PROJECT TITLE: Western Regional Spring Wheat Variety Evaluations

PROJECT LEADERS: Bob Stougaard and Todd Keener, NWARC, Kalispell, MT.

Luther Talbot, Plant and Soil Science, Bozeman, MT.

OBJECTIVE: To determine the adaptability of new and introduced spring

wheat varieties grown under high moisture conditions in Montana.

## RESULTS:

Yields from the 1992 Western Regional Spring Wheat Nursery were noticeably reduced from yields in previous years. None of the thirty-six entries yielded above 100 bu/A. Several varieties grown both this year and in 1991 were 10 to 40 bu/A less in this nursery. Test weights were relatively the same in comparison to other seasonal data and averaged 59.4 lb/bu. The heading date average was ten days earlier than last year, and was early compared to the long term average.

## SUMMARY:

Cool, wet weather in June and July were factors that contributed to lower than normal yields this year in spring wheat. No variety yielded above 100 bu/A. Heading dates were one week to 10 days earlier than previous years.

## **FUTURE PLANS:**

There are plans for continued evaluation of new and introduced lines of spring wheat in Montana by growing the Western Regional Spring Wheat Nursery.

Table 1. Agronomic data from the Western Regional Spring Wheat Nursery grown on the Northwestern Agricultural Research Center.

Planted: April 7, 1992 Harvested: August 28, 1992

|          | VARIETY              | YIELD<br>BU/A | TEST WT<br>LB/BU | HEADING<br>DATE | HEIGHT<br>INCHES |
|----------|----------------------|---------------|------------------|-----------------|------------------|
|          | .arcana              | M ni agou     | osture condu     | m ngiri satm    | 3                |
| CI 17904 |                      | 96.0          | 59.5             | 167.3           | 32.4             |
| WA 7176  | K78504/K74129-33//K7 | 94.5          | 59.2             | 170.0           | 32.9             |
| UT 1597  | WYNNE/UT78S166-2746  | 92.4          | 59.7             | 169.7           | 34.9             |
|          | K80184/K7905769      | 91.8          | 60.7             | 167.3           | 30.8             |
| WA 7183  | WAKANZ               | 91.5          | 58.7             | 171.0           | 30.3             |
| ID 377S  | GALLO-YR'S'/AU X KAL | 91.0          | 60.5             |                 | 31.9             |
| ID 392   | OWENS/ID159          | 89.9          | 60.5             |                 | 31.6             |
| PI495916 | PENAWAWA             | 89.2          | 59.9             | 168.3           | 30.8             |
| UC 638   | SERRA                | 88.5          | 59.6             | 164.3           | 28.5             |
| OR487453 | SPHWE 11             | 87.1          | 59.9             | 170.0           | 28.2             |
| ID 410   | A81515S-A/STERLING   | 86.8          | 60.1             | 169.3           | 30.6             |
|          | NDM00011/NK751,S83-1 | 86.8          | 59.3             |                 | 29.7             |
|          | SEL. ML 42           | 86.0          | 60.1             | 169.7           | 32.4             |
|          | KAUZ 'S'             | 84.7          | 60.3             | 165.0           | 24.7             |
|          | OWENS/4/FDR/MENG//81 | 84.0          | 59.2             | 163.3           | 32.0             |
|          | TAN.S/3/TI/TOB//ALD. | 83.4          | 60.4             | 165.7           | 28.5             |
|          | ID182/FIELDWIN       | 83.2          | 60.6             | 163.0           | 32.4             |
| CI 17903 |                      | 83.2          | 58.7             | 168.3           | 31.8             |
|          | RPV/WW15/3/BJ.S/ON*2 | 82.3          | 59.6             | 165.7           | 28.7             |
|          | ID130/MAYA74-PVN'S'/ | 81.8          | 59.3             | 163.7           | 31.8             |
|          | ID232/A75120S-2214-1 | 80.8          | 57.3             | 169.0           | 29.7             |
|          | VS73.600/MRL.S/3/BOW | 80.3          | 58.9             | 166.7           | 26.0             |
|          | UT77W1054-1777/906R  | 79.9          | 58.0             | 168.0           | 28.2             |
|          | BJY.S/4/TZPP//IRN46/ | 79.6          | 59.5             | 167.0           | 26.1             |
|          | TAN.S/PEW.S          | 79.5          | 61.5             | 163.7           | 29.7             |
|          | UT77W1054-1777/MCKAY | 79.2          | 59.3             | 170.0           | 35.2             |
| OR489025 |                      | 78.3          | 60.6             | 166.7           | 30.3             |
|          | A7612S-2/A75141S-2-1 | 78.2          | 59.1             | 169.7           | 29.9             |
|          | SPHRE 16             | 77.7          | 59.8             | 165.6           | 29.7             |
|          | UT77W1054-1777/MCKAY | 77.3          | 58.9             | 169.7           | 38.7             |
|          | UT77W1054-1815/MCKAY | 76.9          | 60.3             | 169.0           | 44.1             |
|          | UT77W1054-1777/MCKAY | 76.2          | 59.3             | 170.0           | 36.6             |
|          | ID203/ID166//906R    | 76.0          | 58.7             | 167.3           | 27.8             |
|          | YOLO'S'/YRR,CA810041 | 74.9          | 58.5             | 168.3           | 23.8             |
|          | FEDERATION           | 69.3          | 56.8             | 171.0           | 40.0             |
| OR487279 |                      | 69.2          | 59.0             | 163.7           | 26.3             |
|          | SUNSTAR 2            | 66.3          | 59.5             | 164.0           | 29.4             |
|          | STA/YRR,CA770284-0D- | 64.7          | 58.4             | 164.7           | 21.5             |
| NKF 8022 |                      | 61.8          | 58.5             | 162.7           | 20.5             |
|          | STA/YRR,CA770284-OD- | 60.0          | 58.6             | 162.7           | 20.6             |
|          | Mean                 | 81.0          | 59.4             | 167.0           | 30.2             |
|          | L.S.D.               | 9.75          | .58              | 1.51            | 1.73             |