

I. PROJECT TITLE: Evaluation of hulless oat varieties, SARC, Huntley, MT.

II. PROJECT LEADERS: G.F. Stallknecht, K.M. Gilbertson

III. PROJECT PERSONNEL: Darrell Wesenberg, USDA, ARS, Aberdeen, ID.

IV. OBJECTIVE: To evaluate hulless oat selections for yield and test weight, under dryland and irrigated cropping.

V. RESULTS: Yield, test weight, plant height, and heading date data are described in Tables 1 and 2. Ajay and Monida hulled oats were included as oat standards in the trial. Tibor a canadian variety which had limited contracted acres in Montana by Nurture, Inc. Missoula, MT, had the lowest yield in both irrigated and dryland trials, compared to breeder selections from Dr. Darrell Wesenberg's program, Aberdeen, Idaho.

VI. SUMMARY: Should the market be developed by Nurture, Inc. for hulless oats, the results of the 1994 SARC trials, indicate that experimental oat selections exist which would significantly out yield Tibor oats.

VII. FUTURE PLANS: The hulless oat trial will be continued one more year, and then published for grower information.

TABLE 1 . 1994 DRYLAND HULLESS OAT VARIETY TRIAL,  
SARC, HUNTLEY, MT.

	VARIETY	YIELD BU/AC	TEST WT LB/BU	PLANTHT INCHES	HEAD DATE
1	MONIDA	84.98	28.40	34.00	164.50
2	AJAY	81.67	27.40	27.25	165.00
7	86Ab1616	75.88	41.40	33.00	167.50
6	90Ab1500	71.55	39.80	32.75	162.00
8	89Ab2861	71.53	32.20	32.00	163.50
5	90Ab1416	69.00	37.00	29.00	164.50
9	88Ab3073	65.55	43.20	32.00	165.00
4	PENNANA	64.52	43.70	31.50	155.50
10	87Ab5832	59.95	34.90	34.50	164.00
3	TIBOR	47.70	39.30	41.25	164.00

\*\*\*\*\* STATISTICAL TABLE \*\*\*\*\*

	YIELD BU/AC	PLANTHT INCHES	HEAD DATE
EXPERIMENTAL MEANS	69.23	32.72	163.55
F TEST FOR REPS.	24.47	.60	.18
F TEST FOR VAR.	7.07	10.84	72.84
C.V. 1: (S/MEAN)*100	11.69	6.89	.32
C.V. 2: (S OF MEAN/MEAN)*100	5.85	3.44	.23
LSD (0.05)	11.75	3.27	1.18

DATE PLANTED: 4/01/94  
DATE HARVESTED: 8/01/94

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DRYHUL.STT

TABLE 2 . 1994 IRRIGATED HULLESS OAT VARIETY TRIAL,  
SARC, HUNTLEY, MT.

	VARIETY	YIELD TEST WT PLANTHT HEAD		
		BU/AC	LB/BU	INCHES DATE
2	AJAY	189.68	34.60	31.00 169.50
1	MONIDA	165.49	34.10	37.75 166.50
8	89Ab2861	151.85	38.50	32.75 164.50
5	90Ab1416	144.59	35.70	38.00 168.00
6	90Ab1500	139.85	41.60	39.75 163.50
7	86Ab1616	136.17	39.50	38.25 170.00
10	87Ab5832	116.78	36.50	40.75 165.50
9	88Ab3073	109.55	40.10	33.75 168.00
4	PENNANA	109.54	40.00	35.50 156.00
3	TIBOR	93.68	33.40	47.00 165.00

\*\*\*\*\* STATISTICAL TABLE \*\*\*\*\*

	YIELD PLANTHT HEAD		
	BU/AC	INCHES	DATE
EXPERIMENTAL MEANS	135.72	37.45	165.65
F TEST FOR REPS.	.03	.88	.67
F TEST FOR VAR.	11.38	6.10	47.94
C.V. 1: (S/MEAN)*100	12.73	9.92	.49
C.V. 2: (S OF MEAN/MEAN)*100	6.37	4.96	.35
LSD (0.05)	25.08	5.39	1.85

DATE PLANTED: 4/12/94  
DATE HARVESTED: 8/09/94

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