

Project Title: Evaluation of the performance winter and spring wheat cultivars seeded during the winter dormant season.

Project Leader: D. M. Wichman CARC Research Agronomist, Moccasin, MT

Project Personnel: B.J.S. Deanon CARC Cereal Res. Assoc. Moccasin, MT
S.J. Dahlhausen CARC Seasonal Field Tech, Moccasin, MT

Objective:

Evaluate the yield performance of winter and spring wheat seeded during the November through March dormant season.

Background

Some producers question the rationale of the Federal Crop Insurance to have a graduate cover/premium following October 31, cutoff date. The producers contend that because of cold temperatures during the November through February dormant season, seed germination occurs at such a slow rate, the seeding date within that period is irrelevant.

Results:

Two winter wheat cultivars and two spring wheat cultivars were seeded into recrop barley stubble on six dates. All treatments had fair to good stand establishment and fair grain production. There did not appear to be much seed date effect on the stands except for the February 26 seeding. On Feb. 26 the soil was froze hard and most of the seed was on the soil surface. The seeding operation was perpendicular to the furrows and road over the crests. If seed direction had been parallel to furrows, the disk openers may have penetrated the bottom of the furrow. Volunteer barley was a significant portion of the harvest yield for the Feb. 26 seeding date and was significant in several rep two plots.

Table 1 2012-13 Dormant season seeding of winter and spring wheat.

| <u>Seed Date</u> | <u>Winter wheat</u> | | <u>Spring Wheat</u> | | <u>Seedbed</u> |
|------------------|-----------------------|---------|---------------------|------|---|
| | Cultivar: Yellowstone | Bearpaw | Choteau | Vida | No-till barley stubble |
| | bu/a | bu/a | bu/a | bu/a | |
| Nov 2, | 37.6 | 39.0 | 28.5 | 29.3 | Soil moist just under surface. |
| Nov 29, | 34.7 | 34.6 | 21.9 | 21.0 | Soil surface damp at surface |
| Jan 07, | 34.1 | 34.9 | 30.0 | 27.0 | Ice crystals in surface soil, some snow |
| Feb 26, | 28.5 | 27.3 | 23.1 | 30.1 | froze hard, patchy snow |
| Mar 26, | 26.7 | 29.8 | 29.3 | 21.5 | surface snow just melted soil damp |
| Apr 12, | 19.1 | 15.9 | 14.1 | 18.3 | damp surface snow just melted |

*Yields are partially inflated by extensive volunteer barley in rep 2.

Feb 26 seed date had high percent barley in all treatments. Poor wheat stand establishment.

Summary:

The fair to good survival of both spring wheat and winter wheat seeded during the winter dormant season was consistent with what has been observed in similar seeding in prior years.

Funding Summary:

Expenditure information to be provided by OSP.
No other grant support was provided for this project.

MWBC FY2011 Grant Submission Plans:

Dormant season seeding of winter and spring wheat is being done in the 2013-14 fall and winter.