - attitude: n/a
- Sterile spikelet - development: none or rudimentary
- Median spikelet - length of glume+awn cf grain: equal

**Grain**
- Kernel - colour of aleurone layer: whitish
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: absent or v. weak
- Rachilla hair type: long
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: clasping

**Anthocyanin colouration**
- Flag leaf - auricles: strong
- Lemma nerves - at early dough: medium
- Awn tips: medium

**Plant growth characters**
- Plant - growth habit: semi-erect to intermediate
- Plant - length: short to medium
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: medium to late
- Flag leaf - glaucosity of sheath: medium to strong
- Ear - glaucosity: medium
- Ear - attitude 21 days after ear emerg.: erect to semi-erect
CHARACTERS IN DETAIL

Ear
Number of rows two
Density lax to medium
Length medium
Shape parallel

Awn
Length compared to ear +/- equal to longer

Rachis
Length of first segment medium to long
Curvature of first segment medium

Spikelet
Sterile spikelet - attitude divergent
Sterile spikelet - development full
Median spikelet - length of glume+awn cf grain equal

Grain
Kernel - colour of aleurone layer whitish ("white")
Husk - presence after harvest present
Spiculation of inner lateral nerves absent/v. weak (0-2 per nerve)
Rachilla hair type short
Ventral furrow - presence of hairs absent
Disposition of lodicules clasping ("collar" type)

Anthocyanin colouration
Flag leaf - auricles strong
Lemma nerves - at early dough medium
Awn tips medium

Plant growth characters
Plant - growth habit intermediate
Plant - length medium
Lower leaf - hairiness of sheaths absent
Time of ear emergence early to medium
Flag leaf - glaucosity of sheath medium to strong
Ear - glaucosity medium
Ear - attitude 21 days after ear emerg. semi-erect
CHARACTERS IN DETAIL

Ear
- Number of rows: two
- Density: very lax to lax
- Length: medium to long
- Shape: tapering

Awn
- Length compared to ear: long

Rachis
- Length of first segment: medium
- Curvature of first segment: weak to medium

Spikelet
- Sterile spikelet - attitude: n/a
- Sterile spikelet - development: none or rudimentary
- Median spikelet - length of glume+awn cf grain: equal

Grain
- Kernel - colour of aleurone layer: whitish
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: very weak to weak
- Rachilla hair type: short
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: clasping

Anthocyanin colouration
- Flag leaf - auricles: medium
- Lemma nerves - at early dough: weak to medium
- Awn tips: medium to strong

Plant growth characters
- Plant - growth habit: intermediate
- Plant - length: short
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: medium to late
- Flag leaf - glaucosity of sheath: medium to strong
- Ear - glaucosity: medium to strong
- Ear - attitude 21 days after ear emerg.: erect to semi-erect
CHARACTERS IN DETAIL

Ear
- Number of rows: two
- Density: medium to dense
- Length: medium to long
- Shape: parallel

Awn
- Length compared to ear: long (longer than ear)

Rachis
- Length of first segment: medium
- Curvature of first segment: medium to strong

Spikelet
- Sterile spikelet - attitude: divergent
- Sterile spikelet - development: full
- Median spikelet - length of glume+awn cf grain: equal

Grain
- Kernel - colour of aleurone layer: whitish ("white")
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: weak (1-2 per nerve)
- Rachilla hair type: long
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: clasping ("collar" type)

Anthocyanin colouration
- Flag leaf - auricles: strong
- Lemma nerves - at early dough: medium
- Awn tips: medium

Plant growth characters
- Plant - growth habit: semi-erect to intermediate
- Plant - length: medium
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: medium
- Flag leaf - glaucosity of sheath: medium
- Ear - glaucosity: weak to medium
- Ear - attitude 21 days after ear emerg.: horizontal
SPRING BARLEY

WESTMINSTER

CHARACTERS IN DETAIL

Ear
- Number of rows: two
- Density: medium
- Length: medium
- Shape: parallel

Awn
- Length compared to ear: long (longer than ear)

Rachis
- Length of first segment: medium
- Curvature of first segment: weak to medium

Spikelet
- Sterile spikelet - attitude: divergent
- Sterile spikelet - development
- Median spikelet - length of glume+awn cf grain: equal

Grain
- Kernel - colour of aleurone layer: whitish ("white")
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: medium (3-5 per nerve)
- Rachilla hair type: short
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: clasping ("collar" type)

Anthocyanin colouration
- Flag leaf - auricles: strong
- Lemma nerves - at early dough: weak
- Awn tips: medium

Plant growth characters
- Plant - growth habit: intermediate to semi-prostrate
- Plant - length: medium to long
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: early to medium
- Flag leaf - glaucosity of sheath: strong
- Ear - glaucosity: weak to medium
- Ear - attitude 21 days after ear emerg.: horizontal to semi-recurved
CHARACTERS IN DETAIL

Ear
- Number of rows: two
- Density: lax to medium
- Length: short to medium
- Shape: parallel

Awn
- Length compared to ear: long

Rachis
- Length of first segment: medium
- Curvature of first segment: weak

Spikelet
- Sterile spikelet - attitude: n/a
- Sterile spikelet - development: none or rudimentary
- Median spikelet - length of glume+awn cf grain: longer

Grain
- Kernel - colour of aleurone layer: whitish
- Husk - presence after harvest: present
- Spiculation of inner lateral nerves: absent or v. weak
- Rachilla hair type: short
- Ventral furrow - presence of hairs: absent
- Disposition of lodicules: clasping

Anthocyanin colouration
- Flag leaf - auricles: medium to strong
- Lemma nerves - at early dough: medium
- Awn tips: medium

Plant growth characters
- Plant - growth habit: semi-erect to intermediate
- Plant - length: short
- Lower leaf - hairiness of sheaths: absent
- Time of ear emergence: medium
- Flag leaf - glaucosity of sheath: medium to strong
- Ear - glaucosity: weak to medium
- Ear - attitude: semi-erect