

PROJECT TITLE: Statewide Barley Performance

YEAR: 2004

LOCATIONS:

Bozeman - dryland and irrigated
Conrad - dryland and irrigated
Havre - dryland
Huntley - dryland and irrigated
Kalispell - irrigated
Moccasin - dryland
Sidney - dryland and irrigated

PERSONNEL:

Bozeman: Tom Blake (Project Leader) & Pat Hensleigh
Conrad: Greg Kushnak
Havre: Gregg Carlson
Huntley: Ken Kephart
Kalispell: Bob Stougaard
Moccasin: Dave Wichman
Sidney: Joyce Eckhoff

RESULTS:

The statewide (Intrastate) Barley Variety Nursery was grown at the seven locations listed above, with some locations having both irrigated and dryland nurseries.

In the dryland trials, the 2-row feed varieties 'Haxby' and 'Boulder' averaged the highest for yield and test weight (Table 1). The 2-row experimental line MT910189 had higher yield, test weight and percent plump than 'Harrington' and 'Metcalf'. MT910189 was earlier to head than other 2-row malt varieties, and showed good potential as a dryland malt variety. The 2-row malt variety 'Conrad' also maintained high yield, test weight and percent plump relative to other malt varieties.

In the irrigated trials, the 2-row malt varieties 'Merit', Conrad, and 'Copeland' produced higher yields than Metcalfe and Harrington (Table 8). 'Lacey' was the highest yielding 6-row malt variety.

Specific details of field performance traits at each location can be found in Tables 2-7 for dryland and Tables 9-13 for irrigated.

Table 1. 2004 Montana Statewide Dryland Barley – Overall Summary

| ID | PEDIGREE | Yield bu/ac | Test Weight lb/bu | Plump % | Heading Date | Plant Height inches | Protein % |
|----------|---------------------|----------------|-------------------------|---------------|-----------------|------------------------|---------------|
| MT020155 | MT960225/H1851195 | 94.8** | 51.9 | 74.0 | 173.2* | 36.9 | 13.3 |
| MT020166 | MT960225/H3860224 | 94.6 * | 51.3 | 77.6* | 178.0 | 34.8 | 12.1** |
| MT950186 | Haxby | 93.6 * | 53.9** | 76.8* | 178.0 | 36.5 | 12.6* |
| MT020167 | MT960225/H3860224 | 92.7 * | 53.6* | 80.3* | 178.3 | 38.1 | 13.5 |
| BZ594-19 | WPB Xena | 92.5 * | 51.4 | 77.5* | 178.4 | 37.8 | 13.2* |
| MT020162 | MT960225/H1851195 | 92.4 * | 52.7* | 84.7* | 178.1 | 39.2 | 13.4 |
| MT020064 | MT910160/H1851195 | 92.0 * | 53.2* | 82.2* | 178.5 | 36.8 | 14.6 |
| MT000040 | Chinook/MT920161 | 91.8 * | 53.1* | 80.7* | 178.5 | 34.9 | 13.9 |
| MT000092 | MT890008/Lewis | 91.5 * | 51.8 | 83.3* | 177.7 | 38.3 | 12.4* |
| MT020205 | MTLB 32/H1851195 | 90.9 * | 52.3 | 87.5* | 177.1 | 35.8 | 13.9 |
| MT020075 | MT950220/MTLB 5 | 90.7 * | 49.1 | 69.5 | 180.7 | 34.0 | 13.6 |
| BZ596117 | Boulder, WPB | 90.5 * | 53.9* | 75.5 | 179.4 | 36.8 | 13.1* |
| MT000125 | MT910189/Lewis | 90.4 * | 52.9* | 75.8 | 178.2 | 37.3 | 13.2* |
| MT020204 | MTLB 32/H1851195 | 90.1 * | 52.8* | 73.0 | 176.7 | 36.0 | 12.9* |
| MT981210 | MT910150/Stark | 90.0 * | 52.8* | 86.6* | 178.1 | 38.1 | 13.2* |
| MT000153 | MT920059/Baronesse | 89.9 * | 53.6* | 80.6* | 176.8 | 35.3 | 12.7* |
| MT020037 | Lewis/Kiebitz | 89.9 * | 53.4* | 82.7* | 176.8 | 37.2 | 14.1 |
| PI568246 | Baronesse | 89.6 * | 51.3 | 74.2 | 180.4 | 32.4 | 13.8 |
| MT010080 | MT886610/H1851195 | 89.3 * | 52.0 | 87.3* | 176.5 | 39.0 | 14.2 |
| MT970116 | Klages/Baronesse | 89.1 * | 53.5* | 85.6* | 176.6 | 40.7 | 13.2* |
| MT960228 | Eslick | 89.1 * | 51.7 | 76.4* | 179.1 | 35.2 | 13.4 |
| MT970229 | MT890021/Stark | 89.1 * | 53.0* | 82.6* | 178.6 | 35.8 | 13.9 |
| MT010081 | MT886610/H1851195 | 88.7 * | 52.7* | 77.7* | 177.8 | 35.6 | 13.6 |
| B99AL616 | APB B99AL-616 | 88.5 * | 50.4 | 70.3 | 179.3 | 33.5 | 13.9 |
| MT010156 | MT920041/H1851195 | 88.3 * | 52.5 * | 90.7** | 176.7 | 37.8 | 13.9 |
| MT000047 | Chinook/MT920161 | 88.0 | 52.0 | 70.6 | 177.7 | 35.3 | 14.2 |
| MT000045 | Chinook/MT920161 | 87.6 | 52.5 * | 79.4* | 178.7 | 35.0 | 13.9 |
| AC03 6 | Auriga | 87.3 | 51.5 | 71.5 | 179.7 | 32.1 | 13.9 |
| MT010160 | MT920041/Harrington | 87.3 | 51.1 | 77.9* | 178.0 | 37.2 | 14.2 |
| PI610264 | Valier | 87.3 | 50.9 | 73.5 | 180.3 | 35.4 | 15.2 |
| MT000138 | MT920041/H1851195 | 87.1 | 52.9* | 81.7* | 176.6 | 37.7 | 14.5 |
| 6B952482 | Tradition | 86.7 | 50.5 | 80* | 176.0 | 40.0 | 12.6* |
| SiteMean | SITE MEAN ***** | 86.6 | 51.4 | 76.4* | 177.9 | 36.0 | 13.6 |
| MT010177 | MT920041/MT890008 | 86.5 | 52.3 | 80.5* | 176.7 | 33.6 | 12.9* |
| MT010162 | MT920041/Harrington | 86.4 | 51.1 | 69.9 | 179.1 | 34.9 | 13.5 |
| 2B965057 | Conrad, BA | 86.4 | 51.0 | 77.6* | 179.9 | 34.5 | 14.2 |
| MT981004 | Baronesse/H2860224 | 86.3 | 51.5 | 75.6 | 179.0 | 34.9 | 13.3 |
| MT020080 | MT960013/MT920059 | 86.2 | 48.9 | 85.7* | 179.5 | 33.1 | 13.4 |
| MT010191 | MT920053/Harrington | 86.2 | 50.8 | 72.2 | 180.8 | 34.3 | 13.7 |
| MT981006 | Baronesse/H2860224 | 85.9 | 51.1 | 74.8 | 178.8 | 35.6 | 13.9 |
| PI491534 | Gallatin | 85.4 | 52.3 | 72.8 | 175.6 | 36.6 | 13.1* |

Continued

Table 1 Continued. Statewide Dryland Barley – Overall Summary

| | | | | | | | |
|----------------|----------------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| MT020139 | MT960222/MTLB 6 | 85.4 | 52.1 | 79.6* | 178.9 | 35.5 | 14.7 |
| MT910189 | ND 7293/Bearpaw | 85.3 | 52.2 | 87.9* | 176.2 | 34.4 | 13.1* |
| MT010155 | MT920041/H1851195 | 85.3 | 51.9 | 77.0* | 176.5 | 37.3 | 14.7 |
| MT010205 | MT920073/Baronesse | 85.0 | 50.5 | 72.7 | 180.7 | 35.7 | 13.9 |
| MT010212 | MT920073/Baronesse | 84.8 | 50.8 | 73.5 | 178.7 | 37.1 | 13.8 |
| MT010158 | MT920041/Harrington | 84.7 | 52.2 | 82.3* | 177.7 | 34.1 | 14.0 |
| MT981238 | ND112311/Lewis | 84.1 | 53.0* | 89.4* | 175.9 | 39.0 | 14.0 |
| MT020120 | MT960174/MT960222 | 83.7 | 50.6 | 80.4* | 178.8 | 35.5 | 13.7 |
| MT020072 | MT910160/MT890008 | 83.4 | 51.8 | 87.5* | 178.6 | 37.1 | 13.7 |
| TR232 | Metcalfe | 82.9 | 50.9 | 72.8 | 177.6 | 36.7 | 13.9 |
| MT010213 | MT920073/Logan | 82.5 | 53.0* | 80.2* | 179.3 | 34.0 | 13.5 |
| PI613603 | Lacey | 81.9 | 49.5 | 68.0 | 174.2* | 37.6 | 13.1* |
| ND13299 | Conlon | 81.9 | 52.7* | 87.7* | 173.0* | 38.0 | 13.4 |
| MT020090 | MT960013/MT960101 | 81.8 | 48.1 | 68.0 | 179.2 | 32.3 | 13.2* |
| SK 76333 | Harrington | 81.6 | 50.5 | 78.1* | 178.4 | 36.2 | 14.0 |
| MT020085 | MT960013/MT960101 | 81.5 | 47.3 | 56.4 | 168.1** | 30.2 | 13.6 |
| 6B932978 | Legacy | 81.3 | 47.7 | 52.0 | 175.4 | 38.4 | 12.8* |
| CI 15773 | Morex | 79.8 | 49.3 | 66.6 | 174.0* | 43.4 | 13.8 |
| TR150 | Copeland | 79.5 | 49.1 | 75.4 | 179.6 | 38.7 | 13.5 |
| 2B914947 | Merit | 79.3 | 48.9 | 73.8 | 179.1 | 35.1 | 14.2 |
| MT020246 | MT960013/MT960101 | 78.5 | 48.6 | 74.6 | 181.2 | 32.5 | 14.1 |
| SR-6608 | APB SR-6608 | 74.7 | 47.4 | 56.2 | 181.8 | 29.5 | 13.0* |
| MT981060 | Hays | *** | *** | *** | *** | *** | *** |
| PI533600 | Haybet | *** | *** | *** | *** | *** | *** |
| C.V. | C.V. (S/Mean) * 100 | 6.15 | 2.19 | 18.18 | 2.15 | 5.64 | 6.45 |
| P-Value | | <.0001 | <.0001 | <.0001 | <.0001 | <.0001 | <.0001 |
| L.S.D. | L.S.D. (.05) | 6.65 | 1.57 | 18.46 | 4.75 | 2.84 | 1.26 |

** indicates entries with highest yield, test weight, plump, earliest heading date and lowest protein within a column.

* indicates entries equal to the highest entry.

Table 2. 2004 Montana Statewide Dryland Barley – Yield, bu/a

| ID | Pedigree | Sidney | Moccasin | Huntley | Conrad | Bozeman | Mean | Byx | RSQ |
|----------|---------------------|--------|----------|---------|--------|---------|------|------|------|
| 2B914947 | Merit | 92.6 | 63.6 | 42.4 | 79.0 | 119.1 | 79.3 | 0.93 | 1.00 |
| 2B965057 | Conrad, BA | 97.3 | 65.6 | 49.4 | 90.8 | 128.9 | 86.4 | 0.97 | 0.99 |
| 6B932978 | Legacy | 109.7 | 58.5 | 42.0 | 81.1 | 115.1 | 81.3 | 0.97 | 0.92 |
| 6B952482 | Tradition | 102.5 | 66.5 | 45.2 | 86.0 | 133.5 | 86.7 | 1.08 | 1.00 |
| AC03 6 | Auriga | 97.2 | 73.2 | 50.3 | 92.9 | 122.8 | 87.3 | 0.86 | 0.99 |
| B99AL616 | APB B99AL-616 | 98.9 | 72.0 | 46.1 | 93.7 | 131.7 | 88.5 | 1.01 | 0.99 |
| BZ594-19 | WPB Xena | 100.4 | 78.7 | 48.8 | 95.5 | 139.1 | 92.5 | 1.04 | 0.98 |
| BZ596117 | Boulder, WPB | 89.3 | 79.4 | 51.0 | 96.6 | 136.1 | 90.5 | 0.95 | 0.93 |
| CI 15773 | Morex | 98.8 | 61.9 | 48.0 | 77.4 | 113.0 | 79.8 | 0.83 | 0.97 |
| MT000040 | Chinook/MT920161 | 105.2 | 74.5 | 51.0 | 94.0 | 134.2 | 91.8 | 1.00 | 1.00 |
| MT000045 | Chinook/MT920161 | 99.2 | 64.8 | 42.3 | 97.3 | 134.3 | 87.6 | 1.12 | 0.99 |
| MT000047 | Chinook/MT920161 | 99.8 | 69.5 | 37.3 | 97.0 | 136.3 | 88.0 | 1.17 | 0.99 |
| MT000092 | MT890008/Lewis | 101.2 | 74.7 | 55.2 | 84.4 | 142.0 | 91.5 | 1.03 | 0.97 |
| MT000125 | MT910189/Lewis | 97.9 | 67.3 | 50.0 | 101.1 | 136.0 | 90.4 | 1.04 | 0.96 |
| MT000138 | MT920041/H1851195 | 99.6 | 68.8 | 52.5 | 85.2 | 129.6 | 87.1 | 0.94 | 0.99 |
| MT000153 | MT920059/Baronesse | 96.2 | 76.4 | 39.7 | 99.2 | 138.1 | 89.9 | 1.12 | 0.96 |
| MT010080 | MT886610/H1851195 | 99.8 | 70.1 | 48.8 | 92.6 | 135.2 | 89.3 | 1.04 | 1.00 |
| MT010081 | MT886610/H1851195 | 107.0 | 69.1 | 52.3 | 85.9 | 129.2 | 88.7 | 0.96 | 0.98 |
| MT010155 | MT920041/H1851195 | 95.6 | 67.9 | 45.4 | 95.2 | 122.7 | 85.3 | 0.93 | 0.97 |
| MT010156 | MT920041/H1851195 | 98.1 | 69.7 | 55.2 | 86.3 | 132.2 | 88.3 | 0.93 | 0.98 |
| MT010158 | MT920041/Harrington | 93.9 | 63.4 | 40.7 | 89.3 | 136.1 | 84.7 | 1.14 | 0.99 |
| MT010160 | MT920041/Harrington | 101.0 | 68.9 | 44.9 | 91.8 | 129.7 | 87.3 | 1.02 | 0.99 |
| MT010162 | MT920041/Harrington | 103.3 | 72.0 | 45.4 | 84.3 | 127.3 | 86.4 | 0.98 | 0.99 |
| MT010177 | MT920041/MT890008 | 102.3 | 74.5 | 42.2 | 84.9 | 128.6 | 86.5 | 1.02 | 0.99 |
| MT010191 | MT920053/Harrington | 98.9 | 63.0 | 47.6 | 94.6 | 126.9 | 86.2 | 0.99 | 0.98 |
| MT010205 | MT920073/Baronesse | 98.1 | 77.8 | 40.7 | 86.1 | 122.1 | 85.0 | 0.93 | 0.96 |
| MT010212 | MT920073/Baronesse | 104.7 | 65.8 | 44.7 | 78.9 | 130.0 | 84.8 | 1.05 | 0.98 |
| MT010213 | MT920073/Logan | 77.1 | 64.6 | 51.0 | 89.1 | 130.9 | 82.5 | 0.91 | 0.88 |
| MT020037 | Lewis/Kiebitz | 100.0 | 73.9 | 51.0 | 93.4 | 131.0 | 89.9 | 0.95 | 1.00 |
| MT020064 | MT910160/H1851195 | 106.5 | 70.2 | 47.4 | 98.0 | 137.9 | 92.0 | 1.10 | 0.99 |
| MT020072 | MT910160/MT890008 | 97.7 | 66.3 | 42.1 | 86.9 | 123.8 | 83.4 | 0.99 | 1.00 |
| MT020075 | MT950220/MTLB 5 | 110.4 | 71.5 | 32.3 | 99.4 | 139.7 | 90.7 | 1.29 | 0.98 |
| MT020080 | MT960013/MT920059 | 100.6 | 64.5 | 44.5 | 83.4 | 138.1 | 86.2 | 1.13 | 0.99 |
| MT020085 | MT960013/MT960101 | 95.4 | 69.3 | 43.3 | 76.7 | 123.0 | 81.5 | 0.94 | 0.98 |
| MT020090 | MT960013/MT960101 | 95.9 | 64.3 | 44.8 | 80.1 | 123.8 | 81.8 | 0.96 | 1.00 |
| MT020120 | MT960174/MT960222 | 99.7 | 69.6 | 44.3 | 70.8 | 133.9 | 83.7 | 1.06 | 0.94 |
| MT020139 | MT960222/MTLB 6 | 94.8 | 70.8 | 43.8 | 80.5 | 136.8 | 85.4 | 1.08 | 0.98 |
| MT020155 | MT960225/H1851195 | 108.8 | 74.4 | 57.2 | 100.5 | 133.2 | 94.8 | 0.94 | 0.99 |
| MT020162 | MT960225/H1851195 | 110.8 | 80.2 | 45.3 | 85.2 | 140.7 | 92.4 | 1.12 | 0.97 |
| MT020166 | MT960225/H3860224 | 104.7 | 77.5 | 51.5 | 95.5 | 143.7 | 94.6 | 1.08 | 0.99 |
| MT020167 | MT960225/H3860224 | 106.3 | 83.9 | 50.0 | 92.6 | 130.4 | 92.7 | 0.93 | 0.97 |
| MT020204 | MTLB 32/H1851195 | 103.7 | 67.7 | 53.5 | 91.7 | 134.0 | 90.1 | 1.00 | 0.99 |

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Table 2 continued. Statewide Dryland Barley - Yield

| | | | | | | | | | |
|----------------------|----------------------------|--------------|-------------|-------------|--------------|--------------|------------------|------------|------------|
| MT020205 | MTLB 32/H1851195 | 105.1 | 72.6 | 55.9 | 86.3 | 134.3 | 90.9 | 0.96 | 0.99 |
| MT020246 | MT960013/MT960101 | 90.4 | 62.2 | 44.2 | 76.3 | 119.4 | 78.5 | 0.91 | 1.00 |
| MT910189 | ND 7293/Bearpaw | 94.1 | 68.0 | 46.2 | 89.3 | 128.7 | 85.3 | 0.98 | 0.99 |
| MT950186 | Haxby | 110.5 | 77.7 | 53.3 | 91.0 | 135.6 | 93.6 | 1.00 | 1.00 |
| MT960228 | Eslick | 99.0 | 74.9 | 51.1 | 87.2 | 133.3 | 89.1 | 0.96 | 0.99 |
| MT970116 | Klages/Baronesse | 101.0 | 71.9 | 51.1 | 83.8 | 138.0 | 89.1 | 1.04 | 0.98 |
| MT970229 | MT890021/Stark | 102.2 | 77.8 | 45.0 | 91.0 | 129.6 | 89.1 | 0.99 | 0.99 |
| MT981004 | Baronesse/H2860224 | 102.1 | 72.7 | 43.9 | 88.2 | 124.8 | 86.3 | 0.97 | 0.99 |
| MT981006 | Baronesse/H2860224 | 101.1 | 69.2 | 48.7 | 86.7 | 123.8 | 85.9 | 0.92 | 1.00 |
| MT981060 | Hays | 97.2 | 68.7 | 45.6 | *** | 133.5 | *** | *** | *** |
| MT981210 | MT910150/Stark | 113.8 | 70.3 | 47.6 | 78.4 | 139.8 | 90.0 | 1.14 | 0.95 |
| MT981238 | ND112311/Lewis | 96.7 | 60.0 | 52.2 | 84.4 | 127.2 | 84.1 | 0.94 | 0.97 |
| ND13299 | Conlon | 95.5 | 71.8 | 43.2 | 73.5 | 125.3 | 81.9 | 0.96 | 0.97 |
| PI491534 | Gallatin | 96.1 | 70.9 | 39.8 | 94.8 | 125.2 | 85.4 | 1.00 | 0.97 |
| PI533600 | Haybet | 92.8 | 46.3 | 44.6 | *** | 100.3 | *** | *** | *** |
| PI568246 | Baronesse | 103.1 | 72.4 | 48.0 | 90.5 | 134.0 | 89.6 | 1.03 | 1.00 |
| PI610264 | Valier | 102.7 | 71.3 | 41.5 | 93.3 | 127.8 | 87.3 | 1.03 | 0.98 |
| PI613603 | Lacey | 101.1 | 53.4 | 44.9 | 79.1 | 130.8 | 81.9 | 1.10 | 0.96 |
| SK 76333 | Harrington | 102.5 | 63.3 | 37.2 | 80.0 | 124.8 | 81.6 | 1.08 | 0.99 |
| SR-6608 | APB SR-6608 | 84.3 | 62.8 | 37.9 | 82.1 | 106.5 | 74.7 | 0.81 | 0.97 |
| TR150 | Copeland | 93.2 | 62.6 | 40.9 | 86.3 | 114.4 | 79.5 | 0.90 | 0.99 |
| TR232 | Metcalfe | 99.6 | 66.6 | 40.5 | 89.7 | 117.9 | 82.9 | 0.94 | 0.97 |
| Site Mean | SITE MEAN ***** | 99.8 | 69.3 | 46.3 | 88.0 | 129.5 | 86.6 | 1.00 | 1.00 |
| C.V. | C.V. (S/Mean) * 100 | 7.29 | 6.45 | 8.59 | 9.80 | 4.96 | 6.15 | *** | *** |
| F-Value | | 2.02 | 5.75 | 4.56 | 2.01 | 4.53 | <.0001 | *** | *** |
| L.S.D. | L.S.D. (.05) | 12.19 | 7.65 | 6.88 | 13.94 | 11.21 | 6.65 | *** | *** |
| Efficiency of | Design Rel to RCB | 1.04 | 1.16 | 1.32 | *** | 1.93 | *** | *** | *** |

**Table 3. 2004 Montana Statewide Dryland Barley – Heading Date
Days from January 1**

| ID | Pedigree | Sidney | Moccasin | Huntley | Conrad | Bozeman | Mean | Byx | RSQ |
|-----------|---------------------|---------------|-----------------|----------------|---------------|----------------|-------------|------------|------------|
| 2B914947 | Merit | 174 | 184 | 173 | 184 | 181 | 179.1 | 1.01 | 0.86 |
| 2B965057 | Conrad, BA | 172 | 183 | 180 | 184 | 180 | 179.9 | 0.88 | 0.89 |
| 6B932978 | Legacy | 167 | 182 | 168 | 181 | 179 | 175.4 | 1.39 | 0.92 |
| 6B952482 | Tradition | 170 | 181 | 170 | 181 | 178 | 176.0 | 1.10 | 0.93 |
| AC03 6 | Auriga | 174 | 184 | 177 | 183 | 181 | 179.7 | 0.82 | 0.98 |
| B99AL616 | APB B99AL-616 | 172 | 183 | 179 | 183 | 180 | 179.3 | 0.87 | 0.93 |
| BZ594-19 | WPB Xena | 172 | 183 | 175 | 183 | 179 | 178.4 | 0.96 | 0.99 |
| BZ596117 | Boulder, WPB | 172 | 182 | 181 | 182 | 180 | 179.4 | 0.71 | 0.66 |
| CI 15773 | Morex | 167 | 181 | 166 | 180 | 176 | 174.0 | 1.36 | 0.88 |
| MT000040 | Chinook/MT920161 | 171 | 182 | 178 | 183 | 178 | 178.5 | 0.94 | 0.91 |
| MT000045 | Chinook/MT920161 | 172 | 182 | 177 | 183 | 179 | 178.7 | 0.84 | 0.98 |
| MT000047 | Chinook/MT920161 | 170 | 181 | 178 | 182 | 177 | 177.7 | 0.87 | 0.87 |
| MT000092 | MT890008/Lewis | 171 | 182 | 173 | 183 | 179 | 177.7 | 1.06 | 0.98 |
| MT000125 | MT910189/Lewis | 171 | 183 | 176 | 183 | 178 | 178.2 | 1.03 | 0.99 |
| MT000138 | MT920041/H1851195 | 170 | 180 | 174 | 182 | 177 | 176.6 | 0.95 | 0.98 |
| MT000153 | MT920059/Baronesse | 170 | 181 | 174 | 182 | 177 | 176.8 | 1.01 | 0.99 |
| MT010080 | MT886610/H1851195 | 170 | 181 | 171 | 183 | 177 | 176.5 | 1.14 | 0.95 |
| MT010081 | MT886610/H1851195 | 171 | 182 | 175 | 184 | 177 | 177.8 | 1.00 | 0.95 |
| MT010155 | MT920041/H1851195 | 168 | 181 | 175 | 182 | 177 | 176.5 | 1.12 | 0.96 |
| MT010156 | MT920041/H1851195 | 168 | 181 | 175 | 182 | 177 | 176.7 | 1.07 | 0.95 |
| MT010158 | MT920041/Harrington | 172 | 182 | 174 | 183 | 177 | 177.7 | 0.97 | 0.97 |
| MT010160 | MT920041/Harrington | 172 | 183 | 173 | 183 | 179 | 178.0 | 1.07 | 0.95 |
| MT010162 | MT920041/Harrington | 175 | 184 | 173 | 184 | 180 | 179.1 | 0.93 | 0.86 |
| MT010177 | MT920041/MT890008 | 170 | 181 | 174 | 182 | 177 | 176.7 | 1.01 | 0.99 |
| MT010191 | MT920053/Harrington | 176 | 186 | 174 | 186 | 182 | 180.8 | 1.05 | 0.85 |
| MT010205 | MT920073/Baronesse | 177 | 185 | 176 | 185 | 181 | 180.7 | 0.82 | 0.91 |
| MT010212 | MT920073/Baronesse | 172 | 183 | 177 | 183 | 179 | 178.7 | 0.96 | 0.99 |
| MT010213 | MT920073/Logan | 173 | 183 | 178 | 183 | 180 | 179.3 | 0.83 | 0.96 |
| MT020037 | Lewis/Kiebitz | 168 | 181 | 176 | 182 | 177 | 176.8 | 1.07 | 0.91 |
| MT020064 | MT910160/H1851195 | 171 | 182 | 180 | 183 | 177 | 178.5 | 0.86 | 0.75 |
| MT020072 | MT910160/MT890008 | 173 | 184 | 172 | 184 | 180 | 178.6 | 1.10 | 0.91 |
| MT020075 | MT950220/MTLB 5 | 175 | 185 | 177 | 185 | 181 | 180.7 | 0.93 | 0.99 |
| MT020080 | MT960013/MT920059 | 174 | 184 | 175 | 184 | 180 | 179.5 | 0.90 | 0.94 |
| MT020085 | MT960013/MT960101 | 173 | 184 | 180 | 184 | 181 | 180.4 | 0.85 | 0.90 |
| MT020090 | MT960013/MT960101 | 174 | 184 | 173 | 184 | 181 | 179.2 | 0.99 | 0.89 |
| MT020120 | MT960174/MT960222 | 172 | 183 | 176 | 184 | 180 | 178.8 | 1.04 | 1.00 |
| MT020139 | MT960222/MTLB 6 | 172 | 183 | 178 | 183 | 179 | 178.9 | 0.87 | 0.96 |
| MT020155 | MT960225/H1851195 | 165 | 177 | 169 | 180 | 175 | 173.2 | 1.22 | 0.97 |
| MT020162 | MT960225/H1851195 | 172 | 182 | 174 | 183 | 179 | 178.1 | 0.96 | 0.98 |
| MT020166 | MT960225/H3860224 | 170 | 182 | 178 | 182 | 178 | 178.0 | 0.94 | 0.88 |
| MT020167 | MT960225/H3860224 | 171 | 181 | 179 | 182 | 178 | 178.3 | 0.76 | 0.82 |

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Table 3 continued. Statewide Dryland Barley – Heading Date

| | | | | | | | | | |
|----------------------|----------------------------|-----------|-----------|-----------|------------|-----------|------------------|------------|------------|
| MT020204 | MTLB 32/H1851195 | 168 | 181 | 176 | 182 | 177 | 176.7 | 1.07 | 0.95 |
| MT020205 | MTLB 32/H1851195 | 171 | 181 | 176 | 182 | 177 | 177.1 | 0.89 | 0.96 |
| MT020246 | MT960013/MT960101 | 176 | 187 | 175 | 185 | 183 | 181.2 | 1.00 | 0.83 |
| MT910189 | ND 7293/Bearpaw | 166 | 180 | 176 | 182 | 177 | 176.2 | 1.13 | 0.88 |
| MT950186 | Haxby | 171 | 182 | 175 | 182 | 179 | 178.0 | 0.93 | 0.99 |
| MT960228 | Eslick | 172 | 183 | 176 | 184 | 180 | 179.1 | 0.98 | 1.00 |
| MT970116 | Klages/Baronesse | 170 | 181 | 173 | 182 | 177 | 176.6 | 1.02 | 0.99 |
| MT970229 | MT890021/Stark | 171 | 183 | 176 | 183 | 180 | 178.6 | 1.00 | 0.99 |
| MT981004 | Baronesse/H2860224 | 171 | 183 | 177 | 183 | 180 | 179.0 | 0.98 | 0.97 |
| MT981006 | Baronesse/H2860224 | 170 | 182 | 181 | 182 | 180 | 178.8 | 0.84 | 0.67 |
| MT981060 | Hays | 174 | 184 | 176 | *** | 181 | *** | *** | *** |
| MT981210 | MT910150/Stark | 172 | 183 | 172 | 184 | 180 | 178.1 | 1.14 | 0.91 |
| MT981238 | ND112311/Lewis | 167 | 180 | 174 | 182 | 176 | 175.9 | 1.17 | 0.96 |
| ND13299 | Conlon | 163 | 177 | 172 | 180 | 173 | 173.0 | 1.23 | 0.92 |
| PI491534 | Gallatin | 169 | 181 | 168 | 182 | 177 | 175.6 | 1.24 | 0.90 |
| PI533600 | Haybet | 171 | 183 | 170 | *** | 179 | *** | *** | *** |
| PI568246 | Baronesse | 174 | 184 | 181 | 183 | 181 | 180.4 | 0.71 | 0.85 |
| PI610264 | Valier | 174 | 183 | 181 | 183 | 181 | 180.3 | 0.69 | 0.83 |
| PI613603 | Lacey | 165 | 179 | 171 | 180 | 177 | 174.2 | 1.26 | 0.97 |
| SK 76333 | Harrington | 172 | 184 | 171 | 184 | 180 | 178.4 | 1.17 | 0.89 |
| SR-6608 | APB SR-6608 | 175 | 187 | 178 | 186 | 183 | 181.8 | 1.03 | 0.99 |
| TR150 | Copeland | 174 | 185 | 174 | 184 | 182 | 179.6 | 1.03 | 0.89 |
| TR232 | Metcalfe | 169 | 183 | 174 | 182 | 180 | 177.6 | 1.20 | 0.97 |
| SiteMean | SITE MEAN ***** | 171 | 182 | 175 | 183 | 179 | 178.1 | 1.00 | 1.00 |
| C.V. | C.V. (S/Mean) * 100 | 1 | 0 | 1 | *** | 0 | 2.17 | *** | *** |
| F-Value | | 20 | 33 | 30 | *** | 32 | <.0001 | *** | *** |
| L.S.D. | L.S.D. (.05) | 2 | 1 | 2 | *** | 1 | 4.81 | *** | *** |
| Efficiency of | Design Rel to RCB | 2 | 1 | 1 | *** | 0 | *** | *** | *** |

Table 4. 2004 Montana Statewide Dryland Barley – Plant Height, inches

| ID | Pedigree | Sidney | Huntley | Conrad | Bozeman | Mean | Byx | RSQ |
|----------|---------------------|--------|---------|--------|---------|------|------|------|
| 2B914947 | Merit | 29 | 47 | 33 | 32 | 35.1 | 1.05 | 1.00 |
| 2B965057 | Conrad, BA | 29 | 45 | 32 | 32 | 34.5 | 0.93 | 0.99 |
| 6B932978 | Legacy | 32 | 47 | 39 | 36 | 38.4 | 0.81 | 0.94 |
| 6B952482 | Tradition | 32 | 50 | 39 | 39 | 40.0 | 0.94 | 0.97 |
| AC03 6 | Auriga | 27 | 45 | 29 | 27 | 32.1 | 1.13 | 0.95 |
| B99AL616 | APB B99AL-616 | 28 | 40 | 34 | 31 | 33.5 | 0.63 | 0.94 |
| BZ594-19 | WPB Xena | 32 | 50 | 37 | 33 | 37.8 | 1.09 | 0.97 |
| BZ596117 | Boulder, WPB | 30 | 44 | 39 | 34 | 36.8 | 0.72 | 0.83 |
| CI 15773 | Morex | 35 | 55 | 42 | 41 | 43.4 | 1.09 | 0.99 |
| MT000040 | Chinook/MT920161 | 27 | 44 | 36 | 33 | 34.9 | 0.87 | 0.92 |
| MT000045 | Chinook/MT920161 | 30 | 43 | 34 | 33 | 35.0 | 0.72 | 1.00 |
| MT000047 | Chinook/MT920161 | 29 | 43 | 35 | 34 | 35.3 | 0.72 | 0.96 |
| MT000092 | MT890008/Lewis | 32 | 48 | 38 | 35 | 38.3 | 0.86 | 0.98 |
| MT000125 | MT910189/Lewis | 31 | 48 | 36 | 35 | 37.3 | 0.95 | 0.99 |
| MT000138 | MT920041/H1851195 | 31 | 47 | 37 | 36 | 37.7 | 0.88 | 0.98 |
| MT000153 | MT920059/Baronesse | 28 | 45 | 35 | 33 | 35.3 | 0.94 | 0.97 |
| MT010080 | MT886610/H1851195 | 30 | 52 | 39 | 35 | 39.0 | 1.19 | 0.97 |
| MT010081 | MT886610/H1851195 | 29 | 47 | 32 | 34 | 35.6 | 0.99 | 0.97 |
| MT010155 | MT920041/H1851195 | 32 | 45 | 39 | 33 | 37.3 | 0.71 | 0.86 |
| MT010156 | MT920041/H1851195 | 30 | 51 | 36 | 35 | 37.8 | 1.18 | 1.00 |
| MT010158 | MT920041/Harrington | 30 | 44 | 30 | 32 | 34.1 | 0.88 | 0.94 |
| MT010160 | MT920041/Harrington | 30 | 51 | 36 | 32 | 37.2 | 1.24 | 0.99 |
| MT010162 | MT920041/Harrington | 29 | 46 | 32 | 32 | 34.9 | 1.00 | 0.99 |
| MT010177 | MT920041/MT890008 | 28 | 45 | 32 | 30 | 33.6 | 0.99 | 1.00 |
| MT010191 | MT920053/Harrington | 28 | 46 | 31 | 32 | 34.3 | 1.04 | 0.98 |
| MT010205 | MT920073/Baronesse | 30 | 47 | 34 | 32 | 35.7 | 1.01 | 0.99 |
| MT010212 | MT920073/Baronesse | 31 | 48 | 36 | 34 | 37.1 | 0.97 | 0.99 |
| MT010213 | MT920073/Logan | 27 | 43 | 35 | 32 | 34.0 | 0.85 | 0.92 |
| MT020037 | Lewis/Kiebitz | 32 | 46 | 37 | 34 | 37.2 | 0.82 | 0.98 |
| MT020064 | MT910160/H1851195 | 31 | 46 | 35 | 35 | 36.8 | 0.86 | 1.00 |
| MT020072 | MT910160/MT890008 | 29 | 54 | 34 | 32 | 37.1 | 1.49 | 0.99 |
| MT020075 | MT950220/MTLB 5 | 28 | 45 | 32 | 31 | 34.0 | 1.00 | 1.00 |
| MT020080 | MT960013/MT920059 | 27 | 42 | 32 | 32 | 33.1 | 0.83 | 0.98 |
| MT020085 | MT960013/MT960101 | 26 | 40 | 27 | 28 | 30.2 | 0.83 | 0.96 |
| MT020090 | MT960013/MT960101 | 31 | 43 | 26 | 29 | 32.3 | 0.87 | 0.77 |
| MT020120 | MT960174/MT960222 | 30 | 46 | 32 | 33 | 35.5 | 0.92 | 0.97 |
| MT020139 | MT960222/MTLB 6 | 29 | 46 | 33 | 35 | 35.5 | 0.92 | 0.97 |
| MT020155 | MT960225/H1851195 | 30 | 49 | 35 | 33 | 36.9 | 1.11 | 0.99 |
| MT020162 | MT960225/H1851195 | 31 | 56 | 34 | 36 | 39.2 | 1.45 | 0.98 |
| MT020166 | MT960225/H3860224 | 28 | 45 | 33 | 33 | 34.8 | 0.94 | 1.00 |
| MT020167 | MT960225/H3860224 | 33 | 53 | 33 | 33 | 38.1 | 1.28 | 0.94 |
| MT020204 | MTLB 32/H1851195 | 31 | 46 | 33 | 34 | 36.0 | 0.85 | 0.98 |

Continued

Table 4 continued. Statewide Dryland Barley – Plant Height, inches

| | | | | | | | | |
|----------------------|----------------------------|----------|----------|------------|-----------|------------|------------|------------|
| MT020205 | MTLB 32/H1851195 | 31 | 46 | 32 | 34 | 35.8 | 0.92 | 0.96 |
| MT020246 | MT960013/MT960101 | 27 | 44 | 30 | 30 | 32.5 | 0.99 | 0.99 |
| MT910189 | ND 7293/Bearpaw | 29 | 43 | 32 | 33 | 34.4 | 0.81 | 0.98 |
| MT950186 | Haxby | 30 | 50 | 32 | 34 | 36.5 | 1.15 | 0.97 |
| MT960228 | Eslick | 29 | 47 | 33 | 32 | 35.2 | 1.04 | 1.00 |
| MT970116 | Klages/Baronesse | 32 | 55 | 40 | 36 | 40.7 | 1.34 | 0.99 |
| MT970229 | MT890021/Stark | 30 | 48 | 33 | 32 | 35.8 | 1.05 | 0.99 |
| MT981004 | Baronesse/H2860224 | 30 | 43 | 33 | 34 | 34.9 | 0.74 | 0.99 |
| MT981006 | Baronesse/H2860224 | 30 | 46 | 33 | 33 | 35.6 | 0.94 | 0.99 |
| MT981060 | Hays | 28 | 52 | *** | 33 | *** | *** | *** |
| MT981210 | MT910150/Stark | 31 | 57 | 31 | 34 | 38.1 | 1.58 | 0.94 |
| MT981238 | ND112311/Lewis | 32 | 51 | 38 | 35 | 39.0 | 1.12 | 0.99 |
| ND13299 | Conlon | 31 | 52 | 35 | 34 | 38.0 | 1.26 | 0.99 |
| PI491534 | Gallatin | 30 | 49 | 35 | 33 | 36.6 | 1.11 | 1.00 |
| PI533600 | Haybet | 30 | 52 | *** | *** | *** | *** | *** |
| PI568246 | Baronesse | 27 | 40 | 31 | 32 | 32.4 | 0.67 | 0.97 |
| PI610264 | Valier | 28 | 46 | 34 | 33 | 35.4 | 1.00 | 1.00 |
| PI613603 | Lacey | 30 | 48 | 35 | 37 | 37.6 | 0.96 | 0.94 |
| SK 76333 | Harrington | 30 | 47 | 36 | 32 | 36.2 | 0.96 | 0.97 |
| SR-6608 | APB SR-6608 | 24 | 44 | 25 | 25 | 29.5 | 1.25 | 0.97 |
| TR150 | Copeland | 33 | 49 | 39 | 34 | 38.7 | 0.95 | 0.94 |
| TR232 | Metcalfe | 29 | 48 | 38 | 32 | 36.7 | 1.03 | 0.92 |
| Site Mean | SITE MEAN ***** | 30 | 47 | 34 | 33 | 36.0 | 1.00 | 1.00 |
| C.V. | C.V. (S/Mean) * 100 | 6 | 7 | *** | 3 | *** | *** | *** |
| F-Value | | 3 | 4 | *** | 17 | *** | *** | *** |
| L.S.D. | L.S.D. (.05) | 3 | 5 | *** | 2 | *** | *** | *** |
| Efficiency of | Design Rel to RCB | 1 | 1 | *** | 1 | *** | *** | *** |

Table 5. 2004 Montana Statewide Dryland Barley – Test Weight, lb/bu

| ID | Pedigree | Sidney | Moccasin | Huntley | Conrad | Bozeman | Mean | Byx | RSQ |
|----------|---------------------|--------|----------|---------|--------|---------|------|------|------|
| 2B914947 | Merit | 48 | 45 | 51 | 49 | 53 | 48.9 | 1.36 | 0.99 |
| 2B965057 | Conrad, BA | 50 | 48 | 53 | 51 | 53 | 51.0 | 0.95 | 0.99 |
| 6B932978 | Legacy | 49 | 44 | 48 | 49 | 49 | 47.7 | 0.85 | 0.63 |
| 6B952482 | Tradition | 49 | 49 | 50 | 50 | 53 | 50.5 | 0.70 | 0.75 |
| AC03 6 | Auriga | 51 | 48 | 54 | 51 | 54 | 51.5 | 1.14 | 0.93 |
| B99AL616 | APB B99AL-616 | 50 | 48 | 54 | 48 | 53 | 50.4 | 1.05 | 0.66 |
| BZ594-19 | WPB Xena | 50 | 49 | 53 | 52 | 53 | 51.4 | 0.74 | 0.87 |
| BZ596117 | Boulder, WPB | 52 | 52 | 54 | 55 | 57 | 53.9 | 0.78 | 0.79 |
| CI 15773 | Morex | 49 | 46 | 50 | 50 | 51 | 49.3 | 0.67 | 0.81 |
| MT000040 | Chinook/MT920161 | 52 | 50 | 54 | 53 | 57 | 53.1 | 1.08 | 0.96 |
| MT000045 | Chinook/MT920161 | 51 | 51 | 54 | 52 | 55 | 52.5 | 0.75 | 0.91 |
| MT000047 | Chinook/MT920161 | 51 | 49 | 54 | 52 | 55 | 52.0 | 1.14 | 0.99 |
| MT000092 | MT890008/Lewis | 51 | 50 | 53 | 51 | 55 | 51.8 | 0.89 | 0.90 |
| MT000125 | MT910189/Lewis | 51 | 51 | 53 | 53 | 56 | 52.9 | 0.88 | 0.88 |
| MT000138 | MT920041/H1851195 | 52 | 51 | 54 | 52 | 56 | 52.9 | 0.78 | 0.88 |
| MT000153 | MT920059/Baronesse | 51 | 52 | 55 | 54 | 56 | 53.6 | 0.82 | 0.83 |
| MT010080 | MT886610/H1851195 | 51 | 49 | 54 | 51 | 56 | 52.0 | 1.27 | 0.97 |
| MT010081 | MT886610/H1851195 | 51 | 51 | 54 | 52 | 56 | 52.7 | 0.96 | 0.88 |
| MT010155 | MT920041/H1851195 | 50 | 49 | 53 | 53 | 55 | 51.9 | 1.09 | 0.91 |
| MT010156 | MT920041/H1851195 | 51 | 49 | 53 | 53 | 56 | 52.5 | 1.07 | 0.90 |
| MT010158 | MT920041/Harrington | 50 | 49 | 53 | 54 | 56 | 52.2 | 1.10 | 0.81 |
| MT010160 | MT920041/Harrington | 50 | 46 | 52 | 51 | 56 | 51.1 | 1.61 | 0.95 |
| MT010162 | MT920041/Harrington | 51 | 47 | 53 | 52 | 54 | 51.1 | 1.17 | 0.91 |
| MT010177 | MT920041/MT890008 | 50 | 51 | 52 | 54 | 54 | 52.3 | 0.61 | 0.53 |
| MT010191 | MT920053/Harrington | 49 | 46 | 53 | 51 | 55 | 50.8 | 1.52 | 0.99 |
| MT010205 | MT920073/Baronesse | 50 | 47 | 52 | 50 | 53 | 50.5 | 1.02 | 0.95 |
| MT010212 | MT920073/Baronesse | 50 | 47 | 53 | 51 | 54 | 50.8 | 1.15 | 0.98 |
| MT010213 | MT920073/Logan | 51 | 51 | 54 | 53 | 56 | 53.0 | 0.79 | 0.87 |
| MT020037 | Lewis/Kiebitz | 53 | 52 | 55 | 53 | 55 | 53.4 | 0.58 | 0.98 |
| MT020064 | MT910160/H1851195 | 51 | 51 | 54 | 54 | 56 | 53.2 | 0.95 | 0.93 |
| MT020072 | MT910160/MT890008 | 51 | 50 | 53 | 50 | 55 | 51.8 | 0.87 | 0.76 |
| MT020075 | MT950220/MTLB 5 | 49 | 46 | 47 | 50 | 54 | 49.1 | 0.87 | 0.40 |
| MT020080 | MT960013/MT920059 | 47 | 45 | 52 | 48 | 53 | 48.9 | 1.52 | 0.97 |
| MT020085 | MT960013/MT960101 | 47 | 43 | 52 | 45 | 50 | 47.3 | 1.47 | 0.78 |
| MT020090 | MT960013/MT960101 | 47 | 44 | 51 | 47 | 51 | 48.1 | 1.25 | 0.94 |
| MT020120 | MT960174/MT960222 | 50 | 47 | 54 | 49 | 53 | 50.6 | 1.24 | 0.90 |
| MT020139 | MT960222/MTLB 6 | 51 | 50 | 54 | 51 | 55 | 52.1 | 0.84 | 0.85 |
| MT020155 | MT960225/H1851195 | 51 | 50 | 51 | 52 | 55 | 51.9 | 0.66 | 0.69 |
| MT020162 | MT960225/H1851195 | 51 | 52 | 54 | 53 | 54 | 52.7 | 0.53 | 0.76 |
| MT020166 | MT960225/H3860224 | 50 | 48 | 54 | 51 | 54 | 51.3 | 1.02 | 0.95 |
| MT020167 | MT960225/H3860224 | 52 | 52 | 55 | 55 | 55 | 53.6 | 0.60 | 0.71 |
| MT020204 | MTLB 32/H1851195 | 52 | 51 | 54 | 51 | 56 | 52.8 | 0.83 | 0.75 |

Continued

Table 5 continued. Statewide Dryland Barley – Test Weight, lb/bu

| | | | | | | | | | |
|----------------------|---------------------|----|----|----|-----|-----|--------|------|------|
| MT020205 | MTLB 32/H1851195 | 51 | 49 | 54 | 52 | 55 | 52.3 | 0.99 | 0.97 |
| MT020246 | MT960013/MT960101 | 47 | 43 | 52 | 50 | 51 | 48.6 | 1.54 | 0.91 |
| MT910189 | ND 7293/Bearpaw | 51 | 48 | 54 | 52 | 56 | 52.2 | 1.23 | 0.99 |
| MT950186 | Haxby | 53 | 52 | 54 | 55 | 55 | 53.9 | 0.55 | 0.71 |
| MT960228 | Eslick | 51 | 48 | 54 | 53 | 53 | 51.7 | 1.05 | 0.79 |
| MT970116 | Klages/Baronesse | 51 | 52 | 55 | 54 | 56 | 53.5 | 0.68 | 0.77 |
| MT970229 | MT890021/Stark | 52 | 50 | 55 | 54 | 56 | 53.0 | 1.06 | 0.98 |
| MT981004 | Baronesse/H2860224 | 50 | 50 | 54 | 50 | 54 | 51.5 | 0.87 | 0.75 |
| MT981006 | Baronesse/H2860224 | 51 | 47 | 54 | 51 | 52 | 51.1 | 1.02 | 0.75 |
| MT981060 | Hays | 47 | 46 | 51 | *** | 52 | *** | *** | *** |
| MT981210 | MT910150/Stark | 52 | 50 | 54 | 54 | 55 | 52.8 | 0.97 | 0.96 |
| MT981238 | ND112311/Lewis | 51 | 52 | 54 | 52 | 56 | 53.0 | 0.80 | 0.69 |
| ND13299 | Conlon | 52 | 53 | 53 | 50 | 55 | 52.7 | 0.35 | 0.14 |
| PI491534 | Gallatin | 52 | 49 | 52 | 53 | 56 | 52.3 | 1.02 | 0.82 |
| PI533600 | Haybet | 47 | 45 | 50 | *** | 52 | *** | *** | *** |
| PI568246 | Baronesse | 50 | 47 | 54 | 52 | 54 | 51.3 | 1.30 | 0.96 |
| PI610264 | Valier | 51 | 48 | 53 | 50 | 54 | 50.9 | 1.08 | 0.89 |
| PI613603 | Lacey | 50 | 43 | 50 | 51 | 53 | 49.5 | 1.46 | 0.72 |
| SK 76333 | Harrington | 50 | 46 | 52 | 52 | 53 | 50.5 | 1.13 | 0.82 |
| SR-6608 | APB SR-6608 | 46 | 44 | 52 | 47 | 48 | 47.4 | 1.01 | 0.61 |
| TR150 | Copeland | 49 | 45 | 51 | 49 | 52 | 49.1 | 1.30 | 0.95 |
| TR232 | Metcalfe | 50 | 46 | 53 | 52 | 52 | 50.9 | 1.14 | 0.78 |
| Site Mean | SITE MEAN ***** | 50 | 48 | 53 | 51 | 54 | 51.4 | 1.00 | 1.00 |
| C.V. | C.V. (S/Mean) * 100 | 1 | 2 | 1 | *** | 1 | 2.22 | *** | *** |
| F-Value | | 20 | 11 | 28 | *** | 12 | <.0001 | *** | *** |
| L.S.D. | L.S.D. (.05) | 1 | 2 | 1 | *** | 1 | 1.42 | *** | *** |
| Efficiency of | Design Rel to RCB | 1 | 0 | 1 | *** | *** | *** | *** | *** |

Table 6. 2004 Montana Statewide Dryland Barley – Plump Percent over 6/64 sieve

| ID | Pedigree | Sidney | Moccasin | Huntley | Conrad | Bozeman | Mean | Byx | RSQ |
|----------|---------------------|--------|----------|---------|--------|---------|------|-------|------|
| 2B914947 | Merit | 84 | 37 | 82 | 94 | 72 | 73.8 | 1.05 | 0.96 |
| 2B965057 | Conrad, BA | 92 | 35 | 92 | 87 | 81 | 77.6 | 1.14 | 0.95 |
| 6B932978 | Legacy | 77 | 27 | 62 | 60 | 33 | 52.0 | 0.79 | 0.60 |
| 6B952482 | Tradition | 88 | 57 | 88 | 92 | 75 | 80.0 | 0.68 | 0.95 |
| AC03 6 | Auriga | 87 | 17 | 97 | 89 | 68 | 71.5 | 1.56 | 0.99 |
| B99AL616 | APB B99AL-616 | 91 | 12 | 94 | 86 | 68 | 70.3 | 1.63 | 0.97 |
| BZ594-19 | WPB Xena | 72 | 75 | 94 | 94 | 53 | 77.5 | 0.33 | 0.15 |
| BZ596117 | Boulder, WPB | 79 | 14 | 95 | 98 | 91 | 75.5 | 1.63 | 0.92 |
| CI 15773 | Morex | 84 | 74 | 78 | 67 | 30 | 66.6 | 0.04 | 0.00 |
| MT000040 | Chinook/MT920161 | 88 | 42 | 92 | 92 | 90 | 80.7 | 1.03 | 0.94 |
| MT000045 | Chinook/MT920161 | 94 | 22 | 97 | 98 | 87 | 79.4 | 1.56 | 0.97 |
| MT000047 | Chinook/MT920161 | 79 | 13 | 95 | 89 | 77 | 70.6 | 1.58 | 0.98 |
| MT000092 | MT890008/Lewis | 87 | 48 | 95 | 97 | 90 | 83.3 | 0.96 | 0.95 |
| MT000125 | MT910189/Lewis | 91 | 7 | 96 | 92 | 93 | 75.8 | 1.78 | 0.92 |
| MT000138 | MT920041/H1851195 | 96 | 26 | 97 | 96 | 93 | 81.7 | 1.46 | 0.94 |
| MT000153 | MT920059/Baronesse | 80 | 41 | 96 | 95 | 91 | 80.6 | 1.05 | 0.90 |
| MT010080 | MT886610/H1851195 | 89 | 89 | 94 | 76 | 89 | 87.3 | -0.07 | 0.05 |
| MT010081 | MT886610/H1851195 | 88 | 22 | 96 | 92 | 91 | 77.7 | 1.47 | 0.93 |
| MT010155 | MT920041/H1851195 | 89 | 17 | 96 | 98 | 86 | 77.0 | 1.64 | 0.97 |
| MT010156 | MT920041/H1851195 | 94 | 71 | 97 | 98 | 93 | 90.7 | 0.53 | 0.97 |
| MT010158 | MT920041/Harrington | 83 | 53 | 89 | 97 | 89 | 82.3 | 0.78 | 0.89 |
| MT010160 | MT920041/Harrington | 79 | 73 | 87 | 73 | 78 | 77.9 | 0.15 | 0.27 |
| MT010162 | MT920041/Harrington | 75 | 34 | 83 | 92 | 65 | 69.9 | 1.05 | 0.96 |
| MT010177 | MT920041/MT890008 | 80 | 61 | 79 | 97 | 85 | 80.5 | 0.52 | 0.70 |
| MT010191 | MT920053/Harrington | 78 | 24 | 93 | 91 | 75 | 72.2 | 1.36 | 0.98 |
| MT010205 | MT920073/Baronesse | 89 | 30 | 90 | 79 | 76 | 72.7 | 1.16 | 0.93 |
| MT010212 | MT920073/Baronesse | 84 | 22 | 92 | 93 | 76 | 73.5 | 1.42 | 0.99 |
| MT010213 | MT920073/Logan | 87 | 35 | 96 | 98 | 85 | 80.2 | 1.24 | 0.99 |
| MT020037 | Lewis/Kiebitz | 91 | 58 | 95 | 94 | 76 | 82.7 | 0.76 | 0.95 |
| MT020064 | MT910160/H1851195 | 95 | 28 | 97 | 98 | 92 | 82.2 | 1.43 | 0.95 |
| MT020072 | MT910160/MT890008 | 96 | 61 | 93 | 97 | 90 | 87.5 | 0.72 | 0.96 |
| MT020075 | MT950220/MTLB 5 | 84 | 38 | 58 | 90 | 78 | 69.5 | 0.80 | 0.59 |
| MT020080 | MT960013/MT920059 | 96 | 57 | 95 | 90 | 91 | 85.7 | 0.74 | 0.90 |
| MT020085 | MT960013/MT960101 | 63 | 6 | 89 | 78 | 47 | 56.4 | 1.53 | 0.95 |
| MT020090 | MT960013/MT960101 | 71 | 72 | 88 | 61 | 48 | 68.0 | 0.05 | 0.00 |
| MT020120 | MT960174/MT960222 | 91 | 41 | 95 | 96 | 79 | 80.4 | 1.12 | 1.00 |
| MT020139 | MT960222/MTLB 6 | 89 | 27 | 97 | 97 | 87 | 79.6 | 1.41 | 0.97 |
| MT020155 | MT960225/H1851195 | 88 | 22 | 82 | 94 | 84 | 74.0 | 1.37 | 0.92 |
| MT020162 | MT960225/H1851195 | 92 | 51 | 97 | 96 | 88 | 84.7 | 0.93 | 0.98 |
| MT020166 | MT960225/H3860224 | 92 | 34 | 94 | 95 | 73 | 77.6 | 1.26 | 0.99 |
| MT020167 | MT960225/H3860224 | 90 | 35 | 97 | 95 | 85 | 80.3 | 1.25 | 0.98 |

Continued

Table 6 continued. Statewide Dryland Barley – Plump Percent, on 6/64

| | | | | | | | | | |
|----------------------|----------------------------|-----|-----|-----------|-----|-----------|------------------|------|------|
| MT020204 | MTLB 32/H1851195 | 84 | 12 | 88 | 93 | 89 | 73.0 | 1.61 | 0.92 |
| MT020205 | MTLB 32/H1851195 | 95 | 68 | 94 | 92 | 88 | 87.5 | 0.52 | 0.95 |
| MT020246 | MT960013/MT960101 | 72 | 60 | 84 | 91 | 66 | 74.6 | 0.51 | 0.68 |
| MT910189 | ND 7293/Bearpaw | 84 | 71 | 97 | 98 | 91 | 87.9 | 0.50 | 0.84 |
| MT950186 | Haxby | 90 | 25 | 92 | 91 | 85 | 76.8 | 1.38 | 0.95 |
| MT960228 | Stark/Baronesse | 88 | 54 | 93 | 93 | 54 | 76.4 | 0.79 | 0.64 |
| MT970116 | Klages/Baronesse | 93 | 59 | 97 | 98 | 81 | 85.6 | 0.79 | 0.98 |
| MT970229 | MT890021/Stark | 91 | 36 | 97 | 98 | 91 | 82.6 | 1.26 | 0.96 |
| MT981004 | Baronesse/H2860224 | 78 | 53 | 95 | 87 | 65 | 75.6 | 0.75 | 0.83 |
| MT981006 | Baronesse/H2860224 | 84 | 38 | 95 | 94 | 62 | 74.8 | 1.13 | 0.92 |
| MT981060 | Hays | 54 | 45 | 78 | *** | 66 | *** | *** | *** |
| MT981210 | MT910150/Stark | 88 | 68 | 93 | 96 | 89 | 86.6 | 0.53 | 0.97 |
| MT981238 | ND112311/Lewis | 93 | 74 | 91 | 98 | 92 | 89.4 | 0.42 | 0.88 |
| ND13299 | Conlon | 98 | 47 | 99 | 98 | 97 | 87.7 | 1.08 | 0.93 |
| PI491534 | Gallatin | 88 | 20 | 82 | 91 | 83 | 72.8 | 1.38 | 0.92 |
| PI533600 | Haybet | 27 | 30 | 54 | *** | 25 | *** | *** | *** |
| PI568246 | Baronesse | 81 | 29 | 95 | 93 | 72 | 74.2 | 1.30 | 1.00 |
| PI610264 | Valier | 73 | 44 | 93 | 97 | 60 | 73.5 | 0.98 | 0.81 |
| PI613603 | Lacey | 83 | 20 | 86 | 87 | 64 | 68.0 | 1.38 | 0.99 |
| SK 76333 | Harrington | 89 | 62 | 82 | 91 | 67 | 78.1 | 0.53 | 0.70 |
| SR-6608 | APB SR-6608 | 61 | 29 | 92 | 75 | 25 | 56.2 | 1.06 | 0.57 |
| TR150 | Copeland | 79 | 49 | 90 | 87 | 72 | 75.4 | 0.78 | 0.97 |
| TR232 | Metcalfe | 88 | 40 | 95 | 83 | 58 | 72.8 | 1.03 | 0.84 |
| SiteMean | SITE MEAN ***** | 84 | 41 | 90 | 91 | 76 | 76.4 | 1.00 | 1.00 |
| C.V. | C.V. (S/Mean) * 100 | *** | *** | 5 | *** | 11 | 15.52 | *** | *** |
| F-Value | | *** | *** | 10 | *** | 8 | <.0001 | *** | *** |
| L.S.D. | L.S.D. (.05) | *** | *** | 8 | *** | 17 | 14.89 | *** | *** |
| Efficiency of | Design Rel to RCB | *** | *** | 1 | *** | *** | *** | *** | *** |

**Table 7. 2004 Montana Statewide Dryland Barley – Protein Percent
dry weight basis**

| ID | Pedigree | Sidney | Moccasin | Huntley | Conrad | Bozeman | Mean | Byx | RSQ |
|-----------|---------------------|---------------|-----------------|----------------|---------------|----------------|-------------|------------|------------|
| 2B914947 | Merit | 14.6 | 19.0 | 12.0 | 11.7 | 13.8 | 14.2 | 1.56 | 0.98 |
| 2B965057 | Conrad, BA | 13.3 | 16.8 | 13.1 | 13.0 | 14.8 | 14.2 | 0.82 | 0.88 |
| 6B932978 | Legacy | 12.9 | 16.0 | 10.3 | 11.4 | 13.3 | 12.8 | 1.14 | 0.97 |
| 6B952482 | Tradition | 13.7 | 12.7 | 12.5 | 11.3 | 13.0 | 12.6 | 0.19 | 0.17 |
| AC03 6 | Auriga | 13.2 | 18.3 | 12.2 | 12.6 | 13.5 | 13.9 | 1.27 | 0.90 |
| B99AL616 | APB B99AL-616 | 13.6 | 16.7 | 14.0 | 12.1 | 13.4 | 13.9 | 0.77 | 0.71 |
| BZ594-19 | WPB Xena | 12.9 | 15.8 | 12.2 | 11.2 | 13.8 | 13.2 | 0.90 | 0.93 |
| BZ596117 | Boulder, WPB | 13.9 | 15.6 | 10.6 | 12.7 | 12.9 | 13.1 | 0.88 | 0.81 |
| CI 15773 | Morex | 13.9 | 16.6 | 12.2 | 11.8 | 14.7 | 13.8 | 1.02 | 0.96 |
| MT000040 | Chinook/MT920161 | 14.2 | 17.2 | 12.0 | 12.4 | 13.9 | 13.9 | 1.09 | 0.99 |
| MT000045 | Chinook/MT920161 | 14.1 | 16.8 | 12.2 | 12.5 | 14.1 | 13.9 | 0.98 | 1.00 |
| MT000047 | Chinook/MT920161 | 14.5 | 17.1 | 13.1 | 12.7 | 13.4 | 14.2 | 0.90 | 0.90 |
| MT000092 | MT890008/Lewis | 12.6 | 14.5 | 11.8 | 10.9 | 12.3 | 12.4 | 0.68 | 0.91 |
| MT000125 | MT910189/Lewis | 13.3 | 15.4 | 10.8 | 13.0 | 13.5 | 13.2 | 0.78 | 0.79 |
| MT000138 | MT920041/H1851195 | 15.1 | 16.0 | 13.7 | 13.7 | 14.1 | 14.5 | 0.50 | 0.83 |
| MT000153 | MT920059/Baronesse | 14.0 | 12.2 | 12.5 | 11.7 | 13.2 | 12.7 | 0.05 | 0.01 |
| MT010080 | MT886610/H1851195 | 14.6 | 16.7 | 12.4 | 13.6 | 13.8 | 14.2 | 0.81 | 0.90 |
| MT010081 | MT886610/H1851195 | 14.0 | 16.3 | 11.7 | 12.2 | 14.1 | 13.6 | 0.97 | 0.98 |
| MT010155 | MT920041/H1851195 | 14.9 | 17.8 | 11.9 | 14.1 | 14.8 | 14.7 | 1.06 | 0.88 |
| MT010156 | MT920041/H1851195 | 13.5 | 16.6 | 11.9 | 13.4 | 13.9 | 13.9 | 0.86 | 0.88 |
| MT010158 | MT920041/Harrington | 14.1 | 16.4 | 12.6 | 13.3 | 13.7 | 14.0 | 0.75 | 0.94 |
| MT010160 | MT920041/Harrington | 14.5 | 17.4 | 12.2 | 13.0 | 14.0 | 14.2 | 1.05 | 0.97 |
| MT010162 | MT920041/Harrington | 13.6 | 16.8 | 12.3 | 11.2 | 13.8 | 13.5 | 1.10 | 0.96 |
| MT010177 | MT920041/MT890008 | 13.1 | 13.3 | 12.8 | 11.7 | 13.6 | 12.9 | 0.24 | 0.39 |
| MT010191 | MT920053/Harrington | 13.9 | 18.8 | 11.0 | 10.6 | 14.3 | 13.7 | 1.76 | 0.99 |
| MT010205 | MT920073/Baronesse | 14.4 | 17.6 | 11.5 | 12.1 | 14.1 | 13.9 | 1.28 | 0.99 |
| MT010212 | MT920073/Baronesse | 14.1 | 17.6 | 10.8 | 12.0 | 14.4 | 13.8 | 1.38 | 0.97 |
| MT010213 | MT920073/Logan | 13.8 | 15.1 | 11.9 | 12.4 | 14.4 | 13.5 | 0.67 | 0.86 |
| MT020037 | Lewis/Kiebitz | 14.3 | 17.2 | 11.5 | 12.4 | 15.2 | 14.1 | 1.17 | 0.94 |
| MT020064 | MT910160/H1851195 | 14.3 | 18.4 | 13.5 | 12.2 | 14.5 | 14.6 | 1.20 | 0.93 |
| MT020072 | MT910160/MT890008 | 13.4 | 17.1 | 12.0 | 11.7 | 14.2 | 13.7 | 1.15 | 0.98 |
| MT020075 | MT950220/MTLB 5 | 13.2 | 16.7 | 13.8 | 11.0 | 13.1 | 13.6 | 0.91 | 0.69 |
| MT020080 | MT960013/MT920059 | 13.6 | 17.2 | 11.7 | 11.6 | 12.9 | 13.4 | 1.21 | 0.96 |
| MT020085 | MT960013/MT960101 | 13.7 | 17.3 | 12.3 | 11.2 | 13.7 | 13.6 | 1.21 | 0.96 |
| MT020090 | MT960013/MT960101 | 13.6 | 15.8 | 11.3 | 11.0 | 14.4 | 13.2 | 1.05 | 0.91 |
| MT020120 | MT960174/MT960222 | 13.5 | 17.7 | 11.1 | 12.4 | 14.0 | 13.7 | 1.31 | 0.97 |
| MT020139 | MT960222/MTLB 6 | 15.2 | 17.0 | 13.9 | 12.7 | 14.8 | 14.7 | 0.81 | 0.90 |
| MT020155 | MT960225/H1851195 | 13.2 | 16.7 | 9.7 | 13.0 | 14.0 | 13.3 | 1.20 | 0.79 |
| MT020162 | MT960225/H1851195 | 13.5 | 15.8 | 12.2 | 11.5 | 14.0 | 13.4 | 0.87 | 0.95 |
| MT020166 | MT960225/H3860224 | 12.8 | 13.6 | 10.4 | 10.5 | 13.4 | 12.1 | 0.73 | 0.75 |
| MT020167 | MT960225/H3860224 | 12.8 | 15.5 | 12.5 | 12.4 | 14.3 | 13.5 | 0.68 | 0.87 |

Continued

Table 7 continued. Statewide Dryland Barley – Protein Percent

| | | | | | | | | | |
|----------------------|----------------------------|-------------|------------|------------|--------------|-------------|------------------|------------|------------|
| MT020204 | MTLB 32/H1851195 | 14.0 | 15.5 | 9.7 | 11.9 | 13.6 | 12.9 | 1.07 | 0.80 |
| MT020205 | MTLB 32/H1851195 | 13.9 | 19.2 | 10.6 | 11.9 | 13.9 | 13.9 | 1.75 | 0.98 |
| MT020246 | MT960013/MT960101 | 13.8 | 18.1 | 13.8 | 11.4 | 13.2 | 14.1 | 1.17 | 0.78 |
| MT910189 | ND 7293/Bearpaw | 13.2 | 16.5 | 11.5 | 10.6 | 13.9 | 13.1 | 1.20 | 0.95 |
| MT950186 | Haxby | 12.9 | 15.6 | 10.9 | 10.9 | 12.9 | 12.6 | 1.04 | 1.00 |
| MT960228 | Eslick | 12.7 | 16.8 | 11.9 | 11.4 | 14.2 | 13.4 | 1.13 | 0.94 |
| MT970116 | Klages/Baronesse | 14.0 | 15.1 | 11.2 | 11.6 | 14.3 | 13.2 | 0.85 | 0.84 |
| MT970229 | MT890021/Stark | 14.0 | 18.0 | 11.4 | 12.0 | 14.0 | 13.9 | 1.38 | 0.99 |
| MT981004 | Baronesse/H2860224 | 14.3 | 18.3 | 10.0 | 10.2 | 13.7 | 13.3 | 1.82 | 0.98 |
| MT981006 | Baronesse/H2860224 | 13.2 | 17.7 | 11.5 | 12.9 | 14.5 | 13.9 | 1.21 | 0.92 |
| MT981060 | Hays | 14.2 | 15.4 | 11.1 | *** | 13.2 | *** | *** | *** |
| MT981210 | MT910150/Stark | 13.6 | 15.7 | 12.6 | 11.2 | 13.1 | 13.2 | 0.83 | 0.87 |
| MT981238 | ND112311/Lewis | 14.2 | 15.9 | 12.3 | 13.0 | 14.8 | 14.0 | 0.74 | 0.92 |
| ND13299 | Conlon | 13.7 | 14.3 | 12.7 | 12.9 | 13.7 | 13.4 | 0.34 | 0.94 |
| PI491534 | Gallatin | 13.2 | 15.8 | 10.6 | 12.4 | 13.7 | 13.1 | 0.96 | 0.89 |
| PI533600 | Haybet | 14.8 | 16.7 | 11.7 | *** | 15.0 | *** | *** | *** |
| PI568246 | Baronesse | 13.4 | 18.1 | 12.4 | 11.8 | 13.2 | 13.8 | 1.29 | 0.92 |
| PI610264 | Valier | 14.0 | 19.0 | 14.7 | 13.4 | 14.9 | 15.2 | 1.05 | 0.78 |
| PI613603 | Lacey | 13.3 | 16.2 | 11.8 | 11.6 | 12.6 | 13.1 | 0.97 | 0.94 |
| SK 76333 | Harrington | 13.2 | 18.0 | 12.5 | 12.1 | 14.2 | 14.0 | 1.24 | 0.94 |
| SR-6608 | APB SR-6608 | 13.3 | 14.9 | 10.7 | 12.5 | 13.5 | 13.0 | 0.75 | 0.82 |
| TR150 | Copeland | 13.4 | 17.6 | 11.3 | 12.8 | 12.6 | 13.5 | 1.19 | 0.86 |
| TR232 | Metcalfe | 12.9 | 17.3 | 12.7 | 11.7 | 15.1 | 13.9 | 1.12 | 0.87 |
| Site Mean | SITE MEAN ***** | 13.7 | 16.5 | 11.9 | 12.1 | 13.8 | 13.6 | 1.00 | 1.00 |
| C.V. | C.V. (S/Mean) * 100 | 3.50 | *** | *** | 10.05 | 5.17 | 6.42 | *** | *** |
| F-Value | | 4.27 | *** | *** | 1.52 | 1.66 | <.0001 | *** | *** |
| L.S.D. | L.S.D. (.05) | 0.84 | *** | *** | 1.96 | 1.43 | 1.09 | *** | *** |
| Efficiency of | Design Rel to RCB | 2.28 | *** | *** | *** | *** | *** | *** | *** |

Table 8. 2004 Montana Statewide Irrigated Barley – Overall Summary

| ID | PEDIGREE | Yield bu/ac | Test Weight lb/bu | Plump % | Heading Date | Plant Height inches | Protein % |
|-----------|---------------------|----------------|-------------------------|--------------|-----------------|---------------------------|---------------|
| BZ594-19 | WPB Xena | 141.5** | 52.8 | 90.1 | 175.7 | 36.4 | 11.9* |
| S3482 | Calgary | 138.7* | 52.7 | 88.8 | 175.6 | 31.5 | 12.0* |
| MT020166 | MT960225/H3860224 | 137.8* | 52.2 | 93.2* | 174.5 | 34.3 | 11.9* |
| MT960228 | Eslick | 137.5* | 52.8 | 93.1* | 175.4 | 35.1 | 12.1* |
| MT020162 | MT960225/H1851195 | 136.9* | 53.0 | 95.5* | 175.5 | 38.9 | 12.6 |
| PI568246 | Baronesse | 136.2* | 51.9 | 88.2 | 176.8 | 35.0 | 12.2 |
| BZ596117 | Boulder, WPB | 136.0* | 53.9* | 94.4* | 174.9 | 37.1 | 12.4 |
| PI613603 | Lacey | 135.7* | 50.7 | 93.3* | 171.6 | 40.2 | 12.1* |
| B99AL616 | APB B99AL-616 | 134.7* | 51.6 | 88.5 | 175.8 | 34.2 | 12.1* |
| MT020155 | MT960225/H1851195 | 134.4* | 51.7 | 86.2 | 170.9 | 35.5 | 12.6 |
| MT950186 | Haxby | 133.0* | 54.4** | 95.0* | 174.5 | 36.7 | 12.2 |
| MT010080 | MT886610/H1851195 | 132.0* | 52.6 | 94.4* | 174.1 | 36.8 | 13.0 |
| MT010213 | MT920073/Logan | 132.0* | 53.6* | 94.1* | 175.7 | 33.7 | 13.3 |
| 2B914947 | Merit | 131.5* | 49.9 | 87.4 | 177.6 | 35.8 | 12.4 |
| MT981006 | Baronesse/H2860224 | 131.5* | 51.8 | 87.0 | 175.6 | 34.7 | 12.7 |
| MT981004 | Baronesse/H2860224 | 131.4* | 51.4 | 84.8 | 175.4 | 35.2 | 12.4 |
| MT000047 | Chinook/MT920161 | 131.1* | 52.9 | 90.6 | 173.4 | 36.5 | 12.7 |
| MT010205 | MT920073/Baronesse | 130.9* | 52.3 | 95.0* | 178.6 | 36.0 | 12.8 |
| MT010212 | MT920073/Baronesse | 130.7* | 52.2 | 92.4* | 175.1 | 35.8 | 12.5 |
| MT010191 | MT920053/Harrington | 130.7* | 53.0 | 92.3* | 178.2 | 36.7 | 12.7 |
| MT020204 | MTLB 32/H1851195 | 130.7* | 53.2 | 89.4 | 173.0 | 35.4 | 12.8 |
| MT000153 | MT920059/Baronesse | 130.7* | 53.6* | 93.8* | 173.8 | 35.5 | 12.8 |
| MT000040 | Chinook/MT920161 | 130.6* | 54.0* | 94.9* | 174.7 | 35.5 | 12.7 |
| MT010081 | MT886610/H1851195 | 130.4 | 53.6* | 94.1* | 174.9 | 37.3 | 12.8 |
| MT020090 | MT960013/MT960101 | 129.8 | 50.8 | 89.3 | 177.8 | 34.0 | 12.3 |
| PI610264 | Valier | 129.8 | 52.8 | 87.9 | 177.0 | 36.4 | 12.8 |
| MT970229 | MT890021/Stark | 129.5 | 53.9* | 96.3* | 175.8 | 36.0 | 12.1* |
| MT000125 | MT910189/Lewis | 129.5 | 53.7* | 96.2* | 175.1 | 36.4 | 12.4 |
| MT020085 | MT960013/MT960101 | 129.0 | 49.4 | 82.6 | 177.4 | 31.2 | 12.4 |
| MT020080 | MT960013/MT920059 | 128.9 | 50.8 | 95.5* | 176.6 | 32.8 | 12.2 |
| 6B952482 | Tradition | 128.6 | 50.5 | 95.6* | 173.2 | 40.5 | 12.1* |
| MT020246 | MT960013/MT960101 | 128.5 | 50.8 | 87.8 | 180.0 | 34.2 | 11.6* |
| MT970116 | Klages/Baronesse | 128.5 | 53.7* | 95.6* | 173.6 | 39.1 | 12.4 |
| 2B965057 | Conrad, BA | 128.5 | 52.2 | 94.6* | 175.5 | 34.1 | 13.1 |
| TR150 | Copeland | 128.1 | 50.8 | 90.4 | 178.9 | 39.2 | 12.0* |
| MT020205 | MTLB 32/H1851195 | 128.1 | 53.1 | 92.1* | 173.0 | 36.4 | 12.6 |
| Site Mean | SITE MEAN ***** | 128.0 | 52.3 | 91.4 | 175.1 | 36.1 | 12.5 |
| MT020072 | MT910160/MT890008 | 127.7 | 53.0 | 95.6* | 178.6 | 36.2 | 12.9 |
| MT010156 | MT920041/H1851195 | 127.5 | 52.7 | 93.7* | 172.7 | 36.8 | 13.0 |
| AC03 6 | Auriga | 127.4 | 52.8 | 93.4* | 176.5 | 29.2** | 11.3** |
| MT000092 | MT890008/Lewis | 127.2 | 52.8 | 93.0* | 174.3 | 37.1 | 12.5 |

Continued

Table 8 continued. Statewide Irrigated Barley – Overall Summary

| | | | | | | | |
|----------------|----------------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| MT020075 | MT950220/MTLB 5 | 126.9 | 51.5 | 90.0 | 179.0 | 33.1 | 12.5 |
| MT000138 | MT920041/H1851195 | 126.9 | 54.0* | 97.7** | 173.1 | 39.2 | 13.0 |
| MT010162 | MT920041/Harrington | 126.8 | 52.9 | 92.3* | 177.2 | 34.3 | 12.4 |
| MT981238 | ND112311/Lewis | 126.6 | 53.5* | 92.5* | 172.5 | 38.1 | 13.4 |
| PI491534 | Gallatin | 125.9 | 53.5* | 89.8 | 173.7 | 37.2 | 12.7 |
| MT020139 | MT960222/MTLB 6 | 125.7 | 53.0 | 94.7* | 175.3 | 37.3 | 13.2 |
| MT981210 | MT910150/Stark | 125.6 | 53.0 | 96.0* | 175.2 | 36.7 | 12.7 |
| MT010158 | MT920041/Harrington | 125.2 | 53.2 | 96.3* | 174.3 | 34.4 | 12.5 |
| MT000045 | Chinook/MT920161 | 125.2 | 52.7 | 93.1* | 175.1 | 36.3 | 12.7 |
| MT020064 | MT910160/H1851195 | 125.0 | 53.7* | 95.0* | 174.5 | 36.5 | 12.9 |
| MT010177 | MT920041/MT890008 | 124.9 | 52.0 | 90.9 | 173.8 | 33.1 | 13.0 |
| MT010160 | MT920041/Harrington | 124.7 | 53.2 | 92.8* | 175.7 | 35.5 | 12.4 |
| MT020167 | MT960225/H3860224 | 124.7 | 52.7 | 90.5 | 175.5 | 35.3 | 12.9 |
| TR232 | Metcalfe | 124.6 | 51.9 | 90.0 | 176.1 | 36.6 | 12.5 |
| MT910189 | ND 7293/Bearpaw | 123.1 | 53.6* | 95.3* | 173.1 | 34.4 | 12.1* |
| MT020120 | MT960174/MT960222 | 122.7 | 52.0 | 92.9* | 176.4 | 35.4 | 12.6 |
| MT020037 | Lewis/Kiebitz | 121.9 | 53.5* | 90.0 | 173.6 | 36.8 | 13.3 |
| 6B932978 | Legacy | 121.6 | 47.9 | 82.7 | 174.2 | 39.7 | 12.0* |
| MT010155 | MT920041/H1851195 | 121.4 | 52.9 | 96.7* | 173.5 | 37.3 | 13.1 |
| SK 76333 | Harrington | 120.8 | 51.3 | 89.9 | 177.6 | 36.2 | 12.5 |
| ND13299 | Conlon | 109.9 | 53.1 | 96.8* | 168.2** | 35.5 | 12.7 |
| CI 15773 | Morex | 108.0 | 49.2 | 90.4 | 171.7 | 44.0 | 12.5 |
| MT981060 | Hays | *** | *** | *** | *** | *** | *** |
| PI533600 | Haybet | *** | *** | *** | *** | *** | *** |
| C.V. | C.V. (S/Mean) * 100 | 6.91 | 1.41 | 5.31 | 0.73 | 4.15 | 4.93 |
| P-Value | | <.0001 | <.0001 | <.0001 | <.0001 | <.0001 | <.0001 |
| L.S.D. | L.S.D. (.05) | 11.06 | 0.92 | 6.09 | 1.60 | 1.86 | 0.77 |

Table 9. 2004 Montana Statewide Irrigated Barley – Yield, bu/a

| ID | PEDIGREE | Kalispell | Sidney | Huntley | Conrad (1) | Bozeman | Avg | BYX | RSQ |
|----------|---------------------|-----------|--------|---------|---------------|---------|-------|------|------|
| 2B914947 | Merit | 127.8 | 138.5 | 132.9 | 124.0 | 134.4 | 131.5 | 0.31 | 0.54 |
| 2B965057 | Conrad, BA | 120.7 | 131.9 | 125.9 | 116.4 | 147.8 | 128.5 | 0.63 | 0.48 |
| 6B932978 | Legacy | 125.1 | 130.7 | 141.4 | 91.9 | 118.8 | 121.6 | 1.16 | 0.71 |
| 6B952482 | Tradition | 134.4 | 126.1 | 146.0 | 105.2 | 131.1 | 128.6 | 0.98 | 0.78 |
| AC03 6 | Auriga | 130.8 | 122.2 | 136.6 | 111.7 | 135.7 | 127.4 | 0.71 | 0.84 |
| B99AL616 | APB B99AL-616 | 139.9 | 124.2 | 154.2 | 112.3 | 143.1 | 134.7 | 1.02 | 0.70 |
| BZ594-19 | WPB Xena | 140.4 | 137.6 | 157.7 | 123.8 | 147.9 | 141.5 | 0.81 | 0.76 |
| BZ596117 | Boulder, WPB | 133.8 | 124.9 | 162.3 | 101.9 | 157.1 | 136.0 | 1.62 | 0.79 |
| CI 15773 | Morex | 115.3 | 121.1 | 133.5 | 69.8 | 100.2 | 108.0 | 1.45 | 0.64 |
| MT000040 | Chinook/MT920161 | 138.0 | 126.4 | 144.7 | 99.1 | 144.7 | 130.6 | 1.37 | 0.94 |
| MT000045 | Chinook/MT920161 | 126.5 | 130.8 | 137.8 | 94.6 | 136.4 | 125.2 | 1.30 | 0.98 |
| MT000047 | Chinook/MT920161 | 135.8 | 138.9 | 142.2 | 101.7 | 136.7 | 131.1 | 1.19 | 0.93 |
| MT000092 | MT890008/Lewis | 137.0 | 135.0 | 142.0 | 77.7 | 144.0 | 127.2 | 2.05 | 0.98 |
| MT000125 | MT910189/Lewis | 135.9 | 123.0 | 137.5 | 114.6 | 136.7 | 129.5 | 0.66 | 0.76 |
| MT000138 | MT920041/H1851195 | 127.4 | 122.7 | 128.6 | 112.1 | 143.7 | 126.9 | 0.72 | 0.73 |
| MT000153 | MT920059/Baronesse | 122.1 | 132.3 | 140.8 | 112.7 | 145.7 | 130.7 | 0.88 | 0.77 |
| MT010080 | MT886610/H1851195 | 132.4 | 134.4 | 136.8 | 106.0 | 150.5 | 132.0 | 1.16 | 0.94 |
| MT010081 | MT886610/H1851195 | 133.0 | 139.9 | 138.3 | 100.9 | 139.8 | 130.4 | 1.21 | 0.95 |
| MT010155 | MT920041/H1851195 | 124.6 | 122.0 | 123.2 | 97.6 | 139.7 | 121.4 | 1.06 | 0.90 |
| MT010156 | MT920041/H1851195 | 130.2 | 134.5 | 131.3 | 96.0 | 145.3 | 127.5 | 1.34 | 0.95 |
| MT010158 | MT920041/Harrington | 128.7 | 122.7 | 111.8 | 115.9 | 146.8 | 125.2 | 0.48 | 0.22 |
| MT010160 | MT920041/Harrington | 119.8 | 120.4 | 135.0 | 103.6 | 144.9 | 124.7 | 1.04 | 0.79 |
| MT010162 | MT920041/Harrington | 129.3 | 125.4 | 118.5 | 109.0 | 151.9 | 126.8 | 0.85 | 0.52 |
| MT010177 | MT920041/MT890008 | 124.3 | 121.2 | 132.6 | 102.9 | 143.2 | 124.9 | 1.04 | 0.88 |
| MT010191 | MT920053/Harrington | 132.7 | 135.1 | 142.8 | 98.8 | 144.2 | 130.7 | 1.37 | 1.00 |
| MT010205 | MT920073/Baronesse | 120.2 | 117.8 | 145.7 | 116.3 | 154.5 | 130.9 | 0.88 | 0.44 |
| MT010212 | MT920073/Baronesse | 138.0 | 131.7 | 136.0 | 103.0 | 144.7 | 130.7 | 1.18 | 0.97 |
| MT010213 | MT920073/Logan | 131.9 | 128.6 | 146.7 | 104.4 | 148.3 | 132.0 | 1.26 | 0.92 |
| MT020037 | Lewis/Kiebitz | 126.2 | 129.8 | 130.8 | 95.1 | 127.5 | 121.9 | 1.08 | 0.93 |
| MT020064 | MT910160/H1851195 | 121.4 | 128.1 | 139.2 | 99.4 | 136.7 | 125.0 | 1.14 | 0.93 |
| MT020072 | MT910160/MT890008 | 135.6 | 130.4 | 134.8 | 102.9 | 134.9 | 127.7 | 1.01 | 0.95 |
| MT020075 | MT950220/MTLB 5 | 135.1 | 135.2 | 113.8 | 112.0 | 138.2 | 126.9 | 0.57 | 0.36 |
| MT020080 | MT960013/MT920059 | 125.1 | 128.4 | 130.9 | 109.6 | 150.3 | 128.9 | 0.94 | 0.75 |
| MT020085 | MT960013/MT960101 | 134.1 | 135.3 | 131.2 | 106.0 | 138.6 | 129.0 | 0.94 | 0.93 |
| MT020090 | MT960013/MT960101 | 140.1 | 137.3 | 133.0 | 99.5 | 139.3 | 129.8 | 1.21 | 0.90 |
| MT020120 | MT960174/MT960222 | 120.9 | 128.6 | 141.3 | 94.8 | 128.0 | 122.7 | 1.18 | 0.85 |
| MT020139 | MT960222/MTLB 6 | 115.0 | 134.9 | 133.3 | 101.1 | 144.3 | 125.7 | 1.14 | 0.78 |
| MT020155 | MT960225/H1851195 | 135.4 | 144.8 | 145.2 | 104.2 | 142.4 | 134.4 | 1.24 | 0.93 |
| MT020162 | MT960225/H1851195 | 157.9 | 123.9 | 138.0 | 119.2 | 145.4 | 136.9 | 0.73 | 0.39 |
| MT020166 | MT960225/H3860224 | 142.6 | 148.5 | 139.3 | 116.3 | 142.3 | 137.8 | 0.82 | 0.79 |
| MT020167 | MT960225/H3860224 | 143.8 | 127.5 | 119.3 | 96.6 | 136.5 | 124.7 | 1.09 | 0.65 |
| MT020204 | MTLB 32/H1851195 | 134.7 | 145.2 | 127.4 | 102.0 | 144.3 | 130.7 | 1.15 | 0.78 |

Continued

Table 9 continued. Statewide Irrigated Barley – Yield, bu/a

| | | | | | | | | | |
|----------------------|----------------------------|-------|-------|-------|-------|-------|-------|------|------|
| MT020205 | MTLB 32/H1851195 | 128.0 | 141.6 | 126.0 | 97.2 | 147.6 | 128.1 | 1.30 | 0.81 |
| MT020246 | MT960013/MT960101 | 125.5 | 123.8 | 143.6 | 116.1 | 133.5 | 128.5 | 0.60 | 0.60 |
| MT910189 | ND 7293/Bearpaw | 133.5 | 128.4 | 121.1 | 96.2 | 136.4 | 123.1 | 1.09 | 0.83 |
| MT950186 | Haxby | 125.6 | 150.5 | 138.0 | 105.9 | 144.8 | 133.0 | 1.13 | 0.74 |
| MT960228 | Eslick | 139.5 | 139.6 | 157.4 | 102.6 | 148.2 | 137.5 | 1.50 | 0.94 |
| MT970116 | Klages/Baronesse | 142.5 | 132.2 | 136.5 | 92.4 | 138.7 | 128.5 | 1.45 | 0.91 |
| MT970229 | MT890021/Stark | 126.5 | 140.1 | 115.8 | 118.1 | 146.8 | 129.5 | 0.50 | 0.25 |
| MT981004 | Baronesse/H2860224 | 124.9 | 126.1 | 147.2 | 117.6 | 141.1 | 131.4 | 0.70 | 0.60 |
| MT981006 | Baronesse/H2860224 | 133.8 | 131.2 | 141.8 | 107.9 | 142.8 | 131.5 | 1.03 | 0.98 |
| MT981060 | Hays | 137.0 | 119.6 | 125.8 | *** | 104.2 | *** | *** | *** |
| MT981210 | MT910150/Stark | 133.2 | 125.4 | 129.5 | 100.6 | 139.6 | 125.6 | 1.07 | 0.93 |
| MT981238 | ND112311/Lewis | 122.3 | 134.5 | 144.9 | 98.9 | 132.6 | 126.6 | 1.18 | 0.83 |
| ND13299 | Conlon | 120.6 | 125.9 | 80.5 | 95.1 | 127.4 | 109.9 | 0.52 | 0.11 |
| PI491534 | Gallatin | 127.2 | 143.3 | 128.1 | 95.9 | 134.8 | 125.9 | 1.18 | 0.79 |
| PI533600 | Haybet | 111.7 | 107.7 | 109.3 | *** | 85.3 | *** | *** | *** |
| PI568246 | Baronesse | 132.2 | 135.4 | 153.7 | 123.5 | 136.1 | 136.2 | 0.57 | 0.49 |
| PI610264 | Valier | 124.2 | 138.6 | 139.9 | 101.3 | 145.1 | 129.8 | 1.25 | 0.91 |
| PI613603 | Lacey | 136.5 | 127.4 | 171.2 | 103.8 | 139.7 | 135.7 | 1.42 | 0.62 |
| S3482 | Calgary | 138.6 | 134.6 | 145.2 | 124.3 | 151.1 | 138.7 | 0.69 | 0.83 |
| SK 76333 | Harrington | 132.5 | 126.2 | 129.0 | 90.5 | 125.6 | 120.8 | 1.19 | 0.88 |
| TR150 | Copeland | 124.1 | 131.8 | 138.0 | 114.5 | 132.2 | 128.1 | 0.60 | 0.80 |
| TR232 | Metcalf | 130.5 | 123.9 | 134.0 | 103.1 | 131.5 | 124.6 | 0.91 | 0.95 |
| Site Mean | SITE MEAN ***** | 130.5 | 130.7 | 135.6 | 104.7 | 138.6 | 128.0 | 1.00 | 1.00 |
| C.V. | C.V. (S/Mean) * 100 | 6.43 | 6.94 | 9.52 | 9.36 | 7.70 | 6.90 | *** | *** |
| F-Value | | 2.35 | 2.30 | 3.19 | 3.44 | 3.59 | 2.11 | *** | *** |
| L.S.D. | L.S.D. (.05) | 14.64 | 14.67 | 21.41 | 15.83 | 17.95 | 11.06 | *** | *** |
| Efficiency of | Design Rel to RCB | 1.81 | 0.00 | 1.02 | *** | 1.05 | *** | *** | *** |

(1) Hays & Haybet not harvested, eaten by deer.

**Table 10. 2004 Montana Statewide Irrigated Barley – Heading Date
Days from January 1**

| ID | PEDIGREE | Kalispell | Sidney | Huntley | Conrad (1) | Bozeman | Avg | BYX | RSQ |
|----------|---------------------|-----------|--------|---------|------------|---------|-------|------|------|
| 2B914947 | Merit | 172 | 181 | 165 | 185 | 185 | 177.6 | 1.13 | 0.99 |
| 2B965057 | Conrad, BA | 170 | 178 | 164 | 183 | 182 | 175.5 | 1.05 | 0.99 |
| 6B932978 | Legacy | 169 | 178 | 162 | 181 | 181 | 174.2 | 1.05 | 0.98 |
| 6B952482 | Tradition | 167 | 176 | 162 | 182 | 180 | 173.2 | 1.09 | 0.99 |
| AC03 6 | Auriga | 170 | 180 | 166 | 183 | 184 | 176.5 | 1.04 | 0.99 |
| B99AL616 | APB B99AL-616 | 170 | 178 | 165 | 183 | 183 | 175.8 | 1.02 | 1.00 |
| BZ594-19 | WPB Xena | 170 | 179 | 164 | 183 | 182 | 175.7 | 1.05 | 1.00 |
| BZ596117 | Boulder, WPB | 169 | 176 | 165 | 182 | 183 | 174.9 | 1.01 | 0.98 |
| CI 15773 | Morex | 165 | 172 | 161 | 181 | 179 | 171.7 | 1.07 | 0.96 |
| MT000040 | Chinook/MT920161 | 169 | 179 | 163 | 182 | 180 | 174.7 | 1.04 | 0.98 |
| MT000045 | Chinook/MT920161 | 171 | 177 | 165 | 182 | 181 | 175.1 | 0.93 | 0.99 |
| MT000047 | Chinook/MT920161 | 168 | 174 | 162 | 181 | 181 | 173.4 | 1.02 | 0.98 |
| MT000092 | MT890008/Lewis | 168 | 178 | 163 | 181 | 181 | 174.3 | 1.05 | 1.00 |
| MT000125 | MT910189/Lewis | 169 | 179 | 164 | 182 | 182 | 175.1 | 1.06 | 0.99 |
| MT000138 | MT920041/H1851195 | 167 | 176 | 162 | 181 | 179 | 173.1 | 1.05 | 1.00 |
| MT000153 | MT920059/Baronesse | 168 | 178 | 163 | 180 | 180 | 173.8 | 1.02 | 0.98 |
| MT010080 | MT886610/H1851195 | 167 | 177 | 164 | 181 | 181 | 174.1 | 1.02 | 1.00 |
| MT010081 | MT886610/H1851195 | 170 | 177 | 164 | 183 | 181 | 174.9 | 1.03 | 0.99 |
| MT010155 | MT920041/H1851195 | 166 | 177 | 163 | 182 | 180 | 173.5 | 1.09 | 0.99 |
| MT010156 | MT920041/H1851195 | 167 | 176 | 162 | 180 | 179 | 172.7 | 1.03 | 1.00 |
| MT010158 | MT920041/Harrington | 167 | 177 | 165 | 182 | 180 | 174.3 | 1.00 | 0.99 |
| MT010160 | MT920041/Harrington | 169 | 180 | 165 | 182 | 183 | 175.7 | 1.04 | 0.98 |
| MT010162 | MT920041/Harrington | 170 | 179 | 171 | 183 | 183 | 177.2 | 0.76 | 0.93 |
| MT010177 | MT920041/MT890008 | 167 | 179 | 162 | 181 | 180 | 173.8 | 1.10 | 0.98 |
| MT010191 | MT920053/Harrington | 173 | 180 | 169 | 184 | 185 | 178.2 | 0.89 | 0.99 |
| MT010205 | MT920073/Baronesse | 173 | 180 | 171 | 185 | 184 | 178.6 | 0.82 | 0.98 |
| MT010212 | MT920073/Baronesse | 168 | 179 | 164 | 182 | 182 | 175.1 | 1.07 | 0.99 |
| MT010213 | MT920073/Logan | 169 | 179 | 164 | 183 | 183 | 175.7 | 1.10 | 1.00 |
| MT020037 | Lewis/Kiebitz | 168 | 175 | 163 | 182 | 180 | 173.6 | 1.03 | 0.99 |
| MT020064 | MT910160/H1851195 | 168 | 179 | 163 | 182 | 181 | 174.5 | 1.10 | 0.99 |
| MT020072 | MT910160/MT890008 | 173 | 181 | 172 | 184 | 183 | 178.6 | 0.74 | 0.99 |
| MT020075 | MT950220/MTLB 5 | 173 | 180 | 174 | 184 | 184 | 179.0 | 0.68 | 0.93 |
| MT020080 | MT960013/MT920059 | 173 | 180 | 166 | 182 | 182 | 176.6 | 0.90 | 0.97 |
| MT020085 | MT960013/MT960101 | 173 | 179 | 168 | 184 | 183 | 177.4 | 0.89 | 0.99 |
| MT020090 | MT960013/MT960101 | 174 | 179 | 170 | 183 | 183 | 177.8 | 0.76 | 0.99 |
| MT020120 | MT960174/MT960222 | 172 | 179 | 165 | 183 | 182 | 176.4 | 0.97 | 0.99 |
| MT020139 | MT960222/MTLB 6 | 169 | 178 | 164 | 183 | 182 | 175.3 | 1.08 | 1.00 |
| MT020155 | MT960225/H1851195 | 162 | 172 | 163 | 179 | 178 | 170.9 | 1.02 | 0.93 |
| MT020162 | MT960225/H1851195 | 169 | 179 | 164 | 183 | 182 | 175.5 | 1.07 | 0.99 |
| MT020166 | MT960225/H3860224 | 170 | 176 | 164 | 182 | 181 | 174.5 | 0.96 | 0.99 |
| MT020167 | MT960225/H3860224 | 169 | 180 | 165 | 182 | 181 | 175.5 | 1.00 | 0.98 |

Continued

Table 10 continued. Statewide Irrigated Barley – Heading Date

| | | | | | | | | | |
|----------------------|----------------------------|-----|-----|-----|-----|-----|-------|------|------|
| MT020204 | MTLB 32/H1851195 | 166 | 176 | 162 | 182 | 178 | 173.0 | 1.08 | 0.98 |
| MT020205 | MTLB 32/H1851195 | 166 | 176 | 163 | 180 | 180 | 173.0 | 1.03 | 1.00 |
| MT020246 | MT960013/MT960101 | 175 | 180 | 174 | 186 | 185 | 180.0 | 0.71 | 0.97 |
| MT910189 | ND 7293/Bearpaw | 166 | 174 | 164 | 182 | 180 | 173.1 | 1.03 | 0.97 |
| MT950186 | Haxby | 168 | 176 | 163 | 183 | 182 | 174.5 | 1.11 | 0.99 |
| MT960228 | Eslick | 170 | 177 | 164 | 183 | 183 | 175.4 | 1.07 | 0.99 |
| MT970116 | Klages/Baronesse | 168 | 177 | 162 | 181 | 180 | 173.6 | 1.07 | 1.00 |
| MT970229 | MT890021/Stark | 171 | 178 | 165 | 183 | 183 | 175.8 | 1.01 | 0.99 |
| MT981004 | Baronesse/H2860224 | 170 | 178 | 165 | 183 | 182 | 175.4 | 1.02 | 0.99 |
| MT981006 | Baronesse/H2860224 | 171 | 179 | 165 | 182 | 182 | 175.6 | 0.97 | 0.99 |
| MT981060 | Hays | 170 | 180 | 169 | *** | 183 | *** | *** | *** |
| MT981210 | MT910150/Stark | 169 | 179 | 163 | 183 | 182 | 175.2 | 1.12 | 1.00 |
| MT981238 | ND112311/Lewis | 166 | 175 | 161 | 181 | 180 | 172.5 | 1.13 | 0.99 |
| ND13299 | Conlon | 160 | 170 | 157 | 179 | 175 | 168.2 | 1.20 | 0.97 |
| PI491534 | Gallatin | 168 | 174 | 164 | 181 | 181 | 173.7 | 0.98 | 0.97 |
| PI533600 | Haybet | 168 | 177 | 165 | *** | 182 | *** | *** | *** |
| PI568246 | Baronesse | 172 | 181 | 165 | 183 | 183 | 176.8 | 1.03 | 0.98 |
| PI610264 | Valier | 171 | 180 | 167 | 184 | 183 | 177.0 | 0.99 | 1.00 |
| PI613603 | Lacey | 165 | 174 | 160 | 180 | 179 | 171.6 | 1.13 | 0.99 |
| S3482 | Calgary | 170 | 178 | 165 | 183 | 182 | 175.6 | 1.01 | 0.99 |
| SK 76333 | Harrington | 171 | 180 | 171 | 183 | 183 | 177.6 | 0.77 | 0.96 |
| TR150 | Copeland | 174 | 181 | 170 | 184 | 185 | 178.9 | 0.81 | 0.99 |
| TR232 | Metcalf | 172 | 179 | 165 | 182 | 182 | 176.1 | 0.94 | 0.97 |
| Site Mean | SITE MEAN ***** | 169 | 178 | 165 | 182 | 182 | 175.1 | 1.00 | 1.00 |
| C.V. | C.V. (S/Mean) * 100 | 1 | 1 | 0 | *** | 0 | 0.73 | *** | *** |
| F-Value | | 23 | 8 | 56 | *** | 41 | 13.81 | *** | *** |
| L.S.D. | L.S.D. (.05) | 2 | 2 | 1 | *** | 1 | 1.60 | *** | *** |
| Efficiency of | Design Rel to RCB | 1 | 1 | 1 | *** | 1 | *** | *** | *** |

(1) Hays & Haybet plots not harvested

Table 11. 2004 Montana Statewide Irrigated Barley – Plant Height, inches

| ID | PEDIGREE | Kalispell | Sidney | Huntley | Conrad (1) | Bozeman | Avg | BYX | RSQ |
|----------|---------------------|-----------|--------|---------|------------|---------|------|------|------|
| 2B914947 | Merit | 35 | 32 | 36 | 36 | 40 | 35.8 | 0.97 | 0.55 |
| 2B965057 | Conrad, BA | 31 | 32 | 37 | 34 | 37 | 34.1 | 1.16 | 0.73 |
| 6B932978 | Legacy | 40 | 34 | 45 | 37 | 43 | 39.7 | 2.08 | 0.98 |
| 6B952482 | Tradition | 40 | 37 | 41 | 40 | 44 | 40.5 | 0.97 | 0.81 |
| AC03 6 | Auriga | 28 | 28 | 31 | 31 | 28 | 29.2 | 0.23 | 0.07 |
| B99AL616 | APB B99AL-616 | 35 | 30 | 37 | 33 | 36 | 34.2 | 1.27 | 0.90 |
| BZ594-19 | WPB Xena | 35 | 32 | 39 | 37 | 38 | 36.4 | 1.21 | 0.83 |
| BZ596117 | Boulder, WPB | 38 | 33 | 40 | 37 | 38 | 37.1 | 1.14 | 0.75 |
| CI 15773 | Morex | 43 | 42 | 46 | 43 | 46 | 44.0 | 0.89 | 0.95 |
| MT000040 | Chinook/MT920161 | 37 | 34 | 37 | 33 | 37 | 35.5 | 0.61 | 0.49 |
| MT000045 | Chinook/MT920161 | 35 | 33 | 40 | 35 | 38 | 36.3 | 1.28 | 0.98 |
| MT000047 | Chinook/MT920161 | 38 | 34 | 39 | 35 | 37 | 36.5 | 0.82 | 0.62 |
| MT000092 | MT890008/Lewis | 36 | 35 | 40 | 34 | 40 | 37.1 | 1.22 | 0.81 |
| MT000125 | MT910189/Lewis | 37 | 32 | 40 | 34 | 39 | 36.4 | 1.49 | 0.93 |
| MT000138 | MT920041/H1851195 | 38 | 36 | 42 | 38 | 42 | 39.2 | 1.31 | 0.99 |
| MT000153 | MT920059/Baronesse | 33 | 33 | 38 | 35 | 39 | 35.5 | 1.22 | 0.82 |
| MT010080 | MT886610/H1851195 | 37 | 33 | 42 | 33 | 39 | 36.8 | 1.81 | 0.84 |
| MT010081 | MT886610/H1851195 | 37 | 34 | 39 | 38 | 38 | 37.3 | 0.78 | 0.69 |
| MT010155 | MT920041/H1851195 | 37 | 34 | 39 | 37 | 39 | 37.3 | 1.00 | 0.88 |
| MT010156 | MT920041/H1851195 | 38 | 35 | 38 | 33 | 39 | 36.8 | 0.92 | 0.53 |
| MT010158 | MT920041/Harrington | 36 | 34 | 34 | 32 | 37 | 34.4 | 0.38 | 0.15 |
| MT010160 | MT920041/Harrington | 33 | 34 | 38 | 36 | 37 | 35.5 | 0.86 | 0.67 |
| MT010162 | MT920041/Harrington | 34 | 31 | 34 | 33 | 39 | 34.3 | 1.15 | 0.62 |
| MT010177 | MT920041/MT890008 | 33 | 31 | 35 | 32 | 35 | 33.1 | 0.87 | 1.00 |
| MT010191 | MT920053/Harrington | 33 | 33 | 40 | 37 | 40 | 36.7 | 1.52 | 0.78 |
| MT010205 | MT920073/Baronesse | 34 | 34 | 39 | 35 | 38 | 36.0 | 1.01 | 0.80 |
| MT010212 | MT920073/Baronesse | 39 | 33 | 37 | 33 | 37 | 35.8 | 0.74 | 0.38 |
| MT010213 | MT920073/Logan | 33 | 31 | 36 | 34 | 35 | 33.7 | 0.98 | 0.86 |
| MT020037 | Lewis/Kiebitz | 35 | 34 | 37 | 40 | 37 | 36.8 | 0.36 | 0.11 |
| MT020064 | MT910160/H1851195 | 34 | 34 | 40 | 37 | 38 | 36.5 | 0.93 | 0.70 |
| MT020072 | MT910160/MT890008 | 36 | 34 | 37 | 36 | 38 | 36.2 | 0.76 | 0.84 |
| MT020075 | MT950220/MTLB 5 | 34 | 32 | 35 | 30 | 35 | 33.1 | 0.73 | 0.55 |
| MT020080 | MT960013/MT920059 | 31 | 31 | 35 | 30 | 38 | 32.8 | 1.29 | 0.67 |
| MT020085 | MT960013/MT960101 | 31 | 30 | 32 | 30 | 34 | 31.2 | 0.64 | 0.70 |
| MT020090 | MT960013/MT960101 | 32 | 33 | 36 | 32 | 36 | 34.0 | 0.92 | 0.71 |
| MT020120 | MT960174/MT960222 | 34 | 32 | 40 | 34 | 37 | 35.4 | 1.38 | 0.91 |
| MT020139 | MT960222/MTLB 6 | 36 | 34 | 39 | 37 | 40 | 37.3 | 1.07 | 0.93 |
| MT020155 | MT960225/H1851195 | 36 | 32 | 38 | 35 | 37 | 35.5 | 1.14 | 0.87 |
| MT020162 | MT960225/H1851195 | 42 | 34 | 41 | 37 | 41 | 38.9 | 1.20 | 0.62 |
| MT020166 | MT960225/H3860224 | 33 | 33 | 34 | 33 | 38 | 34.3 | 0.65 | 0.46 |
| MT020167 | MT960225/H3860224 | 36 | 34 | 35 | 33 | 39 | 35.3 | 0.51 | 0.25 |
| MT020204 | MTLB 32/H1851195 | 37 | 33 | 36 | 33 | 38 | 35.4 | 0.74 | 0.52 |

Continued

Table 11 continued. Statewide Irrigated Barley – Plant Height, inches

| | | | | | | | | | |
|----------------------|----------------------------|----|----|----|-----|----|-------|------|------|
| MT020205 | MTLB 32/H1851195 | 36 | 36 | 38 | 35 | 37 | 36.4 | 0.51 | 0.72 |
| MT020246 | MT960013/MT960101 | 31 | 32 | 38 | 35 | 35 | 34.2 | 1.02 | 0.52 |
| MT910189 | ND 7293/Bearpaw | 35 | 31 | 35 | 35 | 35 | 34.4 | 0.64 | 0.52 |
| MT950186 | Haxby | 35 | 35 | 39 | 36 | 39 | 36.7 | 0.89 | 0.87 |
| MT960228 | Eslick | 36 | 36 | 39 | 29 | 36 | 35.1 | 0.83 | 0.22 |
| MT970116 | Klages/Baronesse | 39 | 35 | 41 | 39 | 42 | 39.1 | 1.22 | 0.91 |
| MT970229 | MT890021/Stark | 35 | 33 | 36 | 38 | 38 | 36.0 | 0.59 | 0.35 |
| MT981004 | Baronesse/H2860224 | 34 | 33 | 37 | 34 | 38 | 35.2 | 1.11 | 0.92 |
| MT981006 | Baronesse/H2860224 | 33 | 33 | 37 | 33 | 37 | 34.7 | 0.92 | 0.85 |
| MT981060 | Hays | 34 | 33 | 40 | *** | 38 | *** | *** | *** |
| MT981210 | MT910150/Stark | 36 | 33 | 39 | 37 | 38 | 36.7 | 0.97 | 0.87 |
| MT981238 | ND112311/Lewis | 38 | 36 | 41 | 37 | 39 | 38.1 | 0.77 | 0.90 |
| ND13299 | Conlon | 35 | 33 | 38 | 37 | 35 | 35.5 | 0.61 | 0.42 |
| PI491534 | Gallatin | 37 | 35 | 38 | 38 | 38 | 37.2 | 0.58 | 0.68 |
| PI533600 | Haybet | 41 | 37 | 43 | *** | 40 | *** | *** | *** |
| PI568246 | Baronesse | 34 | 32 | 37 | 36 | 37 | 35.0 | 0.99 | 0.75 |
| PI610264 | Valier | 36 | 34 | 40 | 34 | 38 | 36.4 | 1.18 | 0.90 |
| PI613603 | Lacey | 40 | 35 | 44 | 39 | 43 | 40.2 | 1.70 | 0.93 |
| S3482 | Calgary | 31 | 29 | 34 | 31 | 33 | 31.5 | 0.82 | 0.95 |
| SK 76333 | Harrington | 37 | 32 | 39 | 35 | 38 | 36.2 | 1.22 | 0.93 |
| TR150 | Copeland | 35 | 37 | 45 | 38 | 42 | 39.2 | 1.59 | 0.72 |
| TR232 | Metcalf | 35 | 34 | 39 | 36 | 39 | 36.6 | 1.12 | 0.97 |
| Site Mean | SITE MEAN ***** | 35 | 33 | 38 | 35 | 38 | 36.1 | 1.00 | 1.00 |
| C.V. | C.V. (S/Mean) * 100 | 5 | 5 | 5 | *** | 3 | 4.15 | *** | *** |
| F-Value | | 6 | 4 | 7 | *** | 15 | 11.93 | *** | *** |
| L.S.D. | L.S.D. (.05) | 3 | 3 | 3 | *** | 2 | 1.86 | *** | *** |
| Efficiency of | Design Rel to RCB | 1 | 1 | 1 | *** | 1 | *** | *** | *** |

(1) Hays & Haybet plots not harvested -- deer

Table 12. 2004 Montana Statewide Irrigated Barley – Plump Percent over 6/64 sieve

| ID | PEDIGREE | Kalispell | Sidney | Huntley | Conrad (1) | Bozeman | Avg | BYX | RSQ |
|----------|---------------------|-----------|--------|---------|------------|---------|------|-------|------|
| 2B914947 | Merit | 95 | 92 | 98 | 91 | 61 | 87.4 | 2.16 | 0.83 |
| 2B965057 | Conrad, BA | 93 | 97 | 95 | 99 | 88 | 94.6 | 0.58 | 0.80 |
| 6B932978 | Legacy | 73 | 79 | 93 | 84 | 84 | 82.7 | 0.16 | 0.02 |
| 6B952482 | Tradition | 89 | 97 | 97 | 97 | 98 | 95.6 | -0.12 | 0.05 |
| AC03 6 | Auriga | 91 | 95 | 97 | 99 | 85 | 93.4 | 0.85 | 0.92 |
| B99AL616 | APB B99AL-616 | 84 | 91 | 95 | 98 | 74 | 88.5 | 1.40 | 0.89 |
| BZ594-19 | WPB Xena | 92 | 92 | 97 | 98 | 72 | 90.1 | 1.69 | 0.98 |
| BZ596117 | Boulder, WPB | 94 | 95 | 97 | 97 | 89 | 94.4 | 0.54 | 0.98 |
| CI 15773 | Morex | 83 | 89 | 93 | 93 | 94 | 90.4 | -0.09 | 0.02 |
| MT000040 | Chinook/MT920161 | 95 | 97 | 97 | 99 | 87 | 94.9 | 0.72 | 0.92 |
| MT000045 | Chinook/MT920161 | 98 | 89 | 97 | 97 | 85 | 93.1 | 0.77 | 0.75 |
| MT000047 | Chinook/MT920161 | 88 | 90 | 97 | 99 | 79 | 90.6 | 1.18 | 0.92 |
| MT000092 | MT890008/Lewis | 91 | 92 | 96 | 97 | 89 | 93.0 | 0.45 | 0.76 |
| MT000125 | MT910189/Lewis | 96 | 93 | 99 | 99 | 94 | 96.2 | 0.30 | 0.50 |
| MT000138 | MT920041/H1851195 | 99 | 97 | 97 | 99 | 96 | 97.7 | 0.15 | 0.61 |
| MT000153 | MT920059/Baronesse | 96 | 91 | 96 | 97 | 90 | 93.8 | 0.43 | 0.74 |
| MT010080 | MT886610/H1851195 | 97 | 96 | 95 | 98 | 86 | 94.4 | 0.71 | 0.87 |
| MT010081 | MT886610/H1851195 | 96 | 94 | 97 | 99 | 85 | 94.1 | 0.88 | 0.99 |
| MT010155 | MT920041/H1851195 | 99 | 96 | 98 | 99 | 92 | 96.7 | 0.42 | 0.91 |
| MT010156 | MT920041/H1851195 | 97 | 88 | 98 | 99 | 87 | 93.7 | 0.75 | 0.70 |
| MT010158 | MT920041/Harrington | 97 | 95 | 98 | 99 | 93 | 96.3 | 0.37 | 0.92 |
| MT010160 | MT920041/Harrington | 96 | 82 | 96 | 99 | 91 | 92.8 | 0.43 | 0.17 |
| MT010162 | MT920041/Harrington | 95 | 95 | 94 | 99 | 78 | 92.3 | 1.24 | 0.92 |
| MT010177 | MT920041/MT890008 | 95 | 88 | 94 | 94 | 84 | 90.9 | 0.64 | 0.79 |
| MT010191 | MT920053/Harrington | 96 | 94 | 98 | 97 | 77 | 92.3 | 1.33 | 0.93 |
| MT010205 | MT920073/Baronesse | 96 | 96 | 96 | 99 | 88 | 95.0 | 0.66 | 0.95 |
| MT010212 | MT920073/Baronesse | 94 | 94 | 94 | 96 | 84 | 92.4 | 0.73 | 0.93 |
| MT010213 | MT920073/Logan | 95 | 94 | 98 | 98 | 86 | 94.1 | 0.80 | 0.99 |
| MT020037 | Lewis/Kiebitz | 93 | 86 | 97 | 93 | 81 | 90.0 | 0.92 | 0.79 |
| MT020064 | MT910160/H1851195 | 98 | 89 | 97 | 99 | 92 | 95.0 | 0.41 | 0.37 |
| MT020072 | MT910160/MT890008 | 99 | 97 | 96 | 99 | 87 | 95.6 | 0.68 | 0.82 |
| MT020075 | MT950220/MTLB 5 | 92 | 94 | 92 | 98 | 74 | 90.0 | 1.41 | 0.90 |
| MT020080 | MT960013/MT920059 | 95 | 97 | 97 | 99 | 89 | 95.5 | 0.59 | 0.94 |
| MT020085 | MT960013/MT960101 | 89 | 87 | 95 | 90 | 52 | 82.6 | 2.61 | 0.90 |
| MT020090 | MT960013/MT960101 | 95 | 95 | 95 | 97 | 65 | 89.3 | 2.03 | 0.88 |
| MT020120 | MT960174/MT960222 | 94 | 96 | 97 | 99 | 78 | 92.9 | 1.29 | 0.95 |
| MT020139 | MT960222/MTLB 6 | 96 | 95 | 98 | 99 | 85 | 94.7 | 0.86 | 1.00 |
| MT020155 | MT960225/H1851195 | 87 | 73 | 93 | 95 | 83 | 86.2 | 0.73 | 0.28 |
| MT020162 | MT960225/H1851195 | 95 | 95 | 97 | 99 | 92 | 95.5 | 0.42 | 0.89 |
| MT020166 | MT960225/H3860224 | 92 | 94 | 97 | 98 | 85 | 93.2 | 0.77 | 0.96 |
| MT020167 | MT960225/H3860224 | 89 | 92 | 97 | 96 | 79 | 90.5 | 1.13 | 0.93 |

Continued

Table 12 continued. Statewide Irrigated Barley – Plump Percent, on 6/64

| | | | | | | | | | |
|----------------------|----------------------------|-----|-----|----|-----|----|------|-------|------|
| MT020204 | MTLB 32/H1851195 | 92 | 91 | 96 | 98 | 71 | 89.4 | 1.70 | 0.99 |
| MT020205 | MTLB 32/H1851195 | 96 | 86 | 95 | 97 | 87 | 92.1 | 0.64 | 0.58 |
| MT020246 | MT960013/MT960101 | 92 | 93 | 94 | 97 | 63 | 87.8 | 2.08 | 0.92 |
| MT910189 | ND 7293/Bearpaw | 97 | 97 | 97 | 98 | 88 | 95.3 | 0.65 | 0.92 |
| MT950186 | Haxby | 92 | 96 | 98 | 99 | 90 | 95.0 | 0.56 | 0.79 |
| MT960228 | Eslick | 97 | 96 | 96 | 99 | 78 | 93.1 | 1.28 | 0.90 |
| MT970116 | Klages/Baronesse | 94 | 96 | 98 | 99 | 92 | 95.6 | 0.44 | 0.81 |
| MT970229 | MT890021/Stark | 98 | 94 | 99 | 98 | 93 | 96.3 | 0.37 | 0.75 |
| MT981004 | Baronesse/H2860224 | 80 | 91 | 94 | 92 | 66 | 84.8 | 1.68 | 0.82 |
| MT981006 | Baronesse/H2860224 | 93 | 81 | 96 | 97 | 68 | 87.0 | 1.84 | 0.92 |
| MT981060 | Hays | 80 | 47 | 82 | *** | 36 | *** | *** | *** |
| MT981210 | MT910150/Stark | 97 | 96 | 98 | 98 | 91 | 96.0 | 0.50 | 0.97 |
| MT981238 | ND112311/Lewis | 95 | 86 | 94 | 99 | 88 | 92.5 | 0.62 | 0.52 |
| ND13299 | Conlon | 97 | 98 | 99 | 99 | 92 | 96.8 | 0.47 | 0.93 |
| PI491534 | Gallatin | 90 | 90 | 95 | 98 | 76 | 89.8 | 1.31 | 1.00 |
| PI533600 | Haybet | 83 | 67 | 71 | *** | 27 | *** | *** | *** |
| PI568246 | Baronesse | 92 | 91 | 96 | 95 | 67 | 88.2 | 1.83 | 0.94 |
| PI610264 | Valier | 87 | 91 | 96 | 98 | 68 | 87.9 | 1.88 | 0.97 |
| PI613603 | Lacey | 81 | 96 | 93 | 98 | 98 | 93.3 | -0.23 | 0.04 |
| S3482 | Calgary | 85 | 93 | 94 | 95 | 76 | 88.8 | 1.16 | 0.83 |
| SK 76333 | Harrington | 85 | 95 | 94 | 98 | 78 | 89.9 | 1.17 | 0.76 |
| TR150 | Copeland | 88 | 93 | 94 | 99 | 78 | 90.4 | 1.17 | 0.89 |
| TR232 | Metcalf | 94 | 93 | 94 | 96 | 73 | 90.0 | 1.45 | 0.92 |
| Site Mean | SITE MEAN ***** | 92 | 91 | 95 | 97 | 81 | 91.4 | 1.00 | 1.00 |
| C.V. | C.V. (S/Mean) * 100 | *** | *** | 3 | *** | 7 | 5.31 | *** | *** |
| F-Value | | *** | *** | 5 | *** | 10 | 2.53 | *** | *** |
| L.S.D. | L.S.D. (.05) | *** | *** | 5 | *** | 12 | 6.05 | *** | *** |
| Efficiency of | Design Rel to RCB | *** | *** | 1 | *** | 1 | *** | *** | *** |

(1) Hays & Haybet plots not harvested -deer.

**Table 13. 2004 Montana Statewide Irrigated Barley – Protein Percent
dry weight basis**

| ID | PEDIGREE | Kalispell | Sidney | Huntley | Conrad (1) | Bozeman | Avg | BYX | RSQ |
|----------|---------------------|-----------|--------|---------|------------|---------|------|------|------|
| 2B914947 | Merit | 15.0 | 10.9 | 10.2 | 11.5 | 12.5 | 12.0 | 0.91 | 0.70 |
| 2B965057 | Conrad, BA | 15.6 | 10.4 | 11.4 | 13.3 | 12.9 | 12.7 | 1.12 | 0.96 |
| 6B932978 | Legacy | 13.3 | 9.3 | 11.1 | 12.9 | 12.5 | 11.8 | 0.93 | 0.93 |
| 6B952482 | Tradition | 13.7 | 10.1 | 11.0 | 12.8 | 12.7 | 12.0 | 0.84 | 0.99 |
| AC03 6 | Auriga | 13.1 | 9.0 | 10.1 | 12.0 | 10.6 | 11.0 | 0.91 | 0.93 |
| B99AL616 | APB B99AL-616 | 14.6 | 10.0 | 9.6 | 12.4 | 10.7 | 11.5 | 1.06 | 0.79 |
| BZ594-19 | WPB Xena | 13.4 | 9.6 | 10.4 | 12.4 | 11.6 | 11.5 | 0.87 | 0.99 |
| BZ596117 | Boulder, WPB | 14.3 | 9.5 | 10.9 | 13.9 | 12.1 | 12.1 | 1.13 | 0.93 |
| CI 15773 | Morex | 14.4 | 9.5 | 11.0 | 14.0 | 13.3 | 12.4 | 1.18 | 0.96 |
| MT000040 | Chinook/MT920161 | 14.3 | 9.9 | 12.1 | 13.6 | 13.3 | 12.6 | 0.95 | 0.92 |
| MT000045 | Chinook/MT920161 | 14.0 | 10.0 | 12.8 | 13.4 | 13.0 | 12.6 | 0.80 | 0.78 |
| MT000047 | Chinook/MT920161 | 14.7 | 9.6 | 11.5 | 13.3 | 13.4 | 12.5 | 1.12 | 0.97 |
| MT000092 | MT890008/Lewis | 13.9 | 9.8 | 12.2 | 13.2 | 12.3 | 12.3 | 0.84 | 0.86 |
| MT000125 | MT910189/Lewis | 14.1 | 9.4 | 10.8 | 13.1 | 12.1 | 11.9 | 1.06 | 0.98 |
| MT000138 | MT920041/H1851195 | 15.1 | 9.6 | 12.6 | 14.0 | 13.6 | 13.0 | 1.16 | 0.90 |
| MT000153 | MT920059/Baronesse | 14.9 | 10.4 | 11.6 | 13.6 | 11.9 | 12.5 | 0.98 | 0.90 |
| MT010080 | MT886610/H1851195 | 15.0 | 10.2 | 12.4 | 13.3 | 13.2 | 12.8 | 0.98 | 0.92 |
| MT010081 | MT886610/H1851195 | 15.5 | 9.8 | 11.6 | 13.0 | 13.3 | 12.6 | 1.21 | 0.96 |
| MT010155 | MT920041/H1851195 | 15.2 | 10.3 | 11.3 | 13.5 | 13.8 | 12.8 | 1.14 | 0.98 |
| MT010156 | MT920041/H1851195 | 15.3 | 9.5 | 11.7 | 14.1 | 13.8 | 12.9 | 1.33 | 0.98 |
| MT010158 | MT920041/Harrington | 14.2 | 9.5 | 10.3 | 14.0 | 12.4 | 12.1 | 1.21 | 0.94 |
| MT010160 | MT920041/Harrington | 14.5 | 9.6 | 10.7 | 13.2 | 11.8 | 12.0 | 1.11 | 0.96 |
| MT010162 | MT920041/Harrington | 13.8 | 10.3 | 9.9 | 12.4 | 13.2 | 11.9 | 0.94 | 0.84 |
| MT010177 | MT920041/MT890008 | 14.8 | 10.1 | 11.5 | 13.9 | 13.5 | 12.8 | 1.10 | 0.99 |
| MT010191 | MT920053/Harrington | 14.4 | 10.3 | 11.3 | 13.2 | 12.7 | 12.4 | 0.93 | 0.99 |
| MT010205 | MT920073/Baronesse | 15.0 | 10.3 | 12.3 | 12.3 | 13.2 | 12.6 | 0.89 | 0.81 |
| MT010212 | MT920073/Baronesse | 14.0 | 10.1 | 10.7 | 13.1 | 12.9 | 12.2 | 0.95 | 0.98 |
| MT010213 | MT920073/Logan | 15.1 | 10.2 | 12.2 | 14.2 | 13.5 | 13.0 | 1.09 | 0.97 |
| MT020037 | Lewis/Kiebitz | 14.7 | 10.1 | 11.5 | 14.4 | 15.3 | 13.2 | 1.19 | 0.82 |
| MT020064 | MT910160/H1851195 | 14.7 | 9.8 | 12.2 | 14.3 | 13.6 | 12.9 | 1.11 | 0.92 |
| MT020072 | MT910160/MT890008 | 14.1 | 10.1 | 11.6 | 13.6 | 13.3 | 12.5 | 0.94 | 0.95 |
| MT020075 | MT950220/MTLB 5 | 14.3 | 9.8 | 10.3 | 12.3 | 11.7 | 11.7 | 1.01 | 0.94 |
| MT020080 | MT960013/MT920059 | 13.4 | 10.2 | 10.1 | 12.3 | 11.9 | 11.6 | 0.79 | 0.94 |
| MT020085 | MT960013/MT960101 | 13.8 | 10.4 | 10.0 | 11.7 | 13.5 | 11.9 | 0.87 | 0.73 |
| MT020090 | MT960013/MT960101 | 13.9 | 10.3 | 10.7 | 12.2 | 12.3 | 11.9 | 0.83 | 0.96 |
| MT020120 | MT960174/MT960222 | 14.4 | 10.6 | 10.7 | 12.4 | 12.9 | 12.2 | 0.88 | 0.92 |
| MT020139 | MT960222/MTLB 6 | 16.2 | 9.6 | 11.1 | 14.4 | 13.9 | 13.0 | 1.53 | 1.00 |
| MT020155 | MT960225/H1851195 | 13.7 | 9.7 | 11.1 | 13.9 | 12.9 | 12.3 | 1.00 | 0.91 |
| MT020162 | MT960225/H1851195 | 14.4 | 9.7 | 11.7 | 13.5 | 12.9 | 12.4 | 1.05 | 0.97 |
| MT020166 | MT960225/H3860224 | 13.2 | 10.3 | 9.4 | 12.3 | 11.7 | 11.4 | 0.80 | 0.82 |
| MT020167 | MT960225/H3860224 | 14.4 | 10.3 | 10.0 | 13.5 | 13.5 | 12.3 | 1.10 | 0.89 |

Continued

Table 13 continued. Statewide Irrigated Barley – Protein Percent

| | | | | | | | | | |
|----------------------|----------------------------|------|------|------|------|------|------|------|------|
| MT020204 | MTLB 32/H1851195 | 13.8 | 9.6 | 10.3 | 14.4 | 13.8 | 12.4 | 1.19 | 0.83 |
| MT020205 | MTLB 32/H1851195 | 14.3 | 9.8 | 10.8 | 14.1 | 12.6 | 12.3 | 1.12 | 0.94 |
| MT020246 | MT960013/MT960101 | 12.7 | 10.4 | 10.2 | 10.6 | 11.5 | 11.1 | 0.49 | 0.65 |
| MT910189 | ND 7293/Bearpaw | 13.9 | 9.8 | 10.8 | 12.8 | 11.8 | 11.8 | 0.92 | 0.97 |
| MT950186 | Haxby | 14.0 | 9.9 | 10.5 | 12.5 | 12.1 | 11.8 | 0.94 | 0.99 |
| MT960228 | Eslick | 13.3 | 9.6 | 10.5 | 12.4 | 12.7 | 11.7 | 0.89 | 0.96 |
| MT970116 | Klages/Baronesse | 14.2 | 10.1 | 11.0 | 13.1 | 11.8 | 12.0 | 0.93 | 0.95 |
| MT970229 | MT890021/Stark | 13.9 | 9.5 | 9.3 | 12.9 | 12.4 | 11.6 | 1.16 | 0.93 |
| MT981004 | Baronesse/H2860224 | 15.3 | 10.0 | 10.5 | 12.0 | 12.2 | 12.0 | 1.13 | 0.87 |
| MT981006 | Baronesse/H2860224 | 14.7 | 10.3 | 10.0 | 12.5 | 13.8 | 12.3 | 1.12 | 0.85 |
| MT981060 | Hays | 14.5 | 10.6 | 11.6 | *** | 13.5 | *** | *** | *** |
| MT981210 | MT910150/Stark | 14.8 | 9.6 | 10.4 | 14.2 | 12.2 | 12.2 | 1.28 | 0.93 |
| MT981238 | ND112311/Lewis | 15.2 | 9.9 | 12.6 | 14.8 | 13.0 | 13.1 | 1.15 | 0.88 |
| ND13299 | Conlon | 14.1 | 10.1 | 12.4 | 13.8 | 12.6 | 12.6 | 0.84 | 0.86 |
| PI491534 | Gallatin | 14.5 | 10.3 | 11.1 | 12.9 | 12.2 | 12.2 | 0.93 | 0.96 |
| PI533600 | Haybet | 14.4 | 10.5 | 12.7 | *** | 14.9 | *** | *** | *** |
| PI568246 | Baronesse | 14.2 | 9.7 | 10.4 | 12.2 | 12.7 | 11.9 | 1.02 | 0.96 |
| PI610264 | Valier | 15.6 | 10.3 | 10.7 | 13.4 | 12.4 | 12.5 | 1.21 | 0.94 |
| PI613603 | Lacey | 14.1 | 9.6 | 11.8 | 12.7 | 11.9 | 12.0 | 0.89 | 0.89 |
| S3482 | Calgary | 13.4 | 10.5 | 10.4 | 12.7 | 11.5 | 11.7 | 0.73 | 0.89 |
| SK 76333 | Harrington | 14.7 | 10.2 | 11.1 | 12.4 | 12.4 | 12.2 | 0.94 | 0.93 |
| TR150 | Copeland | 13.6 | 10.4 | 10.8 | 11.8 | 11.3 | 11.6 | 0.66 | 0.83 |
| TR232 | Metcalf | 14.1 | 10.2 | 11.0 | 12.8 | 12.8 | 12.2 | 0.90 | 1.00 |
| Site Mean | SITE MEAN ***** | 14.3 | 10.0 | 11.0 | 13.1 | 12.7 | 12.2 | 1.00 | 1.00 |
| C.V. | C.V. (S/Mean) * 100 | *** | 5.45 | 7.69 | 5.27 | 6.43 | 4.93 | *** | *** |
| F-Value | | *** | 3.19 | 2.92 | 4.60 | 2.33 | 2.27 | *** | *** |
| L.S.D. | L.S.D. (.05) | *** | 1.07 | 1.39 | 1.12 | 1.63 | 0.77 | *** | *** |
| Efficiency of | Design Rel to RCB | *** | 0.00 | 1.00 | *** | 0.00 | *** | *** | *** |

(1) Hays & Haybet plots not harvested -- deer