

**Attributes for Ten Commercial Great Northern
Varieties in Nebraska--1993**

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Varieties have been developed to meet certain needs--some were developed for plant vigor to be planted on hillsides and sandy soils where canopy cover is important. These varieties yield excellent under these conditions, but when planted on fertile level fields they develop white mold which reduces yield dramatically.

Some varieties have been developed to reduce production risks imposed by specific disease problems like white mold. The attributes for disease tolerance are ever changing because of the dynamics between the pathogen, the environment, and the host plant. The information in the disease and notes columns was compiled with the aid of industry and university personnel.

Information on maturity, seed size and yield were averaged from data taken at Scottsbluff, Nebraska, during the growing seasons of 1988-1992. The following Great Northern attribute table was developed to assist growers in selecting a variety on a field by field basis in an effort to minimize production risk while maximizing yield. This table documents the attributes of ten commercial Great Northern's as best known to us at the start of this 1993 growing season.

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Attributes for Commercial Great Northern Varieties in Nebraska 1993

Variety	Year of Release	Parentage	Plant Type	Maturity ¹	Seeds / Pounds	Yield Ave. Lbs/A ² (%yield of UI 59)	Disease Tolerance ³	Notes
UI 59	1932 U of Idaho	Common Great Northern	Short Vine	Early	1425	2370 (100)	BCMV	Resists cracking, splitting. Excellent color. Consistent
1140	1960 USDA with U of Idaho	GN 123 x Pinto US 5	Short Vine	Early	1425	2510 (106)	BCMV	Best used in 22 inch rows due to small vines. Can crack, split when cold. Susceptible to blight.
Emerson	1971 U of NE	1140 x PI 165078	Short Vine	Medium	1075	2360* (98)	BS, HB, BCMV	Grown for specialty markets. Susceptible to Common Blight, and Rust. Seed rights held by Kelley Bean.
Harris	1980 U of NE	100 early-mat Valley plants	Vine Late	Medium	1325	2730 (115)	BS, CB, HB, BCMV	Suited to light soils and/or hillsides. Liked by canners. Susceptible to White Mold
Ivory	1983 Roger Bros.	Closed Pedigree	Vine	Medium Early	1300	2680 (113)	CB, HB, BCMV	Suited for short season areas, replant or fields with high fertility. White Mold can be a problem with high fert. Good seed quality.
Sapphire	1983 Roger Bros.	Closed Pedigree	Vine	Medium	1375	2580 (109)	CB, HB, BCMV	Suited for areas where vine growth is needed. Good seed quality.
Beryl	1984 Roger Bros.	Closed Pedigree	Short Vine	Medium Early	1550	2750 (116)	CB, HB, WM, BCMV	Suited to wide range of soils and growing conditions. Susceptible to brown spot.
UI 425	1984 U of Idaho	(UI61xR544) x Emerson	Vine	Full	1325	2790** (127)	BCMV	High yield potential when conditions right. Susceptible to rust and common blight.
Starlight	1990 U of NE	(Tacaragua x NE #1) x (Emerson x Bul. White)	Short Vine	Medium Late	1225	2530 (107)	CB, R, WM	Excellent seed quality. Grown for specialty markets. Susceptible to brown spot, halo blight and BCMV.
Marquis	1990 Roger Bros.	Closed Pedigree	Short Vine	Medium	1500	2780 (117)	CB, HB, WM, BCMV	Suited to wide range of soil and growing conditions. Susceptible to brown spot.

1. Maturity ratings
85-90 days - Early
91-93 days - Medium Early
94-97 days - Medium
98-100 days - Medium Late
101-110 days - Full
2. Five year yield ave. Scottsbluff, NE 1987-1992
* Variety not tested in 1990
** Variety not tested in 1988 & 1989
3. Disease Tolerance
BS - Brown Spot
CB - Common Blight
HB - Halo Blight
R - Rust
WM - White Mold Avoidance
BCMV - Bean Common Mosaic Virus