

YEAR: 1965

TITLE: Small Grain Investigation (Spring Wheat) 5023

LOCATION: Northwestern Montana Branch Station and several off station locations

PERSONNEL: Leader - Vern R. Stewart
Cooperator - F. H. McNeal

DURATION: Indefinite

OBJECTIVES:

1. To determine the adaptation of new and introduced spring wheat varieties and selection by comparison with recommended varieties.

EXPERIMENTAL DESIGN AND PROCEDURES:

Standard nursery procedures were used in the variety testing program. The station nurseries were grown in four row plots, replicated four times. A randomized block design was used in all nurseries. The off station nurseries were grown in single row plots, replicated six times.

The advanced yield hard red spring nursery contained thirty-one entries, the western regional soft white, thirty entries and the off station, twelve entries each.

RESULTS AND DISCUSSION:

Yields in the hard red spring wheat nursery were above average this past season. The moisture was excellent. In 1964 the mean yield on the advanced nursery was 49.4 bushels, in 1965 63.4 bushels per acre. This was due to above normal precipitation in 1965. Harvesting was difficult because of the continued rain. Harvest was completed September 24th, which is approximately three weeks later than the average harvest date. See Table 1.

Considerable sprouting was noted in some of the varieties because of the wet weather. Those varieties that had the higher degree of sprouting were not submitted for quality evaluation this year. A report of the quality is made in the quality report by C. Watson.

Stripe rust was a factor in the white wheat nursery again this season, as it was in 1964. A tabulation of the stripe rust data is found in Table 2. No yield data was obtained from this nursery because of the sprouting of almost every entry in the nursery, because of the wet weather.

Spring Wheat (con't)

Three off station nurseries were seeded in the spring of 1965, however none were harvested. The nursery in Ravalli County was destroyed by hail, August 21, 1965, snow completely covered the nursery in Lake County making it impossible to harvest and the third nursery in Missoula County was abandoned because of the large amount of wild oats.

FUTURE PLANS:

Continue in a limited way spring wheat varietal studies.

SUMMARY:

1. Yields were above average for the season. This is due in part to continuous rain which also caused a reduction to test weight.
2. The white wheat nursery contained some resistant varieties to stripe rust but susceptible varieties were severely affected.
3. No harvest was made of off station nurseries this year because of adverse growing conditions.

Table 2. Agronomic data from dryland western regional spring wheat nursery, grown at Creston, Montana in 1965.

Variety	C.I. No.	Heading Date	Stripe Rust	
			Response	% Severity
Lemhi	11415	7-14	9	98
Federation	4734	7-17	9	96
Idaed 59	13631	7-10	6	19
Baart	1697	7-12	9	90
Thatcher	10003	7-10	2	04
Burt x K.F. 57-70136	13641	7-20	2	03
Idaed x Burt 42-5	13722	7-10	4	07
Svenno x Lee - Semidwarf	13730	7-11	4	11
Premier x 5FR, 62M9-204	13732	7-13	8	69
Premier x 4FR, 62M 47-68	13733	7-12	4	25
Burt x KF 58-2025	13736	7-20	6	15
Idaed x Burt 30-2	13742	7-10	3	50
NO58-TC x TC-KF	13743	7-12	3	09
NO58-TC x TC-KF	13744	7- 9	6	75
NO58-TC x Lee	13745	7- 9	6	06
Yaqui 54	13218	7- 9	3	03
Nainari 60	13747	7-10	5	05
Lerma Rojo	13651	7- 9	2	01✓
Eureka x LMH2 x 2ID	13746	7-10	0	0✓
Idaho A613A-3-15	13969	7-15	5	21
NRN10 x Bvr 2 x 2 C112228	13970	7-12	8	27
NRN10 x Bvr 2 x 3 C112228	13971	7-13	7	07
NRN10 x Bvr 2 x 2 12228 3xL62	13972	7-11	7	62
Idaed x Burt, Pend 111-7	6	7-11	1	01
Burt x Onas 52 Lind 466	4468	7-16	8	80
Burt x Onas 52, Lind 168	4737	7-21	6	27
Premier x 2 Fr 2 x 3ID	13973	7- 9	5	02
Kenya 12186 x 2ID	13974	7- 9	2	03
Timstein-ID x FR	13975	7-16	6	22
Mar Fed Mutant, 5899	4788	7-17	6	19