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## CDC Meredith

### [Barley](#)

<b>Denomination:</b>	'CDC Meredith'
<b>Previously Proposed Denomination:</b>	'TR05104'
<b>Botanical Name:</b>	<i>Hordeum vulgare</i>
<b>Applicant/Holder:</b>	University of Saskatchewan Crop Development Centre 4D36 Agriculture Building, 51 Campus Drive Saskatoon, Saskatchewan S7N 5A8 Canada
<b>Breeder:</b>	Brian Rossnagel, University of Saskatchewan, Saskatoon, Saskatchewan
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<b>Application Date:</b>	2008-04-17
<b>Application Number:</b>	08-6296
<b>Protective direction granted:</b>	2008-04-17
<b>Protective direction withdrawn:</b>	2008-05-07
<b>Grant of Rights Date:</b>	2010-09-13
<b>Certificate Number:</b>	3942
<b>Grant of Rights Termination Date:</b>	2028-09-13

## Variety Description

**Varieties used for comparison:** 'CDC Kendall' and 'AC Metcalfe'

**Summary:** *'CDC Meredith' has a higher frequency of plants with recurved flag leaves than 'CDC Kendall'. The auricles of the flag leaves of 'CDC Meredith' have a medium to strong intensity of anthocyanin colouration while it is strong in 'CDC Kendall'. Flag leaf pubescence of 'CDC Meredith' is sparse to medium while it is medium to dense in both 'CDC Kendall' or 'AC Metcalfe'. The tips of the lemma awns of 'CDC Meredith' have a strong intensity of anthocyanin colouration while it is medium in 'AC Metcalfe'. 'CDC Meredith' has medium spiculation of the inner lateral nerves of the dorsal side of the kernel lemma while it is strong in 'CDC Kendall'.*

### **Description:**

**PLANT:** two row, spring malting barley, mainly semi-erect juvenile growth habit, absent or very sparse pubescence on the sheaths of the lower leaves

**FLAG LEAF:** medium frequency of plants with recurved flag leaves, sparse to medium pubescence on blade

**FLAG LEAF SHEATH:** strong to very strong glaucosity, sparse pubescence

**AURICLES:** medium to strong anthocyanin colouration, very sparse to sparse pubescence on the margins

**SPIKE:** mid-season to late spike emergence, mainly platform shaped collar, strong anthocyanin colouration of the tips of the lemma awns, erect to semi-erect attitude, strong glaucosity, parallel shape, medium to dense density, mainly divergent attitude of sterile spikelet, the length of the glume and its awn of the median spikelet is equal relative to the grain

**FIRST SEGMENT OF RACHIS:** short to medium length, medium curvature

**LEMMA AWNS:** longer relative to the spike, rough spiculations from the tip to next to the kernel

**KERNEL:** very weak to medium anthocyanin colouration of nerves of the lemma at beginning of ripening, whitish aleurone layer, husk present, long rachilla hair, medium spiculation of inner lateral nerves of dorsal side of lemma, no hairiness on ventral furrow, clasping disposition of lodicules, horseshoe to incomplete horseshoe shape of basal markings, medium to long length, medium to wide width

**DISEASE REACTION:** very susceptible to Septoria Speckled Leaf Blotch (*Septoria passerinii*), Barley Yellow Dwarf Virus (**BYDV**), and Scald (*Rhynchosporium secalis*), susceptible to Spot Blotch (*Cochliobolus sativus*), moderately susceptible to Common Root Rot (*Cochliobolus sativus*, *Fusarium* spp.) and Net Blotch (*Pyrenophora teres*), moderately resistant to Stem Rust (*Puccinia graminis*), Fusarium Head Blight (*Fusarium graminearum*; perfect state *Gibberella zeae*), Covered Smut (*Ustilago hordei*) and False Loose Smut, Black Semi-Loose Smut (*Ustilago nigra*), resistant to True Loose Smut (*Ustilago nuda*)

**AGRONOMY:** fair resistance to lodging, good resistance to shattering, good tolerance to straw breakage, fair to good tolerance to drought, good malting quality

**Origin & Breeding History:** 'CDC Meredith' (experimental designations 'SM03602' and 'TR05104') was developed by the barley breeding program at the Crop Development Centre (CDC), University of Saskatchewan, Saskatoon, Saskatchewan using a pedigree breeding system. It originates from the cross SM98427 / SM98787 made at the CDC in 1999. SM98427 is a CDC two row breeding line that originated from the cross BM8906-2 / SM93135. SM98787 is a CDC two row breeding line that originated from the cross BM8820-7 / SM93085. The F1 thru F4 generations were grown as bulk populations with the F1 and F3 grown in winter nurseries in New Zealand. 'CDC Meredith' was grown and selected as a single F4 derived F5 row plot at Saskatoon in 2002. The seed from the F5 row plot was bulked as the line 'SM03602'. It was tested in the CDC yield trials in 2003 and 2004, followed by further testing in the Western Canadian Two-row Cooperative Trials as 'TR05104' during 2005 and 2006. Selection criteria included high yield potential, good kernel quality including kernel weight and kernel plumpness, acceptable malting profile including low grain protein concentration and resistance to spotted net-blotch, stem rust and surface borne smuts.

**Tests & Trials:** Tests and trials were conducted during the summers of 2008 and 2009 at the University of Saskatchewan, Saskatoon, Saskatchewan. Plots consisted of 5 rows with a row spacing of 0.2 meters and a row length of 3.66 meters. There were 2 replicates arranged in a RCB Design. Measured characteristics were based on a minimum of 20 measurements per variety per year.

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Barley: 'CDC Meredith' (centre) with reference varieties 'CDC Kendall' (left) and 'AC Metcalfe' (right)

Click on image for larger view



Barley: 'CDC Meredith' (centre) with reference varieties 'CDC Kendall' (left) and 'AC Metcalfe' (right)

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