

PROJECT TITLE: Western Regional Hard Red Winter Wheat Evaluation

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OBJECTIVE:
To evaluate hard red winter wheat lines for adaptability, yield, quality and disease resistance in western Montana.

RESULTS:
Yields for the hard red winter wheats were above normal and similar to those taken in 1994. The mean yield was 105.4 bu/A (111.3 bu/A in 1994) with the highest yield being 129.9 from the variety UT942149. Four new Utah entries were among the top seven highest yielding varieties along with two Hybritech varieties and an Idaho Neely cross. The average test weight for this nursery was 60.1 lb/bu. Eight varieties had test weights in excess of 62 lb/bu. WA 7761 had the high test weight of 63.23 lb/bu but had poor yields in both 1994 and 1995.

SUMMARY:
Four Utah entries and two Hybritech varieties showed excellent potential for high yields and test weights when grown in northwestern Montana environments.

FUTURE PLANS:
Continued evaluation of promising hard red winter wheat cultivars adapted for northwestern Montana.

Table 1. Agronomic data from the Western Regional Hard Red Winter Wheat Nursery grown on the Northwestern Agricultural Research Center Kalispell, MT. Planted: Sept. 20, 1994 Harvest: Aug. 29, 1995

| VARIETY | YIELD BU/A | TEST WT LB/BU | HEIGHT INCHES | HEADING DATE | LODGING INDEX |
|--------------------------------------|---------------|------------------|------------------|-----------------|------------------|
| UT942149 MANNING/ID000281 | 129.87 | 61.73 | 45.93 | 162.00 | 10.00 |
| UT944151 ID0114/HANSEL//ID0281 | 128.26 | 59.27 | 44.09 | 160.67 | .00 |
| ID000481 NEELEY*2/KORAC 68, A8724W | 123.42 | 62.63 | 45.67 | 159.00 | 2.97 |
| XNH1648 Hybritech F1 Hybrid | 121.81 | 61.47 | 41.08 | 156.00 | .00 |
| XNH1650 Hybritech F1 Hybrid | 120.19 | 59.40 | 41.99 | 156.00 | .00 |
| UT000150 ID51022/MANNING | 118.58 | 61.83 | 43.83 | 161.00 | .00 |
| UT944157 ID0114/HANSEL/ID0281 | 118.58 | 61.97 | 43.57 | 158.33 | .00 |
| OR870834 VS74-709/NAC | 117.77 | 60.67 | 36.48 | 160.33 | .00 |
| ID000447 RGR/3/II-60-156/CI14107// | 116.16 | 60.53 | 34.38 | 160.67 | .00 |
| OR880017 S148/PCHS/SPN | 115.35 | 60.03 | 38.06 | 156.67 | .00 |
| WA007759 PI173467//CI13438//MG/3/C | 115.35 | 62.63 | 41.99 | 161.00 | .00 |
| SDM00215 Multiple Cross Sunstar Se | 114.55 | 59.67 | 34.78 | 152.67 | .00 |
| ID000480 BLIZZARD*2/NORKAN, A871W- | 114.55 | 60.50 | 42.13 | 158.67 | 28.87 |
| OR002619 NZT/BEZ1//ALD, F1/4/F1, NAD | 113.74 | 61.23 | 35.17 | 159.67 | .00 |
| SDM00214 Multiple Cross Sunstar Se | 112.93 | 59.80 | 38.19 | 154.33 | .00 |
| WA007760 KVZ/BEZ//MNT/BURT/4/CI173 | 112.93 | 61.67 | 45.41 | 163.67 | 12.97 |
| ID000479 A81698SW-74/A74171W-1-4-5 | 112.13 | 59.47 | 42.78 | 157.00 | .00 |
| UT182064 CI12385/UK/CLM/3/CI13837/ | 110.51 | 58.93 | 42.65 | 156.67 | .00 |
| OR889128 VPM/MOS 83-11-4-8//PEW | 108.09 | 58.53 | 34.12 | 156.33 | .00 |
| ID000478 ARBON/UT819116//SURVIVOR, | 108.09 | 58.90 | 44.23 | 155.00 | 12.97 |
| WA007786 CI13438/RMD//BURT/IT/3/SM | 108.09 | 62.23 | 48.43 | 161.67 | .00 |
| OR889176 TJB368-251/BUC | 107.29 | 59.03 | 32.81 | 160.00 | .00 |
| OR871144 WU-JIN-1/YOMH*7/LOV10 | 107.29 | 59.13 | 37.66 | 156.67 | .00 |
| WA007757 PI173467/GNS//WSR/3/N10B/ | 107.29 | 60.73 | 47.77 | 160.33 | 28.53 |
| NWCPOPE1 L24/53-7/WESTON | 104.87 | 62.37 | 44.49 | 161.00 | 3.33 |
| OR850513 RBS/ANZA/3/KVZ/HYS//YMH/T | 104.87 | 62.60 | 32.55 | 157.33 | .00 |
| WA007785 VPM/MC//ANDREWS, D9109101 | 103.25 | 62.70 | 47.24 | 162.00 | .00 |
| OR870512 S148/PCHS//SPN | 102.45 | 62.23 | 37.53 | 161.33 | .00 |
| SDM00216 Multiple Cross Sunstar Se | 101.64 | 58.43 | 32.55 | 156.00 | .00 |
| ID000467 A76327W-2-3T-5P/A7457W-13 | 100.83 | 59.47 | 35.96 | 160.00 | .00 |
| WA007787 HATTON sel white, WHT N93 | 98.41 | 60.43 | 45.28 | 160.33 | 17.60 |
| ID000453 BEZ-1//CI13438/BURT/3/RGR | 96.80 | 61.90 | 48.82 | 158.33 | 14.07 |
| OR870944 NAJ/HN7//MIRL/3/YMH/TOB// | 96.80 | 58.53 | 36.09 | 161.00 | .00 |
| WA007773 WTN/3/HTNsib//short wheat | 95.19 | 61.90 | 48.95 | 160.00 | 24.27 |
| ID000477 II-60-155*2/CI14107//RGR/ | 95.19 | 58.53 | 44.62 | 159.33 | 40.00 |
| WA007772 PI512281/4/167822/IT/9342 | 95.19 | 61.33 | 46.06 | 163.00 | .00 |
| ID000455 unknown, ID88-3677-6321 | 95.19 | 52.93 | 30.45 | 155.33 | .00 |
| WA007761 WTN/HTN//WTN, N84091 | 93.57 | 63.23 | 48.82 | 160.00 | 23.50 |
| ID000482 BLIZZARD*2/SUMNER, A877W- | 91.96 | 60.13 | 47.90 | 160.67 | 63.67 |
| WA007774 CERCO//KAVKAZ/CI17271 | 87.12 | 58.90 | 44.49 | 163.67 | 34.07 |
| ID000466 II-60-155/CI14106//MC/3/I | 81.47 | 57.63 | 47.11 | 157.00 | 46.40 |
| ID000465 A7480W-9-2/A7528W, ID7734 | 81.47 | 56.70 | 45.93 | 159.33 | 66.10 |
| CI 13844 WANSE | 79.05 | 56.50 | 48.69 | 159.67 | 38.13 |
| CI 1442 KHARKOF | 70.18 | 54.80 | 47.77 | 159.67 | 75.80 |
| MEAN | 105.42 | 60.07 | 41.92 | 159.08 | 12.35 |
| LSD (.05) | 14.91 | 3.20 | 2.34 | 2.04 | 24.24 |