

PROJECT TITLE: Evaluate winter speltz at various seeding rates as compared to winter wheat and winter barley. 1991

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PROJECT LOCATION: MSU - Southern Agricultural Research Center
Huntley, MT 59037

OBJECTIVES: To determine the most effective seeding rate for winter speltz, in comparison to winter wheat and winter barley.

RESULTS: Table 1 shows the results of the seeding rate study. Schuyler barley at 80 lbs/A was highest yielding, but did not significantly out yield Sindelar Light Speltz at 60 & 80 lbs/A or Sindelar Mix at 80 lbs/A. These speltz selections yielded equally with Tiber winter wheat as well. The Sindelar lines and the variety Champ out yielded the NE 851808 and Kamiak winter barleys and the Willie Speltz. Test weights were average for the winter wheat and winter barleys, and very good for the speltz lines.

SUMMARY: These preliminary data indicate the preferred seeding rate for speltz is probably 80 lbs/A, although most seeded at 60 lbs/A yielded as well as winter wheat and winter barley.

FUTURE PLANS: The study will run for 2-3 more years, to get a good evaluation, and then written up for publication.

TABLE 1 . 1991 WINTER SPELTZ-BARLEY-WHEAT SEEDING RATE TRIAL
SOUTHERN AG RESEARCH CENTER HUNTLEY, MT.

SEED/RATE #/ACRE	VARIETY	YIELD LBS/AC	TESTWT LBS/BU	HEAD DATE	PLANTHT INCHES	PLUMP %	THIN %
BARLEY 80	SCHUYLER	3842.32	43.43	157.00	30.00	55.05	26.73
WHEAT 80	TIBER	3748.56	60.18	161.00	41.50	.00	.00
SPELTZ 60	SINDELAR LT	3665.47	29.45	165.50	47.50	.00	.00
SPELTZ 80	SP 949	3658.61	29.20	166.00	48.00	.00	.00
WHEAT 60	TIBER	3536.17	59.98	161.00	41.00	.00	.00
SPELTZ 80	SINDELAR LT	3534.37	27.83	165.50	47.00	.00	.00
SPELTZ 80	SINDELAR MIX	3486.22	29.13	166.00	50.00	.00	.00
BARLEY 60	SCHUYLER	3467.31	42.35	157.00	28.50	49.02	25.83
BARLEY 40	SCHUYLER	3384.40	44.33	158.00	30.00	48.23	27.25
SPELTZ 40	SINDELAR-LT	3291.45	28.53	166.00	47.00	.00	.00
SPELTZ 80	CHAMP	3287.03	28.60	163.00	46.00	.00	.00
WHEAT 40	TIBER	3267.70	58.53	164.00	40.00	.00	.00
SPELTZ 60	CHAMP	3263.41	27.80	163.50	48.50	.00	.00
SPELTZ 60	SP 949	3258.74	27.05	166.00	48.00	.00	.00
SPELTZ 80	SINDELAR DK	3090.51	28.10	164.50	50.50	.00	.00
SPELTZ 40	SP 949	3078.16	27.35	167.00	47.00	.00	.00
SPELTZ 60	SINDELAR MIX	3063.37	29.60	166.50	50.50	.00	.00
SPELTZ 40	CHAMP	2972.05	28.58	164.00	46.50	.00	.00
SPELTZ 40	SINDELAR MIX	2838.97	30.00	166.00	48.50	.00	.00
BARLEY 80	NE 851808	2805.06	51.08	156.00	31.00	75.28	14.05
BARLEY 80	KAMIAK	2757.30	46.93	152.50	33.50	68.95	17.43
SPELTZ 60	SINDELAR DK	2747.23	27.30	164.50	48.00	.00	.00
BARLEY 60	NE 851808	2722.75	50.63	157.00	29.50	72.25	15.23
BARLEY 60	KAMIAK	2693.08	48.30	152.50	34.50	71.78	16.12
SPELTZ 80	WILLIE	2678.12	26.25	165.00	50.00	.00	.00
SPELTZ 40	WILLIE	2628.90	26.00	165.00	51.00	.00	.00
SPELTZ 40	SINDELAR DK	2523.82	26.65	165.00	51.50	.00	.00
SPELTZ 60	WILLIE	2491.92	26.62	164.50	47.50	.00	.00
BARLEY 40	KAMIAK	2439.36	47.78	152.50	32.50	68.60	16.85
BARLEY 40	NE 851808	2200.13	49.60	157.50	30.50	70.58	16.35

***** STATISTICAL TABLE *****

EXPERIMENTAL MEANS	3080.75	36.90	161.98	42.52	19.32	5.86
TOTAL OBSERVATIONS	120.00	120.00	60.00	60.00	120.00	120.00
NO. OF REPLICATIONS	4.00	4.00	2.00	2.00	4.00	4.00
NO. OF VARIETIES	30.00	30.00	30.00	30.00	30.00	30.00
C.V. 1: (S/MEAN)*100	9.36	3.38	.68	4.31	17.40	25.78
C.V. 2: (S OF MEAN/MEAN)*100	4.68	1.69	.48	3.05	8.70	12.89
LSD (0.05)	405.36	1.76	2.24	3.75	4.73	2.12

Date planted: 10/1/90
VARRAT91.SRD
VARRATE.STT

Date harvested: 7/29/91