

1987 Small Grain Performance Test Results



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**Special Report 357
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**Agricultural Experiment Station
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The 1987 Missouri Performance Tests with Winter Wheat and Oat Varieties

James Schaffer, Paul Rowoth, Brian Jacobson, and Calvin Hoenshell

Test Objective

The objective of the Missouri small grains performance testing program is to help Missouri growers select varieties best suited for their areas and conditions. The University of Missouri Agricultural Experiment Station in conjunction with the Missouri Seed Improvement Association and entrants from private companies all cooperate in evaluating both public and private wheat varieties and hybrids and oat varieties for the state of Missouri.

1987 Wheat Crop Conditions

The 1986-1987 Missouri winter wheat crop produced the highest average yield in recorded history (46 bu/A). That was despite many difficulties encountered by wheat growers this past year. Extremely wet weather began in mid-September and continued throughout the fall preventing many farmers from planting their wheat crop. As a result, one of the lowest levels of planted acreage in recent years (900,000 acres) was the result. However, the winter was generally mild and survival good across much of the state. Consequently, 730,000 acres of wheat were harvested compared to 570,000 in 1986.

The wheat broke dormancy much ahead of schedule in 1987 and development throughout the state was about two weeks ahead of normal at all stages of development. A period of low temperatures (in the range of 20 deg. F.) during late March and early April reduced yields in many fields in southwest and west central Missouri. The wheat in that area progressed past jointing and, as a result, many of the older tillers were killed. In some cases, subsequent tiller development occurred and respectable yields were achieved. The grain filling period was characterized by hot, dry weather across most of the state with the exception of northwest Missouri where rainfall was generally sufficient. Some wheat fields showed signs of severe moisture stress, particularly in southern Missouri, during that period, but final yields were still quite high.

Diseases were not a significant problem in 1987 due to the hot, dry weather during late plant development - a condition which often retards foliar disease development. A noticeable exception was the presence of barley yellow dwarf leaf symptoms across much of the state. That resulted from a severe, early infestation of oat bird cherry aphid which transmitted that disease to wheat and other cool season cereals during the spring. Since spring infections are less damaging than fall infections, the disease did not cause severe yield reductions even though leaf symptoms were readily apparent. Powdery mildew infections were also severe on susceptible varieties at Bertrand, Mt. Vernon, and Spickard and offered the opportunity to rate for that disease even though its effect on yield was minimal.

Winter Wheat Varieties Grown in Missouri

According to the Missouri Crop and Livestock Reporting Service, soft red winter wheat accounts for 98.7 percent of the total acreage seeded for the 1987 winter wheat crop. Caldwell was the leading variety for 1987 accounting

for 62 percent of all the Missouri wheat acreage. That was an increase of 23 percent since 1986. Coker varieties and Pioneer varieties were planted on 10 and 6 percent of the soft wheat acreage in 1987, respectively. Arthur 71 was the third most popular variety being planted on 6 percent of the state's acreage. Table 1 reports the commonly grown varieties by crop reporting district as reported by the Missouri Crop and Livestock Reporting Service.

Table 1. Wheat varieties commonly grown in Missouri and percentage of acreage - Crop Year 1986-87.

NW		NC		NE	
Caldwell	(68)	Caldwell	(65)	Caldwell	(75)
Pioneer**	(6)	McNair 1003	(15)	Rosen	(5)
HRWW*	(17)	Arthur 71	(5)	Pioneer**	(3)
WC		C		EC	
Caldwell	(44)	Caldwell	(49)	Caldwell	(65)
Hart	(20)	Pioneer**	(13)	Agripro Hunter	(19)
Pioneer**	(15)	Rosen	(13)	Hart	(7)
SW		SC		SE	
Caldwell	(52)	Caldwell	(46)	Caldwell	(66)
Pioneer**	(21)	Coker**	(28)	Coker**	(24)
Arthur 71	(12)	Arthur 71	(20)	Arthur 71	(6)

* Hard Red Winter Wheats - all varieties

** all varieties

Privately developed varieties are entered into the Missouri wheat performance test program by their originator or purchasers. Entry is voluntary and entrants choose their entries and pay the state a fee for each entry and location to help defray the test expenses. This program is similar to those for corn, sorghum, soybeans, and alfalfa. The objective is to provide Missouri growers with performance information on all varieties and hybrids likely to become available in the state.

The 1987 performance test contained 37 soft red winter wheat cultivars and 20 hard red winter wheat cultivars. Of those soft cultivars, 23 were public varieties, 13 were private varieties, and 1 was a private hybrid. Of the hard red winter wheats, 12 were public varieties, 5 were private varieties and 3 were private hybrids. The soft winter wheat tests were planted separate from the hard wheat tests in 1987. However, public and private entries within each class were grown together at random in the same test. Growers interested in more detailed descriptions of the private entries should contact the companies directly (Table 2).

Table 2. Private entrants and their entries in 1986 wheat performance tests.

Entrant	Brand	Variety or Hybrid
Nickerson American Plant Breeders RR 2, P.O. Box 411 Brookston, IN 47923 317-563-3111	Agripro Agripro Agripro	Magnum* Lincoln* Twain*
Nickerson American Plant Breeders P.O. Box 30 Berthond, CO 80513 303-532-3721	Agripro Agripro Agripro Agripro	Mesa Abilene Thunderbird Trailblazer
Cargill Seed Division 2540 East Drake Rd. Ft. Collins, CO 80525 303-482-8818	Bounty Hybrid Bounty Hybrid Bounty Hybrid	122 205 301
Coker Pedigreed Seeds, Inc. P.O. Box 2629 West Memphis, AR 72301 501-735-8000	Coker Coker Hybrex Hybrid McNair	747 9733 EH 8504 1003
Merschman, Inc. 208 Second St. West Point, IA 52656 319-837-6111	Merschman Merschman Merschman Merschman	Bintee IV Genie III Julie II Katie II Meggie III
Pioneer Hi-Bred Intl., Inc. 7000 Pioneer Parkway Box 256 Johnston, IA 50131 515-270-2170	Pioneer Pioneer	2551 2555
HybriTech Seed 1831 Woodrow Wichita, KS 67203 316-265-9526		Pacer
Ray-Carroll Seeds Box 267 Norborne, MO 64668 816-594-3711	Ray-Carroll Ray-Carroll	Brandy Bethany
Reeds Seeds, Inc. P.O. Box 130 Chillicothe, MO 64701 816-646-4426	Reed Reed	1004 1008

*Varieties were entered but, because of mixup in seed delivery, not planted.

Variety Plot Test Conditions

The 1986-87 wheat variety trials were planted at six locations. Wet soil conditions prevented planting at the Columbia location. Test sites descriptions, fertilizers applied, and other management items are listed in Table 3. Two hard wheat varieties, TAM 107 and Arkan, were included as checks in the soft wheat tests. Two soft wheat varieties, Pike and Caldwell, were included as checks in the hard wheat tests. The test plots consisted of six rows of 7 inch spacing, 15 feet long, replicated three times in a rectangular lattice design. Plots were trimmed to 10 feet in length prior to harvest and were harvested with a plot combine. All plots were seeded at the rate of 1.5 million seeds per acre (1850 seeds per plot) - equivalent to approximately one and one half bushels of seed per acre. Extremely wet weather in the fall of 1986 hampered plantings at all northern locations.

Wet weather from mid-September through freeze-up prevented planting at the Columbia location. Planting conditions were considered ideal at Portageville and Bertrand. All other sites were planted under wet soil conditions that were considered less than ideal.

Diseases were likely not a factor in significant yield reductions at any site in 1987. However, several foliar diseases were evident and were rated wherever possible. These results are good indicators of how specific varieties would respond to severe disease infections. Varieties with high levels of disease infection in 1987 might be expected to perform poorly in a year when diseases are more of a factor.

Two diseases of interest were evident in limited amounts but are not reported in this report. Stripe rust was present in small amounts on susceptible varieties at several locations. That disease has not presented significant problems for Missouri wheat growers so we do not recommend making variety selections on the basis of resistance to that disease at this time. It was a significant problem in the mid-South states this year, however, so that future ratings in the Bootheel may be of increased importance.

Bacterial stripe, Xanthomonas translucens, was identified from samples taken from the variety plots at Mt. Vernon in 1987. Often called "black chaff" that disease was not considered economic at that site. Last year we reported ratings for Helminthosporium sativum at Bertrand but were probably actually seeing secondary infections of that fungal organism after an initial bacterial leaf infection. However, since that cannot be confirmed, we would caution you to use the ratings from last year's report on that disease. We are also reluctant to report the results of the bacterial stripe evaluations since bacterial diseases are difficult to identify and verify. Basically, we have low levels of confidence in the ratings for the bacterial diseases at this time.

Frost damage notations at Mt. Vernon and Lamar were made on those tillers which died within two weeks after the freeze. Practical use of that information should relate those varieties with the greatest amount of freeze damage to those varieties which tend to break dormancy early. That evaluation does not reveal varieties which are resistant to freeze since there are no

such varieties available. Varieties which were most advanced in developmental stage were most damaged by freeezing temperatures.

Table 3. Selected cultural practices at each out-state testing location.

Location and Cooperator	Class Tested	Planting Date	Harvest Date	N Fertilizer Time	(Lb/A)
<u>Spickard</u> Jack Cooley	Hard and Soft	Oct. 31	June 29	F S	40 80
<u>Novelty</u> Randall Smoot	Soft	Oct. 20	June 25	F S	40 80
<u>Lamar</u> David Sheat	Soft	Oct. 21	June 16	F S	60 40
<u>Bertrand</u> Junior Peters	Soft	Oct. 18	June 10	F S	40 100
<u>Mt. Vernon</u> Calvin Hoenshell	Hard and Soft	Oct. 21	June 17	F S	40 80
<u>Portageville</u> Al Wrather	Soft	Nov. 7	June 4	F S	40 80

Special Note on Germination

Hart was included in the tests for 1987, but because the seed used in these trials was of low germination and vigor, emergence was too low to include any results for that variety.

Analyzing the Results

Performance of a variety cannot be measured with absolute precision since many conditions may contribute to variability. Consequently, we use statistics as a tool to determine whether observed differences are "real" or significant. The Least Significant Difference (LSD) is the tool used in this report and is listed at the bottom of each column for which we have a statistical analysis. Unless two varieties differ in yield or other characteristics by more than the LSD, little confidence can be placed in one being superior to the other.

Variety performance is variable from location to location and year to year due to many environmental variables. An improved estimate of performance is obtained as more locations and years are considered. Those varieties which did not yield significantly less than the highest yielding variety in a test

are indicated by an asterisk while the highest yielding variety in a test has a double asterisk. The probability of a variety yielding well in a planned production environment is greater if a variety has more asterisks across years and locations. Other characteristics such as test weight, moisture content, height, standability and pest resistance are also important in the selection of a variety.

New Public Variety Descriptions

Cardinal is a new release from Ohio State University which was entered for the first time last year. Since seed will become available in Missouri shortly, we are including a short description of it again this year. It yields about the same as Caldwell, but is taller, lodges less, is slightly later in maturity, and has higher seed weights. It is very similar to Caldwell in reactions to most foliar diseases.

Keiser is a new release from Arkansas which will likely be available to growers within a year or two. Yields in Missouri placed it below average at all locations except Mt. Vernon and Bertrand. We will continue to test this variety and hope to have additional information available before seed becomes commonly available to growers.

New hard red winter wheat varieties tested this year include Century, Redland, Dodge and Norkan. Yields of Dodge and Norkan (both Kansas State University releases) were at or below average in this first year of testing. Dodge appears to be quite susceptible to powdery mildew. Century is a new release from Oklahoma State University and yielded better than average this year. Redland is a new release from the University of Nebraska that also yielded better than average in 1987. It is somewhat later than most hard wheat varieties tested and may be most appropriate for northwest Missouri.

For information on new private varieties, please consult with the entrants listed in Table 2.

NOTE: Nickerson American Plant Breeders entered Agripro varieties Magnum Lincoln, and Twain at all locations, but due to the fact that their seed was lost in transit and returned to them by the shipper after all sites had been planted, their varieties were not planted in 1986 for 1987 results. We are very sorry that this mistake was not discovered in time to correct the situation.

Tables

TABLE 1. YIELD (BU/A) OF SOFT RED WINTER WHEAT VARIETIES AT MISSOURI TEST LOCATIONS.-1987

BRAND	NAME	PORTAGEVILLE BU/A	BERTRAND BU/A	MT. VERNON BU/A	LAMAR BU/A	SPICKARD BU/A	NOVELTY BU/A	AVERAGE BU/A
PIONEER	2551	85*	56	49	55*	87*	64*	66**
	FLORIDA 302	86**	58	60**	50*	78	57*	65*
	CALDWELL	76*	55	46	56**	89**	58*	63*
	CARDINAL	73	66*	52	55*	78	54	63*
	SALUDA	84*	67*	57*	26	78*	62*	62*
	MO. 10501	76*	68**	47	52*	76	54	62*
COKER	EH8504 (H)	81*	65*	53	54*	70	48	62
COKER	9733	74	66*	49	54*	72	52	61
COKER	MCNAIR 1003	77*	68*	57*	48	64	56	61
PIONEER	2555	83*	43	47	56*	78*	61*	61
REEDS	1008	76*	57	55	46	66	66**	61
	BECKER	79*	58	51	42	72	62*	61
REEDS	1004	71	63*	53	51*	67	51	59
RAY CARROLL	BRANDY	79*	59	50	54*	58	54	59
	TYLER	71	58	51	51*	60	61*	59
MERSCHMANN	JULIE II (B)	74	55	50	53*	64	55	59
HYBRITECH	PACER	71	63*	54	44	64	52	58
	MO. 9965	68	51	49	51*	79*	50	58
	COMPTON	72	60*	44	38	71	60*	58
MERSCHMANN	BINTEE IV (B)	71	55	44	50*	68	57*	57
MERSCHMANN	GENIE III	73	51	52	39	70	56	57
RAY CARROLL	BETHANY	65	59	51	43	70	52	57
	NELSON	67	62*	43	49	67	51	56
COKER	747	71	60*	57*	39	52	55	56
	SCOTTY	67	58	51	45	60	50	55
	PIKE	77*	57	34	49	64	47	54
	KEISER	68	66*	52	39	58	40	54
	MO. 11138	67	53	46	47	56	53	54
	ROSEN	73	51	47	43	54	49	53
	FILLMORE	63	58	49	51*	54	38	52
	AUBURN	59	49	45	47	55	54	51
	FLORIDA 301	68	57	42	48	55	37	51
	ARTHUR 71	60	48	42	43	63	49	51
	MO. 10975	56	52	39	44	67	47	51
	ADDER	72	59*	38	43	49	42	50
	MO. 11544	75	43	41	38	62	43	50
	TAM 107 (HARD)	63	55	37	45	76	61*	56
	ARKAN (HARD)	68	48	27	47	70	51	52
	AVERAGE	71.7	56.5	46.8	45.9	65.8	51.6	56.4
	LSD .05	12.3	11.2	4.9	8.9	12.2	11.7	4.8
	LSD .10	10.5	9.5	4.2	7.6	10.4	10.0	4.1
	C.V. %	10.7	12.4	6.6	12.1	11.6	14.2	13.1

** - HIGHEST YIELDING VARIETY IN THE TEST.

* - INDICATES THOSE VARIETIES WHICH DO NOT DIFFER SIGNIFICANTLY (LSD=.10) IN YIELD FROM THE HIGHEST.

(H) - INDICATES A HYBRID WHEAT.

(B) - INDICATES A BLEND.

TABLE 2. TWO YEAR AVERAGES (BU/A) OF SOFT RED WINTER WHEAT VARIETIES
AT MISSOURI TEST LOCATIONS.

BRAND	NAME	PORTAGEVILLE BU/A	BERTRAND BU/A	LAMAR BU/A	SPICKARD BU/A	ALL SITES AVERAGE BU/A	
PIONEER	2551	67*	55	53*	70**	60**	
	CALDWELL	61	57*	54**	65*	58*	
	MO. 10501	60	65**	50*	56*	56	
	CARDINAL	60	58*	54*	55	56	
COKER	MCNAIR 1003	64*	59*	46*	43	54	
	MO. 9965	54	49	51*	65*	54	
REEDS	1004	59	58*	48*	47	53	
RAY CARROLL	BETHANY	54	59*	45*	50	52	
	COMPTON	57	55	40	54	52	
	SALUDA	63*	56*	27	47	50	
	BECKER	61	44	42	48	50	
REEDS	1008	61	48	42	39	50	
	NELSON	51	57*	48*	46	50	
	PIKE	60	51	46*	51	50	
RAY CARROLL	BRANDY	62	48	43	40	49	
COKER	747	60	56*	35	39	49	
	FLORIDA 302	70**	50	26	39	49	
	TYLER	58	46	42	38	48	
	ROSEN	60	45	44*	41	48	
	SCOTTY	54	53	35	44	47	
	ADDER	57	53	42	44	47	
	MO. 11544	60	45	43	45	47	
	ARTHUR 71	47	49	42	47	46	
	FILLMORE	53	49	34	48	45	
	FLORIDA 301	53	59*	32	36	44	
	AUBURN	47	41	32	48	43	
	MO. 10975	46	41	29	48	41	
	MO. 11138	48	38	33	34	41	
	TAM 107 (HARD)	58	57*	54*	65	56	
	ARKAN (HARD)	54	47	47*	60	49	
	AVERAGE		57.3	51.6	42.0	48.3	49.8
	LSD .05		7.9	9.1	10.1	8.7	3.3
	C.V. %		12.1	15.3	17.2	15.8	13.1

** - HIGHEST YIELDING VARIETY IN THE TEST.

* - INDICATES THOSE VARIETIES WHICH DO NOT DIFFER SIGNIFICANTLY (LSD-.05) IN YIELD FROM THE HIGHEST.

TABLE 3. SURVIVAL (%) OF SOFT RED WINTER WHEAT VARIETIES AT MISSOURI TEST LOCATIONS.-1987

BRAND	NAME	PORTAGEVILLE (%)	BERTRAND (%)	MT.VERNON (%)	LAMAR (%)	SPICKARD (%)	NOVELTY (%)	AVERAGE (%)
	SALUDA	97	90	98	88	95	95	94
PIONEER	BECKER	93	95	95	88	95	94	94
	2551	92	87	98	93	96	93	93
PIONEER	FLORIDA 302	100	88	97	92	93	88	93
	2555	97	93	97	88	95	88	93
	SCOTTY	93	93	98	93	96	82	93
REEDS	MO. 10501	90	92	98	92	95	88	93
	1004	93	93	93	90	95	87	92
	CARDINAL	95	92	90	87	95	92	92
	NELSON	87	92	97	88	93	92	91
	PIKE	93	90	98	83	94	88	91
	TYLER	93	87	90	87	95	93	91
REEDS	1008	97	87	90	83	94	93	91
COKER	9733	93	90	83	92	95	90	91
MERSCHMANN	JULIE II (B)	90	85	92	90	95	91	90
	ADDER	85	92	93	88	93	90	90
RAY CARROLL	BRANDY	97	92	85	85	95	88	90
	KEISER	92	92	97	90	92	77	90
COKER	MCNAIR 1003	95	90	88	80	93	92	90
	COMPTON	92	88	90	85	93	88	89
MERSCHMANN	BINTEE IV (B)	87	85	90	88	93	93	89
	MO. 9965	82	85	95	87	94	93	89
RAY CARROLL	BETHANY	93	90	92	85	93	82	89
	ARTHUR 71	90	83	93	85	93	90	89
MERSCHMANN	GENIE III	87	87	93	85	93	88	89
HYBRITECH	PACER	85	87	95	83	93	87	88
	MO. 11544	87	78	87	92	95	92	88
	MO. 11138	85	92	85	90	92	83	88
	AUBURN	78	90	95	85	95	82	88
	CALDWELL	83	82	87	87	95	85	86
COKER	EH8504 (H)	98	88	82	88	94	65	86
	ROSEN	88	88	87	90	93	67	86
	FLORIDA 301	95	90	85	80	90	72	85
COKER	747	83	87	85	75	93	85	85
	MO. 10975	78	83	77	87	95	83	84
	FILLMORE	82	83	80	77	88	82	82
	TAM 107 (HARD)	85	90	88	92	93	90	90
	ARKAN (HARD)	87	88	92	87	92	93	90
	AVERAGE	88.9	86.1	88.8	86.3	93.9	86.7	89.2
	LSD .05	7.2	6.4	7.6	7.9	3.8	14.3	3.4
	C.V. %	5.1	4.6	5.3	5.6	2.5	10.2	5.9

(H) - INDICATES A HYBRID WHEAT.

(B) - INDICATES A BLEND.

TABLE 4. TWO YEAR AVERAGES OF SURVIVAL RATINGS (%) FOR SOFT RED WINTER WHEAT VARIETIES AT MISSOURI TEST LOCATIONS.

BRAND	NAME	PORTAGEVILLE (%)	BERTRAND (%)	LAMAR (%)	SPICKARD (%)	ALL SITES AVERAGE (%)	
PIONEER	2551	86	86	92	72	88	
	BECKER	86	91	87	74	88	
	CARDINAL	89	87	85	81	87	
	ADDER	83	90	90	77	87	
	SCOTTY	84	87	84	78	86	
	COMPTON	84	87	89	72	85	
	PIKE	87	88	77	70	85	
	MO. 9965	79	83	84	74	85	
	ARTHUR 71	86	85	83	70	85	
	MO. 10501	82	87	77	73	84	
COKER	MCNAIR 1003	88	88	82	68	84	
	SALUDA	88	83	77	64	84	
	AUBURN	76	87	88	76	84	
	NELSON	78	84	80	70	83	
REEDS	1008	89	86	71	71	83	
REEDS	1004	86	86	80	64	83	
	CALDWELL	82	81	87	73	82	
RAY CARROLL	BETHANY	83	88	76	74	82	
	TYLER	87	80	70	72	82	
RAY CARROLL	BRANDY	85	85	71	70	81	
	MO. 11544	79	77	79	70	81	
COKER	ROSEN	87	82	89	72	81	
	FILLMORE	79	82	84	69	79	
	747	79	84	75	63	79	
	FLORIDA 302	88	80	47	48	75	
	MO. 10975	67	75	81	64	74	
	FLORIDA 301	88	85	48	58	73	
	MO. 11138	70	75	70	52	73	
		TAM 107 (HARD)	87	89	92	78	87
		ARKAN (HARD)	77	86	85	74	84
	AVERAGE	83.0	84.4	75.3	69.8	81.2	
	LSD .05	9.0	5.3	9.2	9.9	7.7	
	C.V. %	9.5	5.5	8.3	12.4	10.8	

TABLE 5. TEST WEIGHT (LB/BU) OF SOFT RED WINTER WHEAT VARIETIES
AT MISSOURI TEST LOCATIONS.-1987

BRAND	NAME	PORTAGE- VILLE	BERTRAND	MT.VERNON	LAMAR	SPICKARD	NOVELTY	AVERAGE
COKER	747	58.3	59.4	59.0	60.9	59.0	61.3	59.6
REEDS	1004	58.7	60.0	57.4	59.7	57.5	60.4	58.9
	COMPTON	58.5	58.9	56.2	58.3	58.1	61.2	58.5
RAY CARROLL	BETHANY	58.2	58.4	57.2	59.0	57.7	60.2	58.4
	ARTHUR 71	58.0	58.3	56.1	59.6	57.4	60.1	58.2
	NELSON	58.5	59.4	54.0	59.0	56.5	60.1	57.9
COKER	9733	58.9	49.3	56.3	60.1	58.4	61.2	57.4
MERSCHMANN	BINTEE IV (B)	56.3	56.4	55.3	59.0	56.2	60.2	57.2
HYBRITECH	PACER	57.4	57.9	54.1	58.4	55.7	59.8	57.2
COKER	EH8504 (H)	58.6	55.4	57.4	60.6	56.8	54.7	57.2
	CARDINAL	54.4	57.9	55.6	58.8	56.7	59.3	57.1
	CALDWELL	58.3	54.9	51.0	59.6	57.8	61.1	57.1
	MO. 10501	57.2	54.2	54.5	58.6	56.8	59.5	56.8
	FLORIDA 301	58.3	57.1	51.4	58.3	55.6	59.9	56.8
	FILLMORE	55.7	56.7	55.4	61.7	57.9	52.9	56.7
	MO. 11544	56.6	55.0	53.5	58.6	57.1	59.3	56.7
	AUBURN	53.0	53.7	54.8	60.4	57.5	60.5	56.6
	ROSEN	56.6	55.3	56.1	58.3	55.3	58.1	56.6
	MO. 9965	57.1	55.0	52.8	58.3	56.4	60.2	56.6
	SALUDA	56.3	58.0	53.7	55.8	55.9	60.0	56.6
	PIKE	56.3	56.2	53.4	57.3	57.5	58.9	56.6
MERSCHMANN	GENIE III	56.2	52.2	52.1	58.9	56.9	61.5	56.3
	KEISER	57.6	55.6	52.7	58.8	55.1	57.7	56.2
MERSCHMANN	JULIE II (B)	55.7	55.1	51.9	58.9	56.0	59.7	56.2
	MO. 10975	57.6	52.7	51.9	58.9	56.0	59.6	56.1
	MO. 11138	55.9	54.4	52.9	58.0	54.6	58.7	55.7
	SCOTTY	55.8	50.7	55.1	57.5	55.8	58.3	55.5
REEDS	1008	55.9	54.6	52.7	59.4	53.4	56.8	55.5
COKER	MCNAIR 1003	54.9	54.2	53.5	57.5	54.0	58.5	55.4
PIONEER	2555	57.7	51.5	52.5	56.9	54.6	58.2	55.2
	ADDER	55.7	55.5	50.3	58.2	54.2	56.9	55.1
	FLORIDA 302	56.1	53.8	53.2	58.9	54.5	52.4	54.8
PIONEER	2551	54.8	50.2	51.9	57.4	55.3	58.9	54.7
	TYLER	54.4	52.2	51.3	58.1	53.3	58.9	54.7
RAY CARROLL	BRANDY	55.5	50.1	50.9	57.4	51.8	59.3	54.2
	BECKER	55.2	49.0	52.6	55.2	53.8	58.1	54.0
	ARKAN (HARD)	58.0	59.8	53.4	59.6	57.1	61.0	58.2
	TAM 107 (HARD)	57.3	57.5	51.9	60.0	56.4	61.1	57.4
	AVERAGE	56.7	55.1	53.7	58.8	56.2	59.2	56.6
	LSD .05	2.7	5.5	2.6	2.3	2.0	3.4	1.3
	C.V. %	2.9	6.1	3.0	2.4	2.2	3.3	3.6

(H) - INDICATES A HYBRID WHEAT.
(B) - INDICATES A BLEND.

TABLE 6. TWO YEAR AVERAGES (LB/BU) OF SOFT RED WINTER WHEAT VARIETIES AT MISSOURI TEST LOCATIONS.

BRAND	NAME	PORTAGEVILLE LB/BU	BERTRAND LB/BU	LAMAR LB/BU	SPICKARD LB/BU	ALL SITES AVERAGE LB/BU
COKER	747	57.9	58.8	61.2	52.0	58.4
	COMPTON	58.3	57.7	59.6	54.8	58.0
REEDS	1004	58.1	58.6	59.7	52.4	57.8
	ARTHUR 71	57.1	57.8	59.7	52.6	57.2
RAY CARROLL	BETHANY	57.5	57.2	59.3	51.2	57.1
	NELSON	57.8	57.7	59.0	50.9	56.6
	CALDWELL	57.3	55.1	60.0	54.2	56.4
	AUBURN	55.2	53.9	60.0	53.8	56.4
	MO. 11544	56.9	56.4	59.5	52.6	56.4
	MO. 10501	56.8	54.3	58.8	53.5	56.2
	MO. 9965	56.9	54.0	59.1	54.1	56.2
	PIKE	56.2	55.5	59.0	52.6	55.9
	CARDINAL	55.5	56.1	58.6	49.6	55.8
	ROSEN	56.2	54.7	58.5	50.0	55.6
	FILLMORE	56.1	56.0	57.2	54.8	55.4
	FLORIDA 301	56.1	56.9	57.6	49.8	55.3
	SCOTTY	56.4	52.6	58.3	50.6	55.2
	SALUDA	57.1	55.3	58.1	46.6	55.1
	MO. 10975	56.2	53.3	56.7	51.1	54.8
PIONEER	2551	55.6	51.7	58.1	51.7	54.6
	ADDER	55.1	54.6	58.8	51.1	54.5
REEDS	1008	55.6	52.4	58.9	45.7	53.7
COKER	MCNAIR 1003	54.3	52.8	56.9	45.6	53.6
	MO. 11138	55.3	50.9	57.3	46.1	53.5
RAY CARROLL	BRANDY	55.6	50.8	58.0	45.7	53.4
	TYLER	55.6	50.3	58.1	44.2	53.1
	BECKER	55.2	49.3	56.6	46.3	53.0
	FLORIDA 302	56.2	52.3	52.1	----	----
	ARKAN (HARD)	58.2	58.9	59.5	55.7	57.8
	TAM 107 (HARD)	57.3	56.0	59.4	54.8	56.8
	AVERAGE	56.5	54.7	58.7	50.1	55.3
	LSD .05	1.9	2.8	1.7	2.1	2.0
	C.V. %	2.9	4.4	2.0	3.6	4.1

TABLE 7. WEIGHT OF 1000 SEEDS (G) FROM SOFT RED WINTER WHEAT VARIETIES AT MISSOURI TEST LOCATIONS.-1987

BRAND	NAME	PORTAGE-VILLE	BERTRAND	MT.VERNON	LAMAR	SPICKARD	NOVELTY	AVERAGE
COKER	MCNAIR 1003	32.7	29.5	30.5	38.4	34.2	35.3	33.6
RAY CARROLL	BETHANY	32.4	30.9	29.9	36.5	35.1	33.8	33.1
REEDS	1004	33.0	32.1	28.1	36.8	32.2	34.9	32.8
PIONEER	2555	32.7	26.9	28.6	36.5	32.9	35.3	32.1
	FLORIDA 302	33.1	28.0	27.7	37.9	31.7	32.8	31.8
	CARDINAL	30.0	28.1	28.5	34.6	31.9	34.3	31.2
	COMPTON	29.4	27.1	26.2	36.6	30.3	32.8	30.4
	FLORIDA 301	29.2	27.9	25.1	33.2	32.1	32.9	30.2
	ROSEN	29.2	25.4	25.7	35.9	30.6	33.8	30.1
	KEISER	29.9	28.5	26.3	35.3	29.8	30.1	30.0
COKER	9733	28.9	25.0	27.7	32.6	31.8	30.8	29.7
	MO. 10501	26.6	27.7	25.7	32.0	31.4	32.5	29.4
	PIKE	26.5	26.7	25.1	33.2	30.5	32.3	29.1
	BECKER	28.5	24.9	25.0	33.4	28.6	31.6	28.7
COKER	EH8504	28.6	26.1	25.7	33.5	27.0	30.8	28.6
COKER	747	28.5	23.3	24.8	29.9	30.2	30.4	28.4
	MO. 9965	27.9	25.0	24.6	31.0	29.6	31.8	28.3
	ARTHUR 71	24.3	26.5	23.7	32.4	30.6	31.0	28.3
	SCOTTY	26.4	26.5	24.7	30.6	30.1	30.2	28.3
	NELSON	26.1	27.6	23.8	30.2	28.8	30.6	27.9
PIONEER	2551	24.8	25.9	23.5	31.2	29.0	30.0	27.5
REEDS	1008	27.8	23.6	26.3	30.9	25.3	31.0	27.5
RAY CARROLL	BRANDY	27.3	23.8	24.0	31.2	24.2	32.9	27.4
	MO. 11138	27.1	24.3	23.2	30.9	27.7	31.3	27.4
	SALUDA	25.2	23.6	24.8	33.3	27.7	29.0	27.3
MERSCHMANN	BINTEE IV	25.4	24.5	22.2	32.4	28.1	30.6	27.2
	TYLER	24.9	24.0	25.2	31.6	25.2	31.0	27.0
	FILLMORE	25.1	22.7	24.3	31.1	28.0	28.4	26.5
	ADDER	24.0	23.4	20.2	31.6	29.8	28.4	26.0
	MO. 10975	26.1	22.4	23.7	29.4	24.8	29.2	25.9
MERSCHMANN	GENIE III	24.3	22.4	21.5	27.9	27.1	29.5	25.6
HYBRITECH	PACER	23.3	25.6	21.2	31.6	23.7	26.7	25.4
MERSCHMANN	JULIE II	22.7	22.9	21.6	29.1	27.3	28.4	25.3
	CALDWELL	24.4	21.0	21.6	28.7	25.3	28.8	25.0
	AUBURN	22.9	21.4	20.6	26.5	25.8	28.6	24.3
	MO. 11544	22.5	20.7	20.8	26.3	26.7	28.0	23.9
	TAM 107 (HARD)	27.8	27.2	24.3	33.6	31.8	34.2	29.8
	ARKAN (HARD)	24.7	24.8	20.9	28.9	29.2	31.3	26.6
	AVERAGE	27.0	25.2	24.4	32.1	29.0	31.1	28.2
	LSD .05	4.8	3.9	2.2	2.8	4.3	2.2	1.4
	C.V. %	10.8	8.3	5.6	5.4	9.1	4.1	7.5

(H) - INDICATES A HYBRID WHEAT.
 (B) - INDICATES A BLEND.

TABLE 8. TWO YEAR AVERAGES OF THE WEIGHT 1000 SEEDS (G) FROM SOFT RED WINTER WHEAT VARIETIES AT MISSOURI TEST LOCATIONS.

BRAND	NAME	PORTAGEVILLE	BERTRAND	LAMAR	SPICKARD	ALL SITES AVERAGE
REEDS	1004	20.1	32.2	35.9	27.9	29.8
RAY CARROLL	BETHANY	20.6	31.0	34.8	28.2	29.7
COKER	MCNAIR 1003	20.9	28.9	35.3	26.3	29.5
	FLORIDA 302	21.6	27.7	37.1	24.5	28.6
	FLORIDA 301	20.7	30.8	34.2	26.9	28.5
	CARDINAL	19.5	27.8	32.5	25.4	28.0
	COMPTON	19.0	27.6	34.4	25.6	27.6
	ROSEN	18.6	26.2	34.2	25.1	27.3
	PIKE	18.5	27.0	33.8	25.1	27.0
	MO. 10501	18.1	27.4	31.1	26.1	26.8
	ARTHUR 71	18.4	28.4	31.4	26.1	26.5
	MO. 9965	17.5	25.0	31.5	26.5	26.1
	BECKER	17.9	24.0	34.5	23.2	26.0
	NELSON	18.2	28.3	29.5	24.0	25.7
PIONEER	2551	17.7	25.3	31.8	24.7	25.5
COKER	747	17.1	24.4	32.7	23.4	25.5
	SCOTTY	16.9	25.7	30.4	23.8	25.3
RAY CARROLL	BRANDY	18.3	23.8	31.9	19.9	25.2
REEDS	1008	17.8	23.0	31.6	20.3	25.0
	SALUDA	17.2	23.3	33.3	21.0	24.8
	TYLER	17.7	22.8	31.6	19.3	24.6
	FILLMORE	16.2	23.0	32.1	23.6	24.6
	MO. 11138	15.5	21.7	32.1	20.8	24.1
	ADDER	15.6	23.6	30.9	24.8	23.9
	MO. 10975	15.1	22.2	28.8	21.0	23.3
	CALDWELL	15.7	22.0	28.6	22.3	23.2
	AUBURN	14.9	21.3	28.3	21.6	22.5
	MO. 11544	14.4	22.1	26.8	21.6	22.3
	TAM 107 (HARD)	20.7	28.3	32.8	29.5	28.3
	ARKAN (HARD)	17.7	26.3	28.4	26.3	25.2
	AVERAGE	17.9	25.7	31.3	24.2	25.6
	LSD .05	1.2	1.8	2.4	2.4	1.6
	C.V. %	6.0	6.0	5.0	8.5	7.2

TABLE 9. HEIGHT (INCHES) OF SOFT RED WINTER WHEAT VARIETIES AT MISSOURI TEST LOCATIONS.-1987

BRAND	NAME	PORTAGEVILLE	BERTRAND	MT.VERNON	LAMAR	SPICKARD	NOVELTY	AVERAGE
COKER	747	36	33	27	28	31	30	31
	MO. 10975	33	36	27	29	31	30	31
PIONEER	2551	36	34	26	27	31	32	31
	BECKER	37	36	28	28	30	29	31
	ROSEN	35	36	29	27	32	31	32
	SALUDA	37	37	30	27	30	30	32
	ADDER	35	37	29	29	32	29	32
	MO. 11544	38	33	29	31	30	30	32
HYBRITECH	PACER	35	36	29	29	32	31	32
	MO. 9965	36	35	28	30	31	32	32
	COMPTON	38	38	26	28	34	30	32
PIONEER	2555	38	36	29	30	33	30	33
MERSCHMANN	GENIE III	38	35	30	30	31	33	33
COKER	EH8504 (H)	37	37	30	29	34	30	33
MERSCHMANN	BINTEE IV (B)	40	34	28	29	35	33	33
	SCOTTY	38	37	30	31	33	31	33
	AUBURN	38	37	30	30	34	33	34
MERSCHMANN	JULIE II (B)	37	37	28	33	35	34	34
COKER	MCNAIR 1003	39	37	28	31	35	34	34
	CALDWELL	36	37	32	31	35	33	34
	FLORIDA 302	40	35	32	31	34	33	34
	NELSON	39	39	30	30	37	35	35
	ARTHUR 71	39	38	32	30	38	34	35
	PIKE	41	40	29	30	35	36	35
	MO. 11138	38	41	32	33	35	34	36
	CARDINAL	38	40	31	32	38	37	36
REEDS	1008	41	39	32	31	38	35	36
	MO. 10501	41	41	31	33	36	35	36
	FILLMORE	40	41	36	33	35	34	37
RAY CARROLL	BETHANY	42	43	33	31	36	34	37
REEDS	1004	42	42	34	32	36	34	37
	TYLER	42	40	31	34	37	36	37
RAY CARROLL	BRANDY	41	43	32	33	37	35	37
COKER	9733	42	42	34	34	37	38	38
	FLORIDA 301	41	42	36	35	38	36	38
	KEISER	41	44	34	35	38	39	39
	TAM 107 (HARD)	36	36	27	28	32	30	32
	ARLAN (HARD)	38	37	29	29	35	33	33
	AVERAGE	38.3	37.8	30.3	30.5	34.3	32.9	34.0
	LSD .05	3.8	3.1	3.3	3.1	2.5	2.3	1.2
	C.V. %	6.0	5.1	6.7	6.2	4.4	4.3	5.5

(H) - INDICATES A HYBRID WHEAT.

(B) - INDICATES A BLEND.

TABLE 10. TWO YEAR AVERAGES OF PLANT HEIGHT (INCHES) FOR SOFT RED WINTER WHEAT VARIETIES AT MISSOURI TEST LOCATIONS.

BRAND	NAME	PORTAGEVILLE	BERTRAND	LAMAR	SPICKARD	ALL SITES AVERAGE
COKER	747	33	33	29	29	30
	MO. 10975	31	35	32	31	31
PIONEER	BECKER	34	35	31	30	31
	MO. 11544	34	32	33	29	31
	ADDER	32	36	31	30	31
	2551	33	35	32	31	31
	ROSEN	33	35	31	30	31
	SALUDA	34	35	30	29	31
	COMPTON	35	36	32	32	32
	MO. 9965	34	35	32	31	32
	SCOTTY	35	37	34	32	33
	FLORIDA 302	36	37	33	32	34
COKER	CALDWELL	35	37	34	33	34
	AUBURN	36	37	33	35	34
	MCNAIR 1003	37	37	34	33	34
	MO. 11138	35	36	35	34	34
	NELSON	35	37	34	34	34
	ARTHUR 71	35	39	33	35	35
	PIKE	37	39	34	36	35
	REEDS 1004	38	39	35	33	36
	RAY CARROLL BETHANY	38	41	34	34	36
	REEDS	MO. 10501	37	40	36	35
1008		38	39	35	37	36
CARDINAL		37	40	36	36	36
TYLER		38	38	36	36	36
RAY CARROLL	BRANDY	38	41	36	36	36
	FILLMORE	38	41	36	37	37
	FLORIDA 301	39	41	36	36	37
	TAM 107 (HARD)	34	34	32	32	32
	ARKAN (HARD)	35	36	32	32	33
AVERAGE		35.5	37.2	35.0	33.1	34.1
LSD .05		2.4	2.0	2.3	1.9	1.2
C.V. %		5.9	4.8	4.4	4.8	4.0

TABLE 11. LODGING (#) RATINGS FOR WINTER WHEAT VARIETIES AT MISSOURI TEST LOCATIONS.-1987

BRAND	NAME	PORTAGEVILLE	MT.VERNON	SPICKARD	AVERAGE
	BECKER	0.3	0.2	0.2	0.2
	MO. 9965	0.4	0.2	0.2	0.3
PIONEER	2555	0.5	0.2	0.2	0.3
MERSCHMANN	GENIE III	0.4	0.5	0.3	0.4
HYBRITECH	PACER	0.4	0.7	0.2	0.4
	AUBURN	0.5	0.7	0.2	0.5
	COMPTON	0.5	0.9	0.2	0.6
	MO. 10975	0.9	0.7	0.2	0.6
	MO. 11138	0.6	1.1	0.2	0.6
	FLORIDA 302	0.5	1.4	0.2	0.7
COKER	EH8504 (H)	0.9	0.2	1.1	0.7
	FILLMORE	0.5	1.4	0.2	0.7
REEDS	1004	0.6	1.1	0.5	0.7
RAY CARROLL	BETHANY	0.3	1.5	0.4	0.7
COKER	MCHNAIR 1003	0.5	1.9	0.2	0.9
PIONEER	2551	1.1	1.6	0.2	1.0
REEDS	1008	1.2	0.7	1.1	1.0
	ADDER	1.3	1.7	0.2	1.1
	ROSEN	0.7	2.7	0.2	1.2
	MO. 11544	2.5	1.2	0.2	1.3
MERSCHMANN	BINTEE IV (B)	1.4	2.3	0.2	1.3
	CARDINAL	1.4	2.3	0.3	1.3
	SCOTTY	1.1	2.7	0.2	1.3
	TYLER	0.9	1.4	2.0	1.4
	KEISER	1.2	3.1	0.3	1.5
	MO. 10501	2.0	3.1	0.2	1.8
	FLORIDA 301	1.1	4.2	0.2	1.8
	SALUDA	2.3	1.9	1.5	1.9
RAY CARROLL	BRANDY	1.2	2.8	1.7	1.9
MERSCHMANN	JULIE II (B)	1.9	3.4	0.5	1.9
	CALDWELL	0.4	4.1	1.5	2.0
COKER	747	2.1	4.0	0.2	2.1
COKER	9733	1.3	3.7	1.7	2.2
	NELSON	2.5	1.8	2.4	2.2
	PIKE	1.6	6.1	0.2	2.6
	ARTHUR 71	2.8	2.4	3.3	2.8
	ARKAN (HARD)	1.9	1.9	0.2	1.3
	TAM 107 (HARD)	0.8	3.9	0.7	1.8
	AVERAGE	1.1	2.1	0.7	1.2
	LSD .05	1.8	1.7	1.7	1.0
	C.V. %	96.6	50.3	162.1	83.9

- LODGING RATINGS RANGE FROM 0.2 (COMPLETELY ERECT TO 9.0 (WHOLE PLOT COMPLETELY FLAT).
(H) - INDICATES A HYBRID WHEAT.
(B) - INDICATES A BLEND.

TABLE 12. HEADING DATE (JULIAN-DAYS AFTER JAN. 1) OF SOFT RED WINTER WHEAT VARIETIES AT MISSOURI TEST LOCATIONS.-1987

BRAND	NAME	PORTAGEVILLE	BERTRAND	MT.VERNON	SPICKARD	AVERAGE
	FLORIDA 301	113	120	125	136	123
	NELSON	117	120	123	133	123
	MO. 9965	118	120	122	134	124
	MO. 10501	119	121	125	133	125
	ARTHUR 71	120	121	124	134	125
MERSCHMANN	JULIE II (B)	120	121	124	135	125
REEDS	1004	118	122	125	135	125
MERSCHMANN	BINTEE IV (B)	120	122	124	135	125
	SCOTTY	119	121	125	136	125
PIONEER	2555	120	121	125	136	125
	CALDWELL	120	122	123	135	125
	MO. 11544	120	122	124	136	126
	ROSEN	119	123	124	137	126
HYBRITECH	PACER	119	121	124	138	126
COKER	9733	119	123	125	137	126
RAY CARROLL	BETHANY	118	122	128	135	126
	COMPTON	119	123	125	137	126
COKER	747	120	122	125	137	126
COKER	MCNAIR 1003	119	123	125	137	126
COKER	EH8504 (H)	118	122	126	138	126
PIONEER	2551	120	123	126	136	126
	CARDINAL	120	123	125	136	126
	SALUDA	123	122	125	135	126
	PIKE	119	123	125	137	126
	KEISER	120	123	125	138	127
	MO. 10975	120	123	125	138	127
REEDS	1008	120	124	126	136	127
	ADDER	121	123	125	138	127
	FLORIDA 302	118	124	126	139	127
MERSCHMANN	GENIE III	120	126	125	137	127
	BECKER	121	123	127	138	127
	TYLER	121	124	127	138	127
	MO. 11138	121	124	125	139	127
RAY CARROLL	BRANDY	124	123	127	137	128
	AUBURN	124	128	128	137	129
	FILLMORE	124	129	128	141	131
	TAM 107 (HARD)	116	120	123	132	123
	ARKAN (HARD)	116	120	124	133	123
	AVERAGE	119.6	122.5	125.0	136.2	125.9
	LSD .05	2.8	2.9	1.1	1.7	0.9
	C.V. %	1.4	0.6	0.5	0.8	0.9

(H) - INDICATES A HYBRID WHEAT.

(B) - INDICATES A BLEND.

TABLE 13. PERCENT MOISTURE OF SOFT RED WINTER WHEAT VARIETIES
AT MISSOURI TEST LOCATIONS.-1987

BRAND	NAME	PORTAGE- VILLE (%)	BERTRAND (%)	MT. VERNON (%)	LAMAR (%)	SPICKARD (%)	NOVELTY (%)	AVERAGE (%)
PIONEER	2551	15.0	12.8	11.0	11.4	14.8	14.0	13.2
	BECKER	14.8	13.6	11.5	10.6	15.4	14.0	13.3
	MO. 11544	14.6	14.1	11.3	11.6	15.7	13.6	13.5
COKER	MO. 9965	14.8	14.0	11.3	11.6	15.3	14.1	13.5
	MCNAIR 1003	16.0	13.5	11.4	11.9	15.3	13.5	13.6
	ARTHUR 71	15.2	13.7	12.0	12.0	15.5	13.8	13.7
	SALUDA	14.9	14.8	11.4	11.2	15.7	14.1	13.7
	SCOTTY	16.0	13.3	11.4	11.8	15.5	14.4	13.7
	NELSON	15.1	14.4	11.5	12.2	15.3	13.9	13.7
	ROSEN	15.2	14.2	11.7	11.8	15.6	14.3	13.8
	KEISER	15.6	14.0	11.4	11.8	15.2	14.9	13.8
	FLORIDA 301	15.1	15.0	11.6	12.0	15.0	14.4	13.8
	CALDWELL	15.2	14.3	11.5	12.1	15.5	14.6	13.8
HYBRITECH	MO. 10975	15.9	13.4	11.6	11.9	15.9	14.5	13.9
	PACER	15.2	14.7	11.6	11.8	15.8	14.4	13.9
MERSCHMANN	JULIE II (B)	15.8	14.3	11.6	11.9	15.6	14.3	13.9
RAY CARROLL	BETHANY	16.0	14.1	11.4	11.9	15.9	14.4	14.0
	COMPTON	15.4	14.9	11.4	11.4	16.2	14.5	14.0
PIONEER	2555	15.9	14.0	10.8	12.0	15.7	15.7	14.0
RAY CARROLL	BRANDY	16.3	14.1	11.4	12.0	15.4	14.9	14.0
	ADDER	15.5	14.4	10.9	11.4	15.6	16.4	14.0
	MO. 11138	16.4	14.9	11.4	11.9	15.7	14.4	14.1
	TYLER	16.0	14.0	11.7	12.1	15.4	15.6	14.1
MERSCHMANN	BINTEE IV (B)	17.1	15.1	10.6	11.5	15.6	15.0	14.2
REEDS	1008	16.1	14.8	11.6	12.2	15.7	14.5	14.2
REEDS	1004	16.4	14.7	11.8	12.3	15.7	14.4	14.2
	MO. 10501	16.2	14.3	11.6	12.5	16.1	14.7	14.2
COKER	747	16.4	14.5	11.7	12.2	16.3	14.3	14.2
MERSCHMANN	GENIE III	17.1	13.8	11.4	12.1	16.2	14.9	14.3
COKER	9733	16.4	13.8	11.7	12.6	16.2	15.3	14.3
COKER	PIKE	16.4	14.7	11.8	12.1	16.2	16.2	14.6
	FLORIDA 302	16.2	14.2	10.7	12.1	16.0	18.9	14.7
	CARDINAL	18.6	14.3	12.0	12.3	16.4	15.1	14.8
	EH8504 (H)	16.0	14.1	11.9	12.3	16.5	19.3	15.0
	AUBURN	23.5	14.7	11.6	12.2	16.1	15.3	15.6
	FILLMORE	24.4	15.6	11.8	12.6	16.0	20.7	16.8
	TAM 107 (HARD)	14.8	14.3	10.9	11.6	15.4	14.3	13.5
	ARKAN (HARD)	14.7	14.8	11.1	12.0	15.2	14.0	13.6
	AVERAGE	16.1	14.3	11.5	11.9	15.7	14.9	14.1
	LSD .05	1.0	1.2	0.4	0.5	0.6	2.2	0.5
	C.V. %	3.8	5.1	2.4	2.6	2.3	8.9	5.0

(H) - INDICATES A HYBRID WHEAT.
(B) - INDICATES A BLEND.

TABLE 14. TWO YEAR AVERAGES OF PERCENT MOISTURE (%) FOR SOFT RED WINTER WHEAT VARIETIES AT MISSOURI TEST LOCATIONS.

BRAND	NAME	PORTAGEVILLE (%)	BERTRAND (%)	LAMAR (%)	SPICKARD (%)	ALL SITES AVERAGE (%)
PIONEER	2551	13.3	11.8	12.4	14.7	12.9
	MO. 11544	13.3	12.8	12.6	15.1	13.1
COKER	MCNAIR 1003	14.0	12.2	12.8	14.7	13.1
	MO. 9965	13.4	12.5	12.6	15.0	13.2
	NELSON	13.6	12.8	12.9	14.6	13.2
	MO. 10975	13.9	12.4	12.5	14.5	13.3
	BECKER	13.2	12.1	12.1	16.7	13.3
	CALDWELL	13.7	12.8	12.8	14.4	13.3
	SCOTTY	14.0	12.2	12.5	15.3	13.3
	ROSEN	13.6	12.7	12.6	15.0	13.3
	COMPTON	13.6	12.9	12.4	15.4	13.4
	ADDER	13.7	12.7	12.4	14.3	13.4
	ARTHUR 71	13.7	12.5	12.7	16.1	13.5
	SALUDA	13.7	13.0	12.5	16.3	13.5
COKER	747	14.4	13.1	12.7	14.7	13.5
RAY CARROLL	BETHANY	14.2	12.7	12.7	15.7	13.5
RAY CARROLL	BRANDY	14.4	12.6	12.9	14.8	13.5
	FLORIDA 301	13.4	13.1	13.0	15.7	13.5
REEDS	1008	14.1	13.0	13.0	15.0	13.5
	MO. 10501	14.2	12.8	13.2	14.9	13.6
REEDS	1004	14.3	13.0	12.9	15.0	13.6
	TYLER	14.0	12.4	13.0	15.5	13.7
	MO. 11138	14.1	12.7	12.6	18.0	13.9
	CARDINAL	15.5	12.9	13.1	14.9	13.9
	PIKE	14.4	13.0	13.0	16.6	14.2
	AUBURN	18.0	13.2	12.9	14.9	14.3
	FLORIDA 302	14.2	13.0	14.6	15.0	14.4
	FILLMORE	18.6	13.7	12.8	15.3	15.5
	TAM 107 (HARD)	13.4	12.5	12.5	14.6	13.0
	ARKAN (HARD)	13.3	13.0	12.7	14.6	13.1
	AVERAGE	14.2	12.7	13.3	15.2	13.7
	LSD .05	0.6	0.6	0.5	1.4	0.4
	C.V. %	3.5	3.9	2.6	7.8	7.9

TABLE 15. FROST DAMAGE RATINGS (%) FOR SOFT RED WINTER WHEAT VARIETIES AT MISSOURI TEST LOCATIONS.-1987

BRAND	NAME	MT.VERNON (%)	LAMAR (%)	AVERAGE (%)
	CALDWELL	11.7	8.3	10.0
	ADDER	8.3	13.3	10.8
	AUBURN	6.7	15.0	10.8
MERSCHMANN	GENIE III	8.3	13.3	10.8
	BECKER	15.0	8.3	11.7
MERSCHMANN	JULIE II (B)	10.0	13.3	11.7
	FILLMORE	11.7	13.3	12.5
HYBRITECH	PACER	13.3	13.3	13.3
COKER	747	13.3	13.3	13.3
	MO. 10975	13.3	15.0	14.2
	MO. 11138	13.3	15.0	14.2
MERSCHMANN	BINTEE IV (B)	16.7	11.7	14.2
	COMPTON	13.3	16.7	15.0
	KEISER	16.7	13.3	15.0
	ROSEN	15.0	18.3	16.7
	CARDINAL	20.0	15.0	17.5
PIONEER	2551	26.7	10.0	18.3
	SALUDA	23.3	15.0	19.2
	TYLER	18.3	21.7	20.0
	ARTHUR 71	23.3	18.3	20.8
COKER	MCNAIR 1003	23.3	20.0	21.7
COKER	EH8504 (H)	20.0	23.3	21.7
	NELSON	25.0	20.0	22.5
	FLORIDA 302	26.7	20.0	23.3
REEDS	1008	30.0	16.7	23.3
	FLORIDA 301	30.0	20.0	25.0
	SCOTTY	31.7	18.3	25.0
COKER	9733	28.3	21.7	25.0
	MO. 9965	35.0	18.3	26.7
RAY CARROLL	BRANDY	30.0	23.3	26.7
	MO. 11544	26.7	28.3	27.5
REEDS	1004	25.0	31.7	28.3
	PIKE	36.7	25.0	30.8
RAY CARROLL	BETHANY	43.3	21.7	32.5
PIONEER	2555	43.3	23.3	33.3
	MO. 10501	40.0	31.7	35.8
	TAM 107 (HARD)	31.7	20.0	25.8
	ARKAN (HARD)	46.7	25.0	35.8
	AVERAGE	21.8	17.9	20.5
	LSD .05	11.0	7.6	6.8
	C.V. %	31.1	26.3	29.0

(H) - INDICATES A HYBRID WHEAT.

(B) - INDICATES A BLEND.

TABLE 16. BARLEY YELLOW DWARF VIRUS RATINGS FOR SOFT RED WINTER WHEAT VARIETIES AT MISSOURI TEST LOCATIONS.-1987

BRAND	NAME	PORTAGEVILLE	MT. VERNON	LAMAR	NOVELTY	AVERAGE
COKER	MO. 11544	0.3	0.3	0.7	1.7	0.8
	CALDWELL	0.0	1.3	0.0	2.7	1.0
	FLORIDA 302	0.7	0.3	1.7	1.3	1.0
	747	0.3	0.7	1.3	1.7	1.0
	AUBURN	0.3	0.7	1.0	2.7	1.2
	NELSON	0.3	1.0	0.7	3.0	1.3
MERSCHMANN	MO. 10501	0.0	1.7	1.3	2.3	1.3
	MO. 10975	0.3	0.7	0.7	3.7	1.3
	JULIE II (B)	0.3	1.7	1.3	2.3	1.4
	GENIE III	0.7	1.3	1.0	2.7	1.4
	BINTEE IV (B)	0.0	2.0	1.0	3.0	1.5
PIONEER	2551	0.3	2.3	1.3	2.0	1.5
RAY CARROLL	FLORIDA 301	1.3	1.3	1.0	2.7	1.6
	BRANDY	0.0	1.3	1.7	3.3	1.6
	TYLER	0.0	3.7	1.3	2.3	1.8
	PIKE	0.0	3.3	1.7	2.3	1.8
	MO. 9965	0.3	2.0	1.7	3.3	1.8
REEDS	1008	0.0	2.7	2.3	3.0	2.0
HYBRITECH	COMPTON	1.7	2.0	2.7	2.0	2.1
	PACER	0.7	1.7	2.7	3.7	2.2
	FILLMORE	0.0	2.7	1.3	5.0	2.3
	KEISER	0.7	2.0	2.3	4.0	2.3
	CARDINAL	0.7	2.0	3.3	3.7	2.4
	MO. 11138	1.0	2.0	2.7	4.0	2.4
COKER	ROSEN	0.3	2.3	2.3	5.7	2.7
	9733	1.3	3.0	2.7	4.0	2.8
	ADDER	0.3	4.0	1.0	6.0	2.8
COKER	EH8504 (H)	3.0	1.7	3.0	4.0	2.9
	SALUDA	1.0	4.0	5.0	2.0	3.0
	ARTHUR 71	0.7	1.7	4.0	6.0	3.1
PIONEER	BECKER	3.7	3.7	3.0	3.7	3.5
	2555	4.7	2.7	3.0	5.3	3.9
COKER	MCNAIR 1003	4.3	2.3	4.0	5.3	4.0
	SCOTTY	4.3	5.3	4.0	6.0	4.9
RAY CARROLL	BETHANY	6.3	4.3	3.7	6.0	5.1
REEDS	1004	7.3	5.3	4.7	5.7	5.8
	ARKAN (HARD)	0.0	0.0	1.0	3.0	1.0
	TAM 107 (HARD)	0.0	4.7	0.7	3.0	2.1
	AVERAGE	1.2	2.2	2.0	3.4	2.3
	LSD .05	1.9	1.9	1.8	1.4	0.9
	C.V. %	100	54.6	56.1	24.9	49.1

BARLEY YELLOW DWARF VIRUS RATING: 0=RESISTANT - 9=SUSCEPTIBLE.
(H) - INDICATES A HYBRID WHEAT.
(B) - INDICATES A BLEND.

TABLE 17. LEAF RUST RATINGS (%) FOR SOFT RED WINTER WHEAT VARIETIES AT MISSOURI TEST LOCATIONS.-1987

BRAND	NAME	PORTAGEVILLE (%)	BERTRAND (%)	SPICKARD (%)	AVERAGE (%)	
COKER	FLORIDA 301	0.0	0.3	0.0	0.1	
	9733	0.3	0.0	0.3	0.2	
	AUBURN	0.3	0.3	0.3	0.3	
MERSCHMANN	FLORIDA 302	0.3	0.7	0.0	0.3	
	GENIE III	0.3	1.0	1.0	0.8	
	MO. 10501	1.0	1.0	2.0	1.3	
COKER	ADDER	1.7	1.0	1.7	1.4	
	COMPTON	1.3	1.7	2.0	1.7	
	NELSON	0.7	2.0	2.7	1.8	
	EH8504 (H)	2.0	4.3	2.7	3.0	
	SCOTTY	3.7	6.0	0.3	3.3	
	FILLMORE	3.7	6.7	1.7	4.0	
	KEISER	3.7	2.3	6.0	4.0	
PIONEER	CALDWELL	3.0	4.3	5.3	4.2	
	2555	6.7	3.7	3.0	4.4	
	MO. 11544	5.3	5.3	5.3	5.3	
REEDS	1004	7.7	8.3	1.7	5.9	
	MO. 10975	4.3	10.0	4.3	6.2	
MERSCHMANN	JULIE II (B)	2.0	1.0	16.7	6.6	
PIONEER	2551	10.0	9.3	2.3	7.2	
	SALUDA	10.3	7.7	5.0	7.7	
RAY CARROLL	BETHANY	12.7	11.0	1.3	8.3	
MERSCHMANN	BINTEE IV (B)	18.3	6.7	0.3	8.4	
	CARDINAL	11.0	11.7	3.3	8.7	
COKER	ARTHUR 71	7.0	12.7	8.3	9.3	
	MCNAIR 1003	11.7	11.7	6.7	10.0	
	747	31.7	7.7	0.0	13.1	
HYBRITECH	PACER	10.0	11.7	30.0	17.2	
	MO. 9965	26.7	10.0	19.3	18.7	
REEDS	BECKER	11.7	25.0	31.7	22.8	
	MO. 11138	38.3	31.7	10.0	26.7	
	PIKE	51.7	26.7	15.0	31.1	
	ROSEN	26.7	66.7	1.0	31.4	
	1008	60.0	40.0	6.7	35.6	
	RAY CARROLL	BRANDY	45.0	60.0	30.0	45.0
	TYLER	61.7	53.3	31.7	48.9	
RAY CARROLL	ARKAN (HARD)	1.7	2.3	0.7	1.6	
	TAM 107 (HARD)	16.7	70.0	40.0	42.2	
AVERAGE		13.6	15.2	7.7	11.8	
LSD .05		15.8	2.9	20.8	9.6	
C.V. %		71.3	46.0	166	87.2	

(H) - INDICATES A HYBRID WHEAT.

(B) - INDICATES A BLEND.

TABLE 19. POWDERY MILDEW RATINGS (%) AND STEM RUST RATINGS (%) FOR SOFT RED WINTER WHEAT AT MISSOURI TEST LOCATIONS.-1987

BRAND	NAME	SPICKARD STEM RUST (%)	BERTRAND MILDEW (%)	MT.VERNON MILDEW (%)	AVERAGE MILDEW (%)
	FLORIDA 301	0.0	0.0	0.0	0.0
	FLORIDA 302	0.0	0.0	0.0	0.0
	SALUDA	31.7	0.0	0.0	0.0
	TYLER	30.0	0.0	0.0	0.0
COKER	9733	0.0	0.0	0.0	0.0
COKER	EH8504	19.3	0.0	0.0	0.0
COKER	MCNAIR 1003	10.0	0.0	1.7	0.8
RAY CARROLL	BRANDY	40.0	1.7	0.0	0.8
REEDS	1008	33.3	5.0	0.0	2.5
	SCOTTY	5.0	2.7	3.3	3.0
HYBRITECH	PACER	8.3	6.7	0.0	3.3
REEDS	1004	0.0	8.3	5.0	6.7
RAY CARROLL	BETHANY	0.0	6.7	6.7	6.7
	AUBURN	1.7	5.0	10.0	7.5
	FILLMORE	0.0	10.0	13.3	11.7
MERSCHMANN	GENIE III	21.7	3.3	20.0	11.7
COKER	747	3.3	3.3	23.3	13.3
	ADDER	3.3	25.0	3.3	14.2
	KEISER	0.0	10.0	20.0	15.0
	ARTHUR 71	3.3	13.0	18.3	15.7
MERSCHMANN	JULIE II (B)	1.7	6.7	25.0	15.8
PIONEER	2555	1.7	19.0	13.3	16.2
	COMPTON	6.7	23.3	10.0	16.7
MERSCHMANN	BINTEE IV (B)	1.7	8.3	25.0	16.7
PIONEER	2551	0.0	15.0	25.0	20.0
	NELSON	10.0	10.0	31.7	20.8
	MO. 10975	5.0	20.0	23.3	21.7
	MO. 11544	0.0	18.3	33.3	25.8
	MO. 10501	0.0	31.7	21.7	26.7
	ROSEN	3.3	36.7	26.7	31.7
	MO. 11138	40.0	48.3	21.7	35.0
	CALDWELL	0.0	38.3	38.3	38.3
	CARDINAL	5.7	35.0	41.7	38.3
	MO. 9965	1.7	51.7	38.3	45.0
	PIKE	1.7	28.3	66.7	47.5
	BECKER	13.3	95.0	75.0	85.0
	TAM 107 (HARD)	0.0	0.0	0.0	0.0
	ARKAN (HARD)	1.7	36.7	70.0	53.3
	AVERAGE	7.5	18.0	20.4	17.6
	LSD .05	23.4	27.0	17.2	15.1
	C.V. %	191	90.1	52.1	75.5

(H) - INDICATES A HYBRID WHEAT.
(B) - INDICATES A BLEND.

TABLE 19. TWO YEAR AVERAGES (BU/A) OF HARD RED WINTER WHEAT VARIETIES AT MISSOURI TEST LOCATIONS.

BRAND	NAME	1987 MT.VERNON BU/A	1987 SPICKARD BU/A	1987 AVERAGE BU/A	SPICKARD 2-YR AVE BU/A	ALL SITES 2-YR AVE BU/A
	TAM 107	38	82**	60*	65**	53**
CARGILL	BOUNTY 205 (H)	45	77*	61**	65*	51*
CARGILL	BOUNTY 122 (H)	37	73	55	61*	51*
	SIOUXLAND	44	65	55	56	50
AGRIPRO	THUNDERBIRD	33	81*	57*	64*	50
	CENTURA	41	72	56	58	50
CARGILL	BOUNTY 301 (H)	52**	71	61*	57	48
	ARKAN	31	68	49	57	43
	TAM 105	39	69	54	51	42
	CHISHOLM	37	56	46	40	42
	NEWTON	34	62	48	38	34
	CENTURY	46	75	60*	--	--
	CODY	43	62	53	--	--
	DODGE	28	71	49	--	--
	NORKAN	28	57	42	--	--
	REDLAND	50*	69	59*	--	--
AGRIPRO	ABILENE	41	64	53	--	--
AGRIPRO	MESA	27	74*	51	--	--
AGRIPRO	TRAILBLAZER	33	65	49	--	--
MERSCHMANN	MEGGIE III	41	65	53	--	--
	CALDWELL (SOFT)	43	82	62*	60*	47
	PIKE (SOFT)	38	73*	56	52	43
	AVERAGE	38.7	70.1	54.1	54.7	45.7
	LSD .05	4.5	10.4	5.7	6.5	3.5
	LSD .10	3.9	9.0	4.8	5.4	2.9
	C.V. %	7.2	9.3	9.2	10.4	10.7

** - HIGHEST YIELDING VARIETY IN TEST.

* - INDICATES THOSE VARIETIES WHICH DO NOT DIFFER SIGNIFICANTLY (LSD=.10) IN YIELD FROM THE HIGHEST.

TABLE 20. SURVIVAL (%) OF HARD RED WINTER WHEAT VARIETIES AT MISSOURI TEST LOCATIONS.

BRAND	NAME	1987 MT.VERNON (%)	1987 SPICKARD (%)	1987 AVERAGE (%)	SPICKARD 2 YR AVERAGE (%)	ALL SITES 2 YR AVERAGE (%)
AGRIPRO	THUNDERBIRD	97	95	95	69	76
CARGILL	BOUNTY 205 (H)	98	95	95	68	75
	TAM 105	88	95	95	75	75
	TAM 107	93	94	94	72	74
	CENTURA	95	94	94	65	72
CARGILL	BOUNTY 301 (H)	95	92	92	68	72
CARGILL	BOUNTY 122 (H)	93	93	93	69	72
	ARKAN	92	95	95	73	70
	SIOUXLAND	87	88	88	67	70
	NEWTON	90	90	90	61	60
	CHISHOLM	75	62	62	47	56
	CENTURY	92	95	95	--	--
	CODY	87	88	88	--	--
	DODGE	95	95	95	--	--
	NORKAN	92	92	92	--	--
	REDLAND	92	93	93	--	--
AGRIPRO	ABILENE	90	92	92	--	--
AGRIPRO	MESA	97	94	94	--	--
AGRIPRO	TRAILBLAZER	97	93	93	--	--
MERSCHMANN	MEGGIE III	92	95	95	--	--
	CALDWELL (SOFT)	87	95	95	68	65
	PIKE (SOFT)	95	95	95	64	64
	AVERAGE	91.4	92.2	91.8	65.8	68.2
	LSD .05	6.1	6.2	4.5	12.2	5.5
	C.V. %	4.1	4.1	4.2	16.0	11.2

TABLE 21. TEST WEIGHT (LB/BU) OF HARD RED WINTER WHEAT VARIETIES AT MISSOURI TEST LOCATIONS.

BRAND	NAME	1987 MT.VERNON	1987 SPICKARD	1987 AVERAGE	SPICKARD 2 YR AVERAGE	ALL SITES 2 YR AVERAGE
AGRIPRO	THUNDERBIRD	60.2	58.8	58.8	56.2	58.7
CARGILL	BOUNTY 205 (H)	58.4	56.9	56.9	55.5	57.5
	CENTURA	58.3	56.7	56.7	54.7	57.4
CARGILL	BOUNTY 122 (H)	55.8	56.2	56.2	55.0	57.0
	SIOUXLAND	58.1	55.2	55.2	55.0	56.9
	CHISHOLM	57.7	56.5	56.5	53.1	56.7
CARGILL	BOUNTY 301 (H)	59.2	55.5	55.5	53.6	56.6
	ARKAN	56.6	56.1	56.1	55.7	56.3
	TAM 107	53.9	53.3	53.3	53.3	55.7
	TAM 105	56.2	54.1	54.1	50.9	55.2
	NEWTON	57.4	55.4	55.4	49.7	53.6
	CENTURY	56.6	54.8	54.8	--	--
	CODY	59.8	55.9	55.9	--	--
	DODGE	57.5	56.6	56.6	--	--
	NORKAN	58.1	57.1	57.1	--	--
	REDLAND	58.7	54.5	54.5	--	--
AGRIPRO	ABILENE	60.7	59.0	59.0	--	--
AGRIPRO	MESA	59.9	57.7	57.7	--	--
AGRIPRO	TRAILBLAZER	57.7	56.2	56.2	--	--
MERSCHMANN	MEGGIE III	55.8	54.2	54.2	--	--
	CALDWELL (SOFT)	53.2	57.0	57.0	54.0	55.0
	PIKE (SOFT)	55.2	56.0	56.0	52.8	54.4
	AVERAGE	57.3	56.0	56.8	53.6	56.0
	LSD .05	1.2	1.9	1.1	1.7	0.9
	C.V. %	1.2	2.1	1.7	2.8	2.1

(H) - INDICATES A HYBRID WHEAT.

TABLE 22. WEIGHT OF 1000 SEEDS (G) FROM HARD RED WINTER WHEAT VARIETIES AT MISSOURI TEST LOCATIONS.

BRAND	NAME	1987 MT.VERNON	1987 SPICKARD	1987 AVERAGE	SPICKARD 2 YR AVERAGE	ALL SITES 2 YR AVERAGE
CARGILL	BOUNTY 122 (H)	26.6	33.8	33.8	31.7	33.3
CARGILL	BOUNTY 301 (H)	25.8	29.9	29.9	27.3	29.0
CARGILL	BOUNTY 205 (H)	25.0	31.3	31.3	27.7	29.0
	TAM 107	21.1	28.8	28.8	28.2	28.8
	CHISHOLM	22.5	30.6	30.6	27.3	28.7
AGRIPRO	THUNDERBIRD	23.5	30.7	30.7	27.9	28.3
	SIOUXLAND	22.8	29.4	29.4	28.5	27.7
	ARKAN	19.9	28.8	28.8	27.8	25.7
	NEWTON	21.7	26.3	26.3	23.1	25.2
	TAM 105	20.7	26.3	26.3	22.9	25.2
	CENTURA	20.9	25.6	25.6	23.7	24.7
	CENTURY	20.3	27.4	27.4	--	--
	CODY	22.5	27.3	27.3	--	--
	DODGE	19.5	29.9	29.9	--	--
	NORKAN	20.0	28.9	28.9	--	--
	REDLAND	23.1	26.8	26.8	--	--
AGRIPRO	ABILENE	20.4	27.9	27.9	--	--
AGRIPRO	MESA	19.8	27.7	27.7	--	--
AGRIPRO	TRAILBLAZER	19.8	25.2	25.2	--	--
MERSCHMANN	MEGGIE III	21.9	25.1	25.1	--	--
	PIKE (SOFT)	21.6	29.7	29.7	27.0	26.8
	CALDWELL (SOFT)	19.5	26.5	26.5	23.9	23.1
	AVERAGE	57.3	56.0	56.8	26.5	27.2
	LSD .05	1.2	1.9	1.1	2.4	1.2
	C.V. %	1.2	2.1	1.7	7.7	5.9

(H) - INDICATES A HYBRID WHEAT.

TABLE 23. HEIGHT (INCHES) OF HARD RED WINTER WHEAT VARIETIES AT MISSOURI TEST LOCATIONS.

BRAND	NAME	1987 MT.VERNON	1987 SPICKARD	1987 AVERAGE	SPICKARD 2 YR AVERAGE	ALL SITES 2 YR AVERAGE
	CHISHOLM	25	29	29	27	28
	TAM 107	27	31	31	31	30
	NEWTON	25	34	34	32	30
	ARKAN	28	36	36	33	31
CARGILL	BOUNTY 122 (H)	27	34	34	32	31
	TAM 105	29	34	34	34	32
AGRIPRO	THUNDERBIRD	29	35	35	33	32
CARGILL	BOUNTY 205 (H)	31	36	36	37	35
	SIOUXLAND	33	39	39	36	36
CARGILL	BOUNTY 301 (H)	32	38	38	37	36
	CENTURA	30	39	39	38	36
	CENTURY	28	31	31	--	--
	CODY	31	38	38	--	--
	DODGE	29	33	33	--	--
	NORKAN	26	34	34	--	--
	REDLAND	28	36	36	--	--
AGRIPRO	ABILENE	26	28	28	--	--
AGRIPRO	MESA	22	31	31	--	--
AGRIPRO	TRAILBLAZER	26	31	31	--	--
MERSCHMANN	MEGGIE III	29	31	31	--	--
	CALDWELL (SOFT)	31	34	34	33	32
	PIKE (SOFT)	30	35	35	35	33
	AVERAGE	28.4	34.1	31.2	33.3	32.3
	LSD .05	2.4	3.0	2.0	2.2	1.1
	C.V. %	5.1	5.3	5.5	5.6	4.9

(H) - INDICATES A HYBRID WHEAT.

TABLE 24. LODGING (#) RATINGS FOR HARD RED WINTER WHEAT VARIETIES AT MISSOURI TEST LOCATIONS.-1987

BRAND	NAME	MT.VERNON	SPICKARD	AVERAGE
AGRIPRO	ABILENE	0.2	0.2	0.2
	CHISHOLM	0.9	0.2	0.6
	NEWTON	1.4	0.2	0.8
CARGILL	BOUNTY 301 (H)	1.7	0.2	0.9
	REDLAND	1.8	0.2	1.0
	DODGE	1.9	0.2	1.1
	CODY	0.4	1.8	1.1
CARGILL	BOUNTY 205 (H)	2.2	0.2	1.2
	ARKAN	1.7	1.1	1.4
	SIOUXLAND	1.7	1.2	1.4
	NORKAN	2.7	0.2	1.5
MERSCHMANN	MEGGIE III	2.3	1.1	1.7
AGRIPRO	THUNDERBIRD	3.5	0.2	1.9
AGRIPRO	MESA	3.7	0.2	2.0
	TAM 105	1.7	2.3	2.0
	CENTURY	2.8	1.7	2.3
CARGILL	BOUNTY 122 (H)	4.0	0.8	2.4
AGRIPRO	TRAILBLAZER	4.4	1.5	2.9
	CENTURA	3.7	2.3	3.0
	TAM 107	2.8	3.7	3.3
	CALDWELL (SOFT)	3.4	1.4	2.4
	PIKE (SOFT)	3.8	1.7	2.7
	AVERAGE	2.5	1.1	1.7
	LSD .05	2.4	2.7	1.8
	C.V. %	58.2	161	91.0

- LODGING RATINGS RANGE 0.2 (COMPLETELY ERECT) TO 9.0 (WHOLE PLOT COMPLETELY FLAT)
(H) - INDICATES A HYBRID WHEAT.

TABLE 25. HEADING DATE (JULIAN-DAYS AFTER JAN. 1) FOR HARD RED WINTER WHEAT VARIETIES AT MISSOURI TEST LOCATIONS.-1987

BRAND	NAME	MT.VERNON	SPICKARD	AVERAGE
AGRIPRO	TAM 107	124	134	129
	MESA	125	133	129
	ARKAN	125	133	129
CARGILL	CHISHOLM	124	135	130
	BOUNTY 122 (H)	125	136	130
	DODGE	125	136	130
AGRIPRO	SIouxLAND	125	136	131
	THUNDERBIRD	126	136	131
	TAM 105	125	137	131
AGRIPRO	CENTURY	125	137	131
	TRAILBLAZER	125	137	131
	MERSCHMANN	MEGGIE III	125	138
AGRIPRO	NEWTON	125	138	132
	ABILENE	126	137	132
	CENTURA	127	137	132
CARGILL	NORKAN	127	137	132
	REDLAND	127	140	134
	CODY	128	139	134
CARGILL	BOUNTY 205 (H)	128	139	134
CARGILL	BOUNTY 301 (H)	129	141	135
	CALDWELL (SOFT)	122	135	128
	PIKE (SOFT)	125	136	130
AVERAGE		125.6	136.5	131.1
LSD .05		1.2	1.8	1.0
C.V. %		0.6	0.8	0.7

(H) - INDICATES A HYBRID WHEAT.

TABLE 26. PERCENT MOISTURE OF HARD RED WINTER WHEAT VARIETIES AT MISSOURI TEST LOCATIONS.

BRAND	NAME	1987 MT.VERNON (%)	1987 SPICKARD (%)	1987 AVERAGE (%)	SPICKARD 2 YR AVERAGE (%)	ALL SITES 2 YR AVERAGE (%)
AGRIPRO	ARKAN	10.3	15.1	15.1	13.9	12.6
	TAM 107	10.1	15.2	15.2	13.9	12.7
	SIouxLAND	10.5	15.5	15.5	14.0	12.7
	TAM 105	10.3	15.2	15.2	13.9	12.7
	THUNDERBIRD	10.7	15.8	15.8	14.5	13.0
	NEWTON	10.5	15.7	15.7	14.2	13.1
CARGILL	CENTURA	10.5	15.7	15.7	14.4	13.1
	BOUNTY 122 (H)	10.7	15.7	15.7	14.4	13.2
	CHISHOLM	10.8	16.0	16.0	14.7	13.3
CARGILL	BOUNTY 205 (H)	10.5	16.1	16.1	14.6	13.3
CARGILL	BOUNTY 301 (H)	11.0	17.5	17.5	15.3	14.0
AGRIPRO	CENTURY	10.3	15.8	15.8	--	--
	CODY	10.6	16.6	16.6	--	--
	DODGE	10.7	15.7	15.7	--	--
	NORKAN	10.9	15.9	15.9	--	--
	REDLAND	10.5	16.4	16.4	--	--
	ABILENE	10.6	15.8	15.8	--	--
	MESA	10.7	15.8	15.8	--	--
	TRAILBLAZER	10.5	16.2	16.2	--	--
	MEGGIE III	10.4	15.1	15.1	--	--
		CALDWELL (SOFT)	10.6	15.4	15.4	14.1
	PIKE (SOFT)	10.7	16.4	16.4	14.6	13.9
AVERAGE		10.5	15.8	13.2	14.3	13.2
LSD .05		0.3	0.6	0.3	0.4	0.3
C.V. %		1.9	2.3	2.2	2.6	3.4

(H) - INDICATES A HYBRID WHEAT.

TABLE 27. BARLEY YELLOW DWARF VIRUS RATINGS FOR HARD RED WINTER WHEAT VARIETIES AT MISSOURI TEST LOCATIONS.-1987

BRAND	NAME	MT.VERNON	SPICKARD	AVERAGE
AGRIPRO	MESA	1.3	1.3	1.3
	ARKAN	1.3	2.7	2.0
	NORKAN	0.7	3.3	2.0
	REDLAND	1.0	3.3	2.2
AGRIPRO	ABILENE	1.7	2.7	2.2
	TAM 105	1.3	3.3	2.3
CARGILL	BOUNTY 205 (H)	2.3	2.3	2.3
	NEWTON	0.7	4.7	2.7
AGRIPRO	TRAILBLAZER	2.7	3.0	2.8
	CHISHOLM	1.7	4.7	3.2
	SIOUXLAND	1.3	5.3	3.3
AGRIPRO	THUNDERBIRD	2.7	4.0	3.3
	CENTURY	3.7	3.7	3.7
MERSCHMANN	MEGGIE III	2.0	5.7	3.8
	DODGE	3.0	5.0	4.0
CARGILL	BOUNTY 122 (H)	3.3	4.7	4.0
CARGILL	BOUNTY 301 (H)	3.0	5.0	4.0
	CENTURA	3.0	5.7	4.3
	TAM 107	4.7	4.3	4.5
	CODY	3.3	6.3	4.8
	CALDWELL (SOFT)	2.3	3.0	2.7
	PIKE (SOFT)	3.0	4.0	3.5
AVERAGE		2.3	4.0	3.1
LSD .05		2.2	1.4	1.2
C.V. %		57.7	21.1	34.1

BARLEY YELLOW DWARF VIRUS RATING: 0=RESISTANT - 9=SUSCEPTIBLE.
(H) - INDICATES A HYBRID WHEAT.

TABLE 28. POWDERY MILDEW RATINGS (%) FOR HARD RED WINTER WHEAT VARIETIES AT MISSOURI TEST LOCATIONS.-1987

BRAND	NAME	MT.VERNON (%)	SPICKARD (%)	AVERAGE (%)
	SIOUXLAND	0.0	0.0	0.0
	CENTURY	0.0	1.7	0.8
	REDLAND	0.0	10.0	5.0
	TAM 107	0.0	28.3	14.2
MERSCHMANN	MEGGIE III	0.0	28.3	14.2
	CENTURA	25.0	15.0	20.0
	TAM 105	23.3	23.3	23.3
	NORKAN	41.7	6.7	24.2
CARGILL	CHISHOLM	51.7	6.7	29.2
	BOUNTY 301 (H)	26.7	31.7	29.2
	ARKAN	75.0	1.7	38.3
	NEWTON	48.3	28.3	38.3
AGRIPRO	THUNDERBIRD	48.3	30.0	39.2
CARGILL	BOUNTY 205 (H)	61.7	23.3	42.5
	DODGE	88.3	35.0	61.7
AGRIPRO	ABILENE	95.0	33.3	64.2
CARGILL	BOUNTY 122 (H)	86.7	48.3	67.5
	CODY	81.7	70.0	75.8
AGRIPRO	TRAILBLAZER	88.3	65.0	76.7
AGRIPRO	MESA	98.3	63.3	80.8
	CALDWELL (SOFT)	41.7	20.0	30.8
	PIKE (SOFT)	48.3	28.3	38.3
AVERAGE		41.5	24.2	37.0
LSD .05		20.3	39.5	23.3
C.V. %		29.7	99.4	54.8

(H) - INDICATES A HYBRID WHEAT.

TABLE 29. FROST DAMAGE RATINGS (%) AND DISEASE RATINGS (%) FOR HARD RED WINTER WHEAT VARIETIES AT MISSOURI TEST LOCATIONS.-1987

BRAND	NAME	MT. VERNON FROST (%)	SPICKARD STEM RUST (%)	SPICKARD LEAF RUST (%)
CARGILL	BOUNTY 301 (H)	16.7	0.0	1.7
AGRIPRO	THUNDERBIRD	46.7	1.7	6.7
AGRIPRO	MESA	45.0	0.0	6.7
CARGILL	BOUNTY 205 (H)	28.3	0.0	7.7
	ARKAN	48.3	1.7	8.3
	REDLAND	18.3	0.0	10.0
	DODGE	36.7	8.3	13.3
	CENTURA	36.7	5.0	15.0
	SIouxLAND	23.3	6.7	15.3
AGRIPRO	ABILENE	20.0	0.0	18.3
	CENTURY	31.7	3.3	21.7
	NORKAN	35.0	3.3	25.0
	CODY	16.7	11.7	26.7
AGRIPRO	TRAILBLAZER	43.3	3.3	35.0
	TAM 105	13.3	1.7	46.7
	TAM 107	21.7	1.7	50.0
MERSCHMANN	MEGGIE III	11.7	1.7	53.3
	CHISHOLM	30.0	6.7	63.3
CARGILL	BOUNTY 122 (H)	31.7	3.3	73.3
	NEWTON	21.7	0.0	76.7
	CALDWELL (SOFT)	6.7	3.3	5.0
	PIKE (SOFT)	31.7	5.0	35.0
	AVERAGE	27.8	3.0	14.1
	LSD .05	9.8	8.3	12.6
	C.V. %	21.4	168	77.8

(H) - INDICATES A HYBRID WHEAT.

Missouri Spring Oat Variety Test - 1987

The oat variety trials were grown at three locations - Agronomy Research Center, Columbia; North Missouri Center, Spickard; and Greenley Farm, Novelty. Plots were seeded on Feb. 24 at Columbia and Feb. 25 at Spickard and Novelty under nearly ideal conditions. Eighty pounds of nitrogen fertilizer were applied at all locations. Forty pounds each of phosphorus and potassium were applied at Columbia and Novelty. Harvest dates were June 22, June 26, and July 1 for Columbia, Novelty, and Spickard, respectively.

Test Procedures

Twenty-five varieties and experimental lines were arranged in a rectangular lattice design with three replications. Each plot consisted of six rows of 7 inch spacing, 12 feet long, and trimmed to eight feet in length in late spring prior to harvest with a K.E.M. plot combine. The approximate seeding rate was 3 bushels per acre.

Growing Season

The 1987 growing season was characterized by warmer and drier than usual conditions. Although the sites were all planted early and under ideal conditions, the hot, dry climatic conditions combined to reduce yield potential and eventually the final yield.

Disease Problems

An early, heavy infestation of oat bird cherry aphid apparently resulted in the transmission of and infection with barley yellow dwarf virus (BYDV). Severe symptoms of this disease were evident at all three locations. Since this disease is often present in oats grown in Missouri, particular attention should be paid to this year's results. In some cases, BYDV resulted in such severe stunting that fields were abandoned or replanted to other crops.

TABLE 30. YIELD (BU/A) OF SPRING OAT VARIETIES AT MISSOURI TEST LOCATIONS.-1987

NAME	COLUMBIA BU/A	SPICKARD BU/A	NOVELTY BU/A	AVERAGE BU/A
OGLE	75*	86*	77**	79**
MO.07929	74*	84*	71*	76*
MO.07477	65	83*	73*	74*
MO.07824	57	94**	70*	73*
HAZEL	80**	68	72*	73*
BATES	68	76	67*	70
MO.07831	72*	76	59*	69
WIS. X487-2	66	74	65*	68
PORTER	65	74	65*	68
DON	69	62	67*	66
MO.07399	56	74	65*	65
MO.07941	67	64	64*	65
LARRY	68	52	65*	62
NOBLE	58	61	66*	62
MO.07444	46	71	61*	59
OTEE	59	51	57	56
MN81229	58	51	55	55
LANG	61	42	62*	55
GRUNDY	44	52	55	50
STARTER	49	54	43	49
PROAT	42	57	46	48
STOUT	40	46	50	46
WEBSTER	51	39	45	45
SD810109	32	37	42	37
ALLEN	25	34	42	34
AVERAGE	57.8	62.4	60.2	60.2
LSD .05	10.5	13.1	19.7	8.6
C.V. %	11.3	20.4	13.2	15.5

** - HIGHEST YIELDING VARIETY IN THE TEST.

* - INDICATES THOSE VARIETIES WHICH DO NOT DIFFER SIGNIFICANTLY (LSD-.05) IN YIELD FROM THE HIGHEST.

TABLE 31. TWO YEAR AVERAGES (BU/A) OF SPRING OAT VARIETIES AT MISSOURI TEST LOCATIONS.

NAME	COLUMBIA BU/A	SPICKARD BU/A	NOVELTY BU/A	AVERAGE BU/A
MO.07929	78*	79*	80**	79**
OGLE	84**	78*	74*	79*
HAZEL	77*	74*	78*	76*
MO.07831	78*	73*	76*	76*
MO.07941	78*	70	77*	75*
MO.07399	77*	73*	71*	74*
PORTER	68	78*	74*	74*
MO.07824	67	85**	69*	74*
DON	79*	66	71*	72
NOBLE	68	73*	70*	70
LARRY	80*	60	70*	70
OTEE	73	70	65	69
BATES	67	76*	64	69
MO.07444	57	74*	72*	68
LANG	72	52	70*	65
STARTER	71	68	52	63
WEBSTER	64	60	63	63
GRUNDY	55	69	59	61
STOUT	54	62	54	56
PROAT	51	58	56	55
ALLEN	38	45	58	47
AVERAGE	68.5	68.6	67.8	68.3
LSD .05	9.6	12.0	13.8	6.7
C.V. %	12.2	15.2	17.7	15.1

** - HIGHEST YIELDING VARIETY IN THE TEST.

* - INDICATES THOSE VARIETIES WHICH DO NOT DIFFER SIGNIFICANTLY (LSD-.05) IN YIELD FROM THE HIGHEST.

TABLE 32. TEST WEIGHT (LB/BU) OF SPRING OAT VARIETIES AT MISSOURI TEST LOCATIONS.--1987

NAME	COLUMBIA LB/BU	SPICKARD LB/BU	NOVELTY LB/BU	AVERAGE LB/BU
HAZEL	33.0	33.1	33.5	33.2
MO.07824	31.2	35.1	33.1	33.1
MN81229	33.0	33.8	32.4	33.1
MO.07941	31.6	33.8	32.6	32.7
DON	33.3	32.9	31.6	32.6
STARTER	32.0	34.1	31.1	32.4
BATES	31.1	33.4	32.6	32.4
MO.07477	30.6	35.3	31.1	32.4
GRUNDY	30.6	32.5	33.8	32.3
MO.07399	30.9	33.0	32.4	32.1
NOBLE	30.9	33.2	31.4	31.9
MO.07444	29.3	33.6	32.3	31.8
OTEE	32.7	31.8	30.6	31.7
OGLE	31.2	31.4	30.4	31.0
MO.07831	30.2	31.7	31.1	31.0
PORTER	29.5	31.8	31.6	31.0
MO.07929	30.3	31.2	31.2	30.9
WIS. X467-2	29.6	31.2	31.4	30.7
LARRY	29.6	31.1	31.1	30.6
SD810109	28.3	29.9	33.3	30.5
ALLEN	29.1	29.8	31.6	30.2
LANG	30.0	28.8	29.4	29.4
WEBSTER	29.5	28.3	29.4	29.1
PROAT	27.6	30.1	29.3	29.0
STOUT	26.5	30.4	28.5	28.5
AVERAGE	30.5	32.1	31.5	31.3
LSD .05	1.6	1.4	2.0	1.0
C.V. %	3.2	2.7	3.9	3.3

TABLE 33. TWO YEAR AVERAGES OF (LB/BU) FOR SPRING OAT VARIETIES AT MISSOURI TEST LOCATIONS.

NAME	COLUMBIA (%)	SPICKARD (%)	NOVELTY (%)	AVERAGE (%)
MO.07824	30.1	31.1	33.6	31.6
GRUNDY	29.9	31.0	33.0	31.3
MO.07941	29.7	30.7	33.2	31.2
BATES	29.7	31.2	32.3	31.1
HAZEL	30.5	30.0	32.8	31.1
DON	30.8	29.9	32.3	31.0
OTEE	31.2	28.5	32.7	30.8
STARTER	30.3	29.8	31.8	30.7
MO.07399	29.6	29.1	33.0	30.6
NOBLE	29.9	28.3	32.7	30.3
LARRY	29.3	28.4	32.5	30.1
MO.07444	28.5	29.8	32.0	30.1
OGLE	29.3	29.4	31.2	30.0
PORTER	28.9	28.8	32.0	29.9
MO.07929	28.6	28.8	31.9	29.8
ALLEN	28.5	27.6	32.3	29.5
MO.07831	27.9	28.6	31.8	29.5
LANG	28.6	27.6	31.2	29.1
PROAT	27.2	28.5	29.8	28.5
STOUT	26.8	28.6	29.9	28.4
WEBSTER	28.3	26.6	30.1	28.3
AVERAGE	29.2	29.2	32.0	30.1
LSD .05	1.1	1.6	1.6	0.8
C.V. %	3.3	4.7	4.2	4.1

TABLE 34. MOISTURE PERCENTAGE (%) OF SPRING OAT VARIETIES AT MISSOURI TEST LOCATIONS.-1987

NAME	COLUMBIA %	SPICKARD %	NOVELTY %	AVERAGE %
MO.07941	14.3	13.5	12.8	13.5
DON	14.3	13.8	12.6	13.6
HAZEL	14.7	13.4	12.9	13.7
MO.07399	15.8	12.7	13.1	13.9
MO.07477	16.3	12.6	12.9	14.0
WIS. X487-2	16.2	13.2	12.7	14.0
MO.07831	15.8	12.5	13.9	14.1
MO.07929	15.8	13.0	13.5	14.1
STARTER	16.0	13.1	13.4	14.2
OGLE	16.5	13.0	13.0	14.2
BATES	17.2	12.9	12.5	14.2
GRUNDY	16.0	13.8	12.8	14.2
OTEE	16.1	13.8	13.1	14.3
LANG	16.2	13.7	13.4	14.5
NOBLE	16.9	13.3	13.3	14.5
MO.07824	17.9	12.8	12.8	14.5
STOUT	18.3	13.0	12.9	14.7
ALLEN	18.0	13.0	13.3	14.8
LARRY	17.3	14.5	13.2	15.0
MN81229	17.7	13.9	13.7	15.1
SD810109	18.2	13.8	13.2	15.1
MO.07444	18.4	13.6	13.4	15.1
WEBSTER	17.1	15.0	13.6	15.2
PORTER	19.9	13.5	13.6	15.7
PROAT	23.5	14.0	14.0	17.2
AVERAGE	17.0	13.4	13.2	14.5
LSD .05	2.4	1.6	1.0	1.0
C.V. %	8.8	7.3	4.8	7.5

TABLE 35. TWO YEAR AVERAGES OF PERCENT MOISTURE (%) FOR SPRING OAT VARIETIES AT MISSOURI TEST LOCATIONS.

NAME	COLUMBIA (%)	SPICKARD (%)	NOVELTY (%)	AVERAGE (%)
STARTER	16.0	13.8	12.9	14.2
LANG	16.9	13.7	12.9	14.5
GRUNDY	17.9	13.0	12.8	14.6
MO.07399	17.5	13.7	12.8	14.7
OTEE	16.9	14.4	12.9	14.8
LARRY	16.9	14.7	12.8	14.8
DON	18.3	13.7	12.6	14.9
MO.07831	18.8	13.2	13.2	15.1
WEBSTER	17.8	14.5	12.9	15.1
ALLEN	19.6	13.7	12.9	15.4
MO.07941	20.3	13.5	12.4	15.4
STOUT	21.0	13.6	12.7	15.8
MO.07824	21.7	13.2	12.7	15.9
BATES	20.2	15.0	12.5	15.9
OGLE	22.2	13.3	12.8	16.1
MO.07444	22.3	13.7	13.0	16.4
NOBLE	21.1	15.1	13.0	16.4
MO.07929	22.6	14.1	12.9	16.5
HAZEL	24.4	14.5	12.8	17.3
PORTER	28.7	14.4	13.4	18.8
PROAT	30.4	14.2	13.2	19.3
AVERAGE	20.6	14.0	12.9	15.8
LSD .05	2.7	1.8	0.6	1.1
C.V. %	11.2	11.0	3.9	10.3

TABLE 36. BARLEY YELLOW DWARF VIRUS RATINGS FOR SPRING OAT VARIETIES AT MISSOURI TEST LOCATIONS.-1987

NAME	COLUMBIA	SPICKARD	NOVELTY	AVERAGE
OGLE	2.0	1.0	2.0	1.7
MO.07824	3.0	1.3	2.3	2.2
MO.07831	3.7	3.0	3.3	3.3
MO.07929	4.3	3.0	3.3	3.6
WIS. X487-2	3.0	4.0	4.3	3.8
DON	4.7	3.3	4.3	4.1
MO.07941	5.3	4.3	3.0	4.2
BATES	4.7	5.3	3.0	4.3
HAZEL	4.3	4.3	4.3	4.3
MO.07477	5.7	3.0	4.3	4.3
MO.07444	6.0	3.3	3.7	4.3
LARRY	4.7	5.0	3.7	4.4
NOBLE	5.0	4.7	4.3	4.7
OTEE	5.0	5.7	3.7	4.8
PORTER	4.0	5.3	5.0	4.8
MN81229	5.0	5.0	4.3	4.8
LANG	5.0	5.7	4.7	5.1
STARTER	6.7	4.7	4.7	5.3
MO.07399	6.7	5.7	3.7	5.3
GRUNDY	6.3	5.3	5.0	5.6
WEBSTER	7.0	6.0	5.0	6.0
PROAT	6.3	6.7	6.3	6.4
STOUT	8.3	6.7	6.3	7.1
SD810109	8.0	8.0	6.7	7.6
ALLEN	8.7	8.0	7.0	7.9
AVERAGE	5.3	4.7	4.3	4.8
LSD .05	1.6	1.4	2.4	1.0
C.V. %	18.7	17.5	33.0	23.2

BARLEY YELLOW DWARF RATING: 0=RESISTANT - 9=SUSCEPTIBLE.

TABLE 37. HEIGHT (INCHES) AND LODGING RATINGS (#) FOR SPRING OAT VARIETIES AT MISSOURI TEST LOCATIONS.-1987

NAME	COLUMBIA HEIGHT	SPICKARD HEIGHT	AVERAGE HEIGHT	SPICKARD LODGING
MO.07444	23	38	31	2.1
MO.07824	26	38	32	4.1
MO.07399	26	39	33	3.3
LANG	27	39	33	2.2
STOUT	25	41	33	3.1
LARRY	26	41	33	2.7
MO.07477	25	41	33	4.1
WEBSTER	27	39	33	1.9
DON	27	40	34	2.0
MO.07941	28	40	34	3.7
MO.07831	27	41	34	3.7
ALLEN	26	42	34	4.3
HAZEL	27	42	34	3.8
BATES	27	42	35	4.0
MN81229	29	41	35	3.3
GRUNDY	28	42	35	3.3
STARTER	29	42	35	2.5
MO.07929	29	41	35	4.7
SD810109	29	42	35	3.1
NOBLE	29	41	35	3.7
OTEE	29	42	36	4.1
PORTER	30	41	36	4.8
PROAT	29	42	36	4.7
WIS. X487-2	30	44	37	3.3
OGLE	30	44	37	5.4
AVERAGE	27.6	41.0	34.3	3.5
LSD .05	2.4	3.3	2.0	2.0
C.V. %	5.3	4.9	5.1	34.3

* - LODGING RATINGS RANGE FROM 0.2 (COMPLETELY ERECT) TO 9.0 (WHOLE PLOT COMPLETELY FLAT).