

COOPERATIVE SMALL GRAIN NURSERY TRIALS

Plantings in 1984 included: Uniform Regional Hard Red Spring Wheat, Project leader Dr. Robert Busch, University of Minnesota; Uniform Hard Red Winter Wheat, Dr. Darryl Cox, Agronomy Dept., North Dakota State University; Uniform Regional Durum, Project leader Dr. R.G. Cantrell, North Dakota State University; Uniform Early and Uniform Midseason Oats, Project leader Dr. Howard Rines, University of Minnesota; Western Spring Barley and Western Dryland Spring Barley, Project leader Dr. E.A. Hockett, Montana State University; and Advanced Two-row Barley Nursery, cooperator Dr. Jerry Franckowiak, North Dakota State University. Field performance reports are furnished to respective project leaders for evaluation and compilation into composite regional reports. Required samples for quality analysis are furnished to appropriate state or USDA cereal chemistry laboratories upon request of respective project leaders. Trials included 32 varieties and experimental lines in the Uniform Regional hard spring wheat trial; 66 entries in two hard red winter wheat trials; 30 lines in the Uniform Regional durum nursery; 59 varieties and experimentals in three separate oats nurseries and 82 two-row and six-row lines in three barley nurseries. Yields were less than those of field plots. Hard red spring wheat yields ranged from a low of 1865 kg / ha to 2888 kg / ha. High field plot yield was 3952 kg / ha. D 79168, and NDSU experimental was high producer in the Regional durum trials and Otana, a Montana release was the highest yielding oats entry in the 1984 trials. A wide range of yields were produced by 82 barley lines, with a high yield of 3571 kg / ha recorded for Lindy. Barley yields ranged from a low of 1578 kg / ha to 3571 kg / ha and averaged 2760 kg / ha. Yields in the two winter wheat nurseries ranged from 693 kg / ha to 4369 kg / ha, reflecting poor production by varieties lacking winter hardiness and high yield for cultivars having satisfactory winter survival characteristics for the Northern Great Plains.

Table 41. Uniform Regional Hard Red Spring Wheat Nursery, 1984

| Variety | Avg. Yield Bu / Acre | Test Weight | Heading Date | Height Inches |
|----------------|---------------------------------|------------------------|-------------------------|--------------------------|
| Marquis | 32.5 | 59.0 | 7-16 | 36 |
| Chris | 30.2 | 58.0 | 7-12 | 34 |
| Waldron | 31.2 | 58.0 | 7-10 | 33 |
| Era | 33.4 | 56.5 | 7-13 | 25 |
| Butte | 35.4 | 61.5 | 7-7 | 33 |
| SD 8026 | 40.8 | 60.0 | 7-6 | 35 |
| SD 2956 | 42.0 | 60.0 | 7-9 | 34 |
| SD 2968 | 35.0 | 57.5 | 7-10 | 28 |
| SD 8036 | 34.0 | 61.0 | 7-8 | 30 |
| MT 8043 | 42.9 | 57.0 | 7-10 | 32 |
| MT 808 | 31.0 | 55.5 | 7-12 | 24 |
| MT 8177 | 36.6 | 58.5 | 7-9 | 29 |
| MN 7529 | 38.3 | 59.0 | 7-8 | 32 |
| MN 81270 | 40.1 | 58.0 | 7-10 | 28 |
| MN 80056 | 35.8 | 61.0 | 7-10 | 30 |
| MN 82128 | 36.6 | 59.0 | 7-8 | 30 |
| ND 597 | 30.4 | 59.0 | 7-7 | 30 |
| ND 603 | 37.3 | 60.0 | 7-7 | 30 |
| ND 602 | 30.7 | 60.5 | 7-6 | 30 |
| ND 604 | 37.5 | 59.0 | 7-9 | 30 |
| ND 611 | 33.0 | 58.5 | 7-9 | 24 |
| RH 833498 | 36.1 | 59.0 | 7-8 | 32 |
| HS 781139 | 27.7 | 55.5 | 7-10 | 25 |
| HS 81-55 | 35.6 | 59.0 | 7-8 | 28 |
| HS 81-12 | 32.5 | 57.5 | 7-10 | 21 |
| 2369 | 31.0 | 60.0 | 7-10 | 25 |
| X7993 | 33.4 | 56.5 | 7-10 | 33 |
| WRC-80-3 | 29.4 | 55.5 | 7-10 | 26 |
| WRC-80-32 | 32.5 | 59.0 | 7-6 | 29 |
| WA 7075 | 32.7 | 54.0 | 7-8 | 26 |
| WA 7182 | 31.4 | 57.5 | 7-7 | 28 |
| WA 7185 | 34.6 | 58.5 | 7-6 | 27 |

LSD @ 5% = 5.2 bpa

CV = 13%

Table 42. Uniform Regional Durum Nursery, 1984

| Variety | Avg. Yield Bu / Acre | Test Weight | 1000 KW | Heading Date | Height Inches |
|----------------|---------------------------------|------------------------|----------------|-------------------------|--------------------------|
| Mindum | 30.8 | 62.0 | 33 | 7-16 | 36 |
| Rolette | 36.2 | 61.5 | 36 | 7-10 | 32 |
| Ward | 34.7 | 60.0 | 31 | 7-10 | 33 |
| Crosby | 37.3 | 61.5 | 34 | 7-10 | 33 |
| Rugby | 38.2 | 61.0 | 37 | 7-10 | 32 |
| Cando | 37.7 | 60.0 | 27 | 7-12 | 23 |
| Coulter | 36.6 | 60.0 | 34 | 7-12 | 31 |
| Vic | 40.9 | 61.5 | 39 | 7-10 | 34 |
| Lloyd | 40.9 | 58.5 | 34 | 7-13 | 24 |
| Medora | 37.0 | 61.5 | 32 | 7-10 | 33 |
| D 793 | 41.1 | 61.5 | 38 | 7-6 | 32 |
| DT 371 | 38.3 | 59.0 | 34 | 7-10 | 33 |
| D 78177 | 43.5 | 60.5 | 29 | 7-12 | 23 |
| D 804 | 38.9 | 60.5 | 30 | 7-12 | 23 |
| D 79168 | 43.6 | 61.0 | 33 | 7-12 | 24 |
| D 79103 | 40.0 | 61.5 | 40 | 7-10 | 33 |
| D 79209 | 43.1 | 61.0 | 31 | 7-12 | 24 |
| D 79104 | 39.2 | 61.0 | 31 | 7-9 | 29 |
| D 7925 | 39.4 | 61.0 | 37 | 7-6 | 30 |
| DT 375 | 38.8 | 61.0 | 30 | 7-16 | 36 |
| D 8012 | 40.0 | 62.0 | 36 | 7-11 | 29 |
| D 8016 | 41.5 | 60.0 | 38 | 7-11 | 30 |
| D 8019 | 36.5 | 60.5 | 36 | 7-11 | 33 |
| D 8034 | 36.4 | 60.0 | 32 | 7-11 | 31 |
| D 8082 | 38.7 | 60.0 | 32 | 7-11 | 27 |
| D 80152 | 40.3 | 60.0 | 30 | 7-12 | 23 |
| D 80162 | 40.4 | 61.0 | 40 | 7-7 | 23 |
| HD 81-466 | 37.7 | 59.0 | 33 | 7-10 | 25 |
| HD 81-485 | 36.9 | 62.5 | 33 | 7-8 | 32 |
| C 881-4 | 37.2 | 60.5 | 35 | 7-10 | 26 |

LSD @ 5% = 3.5 bpa

CV = 8.9%

Table 43. Uniform Early Oats Nursery, 1984

| Variety | Avg. Yield Bu / Acre | Test Weight | Heading Date | Height Inches |
|------------------|---------------------------------|------------------------|-------------------------|--------------------------|
| Otee | 60.1 | 38.5 | 7-3 | 30 |
| IL 75-5860 | 71.7 | 38.5 | 7-4 | 29 |
| IL 79-1178 | 57.1 | 37.0 | 7-4 | 30 |
| IL 80-2294 | 58.2 | 39.0 | 7-2 | 28 |
| Lang | 69.3 | 35.0 | 7-3 | 27 |
| IA Multiline X-2 | 61.6 | 36.0 | 7-3 | 29 |
| Clintford | 57.9 | 38.0 | 7-3 | 32 |
| PA 8196-1556 | 64.3 | 38.0 | 7-2 | 25 |
| MN 80116 | 57.8 | 40.0 | 7-3 | 28 |
| Andrew | 57.8 | 37.5 | 7-1 | 34 |
| MO 07399 | 79.8 | 37.0 | 7-3 | 30 |
| MO 06637 | 62.4 | 37.0 | 7-4 | 26 |
| MO 07444 | 51.9 | 37.0 | 7-6 | 20 |
| MO 07461 | 57.2 | 38.0 | 7-6 | 27 |
| MO 06767 | 53.7 | 40.5 | 7-4 | 28 |
| Bates | 60.9 | 36.5 | 7-4 | 30 |

LSD @ 5% = 5.0 bpa

CV = 8.4%

Table 44. Midseason Oat Nursery, 1984

| Variety | Avg. Yield Bu / Acre | Test Weight | Heading Date | Height Inches |
|----------------------|---------------------------------|------------------------|-------------------------|--------------------------|
| WI X3910-15 | 41.7 | 39.5 | 7-8 | 34 |
| Dal | 55.1 | 35.0 | 7-9 | 28 |
| IL 75-5860 | 60.3 | 38.0 | 7-4 | 28 |
| IL 75-3402 | 48.6 | 40.0 | 7-5 | 24 |
| IL 79-5394 | 48.7 | 39.0 | 7-5 | 20 |
| IL 80-3072 | 56.9 | 37.5 | 7-6 | 25 |
| IL 79-1776 | 58.8 | 37.0 | 7-6 | 28 |
| IL 79-4924 | 43.3 | 38.0 | 7-6 | 27 |
| Ogle | 64.3 | 32.5 | 7-6 | 28 |
| IA B605-1085 | 56.1 | 38.5 | 7-4 | 28 |
| W 78286 (Dumont) | 69.1 | 34.0 | 7-10 | 29 |
| W 80474 | 72.1 | 37.0 | 7-8 | 31 |
| PA 8098-13900 | 47.6 | 38.5 | 7-6 | 27 |
| PA 8196-1338 | 58.4 | 37.5 | 7-3 | 26 |
| PA 8196-15 | 50.7 | 41.5 | 7-2 | 28 |
| SD 790400 | 67.6 | 36.0 | 7-8 | 30 |
| SD 810095 | 66.1 | 41.0 | 7-5 | 33 |
| SD 790188 | 65.4 | 37.5 | 7-8 | 34 |
| SD 800312 | 73.5 | 36.0 | 7-6 | 32 |
| Clintland 64 | 52.5 | 37.5 | 7-3 | 33 |
| MN 81132 | 60.0 | 40.0 | 7-3 | 29 |
| MN 81135 | 53.1 | 38.5 | 7-3 | 28 |
| MN 81128 | 58.0 | 39.5 | 7-2 | 29 |
| MN 81229 | 56.9 | 41.0 | 7-2 | 30 |
| MN 81227 | 61.9 | 40.5 | 7-5 | 32 |
| ND 78376 (Steele) | 59.2 | 34.5 | 7-7 | 32 |
| ND 78394 | 67.0 | 33.0 | 7-16 | 28 |
| ND 78406 | 64.7 | 35.5 | 7-8 | 31 |
| ND 78385 | 72.4 | 34.5 | 7-10 | 28 |
| ND 810917 | 66.9 | 35.0 | 7-8 | 27 |
| Gopher | 63.7 | 37.0 | 7-5 | 33 |
| P 72288RBI-3-4-3 | 53.8 | 37.0 | 7-4 | 30 |
| P72288RBI-3-4-3-1 | 60.1 | 37.5 | 7-2 | 29 |
| P72288RBI-3-4-3-13-1 | 61.6 | 37.0 | 7-2 | 30 |
| P786901-5-3-4 | 60.3 | 39.5 | 7-2 | 29 |

LSD @ 5% = 4.9 bpa

CV = 7.2%

Table 45. Station Oat Nursery, 1984

| Variety | Avg. Yield Bu / Acre | Test Weight | Heading Date | Height Inches |
|----------------|---------------------------------|------------------------|-------------------------|--------------------------|
| Centennial | 56.1 | 37.0 | 7-8 | 32 |
| Steele | 68.1 | 35.5 | 7-6 | 33 |
| Kelsey | 68.8 | 34.5 | 7-8 | 34 |
| Menominee | 73.7 | 34.0 | 7-14 | 33 |
| Otana | 81.2 | 38.0 | 7-10 | 34 |
| Border | 75.3 | 30.5 | 7-18 | 27 |
| Dumont | 64.6 | 33.5 | 7-14 | 31 |
| Haylander | 56.5 | 37.0 | 7-8 | 37 |

LSD @ 5% = 5.1 bpa

CV = 6.0%

Table 46. Western Dryland Spring Barley Nursery, 1984

| Variety | Avg. Yield Bu / Acre | Test Weight | Heading Date | Height Inches |
|---------------------------------|---------------------------------|------------------------|-------------------------|--------------------------|
| Munsing | 62.2 | 50.5 | 7-8 | 22 |
| Steptoe | 56.8 | 46.0 | 7-4 | 26 |
| Hector | 62.5 | 51.5 | 7-8 | 29 |
| Clark | 58.9 | 49.0 | 7-10 | 26 |
| ID 810264 | 63.5 | 48.5 | 7-10 | 26 |
| ID 810099 | 61.9 | 48.0 | 7-16 | 26 |
| EC - 5 | 54.2 | 45.5 | 7-3 | 22 |
| Early 28 | 54.3 | 42.0 | 7-2 | 24 |
| Karla/ND1265 | 62.1 | 52.0 | 7-3 | 25 |
| Lewis | 60.9 | 50.5 | 7-9 | 28 |
| Lindy | 66.3 | 48.5 | 7-2 | 27 |
| Teton | 62.8 | 49.0 | 7-3 | 26 |
| Bridger 82 | 46.9 | 47.0 | 7-16 | 24 |
| Sunbar 560 | 57.1 | 47.0 | 7-15 | 23 |
| UT 1422 | 61.0 | 47.0 | 7-8 | 28 |
| UT 1423 | 61.1 | 47.5 | 7-7 | 28 |
| 6B78-10 | 63.4 | 45.5 | 7-1 | 25 |
| Apex | 61.0 | 49.0 | 7-8 | 24 |
| Bellona | 56.6 | 47.5 | 7-8 | 24 |
| MT 311885 | 61.4 | 48.5 | 7-8 | 27 |
| MT 312613 | 63.8 | 52.0 | 7-5 | 26 |
| Bowman | 65.6 | 52.5 | 7-4 | 24 |
| UT 1731 | 60.7 | 48.0 | 7-4 | 29 |
| UT 1733 | 57.5 | 48.0 | 7-5 | 33 |
| UT 1734 | 62.4 | 47.0 | 7-4 | 32 |
| Beacon/WA7136-62/ WA 6773-71 | 56.1 | 45.5 | 7-8 | 26 |
| Klages 2/8537-68 | 47.3 | 46.0 | 7-16 | 24 |

LSD @ 5% = 5.2 bpa

CV = 7.6%

Table 47. Western Spring Barley Nursery, 1984

| Variety | Avg. Yield Bu / Acre | Test Weight | Heading Date | Height Inches |
|--------------------------------|---------------------------------|------------------------|-------------------------|--------------------------|
| Trebi | 37.2 | 45.0 | 7-9 | 30 |
| Steptoe | 49.2 | 48.0 | 7-7 | 28 |
| Klages | 31.8 | 47.5 | 7-17 | 24 |
| Morex | 47.0 | 50.5 | 7-8 | 29 |
| Columba/Klages | 39.4 | 49.0 | 7-17 | 27 |
| Karla/ND1265 | 52.6 | 52.5 | 7-5 | 26 |
| Beacon/WA7136- 62/WA6773-71 | 37.4 | 46.5 | 7-10 | 28 |
| Lewis | 54.1 | 53.0 | 7-11 | 29 |
| Fld//Her/Kgs | 51.9 | 51.0 | 7-11 | 26 |
| Premier | 38.9 | 48.5 | 7-16 | 24 |
| Sunbar 560 | 43.5 | 49.0 | 7-16 | 27 |
| Wv/CI1237//Robur | 39.9 | 44.5 | 7-10 | 25 |
| M21/Harlon//Wv | 29.3 | 46.5 | 7-11 | 25 |
| UT 1422 | 47.4 | 49.0 | 7-8 | 28 |
| UT 1423 | 48.4 | 48.5 | 7-7 | 28 |
| Klages*2/8537-68 | 35.3 | 49.5 | 7-17 | 27 |
| Menuet | 45.1 | 52.0 | 7-12 | 24 |
| Piston | 36.6 | 49.5 | 7-17 | 25 |
| 2B79-37 | 40.9 | 47.5 | 7-17 | 28 |
| 6B79-486 | 45.5 | 50.0 | 7-4 | 28 |
| 73Ab2199/Karla | 50.0 | 49.5 | 7-4 | 28 |
| Kimberly//Hector/Klages | 51.2 | 52.5 | 7-11 | 26 |
| Summit/Hector | 52.5 | 53.0 | 7-8 | 32 |
| Hazen | 51.3 | 51.5 | 7-6 | 30 |
| Wv/CI127//Robur | 42.0 | 48.5 | 7-10 | 28 |
| Short Wocus/Boyer | 46.4 | 45.0 | 7-12 | 24 |
| 6 rowed bulk Population | 38.9 | 52.0 | 7-6 | 32 |
| Steptoe/M27 | 50.7 | 50.5 | 7-4 | 33 |
| Kgs/2*8537-68 | 42.6 | 51.0 | 7-10 | 27 |
| Kgs/8537-68 | 40.8 | 51.0 | 7-11 | 27 |

LSD @ 5% = 8.1 bpa

CV = 15.9%

Table 48. Advanced Two-Row Barley Nursery, 1984

| Variety | Avg. Yield Bu / Acre | Test Weight | Heading Date | Height Inches |
|----------------|---------------------------------|------------------------|-------------------------|--------------------------|
| Morex | 44.3 | 42.5 | 7-5 | 31 |
| Hector | 51.1 | 46.5 | 7-16 | 28 |
| Harrington | 41.0 | 44.0 | 7-17 | 26 |
| Hazen | 48.1 | 46.0 | 7-6 | 30 |
| CI 15856 | 46.9 | 49.0 | 7-11 | 28 |
| ND 5883 | 52.0 | 46.5 | 7-9 | 27 |
| ND 5971 | 49.0 | 47.5 | 7-11 | 29 |
| ND 6784 | 52.2 | 49.5 | 7-11 | 30 |
| ND 6787 | 46.8 | 50.0 | 7-8 | 31 |
| ND 6869 | 48.0 | 49.5 | 7-4 | 32 |
| ND 6989 | 50.4 | 48.0 | 7-9 | 29 |
| ND 6999 | 49.2 | 49.0 | 7-9 | 28 |
| ND 7014 | 46.8 | 47.0 | 7-9 | 32 |
| ND 7015 | 53.1 | 48.0 | 7-9 | 32 |
| ND 7017 | 46.7 | 47.5 | 7-9 | 30 |
| ND 7045 | 44.7 | 46.5 | 7-8 | 29 |
| ND 7055 | 58.4 | 49.0 | 7-9 | 25 |
| ND 7085 | 62.7 | 53.5 | 7-3 | 30 |
| ND 7159 | 53.9 | 46.0 | 7-17 | 27 |
| ND 7160 | 53.8 | 48.0 | 7-16 | 28 |
| ND 7194 | 51.0 | 48.0 | 7-9 | 29 |
| ND 7553 | 50.7 | 50.0 | 7-17 | 28 |
| ND 7641 | 58.9 | 51.5 | 7-4 | 30 |
| ND 7714 | 59.1 | 50.0 | 7-9 | 28 |
| ND 7802 | 56.4 | 50.5 | 7-17 | 28 |

LSD @ 5% = 7.1 bpa

CV = 12.1%

Table 49. Summary 1984 Barley Advanced Yield Trial of Two-Rowed Cultivars, Exp. 12

| Yield in Bushels per Acre | | | | | |
|----------------------------------|----------------|-------------------|------------------|------------------|----------------|
| Cultivar | Prosper | Carrington | Dickinson | Williston | Average |
| Morex | 91.1 | 87.7 | 44.3 | 38.5 | 65.4 |
| Hector | 91.6 | 79.9 | 51.1 | 40.9 | 65.9 |
| Harrington | 91.0 | 80.1 | 41.0 | 35.6 | 61.9 |
| Hazen | 99.5 | 101.8 | 48.1 | 38.6 | 72.0 |
| ND 5883 | 94.5 | 80.7 | 52.0 | 38.3 | 66.4 |
| ND 5971 | 82.2 | 79.0 | 49.0 | 34.6 | 61.2 |
| ND 6784 | 90.7 | 79.1 | 52.2 | 34.0 | 64.0 |
| ND 6787 | 93.7 | 84.5 | 46.8 | 40.2 | 66.3 |
| ND 6869 | 80.7 | 77.5 | 48.0 | 36.2 | 60.6 |
| ND 6989 | 101.9 | 94.5 | 50.4 | 44.5 | 72.8 |
| ND 6999 | 105.8 | 83.8 | 49.2 | 36.2 | 68.8 |
| ND 7014 | 103.5 | 89.0 | 46.8 | 38.8 | 69.5 |
| ND 7015 | 99.0 | 92.0 | 53.1 | 37.9 | 70.5 |
| ND 7017 | 99.5 | 96.4 | 46.7 | 40.0 | 70.7 |
| ND 7045 | 101.4 | 90.7 | 44.7 | 36.0 | 68.2 |
| ND 7055 | 94.7 | 95.3 | 58.4 | 35.5 | 71.0 |
| ND 7085 | 92.0 | 80.1 | 62.7 | 40.1 | 68.7 |
| ND 7159 | 93.9 | 77.8 | 53.9 | 29.6 | 63.8 |
| ND 7160 | 98.3 | 76.5 | 53.8 | 31.6 | 65.1 |
| ND 7194 | 99.2 | 86.1 | 51.0 | 45.2 | 70.4 |
| ND 7553 | 84.8 | 89.4 | 50.7 | 35.6 | 65.1 |
| ND 7641 | 97.3 | 81.2 | 58.9 | 37.8 | 68.8 |
| ND 7714 | 98.4 | 84.2 | 59.1 | 40.4 | 70.5 |
| ND 7802 | 97.7 | 93.3 | 56.4 | 40.2 | 71.9 |