

BG 012

BG 012 is a hulless, six-rowed, semidwarf, spring, waxy endosperm barley that was developed for high input growing areas. This barley was selected from the cross "Nebula" x "Stanuwax". These two varieties are described as follows:

Nebula is a six-rowed, semidwarf spring barley that was developed for high yield high test weight for the southwest Desert area of Arizona and the Central Valley of California. Nebula came from the cross DA587-71 x PH585-6. Both of these lines were selections from semidwarf, male sterile facilitated recurrent selection populations developed by WestBred LLC. Nebula was selected for resistance to the foliar leaf diseases scald (*Rhynchosporium secalis*), net blotch (*Pyrenophora teres*), mildew (*Erysiphe graminis*) and leaf rust (*Puccinia hordei*).

Stanuwax (also called Stanwax) is a six-rowed hulless, waxy endosperm spring barley developed by Phoenix Seed from the cross Stander x Rowax. Stander is a six-rowed spring barley released by North Dakota State University. Rowax is a waxy, hulless cultivar developed by Phoenix Seed from the cross Robust x Azhul (PI 334567).

Breeding History:

Following the cross described above, F1 and f2 bulk populations were grown in WestBred nurseries. Single F3 head selections were made from the F2 population and were planted as spike rows. Spike selections were made from within these rows and were grown as spike rows in the next growing season. One uniform spike row from this grow-out, having waxy endosperm and a husk or hull that threshed free, was selected on the basis of good agronomic characteristics. This experimental line was selected at Yuma, AZ, in 1999 and given the experimental designation: YU599-012.

Varietal Description:

BG012 is most similar to the variety Nebula except that it has waxy endosperm (nearly 100% amylopectin starch) and is hulless. BG 012 has a slightly waxy stem and leaves. The sheath and leaf blades do not have pubescence. The sheath has a modified open (closed) collar. The spike of BG 012 is six-rowed, has a straight neck, is glossy, strap, and erect (not dense) with a few hairs on the rachis edge. The glumes of BG 012 are longer than ½ of the lemma length, have long hairs that cover the glume completely, and have semi-smooth awns that are equal to the length of the glume. The lemma has long awns that are semi-smooth with no teeth or pubescence. The lemma base has a transverse crease and long rachilla hairs. BG 012 seed has white aleurone, is short to midlong and has hairs on the ventral furrow. The stigma has many hairs.

No current data on disease reactions are available.

A covered variant may occur at a frequency of up to 8 per 10,000 seed/plants and a non-waxy endosperm variant may occur at a frequency of up to 8 per 10,000 seed/plants. Otherwise, no other variants are known to occur and BG 012 is a stable and uniform variety in appearance and performance. Application will be made for protection under Plant Variety Protection (the Title V option will NOT be chosen) or as a Utility Patent with the United States Patent and Trademark Office.