

Oat Variety Test

Ron Skrdla, ag research specialist, agronomy
Jean-Luc Jannink, assistant professor, agronomy

Materials and Methods

Thirty-three varieties were included in the 2000 oat test at Calumet. Each variety was sown in three different plots to average out the effects of soil variability. The varieties were planted March 28 at a rate of 3 bushels/acre. All oat plots were harvested July 21.

Results

Average oat grain yield at Calumet in 2000 was 71 bushels/acre, 53 bushels/acre less than the average yield in 1999 (Table 1). The reduction in yield was due to the dry conditions during the growing season. The 1998 trial was abandoned because of herbicide damage. Based on two years of data (1999 & 2000), Jim was the highest yielding variety. Jerry had the highest test weight among hulled (normal) oat varieties in 2000. Paul is a hull-less variety and thus had a higher test weight.

Additional information on oat and barley variety tests in the state can be found in the publication, "Iowa Crop Performance Tests - Oat and Barley, 1997-2000," which is available from county extension offices (Pm-1645).

Table 1. Performance of oat entries at Calumet from 1998 to 2000.

Entry	Yield			2-yr Avg	Heading date ^a	Lodging score ^b	Straw yield ^c	Test wt. ^d
	1998	1999	2000					
	----- bushels/acre-----						ton/acre	lb/bu
Belle	.	142	64	103	6/06	28	3.7	33.4
Blaze	.	130	82	106	6/02	54	3.2	33.7
Brawn	.	147	80	113	6/02	39	3.3	31.5
Burton	.	120	75	98	6/02	43	3.6	31.4
Chaps	.	134	77	106	6/01	43	3.0	32.0
Cherokee	.	88	47	68	5/29	38	3.3	31.1
Classic	.	138	71	104	6/01	42	3.1	33.0
Dane	.	140	70	105	5/26	18	3.2	29.8
Don	.	110	77	94	5/30	58	3.3	34.3
Ebeltoft	.	151	77	114	6/10	35	3.7	31.5
Gem	.	142	77	110	6/05	28	3.3	32.4
IN09201	.	149	76	112	5/30	42	3.1	32.6
Ida	.	133	82	108	6/04	47	3.1	31.7
Jay	.	144	76	110	6/01	35	4.1	34.1
Jerry	.	119	72	96	6/03	49	3.3	35.0
Jim	.	148	83	116	5/31	48	4.0	33.4
Jud	.	137	78	107	6/06	35	3.8	33.1
Killdeer	.	146	78	112	6/06	37	3.7	32.3
Loyal	.	136	73	105	6/07	27	3.4	33.1
Milton	.	121	68	94	6/05	45	3.3	31.7
Multiline E77	.	90	44	67	5/28	48	2.9	31.5
Ogle	.	129	83	106	6/01	46	3.9	30.9
Paul	.	95	54	74	6/09	27	3.7	40.9
Richard	.	128	70	99	6/03	28	3.6	31.4
Richland	.	68	45	56	6/01	56	2.5	29.5
Riser	.	118	56	87	5/24	65	3.1	33.5
Rodeo	.	140	86	113	6/04	38	3.3	31.3
Sheldon	.	107	70	89	5/30	75	3.2	32.4
Starter	.	104	53	79	5/30	65	3.0	33.7
Troy	.	125	74	99	6/09	79	3.6	32.2
Valley	.	108	80	94	6/06	60	3.8	33.3
Vista	.	133	75	104	6/04	44	3.2	32.7
Youngs	.	139	78	109	6/09	36	3.6	31.3
Mean	.	124	71	99	6/03	43	3.4	32.6
LSD(0.05) ^e	.	14	9	16	1	26	0.7	1.3

^a Heading date at Ames, 2000

^b Lodging - 1999 average from 5 sites.

^c Straw yield - 2000 average from 5 sites.

^d Test weight - 2000 average from 5 sites.

^e LSD = Least significant difference. When entries differ by an amount equal to one LSD or more, they are considered to be in different classes with 95% certainty.

Barley Variety Test

Ron Skrdla, ag research specialist, agronomy
Jean-Luc Jannink, assistant professor, agronomy

Materials and Methods

Twelve barley varieties were tested. Each variety was sown in three different plots to average out the effects of soil variability. The varieties were planted March 28 at a rate of 3 bushels/acre. All barley plots were harvested on July 21.

Results

Barley yields averaged 44 bushels/acre in 2000, which is 40 bushels/acre less than in 1999 (Table1). Excel was the highest yielding line based on two years of data (1999 & 2000), and MNbrite had the highest test weight across all locations for the two year period.

Additional information on oat and barley variety tests in the state can be found in the publication, "Iowa Crop Performance Tests - Oat and Barley, 1997-2000," which is available from county extension offices (Pm-1645).

Table 1. Performance of barley entries at Calumet from 1998 to 2000.

Entry	Yield				2-yr avg.				
	1998	1999	2000	2-yr avg	Heading date ^a	Lodging score ^b	Straw yield ^c	Test wt. ^d	Height in. ^e
	bushels/acre						ton/acre	lb/bu	
Azure	.	92.5	48.9	70.7	5	4	3.1	45.9	27
Bonanza	.	66.4	41.5	54.0	7	10	2.6	46.8	31
Bowers	.	88.1	40.4	64.2	6	7	2.4	46.8	29
Chilten	.	80.6	35.9	57.5	5	3	2.4	48.9	28
Excel	.	96.2	48.9	72.6	5	3	2.3	48.5	26
Hazen	.	89.0	42.5	65.8	6	1	2.3	47.1	27
Kewaunee	.	65.6	40.8	54.1	5	.	2.1	46.1	28
MNBrite	.	89.8	44.7	67.2	7	.	2.1	49.4	27
Primus II	.	85.6	40.4	65.2	1	13	2.5	48.4	29
Robust	.	91.7	51.6	71.7	6	2	2.6	48.7	27
Royal	.	78.0	42.5	60.2	7	2	1.9	47.6	21
Stander	.	85.4	49.5	67.4	6	0	2.3	48.0	23
Mean	.	84.1	44.0	64.2	5	5	2.4	47.7	27
LSD(0.05) ^f	.	12.9	7.0	12.8	2	6	0.4	1.1	3

^a Heading date at Ames, June 1999 & 2000.

^b Lodging – 1999 average from 3 sites.

^c Straw yield – 1999 & 2000 average from 3 sites.

^d Test weight – 1999 & 2000 average from 3 sites.

^e Height - Measured at Ames, 1999 & 2000.

^f LSD = Least significant difference. When entries differ by an amount equal to one LSD or more, they are considered to be in different classes with 95% certainty.