

Title: Hull-less Barley Evaluation – 2015

Objective: To evaluate the agronomic performance of hull-less barley varieties grown in environments representative of northwestern Montana.

Results:

Significant differences were observed for heading, height, yield, protein, test weight, and percent plump. Heading date averaged 172 Julian days (June 21), and ranged from 168 to 177 Julian days. The average height was 32.8 inches, ranging from 27.7 to 36.7 inches. Yields averaged 110.3 bu/A and ranged from 90.6 bu/A for PI596299 to 147.1 bu/A for X05013-T1. Protein averaged 15.1% and ranged from 13.3% for 09WA-265.12 to 16.8% for PI596299. Test weight averaged 58.4 lb/bu and ranged from 47.0 lb/bu for PI596299 to 60.1 lb/bu for both 09WA-265.12 and Goose 1. Percent plump averaged 73.9% and ranged from 39.8% for Goose 5 to 94.3% for X05013-T1.

Summary:

The highest yielding cultivars were X05013-T1 and 09WA-265.12.

Table 1. Materials and Methods - Hull-less Barley - 2015

| | | | |
|----------------|--------------|---------------|---|
| Seeding Date: | 4/23/2015 | Harvest Date: | 8/5/2015 |
| Julian Date: | 113 | Julian Date: | 217 |
| Seeding Rate: | 80 lb/A | Soil Test: | 144-12-222 |
| Previous Crop: | Canola | Soil Type: | Creston Sil |
| Tillage: | Conventional | Fertilizer: | 250-40-90 |
| Irrigation: | None | Herbicide: | Huskie plus 11 floz/A & Axial 16.4 floz/A |

Table 2. Hull-less Barley, Kalispell, MT - 2015

| Cultivar | HD Julian | HT in | YLD ¹ bu/A | PRO ² % | TWT ¹ lb/bu | PLMP % |
|-------------|--------------|----------|--------------------------|-----------------------|---------------------------|-----------|
| X05013-T1 | 173 | 33.7 | 147.1 | 14.2 | 59.2 | 94.3 |
| 09WA-265.12 | 175 | 33.7 | 140.6 | 13.3 | 60.6 | 90.3 |
| MT110065 | 177 | 33.7 | 123.9 | 14.6 | 57.4 | 69.6 |
| X07G30-T131 | 174 | 34.3 | 120.4 | 15.6 | 58.8 | 94.0 |
| MT110066 | 174 | 32.7 | 116.7 | 15.1 | 57.9 | 66.2 |
| X0626-T229 | 168 | 27.7 | 115.5 | 15.5 | 56.9 | 91.2 |
| MT110016 | 173 | 32.7 | 113.0 | 14.8 | 58.6 | 86.3 |
| MT110061 | 175 | 33.0 | 112.3 | 14.6 | 58.1 | 67.5 |
| MT110008 | 175 | 33.7 | 108.7 | 14.4 | 59.1 | 90.0 |
| MT110009 | 176 | 36.7 | 106.5 | 16.3 | 59.2 | 92.2 |
| Goose 2 | 168 | 34.3 | 97.1 | 15.3 | 60.3 | 59.2 |
| Goose 4 | 168 | 30.7 | 95.4 | 15.2 | 60.1 | 58.3 |
| Goose 6 | 168 | 34.0 | 93.7 | 15.1 | 60.2 | 55.1 |
| Goose 1 | 168 | 32.3 | 92.7 | 15.9 | 60.6 | 52.9 |
| Goose 5 | 168 | 30.7 | 91.3 | 15.2 | 60.2 | 39.8 |
| PI596299 | 169 | 31.7 | 90.6 | 16.8 | 47.0 | 74.8 |
| Mean | 172 | 32.8 | 110.3 | 15.1 | 58.4 | 73.9 |
| CV | 0.5 | 4.1 | 6.6 | 2.2 | 1.2 | 8.1 |
| LSD | 1.6 | 2.3 | 12.2 | 0.6 | 1.2 | 10.0 |
| Pr>F | 0.0001 | 0.0001 | 0.0001 | 0.0001 | 0.0001 | 0.0001 |

HD: heading, HT: height, YLD: yield, PRO: protein, TWT: test weight,
PLMP: percent plumps

¹ adjusted to 13% moisture

² reported on a dry matter bases