Barley

BG 104

1. "BG 104" (FA5S09-00104, F5N09-0104), six-rowed spring barley, was developed by WestBred/a Unit of Monsanto, (Ownership of all barley germplasm has been transferred from WestBred/Monsanto to Highland Specialty Grain).

2. BG 104 was selected for hulless and shrunken endosperm, waxy starch content, yield, and standability following the initial cross and subsequent pedigree breeding procedures.

3. BG 104 was tested against established check varieties in the irrigated areas of Idaho Falls, ID, Bozeman, MT, and the dryland area of Belfield, ND and has shown good adaptation those areas.

4. BG 104 is moderately resistant to powdery mildew and leaf rust. BG 104 is resistant to stem rust.

5. Identifying characteristics:

1. Growth Habit:	Spring	16. Plant Height (see below):	
2. Spike:	Six-row	17. Spike Shape:	Oblong
3. Coleoptile Color:	Green	18. Spike Density:	Mid-Dense
4. Juvenile Growth Habit:	Semi-erect	19. Spike Position at Maturity:	Inclined
5. Plant Tillering:	Intermediate	20. Hairiness of Rachis Edge:	Covered
6. Leaf Color at Boot:	Green	21. Rachilla Hair Length:	Long
7. Flag Leaf at Boot:	Erect straight n/waxy	22. Lemma Awns:	Straight
8. Pubescence on Leaf Blade:	No	23. Length of Lemma Awns:	Short
9. Pubescence on Leaf Sheath:	No	24. Lemma Awn Surface:	Rough
10.:Auricle Color:	White	25. Glume Hairiness:	Covered
11.Heading Date (see below):		26. Glume Awn Surface:	Rough
12. Stem Color:	White	27. Glume/Lemma Adherence:	Naked
13. Neck Shape:	Straight	28. Texture (if covered):	N/A
14. Collar Shape:	Open	29. Aleurone Color:	Colorless
15. Spike Exsertion:	Full	30. Avg 1,000 Kernel Wt (g):	25.6 gm

NOTE: The sheath of the flag leaf is waxy while the blade is not waxy.
NOTE: Having a shrunken endosperm greatly reduces the 1000-Kernel weight.

Heading date: 61 days which is: 2 days LATER than: BG 006

Plant height: 53.4 cm, which is 2.5 cm Shorter than BG 006

Physiological or biochemical traits: This is a naked, shrunken endosperm barley with high beta-glucan content.

Variants and frequency: BG 104 may contain a hulled or long awned variant at frequencies of up to 18/10000 seed (0.18%). No other variants are known to occur and BG 104 is a stable and uniform variety.

6. Highland Specialty Grains will maintain Breeder seed by planting head rows when necessary. The certified classes of seed shall be: Foundation Registered, and Certified.

7. Certified seed will be contracted for sale in spring of 2016.

8. Application for PVP is anticipated with the option that BG 104 can be sold by variety name only.

9. Certified seed production acreage is not to be published by AOSCA and certifying agencies.

Date this application was submitted: Jun 23, 2014

Date recommended by the NVRB: Aug 06, 2014