



FOOD PRODUCTION AND INSPECTION BRANCH	DIRECTION GÉNÉRALE, PRODUCTION ET INSPECTION DES ALIMENTS	DATE	2126
		SECTION SEED	
RE OBJET			
AMENDED DESCRIPTION OF VARIETY			

Crop: Two-row spring barley  
(Hordeum distichon L.)

Licence No: 2126

Variety: Harrington

Date Licensed: May 13, 1981

Origin and Breeding:

Harrington was derived from the cross Klagesx(Gazelle/Betzes//Centennial). The initial cross was made in 1972, subsequent generations were handled by the pedigree method. Single plant selections were made in each of the F<sub>2</sub>, F<sub>3</sub> and F<sub>4</sub> generations. An F<sub>5</sub> line, later designated S76333, was harvested as a bulk row. This line was tested as TR441. Breeder seed was derived from a bulk of the progenies of 110 F<sub>8</sub> random single plant selections.

Varietal Characteristics:

Plant Characteristics:

- Growth habit: spring
- Juvenile growth habit: semi-erect
- Coleoptile colour: purple
- Leaves: medium green with waxy bloom; medium length and width; glabrous leaf sheath with slightly pubescent blade; lower leaf sheath purplish;
- Flag Leaf: medium sized; medium green with waxy bloom; semi-erect attitude; purplish auricles.
- Stems: medium thick; waxy bloom; stem exertion 0-10 cm; V-shaped collar; neck is straight to slightly curved.
- Height: slightly taller than Elrose, shorter than Klages and Fairfield
- Heading: midseason
- Maturity: medium to late; earlier than Klages, later than Elrose.
- Resistance to Lodging: better than Klages, poorer than Norbert, Summit.
- Disease Reaction: susceptible to net blotch (Drechslera teres) scald (Rhynchosporium sp.), speckled leaf blotch (Septoria avenae f sp. triticea), stem rust (Puccinia graminis) loose smut (Ustilago nuda) covered smut (Ustilago hordei) and false loose smut (Ustilago nigra)

Spike Characteristics:

- Type: two-rowed
- Shape: strap; mid-dense; medium length
- Attitude: nodding
- Lemma awns: long rough, with purplish tip
- Lemma: glabrous
- Glume: length is half that of lemma; rounded hairs are long, numerous and widespread; awns are long and rough.
- Stigma hairs: many
- Rachis: segments with parallel margins; numerous long hairs on spike rachis; first rachis internode is curved.

Kernel Characteristics:

Type: covered  
 Aleurone: yellow  
 Rachilla: medium length with numerous medium length to long hairs  
 Size: medium size; medium length and width  
 Lateral veins on lemma: green, glabrous  
 Hull: slightly wrinkled  
 Basal marking: horseshoe depression  
 Quality: good malting quality

Inspection: This variety is eligible for top grades of two row barley.

Adaptation:

Harrington is adapted to the traditional two-row barley areas of western Saskatchewan and southern Alberta.

Maintenance of Breeder Seed: Crop Science Department, University of Saskatchewan  
 Saskatoon, Saskatchewan

Canadian Distributor: SeCan Association

Recommended by: Saskatchewan Grain Crops Committee

Supported by: Expert Committees on Grain Breeding and Grain Quality.

Experimental Data:

Table 1: Performance of Harrington and Check Varieties, 2-row Western Cooperative Barley Test, 1978-80

	Yield (100 kg/ha)	Rel. Yield*	Test Wgt. (kg/hl)	1000 k. wt. (g)	Ht (cm)	Days to mat.	% plump	Lodging (1-9)
	(47)		(43)	(42)	(42)	(30)	(50)	(22)
Harrington	47.4	105	65.0	44.9	66.5	94.1	90.0	2.3
Klages	45.3	100	64.8	44.8	70.7	96.9	83.1	3.2
Fairfield	45.5	100	66.4	44.2	69.5	92.8	90.9	3.2
Elrose	43.4	96	66.4	42.3	66.0	92.0	83.8	3.0
	(30)							
Harrington	47.5	107	65.8	44.3	68.3	91.6	90.7	2.2
Norbert	44.6	100	65.3	46.9	70.7	91.9	91.1	1.9
	(34)							
Harrington	47.7	103	64.7	45.5	65.7	95.1	90.0	2.3
Summit	46.0	100	66.2	42.7	66.9	95.3	84.0	1.8

\* % of Klages

**Table 2:** Yield Performance of Harrington and Check Varieties (100 kg/ha) by soil zone, 2-row Western Cooperative Barley Test, 1978-1980

	Black (13)	Brown (23)	Grey-Black (11)
Harrington	56.9	42.7	46.0
Klages	53.2	41.1	45.0
Fairfield	53.8	41.9	43.4
Elrose	50.0	40.1	42.4
	(8)	(14)	(8)
Harrington*	59.3	40.8	47.4
Norbert	57.4	38.3	42.9
	(10)	(17)	(7)
Harrington	54.7	43.1	47.3
Summit	52.9	43.0	43.6

\* 1978 and 1979 only

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**Table 3:** Performance of Harrington Barley and Check Varieties, Saskatchewan Zonation Trials, 1980 (Data expressed as % of Klages)

	Area 1	Area 2	Area 3	Area 4
Harrington	100	101	100	98
Klages	100	100	100	100
Fairfield	97	103	101	98
Elrose	97	97	96	95
Summit	99	103	100	00
Norbert	93	92	95	96

**Table 4:** Performance of Harrington Barley and Check Varieties, Alberta Regional Trials, 1980 (Data expressed as a % of Klages)

	Area 1	Area 2	Area 3	Area 4
Harrington	98	103	102	96
Klages	100	100	100	100
Fairfield	103	99	98	88
Elrose	100	97	106	94
Summit	98	101	91	82
Norbert	93	103	99	83

**Table 5:** Quality Data for Harrington Barley and Check Varieties, 2-row Western Cooperative Barley Test, 1978-80

	Protein	Fine Ext.	70 <sup>0</sup> Ext.	F/70 <sup>0</sup> Diff.	DP <sup>0</sup> L	α-Amy D.u.
Harrington	12.5	80.4	74.1	6.3	131	57.7
Klages	13.1	79.3	71.8	7.7	118	50.8
Harrington	12.3	80.4	73.4	7.0	119	52.7
Norbert	13.4	78.9	72.6	6.3	110	44.9

This replaces description of variety number 2125 dated July 13, 1981