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Ohio Performance Trials of Spring Oat Cultivars

Including 1997 Results

R. W. Gooding, K.G. Campbell, and L.D. Herald

THE OHIO STATE UNIVERSITY
OARDC

The Ohio State University
Ohio Agricultural Research and Development Center
Wooster, Ohio

PERFORMANCE TRIALS OF SPRING OAT CULTIVARS IN OHIO – 1997 Season[1]

Robert W. Gooding, Dr. Kimberly Garland Campbell, and Larry D. Herald[2]

Oat Growing Conditions and Production in Ohio in 1997:

Oat seeding in Ohio was about two weeks ahead of normal in 1997. In spite of temperatures that averaged below normal throughout most of the month of April, the oat crop in Ohio emerged more than a week ahead of the long term average. Cooler than normal temperatures continued through the month of May resulting in a slight delay in oat heading compared to past years. This meant that the vegetative phase of the crop's development was prolonged and the stage was set for excellent yields. Overall, adequate moisture and below normal temperatures during the growing period allowed the oat crop to progress at a nearly ideal rate. In addition, the below normal precipitation and below normal temperatures kept disease incidence to a minimum. The oat crop in Ohio was completely ripe by August 11th and harvest was completed across the state by August 25th.

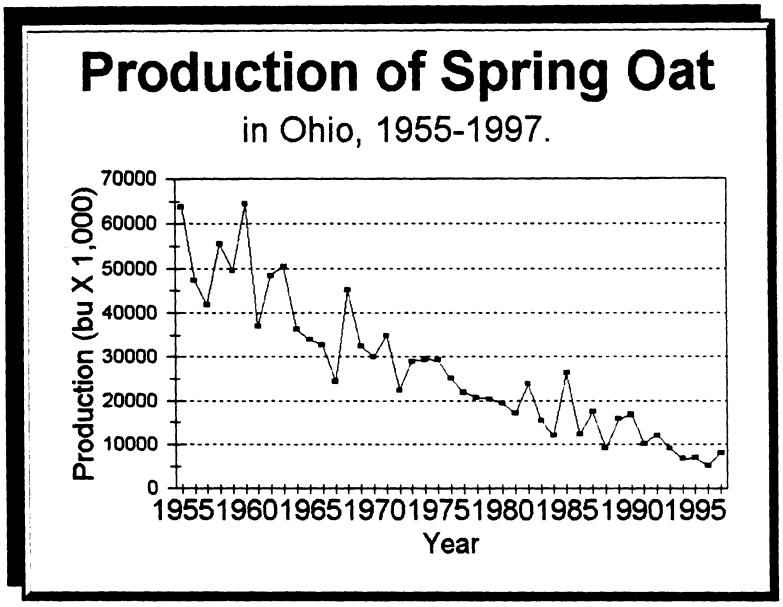

Figure 1.

Across the U.S., oat production was up by nearly 32 million bushels, an increase of over 20% compared to 1996. In Ohio, production was up even more compared to the previous season. Harvested acres equaling 110 thousand and an average yield of 74 bu/a resulted in the production of 8.1 million bushels, an increase of over 58% compared to 1996 (Fig 1).

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[1]Acknowledgment is given to the farm managers and crews of the Wooster Horticulture and Crop Science Research Farm and branch research facilities of The Ohio State University, Ohio Agricultural Research and Development Center for their excellent cooperation.

[2]Senior Research Associate, Assistant Professor, and Research Associate, respectively, Small Grains Breeding, Department of Horticulture & Crop Science, The Ohio State University, Ohio Agricultural Research and Development Center, Wooster, OH 44691.

Statewide Drilled Plot Yield Test:

The objective of this oat cultivar evaluation is to provide an unbiased evaluation of cultivar characteristics and performance expectations for the soils and climates of Ohio. In 1997, spring oat performance trials were sown at the following four agricultural research stations located in Ohio (Fig. 2):

1) Main Campus O.A.R.D.C., Wooster
2) Northwestern Branch O.A.R.D.C., Custar
3) Western Branch O.A.R.D.C., South Charleston
4) Southern Branch O.A.R.D.C., Ripley.

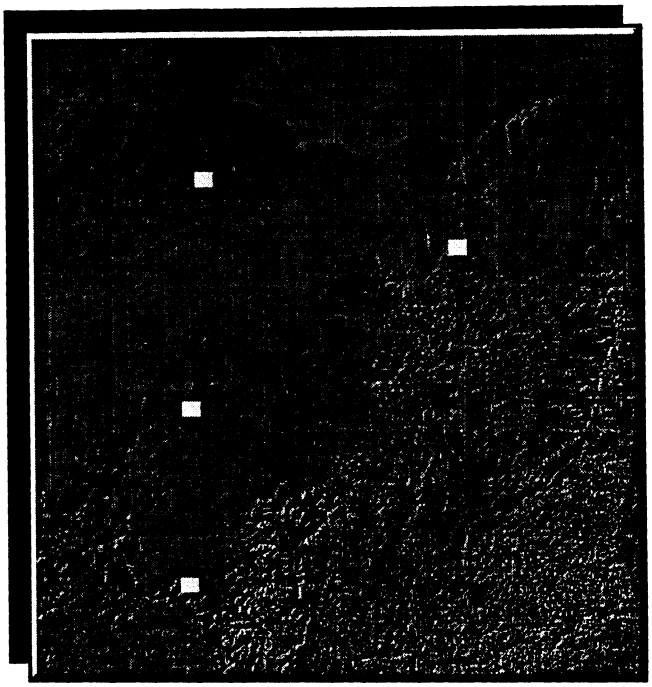

Figure 2. Location of spring oat nurseries in Ohio: 1. Wooster; 2. Custar; 3. S. Charleston; 4. Ripley

Fertilization at each site was uniform and conformed to fertilizer recommendations published in the Ohio Agronomy Guide. Nitrogen was applied at 40 to 60 lbs/a at each location depending on soil organic matter content. All locations were drilled in 7-inch rows, 7 to 11 rows per plot and averaged 100 feet in length.

Test Results:

Table 1 presents yield data obtained from the four test locations in 1997. When averaged across locations, Armor led in yield at 109.6 bu/a followed by 'Rodeo' (107.9 bu/a), experimental line 'OH1087' (107.0 bu/a), and exp. line 'OH1128' (106.9 bu/a).

Table 2 presents average test weights from the four locations. When averaged across locations, the experimental line 'OH1149' showed the highest average test weight at 36.7 lbs/bu. Four additional test lines were ranked among the top five by test weight. These were 'MF9118-81', 'MF9225-613', 'MF9225-120', and OH1128. OH1128 was also among those ranked highest for yield.

Table 3 presents data averaged across the four locations and rankings for *date headed, plant height,* and *percent lodging*. **Tables 4 through 7** provide 1997 data as well as long term average data from each of the four test sites. **Table 8** provides long-term yield data from 1982 through 1997 and **Table 9** presents a summary of averaged data describing agronomic

characteristics for spring oat varieties entered in these tests since 1982.

Brief descriptions of cultivars of interest to Ohio growers follow the data tables.

This report can be accessed by visiting our Website at:
http://www.oardc.ohio-state.edu/smgrain

Table1. 1997 Yield of 17 Spring Oat Varieties at Four Locations in Ohio.

Variety		OARDC Wooster	NW Branch Custar	Western Br. S. Charleston	Southern Br. Ripley	Average 4-loc.
				——bu/a——		
ARMOR		104.4	117.3	77.9	138.8	109.6
RODEO (IL86-1995)		110.0	119.2	77.9	124.6	107.9
OH1087		107.7	119.8	75.4	125.0	107.0
OH1128		112.3	112.5	80.0	122.9	106.9
CHAPS (IL86-2081)		107.7	119.9	76.5	123.1	106.8
MF9118-81		113.8	115.1	81.7	112.1	105.7
OH1065		110.8	121.5	78.4	109.6	105.1
OH1120		104.2	114.2	78.9	120.6	104.5
OH1149		109.4	111.7	79.6	115.9	104.1
OH1086		109.0	122.9	72.7	107.4	103.0
OGLE		101.4	113.6	70.3	119.6	101.2
BURTON		104.4	115.1	72.8	111.2	100.9
HERCULES		106.7	104.1	73.8	105.9	97.6
MF9225-613		106.7	102.4	70.3	94.7	93.5
CHAIRMAN		92.2	104.6	70.4	106.2	93.3
NOBLE		94.5	95.0	70.8	97.8	89.5
MF9225-120		96.4	110.0	70.8	73.2	87.6
Test Mean:		105.1	112.9	75.2	112.3	101.4
LSD.05:		4.7	8.9	5.8	16.5	5.0
CV(%):		3.2	5.6	5.5	10.3	7.0

Table 2. Test Weight of 17 Spring Oat Varieties at four Locations in Ohio in 1997.

Variety		OARDC Wooster	NW Branch Custar	Western Br. S. Charleston	Southern Br. Ripley	Average 4-loc.
				----lb/bu----		
OH1149		38.1	38.4	35.8	34.6	36.7
MF9118-81		36.6	37.2	35.6	34.7	36.0
MF9225-613		36.7	38.1	36.8	31.2	35.7
MF9225-120		37.3	37.8	35.3	31.4	35.4
OH1128		35.0	37.2	35.0	32.9	35.0
HERCULES		35.6	36.5	33.7	34.1	35.0
OH1065		35.4	36.0	34.4	33.8	34.9
BURTON		34.0	36.4	34.6	33.8	34.7
OH1120		35.4	35.6	34.4	33.1	34.6
ARMOR		34.9	33.5	34.2	33.2	33.9
CHAPS (IL86-2081)		34.6	34.6	33.9	31.0	33.5
NOBLE		33.8	35.1	33.2	31.5	33.4
RODEO (IL86-1995)		34.3	33.8	32.8	31.2	33.0
OGLE		34.0	32.9	32.3	32.3	32.9
OH1087		34.3	33.8	32.6	30.4	32.8
OH1086		33.0	33.6	32.6	31.2	32.6
CHAIRMAN		33.5	32.7	31.6	31.2	32.2
Test Mean:		23.0	35.5	34.7	32.4	34.9

Table 3. Average Days to Heading, Plant Height, and Percent Lodging of 17 Spring Oat Varieties at 4 Locations in Ohio in 1997.

	Date Headed	Rank	Plant Height	Rank	Lodging	Rank
	(d*)		(in.)		(%)	
ARMOR	172	15	37.9	7	14.1	13
BURTON	171	9	39.2	12	8.1	7
OGLE	170	4	37.7	5	10.9	10
CHAIRMAN	169	2	37.5	2	3.3	3
NOBLE	170	8	37.8	6	7.1	6
HERCULES	172	16	39.3	13	11.8	11
OH1087	170	6	38.5	10	16.7	15
OH1120	169	1	39.5	15	52.3	17
OH1149	170	3	36.8	1	2.1	2
OH1065	171	10	39.5	14	14.0	12
OH1128	172	14	37.6	3	10.0	9
OH1086	171	11	40.1	17	5.0	4
RODEO (IL86-1995)	172	13	39.0	11	14.3	14
CHAPS (IL86-2081)	170	7	38.3	9	27.1	16
MF9225-120	174	17	37.6	4	0.4	1
MF9225-613	170	5	39.8	16	9.7	8
MF9118-81	171	12	38.0	8	6.9	5
MEAN:	170.9		38.5		12.6	
LSD.05:	**0.4**		1.1		**6.3**	
CV(%):	**0.3**		**4.1**		**71.4**	

* Days after January 1.

Table 4. Summary of Agronomic Characteristics for Spring Oat Varieties at the Ohio Agricultural Research and Development Center/OSU, Wooster, Ohio, 1990-1997.

VARIETY	YIELD (bu/a)	rank	DAYS TO HEADING (d from Jan. 1)	PLANT HEIGHT (in.)	LODGING (%)	TEST WT. (lb/bu)	rank
			----------6-yr. averages 1992-1997*----------				
ARMOR	95.4	1	172	35.0	4.6	34.8	4
BURTON	93.1	2	173	35.9	12.9	36.2	2
CHAIRMAN	**89.4**	**4**	**169**	**33.9**	**4.7**	**34.3**	**5**
HERCULES	**90.1**	**3**	**172**	**36.2**	**12.2**	**36.2**	**1**
NOBLE	83.9	6	171	34.1	5.9	35.8	3
OGLE	85.1	5	171	34.6	5.5	33.7	6
MEAN:	89.5		171.3	35.0	7.6	35.2	
			1997				
ARMOR	**104.4**	**11**	**175**	**35.9**	**1.0**	**34.9**	**9**
BURTON	**104.4**	**12**	**175**	**38.4**	**1.0**	**34.0**	**13**
CHAIRMAN	**92.2**	**17**	**173**	**36.3**	**1.0**	**33.5**	**16**
CHAPS (IL86-2081)	107.7	8	174	**37.4**	1.5	34.6	10
HERCULES	106.7	9	174	**38.5**	1.0	35.6	5
MF9118-81	113.8	1	174	**37.1**	1.0	36.6	4
MF9225-120	**96.4**	**15**	**176**	**36.1**	**1.0**	**37.3**	**2**
MF9225-613	**106.7**	**10**	**173**	**39.1**	**1.0**	**36.7**	**3**
NOBLE	**94.5**	**16**	**174**	**36.6**	**1.0**	**33.8**	**15**
OGLE	101.4	14	175	**36.8**	1.0	34.0	14
RODEO (IL86-1995)	110.0	4	175	**39.0**	1.3	34.3	12
OH1065	110.8	3	174	**40.2**	1.0	35.4	7
OH1086	**109.0**	**6**	**174**	**39.6**	**1.0**	**33.0**	**17**
OH1087	**107.7**	**7**	**173**	**37.2**	**1.0**	**34.3**	**11**
OH1120	**104.2**	**13**	**171**	**38.4**	**6.8**	**35.4**	**6**
OH1128	112.3	2	175	**37.4**	1.0	35.0	8
OH1149	109.4	5	172	**34.6**	1.0	38.1	1
MEAN:	103.5		174.3	**37.4**	1.1	35.0	
LSD.05:	4.7		0.8	**2.3**	0.6		
CV(%):	3.2		0.3	4.3	31.7		

*Yield and Test Weight Data unavailable in 1994 & 1995.

Table 5. Summary of Agronomic Characteristics for Spring Oat Varieties at the Northwestern Branch, Custar, Ohio, 1990-1997

VARIETY	YIELD (bu/a)	rank	DAYS TO HEADING (d from Jan. 1)	PLANT HEIGHT (in.)	LODGING (%)	TEST WT. (lb/bu)	rank
----------6-yr. averages 1992-1997----------							
ARMOR	89.1	1	177	30.3	18.5	33.5	4
BURTON	86.1	2	179	30.4	16.1	34.3	3
CHAIRMAN	**76.7**	**4**	**174**	**29.6**	**13.9**	**33.2**	**5**
HERCULES	**74.3**	**5**	**178**	**30.9**	**11.7**	**35.0**	**1**
NOBLE	71.4	6	176	30.3	20.5	34.8	2
OGLE	79.2	3	176	31.1	14.5	33.1	6
MEAN:	79.5		176.8	30.4	15.9	34.0	
1997							
ARMOR	117.3	6	174	30.7	0.5	33.5	15
BURTON	115.1	7	174	31.5	11.5	36.4	7
CHAIRMAN	104.6	14	171	29.7	0.0	32.7	17
CHAPS (IL86-2081)	**119.9**	**3**	**174**	**30.5**	**6.5**	**34.6**	**11**
HERCULES	**104.1**	**15**	**175**	**31.5**	**5.3**	**36.5**	**6**
MF9116-81	**115.1**	**8**	**174**	**30.0**	**8.0**	**37.2**	**4**
MF9225-120	110.0	13	176	32.2	0.0	37.8	3
MF9225-613	102.4	16	174	32.2	8.0	38.1	2
NOBLE	95.0	17	174	30.5	0.5	35.1	10
OGLE	**113.6**	**10**	**173**	**29.8**	**0.5**	**32.9**	**16**
RODEO (IL86-1995)	**119.2**	**5**	**175**	**30.5**	**5.3**	**33.8**	**13**
OH1065	**121.5**	**2**	**174**	**29.8**	**10.0**	**36.0**	**8**
OH1086	122.9	1	175	32.2	3.0	33.6	14
OH1087	119.8	4	173	30.0	0.8	33.8	12
OH1120	114.2	9	172	30.5	35.0	35.6	9
OH1128	**112.5**	**11**	**175**	**30.0**	**3.0**	**37.2**	**5**
OH1149	**111.7**	**12**	**173**	**30.0**	**0.0**	**38.4**	**1**
MEAN:	112.9		173.9	30.7	5.8	35.3	
LSD.05:	8.9		1.0	1.7	7.5		
CV(%):	5.6		0.4	4.0	92.0		

Table 6. Summary of Agronomic Characteristics for Spring Oat Varieties at Western Branch, South Charleston, Ohio, 1990-1997.

VARIETY	YIELD (bu/a)	rank	DAYS TO HEADING (d from Jan. 1)	PLANT HEIGHT (in.)	LODGING (%)	TEST WT. (lb/bu)	rank
----------6-yr. averages 1992-1997----------							
ARMOR	60.6	1	170	33.5	9.3	33.4	4
BURTON	59.3	2	169	34.0	4.9	34.9	1
CHAIRMAN	**54.2**	**5**	**166**	**33.0**	**3.3**	**33.1**	**5**
HERCULES	**55.2**	**4**	**170**	**33.6**	**6.9**	**33.9**	**3**
NOBLE	51.1	6	167	33.3	4.9	34.2	2
OGLE	57.0	3	167	33.7	7.9	32.8	6
MEAN:	56.2		168.1	33.5	6.2	33.7	
1997							
ARMOR	77.9	6	168.3	40.1	53.8	34.2	9
BURTON	72.8	11	166.8	41.1	20.0	34.6	6
CHAIRMAN	70.4	15	165.3	39.1	12.5	31.6	17
CHAPS (IL86-2081)	**76.5**	**8**	**165.3**	**39.1**	**88.8**	**33.9**	**10**
HERCULES	**73.8**	**10**	**168.5**	**40.9**	**38.8**	**33.7**	**11**
MF9118-81	**81.7**	**1**	**167.8**	**39.3**	**18.8**	**35.6**	**3**
MF9225-120	70.8	14	172.0	39.1	0.0	35.3	4
MF9225-613	70.3	16	166.3	40.4	28.8	36.8	1
NOBLE	70.8	13	166.3	40.3	25.0	33.2	12
OGLE	**70.3**	**17**	**166.0**	**39.7**	**42.5**	**32.3**	**16**
RODEO (IL86-1995)	**77.9**	**7**	**167.0**	**40.0**	**45.0**	**32.8**	**13**
OH1065	**78.4**	**5**	**166.5**	**41.1**	**45.0**	**34.4**	**8**
OH1086	72.7	12	167.5	40.5	15.0	32.6	15
OH1087	75.4	9	166.3	40.6	65.0	32.6	14
OH1120	78.9	4	165.0	41.5	95.5	34.4	7
OH1128	**80.0**	**2**	**167.8**	**38.1**	**35.0**	**35.0**	**5**
OH1149	**79.6**	**3**	**166.3**	**38.4**	**6.5**	**35.8**	**2**
MEAN:	75.2		167.0	39.9	37.4	33.9	
LSD.05:	5.8		0.7	ns	23.3		
CV(%):	5.5		0.3	4.4	43.8		

Table 7. Summary of Agronomic Characteristics for Spring Oat Varieties at the Southern Branch, Ripley, Ohio, 1990-1997.

VARIETY	YIELD (bu/a)	rank	DAYS* TO HEADING (d from Jan. 1)	PLANT HEIGHT (in.)	LODGING (%)	TEST WT. (lb/bu)	rank
6-yr. averages 1990-97*							
ARMOR	82.2	1	170	36.0	7.9	32.6	6
BURTON	76.6	2	169	38.4	15.6	34.9	1
CHAIRMAN	**74.1**	**3**	**167**	**35.5**	**16**	**33.4**	**5**
HERCULES	**66.2**	**6**	**170**	**37.0**	**14.9**	**34.2**	**2**
NOBLE	66.6	5	168	36.4	17.2	33.7	4
OGLE	72.4	4	168	36.4	16.1	33.7	3
MEAN:	73.0		168.6	36.6	14.6	33.8	
1997							
ARMOR	**138.8**	**1**	**169.8**	**45.1**	**2.0**	**33.2**	**6**
BURTON	**111.2**	**10**	**168.5**	**46.0**	**1.0**	**33.8**	**4**
CHAIRMAN	**106.2**	**13**	**166.3**	**45.0**	**0.8**	**31.2**	**14**
CHAPS (IL86-2081)	123.1	4	168.3	46.3	3.0	31.0	16
HERCULES	105.9	14	170.0	46.5	3.0	34.1	3
MF9118-81	112.1	9	170.3	45.5	1.0	34.7	1
MF9225-120	**73.2**	**17**	**173.0**	**43.3**	**1.8**	**31.4**	**11**
MF9225-613	**94.7**	**16**	**168.3**	**47.4**	**2.0**	**31.2**	**12**
NOBLE	**97.8**	**15**	**167.0**	**43.9**	**3.0**	**31.5**	**10**
OGLE	119.6	7	167.5	44.5	0.8	32.3	9
RODEO (IL86-1995)	124.6	3	169.3	46.5	2.0	31.2	13
OH1065	109.6	11	170.3	47.0	1.0	33.8	5
OH1086	**107.4**	**12**	**168.5**	**48.0**	**2.0**	**31.2**	**15**
OH1087	**125.0**	**2**	**168.5**	**46.5**	**1.0**	**30.4**	**17**
OH1120	**120.6**	**6**	**167.0**	**47.4**	**11.3**	**33.1**	**7**
OH1128	122.9	5	169.5	45.0	2.0	32.9	8
OH1149	115.9	8	168.8	44.3	2.0	34.6	2
MEAN:	112.3		168.9	45.8	2.3	32.3	
LSD.05:	16.5		0.9	2.2	2.5		
CV(%):	10.3		0.4	3.4	76.5		

* 5-year avg. Days to Heading not available in 1994 or 1995.

Table 8. Yield of Spring Oat Varieties in Ohio Trials, 1982-97.

Cultivar	1982 4 Trials	1983 5 Trials	1984 5 Trials	1985 5 Trials	1986 4 Trials	1987 5 Trials	1988 5 Trials	1989 4 Trials	1990 5 Trials	1991 6 Trials	1992 5 Trials	1993 6 Trials	1994 6 Trials	1995 4 Trials	1996 4 Trials	1997 4 Trials	Rank 1997 only	Avg. 29 Trials (1992-97)	rank	Avg. 40 Trials (1990-97)	rank	Avg. 77 Trials (1982-97)	rank
	----------bu/a----------																	(bu/a)		(bu/a)		(bu/a)	
NOBLE	79.8	76.8	77.0	98.3	99.2	77.7	59.2	77.5	80.8	72.3	81.8	50.8	54.2	85.7	49.9	89.5	16	66.9	6	69.4	4	74.7	2
OGLE	91.0	92.1	84.5	105.7	120.9	84.4	68.7	95.2	92.7	79.6	69.8	60.5	66.0	93.3	53.5	101.2	12	72.4	4	76.0	2	83.7	1
HERCULES						80.9	55.4	81.7	76.4	74.2	81.4	56.9	60.8	77.4	51.4	106.9	5	70.9	5	72.1	3		
ARMOR									96.8	84.3	89.3	65.3	71.9	90.6	58.5	109.6	1	79.5	2	82.4	1		
CHAIRMAN											89.5	56.6	61.4	92.8	52.8	93.3	15	72.8	3				
BURTON											93.1	67.2	72.7	97.5	58.4	100.9	13	80.4	1				
OH1065													76.3	92.0	57.3	105.1	8						
OH1087													72.2	94.6	58.9	107.0	3						
OH1086													74.0	94.0	57.2	103.0	11						
OH1120														92.7	55.0	104.5	9						
OH1128														98.6	58.3	106.9	4						
OH1149															58.9	104.1	10						
CHAPS (IL86-2081)																106.8	6						
MF9118-81																105.7	7						
MF9225-613																93.5	14						
MF9225-120																87.6	17						
RODEO (IL86-1995)																107.9	2						
MEAN:	85.4	84.5	80.8	102.0	110.1	81.0	61.1	84.8	86.7	77.6	84.2	59.6	67.7	91.7	55.9	102.0		73.8		75.0		79.2	

Table 9. Summary of Agronomic Characteristics of Spring Oat Varieties in Ohio Trials, 1982-1997.

Cultivar	Days to Heading		Plant Ht.		Lodging		Test weight	
	60 trials (1982-97)	21 trials (1992-97)	60 trials (1982-97)	24 trials (1992-97)	60 trials (1982-97)	24 trials (1992-97)	57 trials (1982-97)	22 trials (1992-97)
	(from Jan. 1)		----(in.)----		-------(%)-------		(lb/bu.)	
NOBLE	163.9	170.3	33.9	33.5	12.6	12.1	34.2	34.5
OGLE	163.7	170.4	34.3	34.0	11.6	11.0	33.0	33.3
HERCULES		172.6		34.4		11.4		34.7
ARMOR		172.2		33.7		10.1		33.5
CHAIRMAN		169.0		33.0		9.5		33.4
BURTON		172.3		34.7		12.4		35.0
MEAN:	163.8	171.1	34.1	33.9	12.1	11.1	33.6	34.1

Brief Descriptions of Spring Oat Cultivars

Armor - Armor was released by the Ohio Agricultural Research and Development Center in 1991. It is stiff-strawed with excellent yield potential, exceeding Noble, Ogle, and Porter in yield in statewide Ohio tests. Armor is a midseason cultivar with medium height. It is resistant to BYDV but susceptible to crown rust.

Brawn - This cultivar was released by the University of Illinois Agricultural Experiment Station and the USDA in 1993. Brawn has large, "brawny", yellow kernels. It has been equal to, or slightly better than, Ogle for yield in Illinois trials and in Ohio. It has crown rust and smut resistance and is moderately tolerant to BYDV. Brawn is a day later in maturity than Armor and several days later than Ogle.

Burton - Burton was released in 1996. It is a productive oat cultivar bred for Ohio and surrounding states. Burton is a high-yielding line, similar to Armor, averaging over 16% higher in yield than Ogle in Ohio tests from 1992 through 1994. Burton is similar to Armor in appearance and in resistance to lodging but is somewhat taller. It is midseason in maturity being equal to Armor and a day later than Ogle. Burton has excellent test weight averaging over 35 lbs/ bu in Ohio tests. Burton is less tolerant to Barley Yellow Dwarf Virus (BYDV) than either Armor or Ogle but is similar to Noble. Burton does not possess resistance to prevalent races of crown rust and should not be grown in areas in which this disease is a problem.

Chairman - Chairman was officially released by the Ohio Agricultural Research and Development Center in September, 1995. It will be available to growers in the spring of 1997. Chairman was released because of its high yield potential and early maturity. It is comparable to 'Ogle' and 'Armor' in yield while being two and three days earlier, respectively, in maturity. Chairman is susceptible to current races of crown rust (*Puccinia coronata*) showing a reaction similar to Ogle to this disease.

Dal - Released by the Wisconsin Agricultural Experiment Station in 1972, it is moderately late in maturity and of medium to tall height. It has good lodging resistance, large, plump kernels, high test weight and high groat protein. Dal has excellent resistance to smut and leaf rust, but is susceptible to Septoria and barley yellow dwarf virus. A U.S. Protected Variety, seed of this variety can be sold only as a class of certified seed.

Dane - Released by The Wisconsin Agricultural Experiment Station in 1990, it is early in maturity, averaging 5 days earlier than Ogle in both Wisconsin and Ohio tests, and has excellent yield potential. Dane has yellow kernels with high groat percentage. Test weights are average and straw strength is excellent. Although susceptible to barley yellow dwarf virus in screening tests, Dane has demonstrated field tolerance under severe natural infection.

Don - A 1986 Illinois release, Don is a high yielding early maturing variety with excellent test weight. It has short straw, but is only moderately resistant to lodging. Don has excellent resistance to crown rust and smut, is moderately resistant to BYDV, but is susceptible to stem rust.

Hamilton -A 1989 release by the Iowa Agriculture and Home Economics Experiment Station, it is a high yielding variety with midseason maturity and excellent lodging resistance. Hamilton is unusual in having both cytoplasmic and nuclear genes from Avena sterilis. It is intermediate in test weight, height and BYDV resistance.

Hazel - A 1986 Illinois release, it is a high yielding variety with midseason maturity. Hazel has short stiff straw and excellent resistance to lodging. It has excellent resistance to prevalent races of crown rust and BYDV, but is susceptible to prevalent races of stem rust and smut.

Hercules - A 1986 release by the Pennsylvania Agricultural Experiment Station, Hercules is a high yielding variety with excellent lodging resistance and test weight. It is resistant to currently known races of loose smut, and moderately resistant to BYDV, but susceptible to prevalent races of crown rust and stem rust.

Horicon - A 1989 release by the Wisconsin Agricultural Experiment Station, Horicon combines high yield potential with unusually high groat percentage. It is midseason in heading and has resistance to prevalent races of crown rust. Horicon is intermediate in test weight, height and maturity.

Larry - A 1981 Illinois release, it is early maturing, short and lodging resistant. Larry has good to excellent yield potential with moderate resistance to rusts and excellent resistance to barley yellow dwarf virus.

Newdak -A 1990 cultivar released jointly by the Agricultural Experiment Station of North Dakota State University and Cornell. Newdak is about a day earlier than Ogle in Ohio tests. It has excellent resistance to crown rust and tolerance to BYDV. Newdak has white hulls under unweathered conditions.

Noble - A 1973 Indiana release, it has good yield, good test weight and stiff, medium-short straw. It is medium-early in maturity, with moderate resistance to barley yellow dwarf virus and some of the oat rusts. A U.S. Protected Variety, seed can be sold only as a class of certified seed.

Ogle - A 1981 Illinois release, it has excellent yield capabilities with good test weight and will yield well under a wide range of environments. Ogle is medium-early in maturity with medium-short, stiff straw and moderate resistance to oat rusts. It has excellent resistance to barley yellow dwarf virus.

Pennuda - A 1987 release by the Pennsylvania Agricultural Experiment Station, Pennuda is an early maturing, lodging resistant naked-seeded cultivar with a relatively high yield potential[1]. It is high in protein and digestible energy and is especially useful in rations for poultry, swine and young animals. Pennuda is moderately resistant to BYDV but is susceptible to crown rust and loose smut.

Porter - A 1982 Purdue University release, it is rather late in maturity, but has an excellent yield record. It is resistant to barley yellow dwarf virus and moderately resistant to crown rust. A U.S. Protected Variety, seed of this variety can be sold only as a class of certified seed.

Premier - A 1990 release by The Minnesota Agricultural Experiment Station, it is similar to Ogle in heading date, height and lodging resistance. It has excellent test weight and groat percentage. Premier is moderately resistant to crown rust and slightly tolerant to barley yellow dwarf virus.

The cultivars Armor, Burton, Chairman, Hercules, Noble, and Ogle were grown by Ohio Certified Seed Producers in 1997. All other cultivars may not be available from Ohio suppliers unless purchased or produced out-of-state.

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[1] When compared to other cultivars on a dehulled basis, Pennuda yields comparably to cultivars such as Noble, Hercules, and Hamilton.


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