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PROJECT TITLE: The evaluation of awnless winter triticale as a dryland cereal forage.

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PROJECT PERSONNEL: K.M. Gilbertson, SARC, Resource Seeds, CA

OBJECTIVES: To evaluate the potential of awnless triticale as a cereal forage in comparison to other winter cereals.

RESULTS: Two cuttings were made, one at anthesis, or approximately heading, and at the soft dough stage. Tiber winter wheat had the highest yield (3.13 T/A) at the soft dough stage, while awnless triticale was not significantly lower (2.77 T/A). At anthesis, PI 348203 winter spelt had the highest yield (1.83 T/A), and again awnless triticale was not significantly lower (1.53 T/A). It appears with only one years data awnless triticale has the potential as a cereal forage.

SUMMARY: Triticale has been shown to have significantly lower nitrate levels than oat or barley hay. With the advent of new awnless varieties making it easier to eat by livestock, awnless triticale seems to be a viable option. Nitrate levels in these new lines must be evaluated.

FUTURE PLANS: This study will continue to gather sufficient data to make reliable recommendations.

TABLE 1. 1993 DRYLAND WINTER FORAGE COMPARISON-SPELT, WINTER WHEAT TRITICALE - SARC, HUNTLEY, MT.

	VARIETY	STAGE/ HARVEST	YIELD T/A	PLANTHT INCHES	HEAD DATE	HARV DATE
4	TIBER W/WHEAT	2	3.13	36.33	155.00	7/07
6	CHAMP SPELT	2	3.03	42.33	159.00	7/07
10	PI355618	2	2.93	43.00	159.00	7/07
2	AWNLESS TRITICALE	2	2.77	50.00	153.00	7/07
12	PI348203	2	2.73	43.00	162.00	7/07
8	PI347850	2	2.70	39.33	160.00	7/07
14	VITA 11	2	2.70	39.33	160.00	7/07
11	PI348203	1	1.83	30.00	162.00	6/14
5	CHAMP SPELT	1	1.57	29.00	159.00	6/09
9	PI355618	1	1.53	29.67	159.00	6/09
1	AWNLESS TRITICALE	1	1.53	33.00	153.00	6/03
3	TIBER W/WHEAT	1	1.50	25.67	155.00	6/04
13	VITA II	1	1.37	27.67	160.00	6/09
7	PI347850	1	1.30	27.00	160.00	6/09

1=ANTHESIS (HEADING)

2=SOFT DOUGH

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

EXPERIMENTAL MEANS	2.19	35.38
TOTAL OBSERVATIONS	42.00	42.00
NO. OF REPLICATIONS	3.00	3.00
NO. OF VARIETIES	14.00	14.00
REP. MEAN SQUARE	.00	8.74
VAR. MEAN SQUARE	1.53	171.33
ERROR MEAN SQUARE	.03	1.66
ERROR DEGREES OF FREEDOM	26.00	26.00
F TEST FOR REPS.	.15	5.26
F TEST FOR VAR.	51.12	103.14
STANDARD ERROR	.17	1.29
STANDARD ERROR OF THE MEAN	.10	.74
C.V. 1: (S/MEAN)*100	7.90	3.64
C.V. 2: (S OF MEAN/MEAN)*100	4.56	2.10
LSD (0.05)	.29	2.16

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