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2001

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Recommended Citation

Skrdla, Ronald and Jannink, Jean-Luc, "Oat Variety Test" (2001). *Iowa State Research Farm Progress Reports*. 1753. http://lib.dr.iastate.edu/farms_reports/1753

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Oat Variety Test

Abstract

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.

Keywords

Agronomy

Disciplines

Agricultural Science | Agriculture | Agronomy and Crop Sciences

Oat Variety Test

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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.

Table 1. Perro	<u>Performance of oat entries at Yield</u>		itries at	2-yr		Lodging	Straw	Test
Entry	1998	1999	2000	Avg	dateª	score⁵	yield ^c	wt.d
		bushe	els/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
lda		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.

[°] 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

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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.

	Yield				2-yr avg.				
Entry	1998	1999	2000	2-yr avg	Heading date ^a	Lodging score ^b	Straw yield ^c	Test wt. ^d	Height in. ^e
		bus	hels/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.