1988 Missouri Winter Wheat Performance Test



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្គី Special Report 384 - August 1988 Agricultural Experiment Station University of Missouri-Columbia

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The authors extend their appreciation to all the cooperators who helped in the preparation and conduct of this research. We would particularly like to thank those who helped conduct much of this work - Andy Finck, Jeff Fritsche, Warren Snyder, Francis Schaffer, Carl Watson, and Paul Rowoth. We extend a special recognition to the farmer/cooperators on the off-station sites at Lamar and Bertrand - Mr. David Sheat and Mr. Junior Peters, respectively. We offer a special thanks to Dr. Anne McKendry, UMC wheat breeder, whose support has been instrumental in the accomplishment of this research.

Test Objective

The objective of the Missouri wheat 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 public and private wheat varieties and hybrids for the state of Missouri.

1988 Wheat Crop Conditions

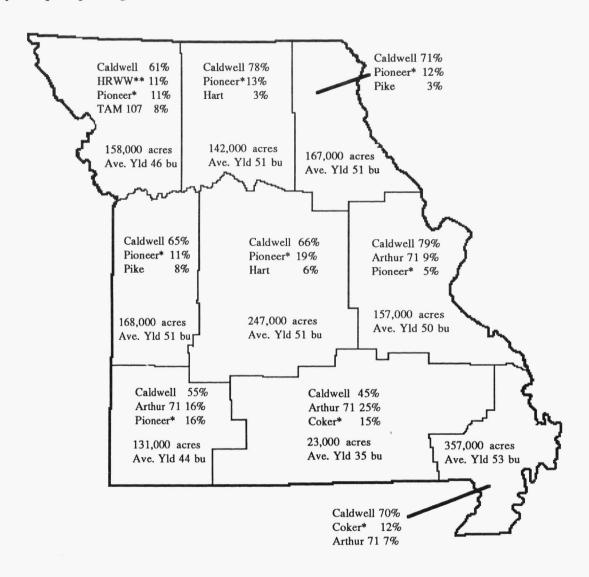
Harvested acreage for wheat in 1988 totaled 1,550,000 acres, the largest in several years. The statewide average yield (as of July 1 estimates) reached 50 bushel per acre, the first time in history that the 50 bushel level had been achieved. The previous record yield was 46 bushel per acre in 1987. Figure 1 shows the distribution of wheat acreage and average yields by Crop Reporting District. Data on the varietal distribution within the state are shown in Figure 1. Caldwell was again the most widely grown variety in Missouri increasing to 68% of the state's wheat acreage from 62% the previous year. Other popular varieties are listed within their respective Crop Reporting Districts. Hard red winter wheat was seeded on only about 2% of the acreage in Missouri.

The 1987-1988 Missouri winter wheat crop was considerably larger than the past several years largely due to ideal planting conditions in the fall of 1987. Summer planted crops matured early and favorable weather conditions allowed early harvesting of those crops and subsequent planting of winter wheat. Emergence and tillering of wheat were nearly ideal for all except the latest planted wheat. Although there was little snow cover in the winter, generally mild conditions resulted in good winter survival for most of the state.

Unlike the past two years, wheat broke dormancy at a more nearly normal time and approximately one to two weeks later than the previous two years. Moisture conditions during the early spring were adequate across the state, but rainfall fell behind a normal schedule beginning in April. Although most of the state experienced low rainfall and high temperatures during heading and grain filling periods, most farmers had higher than expected yields verifying wheat's status as a "dry weather crop." The northern part of the state suffered most from moisture shortages resulting in lower yields than other regions.

Because of the low moisture and high temperature conditions during grain filling, foliar disease symptoms were seldom found throughout the state. Early in the spring, symptoms of Wheat Spindle Streak Virus were evident, but those varieties which showed the worst symptoms recovered remarkably showing no obvious yield reductions in many cases.

Figure 1. 1988 Wheat Variety Distribution, Acreage, and Average Yields by Crop Reporting District.



- * All Varieties
- ** All other Hard Red Winter Wheat Varieties

There were widespread symptoms of Barley Yellow Dwarf Virus (BYDV)throughout Missouri, especially where wheat was planted very early. Fall infections of BYDV often result in severe stunting as was observed at Columbia in 1988. Spring infections often reveal colorful (red and purple) leaf symptoms with little dwarfing and nearly indiscernible yield reductions. It was not unusual to observe Powdery Mildew on the thickest stands early in the spring, but as temperatures increased, that disease became of little consequence.

Variety Testing Procedures

The **experimental design** for the soft wheat performance tests was a randomized complete block with four replications. A lattice design with four replications was used for the hard wheat tests. The soft wheat tests were planted in a timely fashion at seven locations (Table 1). Nitrogen fertilizer was applied as urea and all spring applications were made at Feekes' growth stage 3 - after the wheat began to green up. The site at Novelty suffered severe heaving damage and, although survival notes were taken and are reported in this publication, those plots were abandoned thereafter. The hard wheat tests were planted at three locations - also listed in Table 1. The test plots consisted of six rows of 7 inch spacing, 15 feet long and were trimmed to 12 feet prior to harvest.

Seed of all private varieties was supplied by the participating company. Public varieties were obtained from the Foundation Seed programs of the state in which they originated where possible or from a cooperating state where necessary. If not treated upon arrival, all seed was treated with Vitavax seed treatment prior to packaging. Seed weights were obtained for each variety and a package was prepared for each plot containing 1,850 seeds a seeding rate of approximately 1.5 million seeds/acre.

Survival notes were taken on each plot after the plants broke dormancy and began to green up in the spring.

Heading dates were recorded at Spickard, Columbia, Mt. Vernon and Portageville. A variety was considered headed when 75 % of the heads were extended above the flag leaf collar. Heading date is reported as days after January 1 - often called Julian date.

Plant height was obtained by measuring the distance from the soil to the top of the head.

Disease ratings were taken where incidence was severe enough to warrant. With the hot, dry conditions of 1988, foliar diseases were not evident at many locations. Where possible, these diseases were rated according to the Manual of Assessment Keys for Plant Diseases by Clive James. Exceptions included leaf rust which has been rated using the guide published by CIMMYT. Dryland footrot was diagnosed in the tests at Mt. Vernon by the UMC Plant Pathology Diagnostic Laboratory and those plots were rated according to the percentage of heads within a plot which were so severely affected that they had apparently died prematurely. Barley Yellow Dwarf Virus (BYDV) were made according to a scale as described in the prepared tables. The Columbia location was planted early and was probably subjected to a fall infection of BYDV which resulted in severe dwarfing of some varieties. Spring infections at other locations resulted in obvious leaf reddening and purpling with little dwarfing.

Lodging was observed at only one location - Bertrand - in 1988. The **Belgian lodging** scale was used wherein each plot receives a rating for the area lodged: 1 = none of the plot lodged and 9 = the whole plot lodged; and a second rating for the severity of lodging: 1 = plants erect and 5 = plants completely flat. The final rating is obtained by multiplying the area x the severity x 0.2. As a result, a plot with no lodging would receive a rating of 0.2 and one in which all plants were completely flat would be rated 9.0.

Table 1. Selected cultural practices at each out-state testing location.

Location and Cooperator	Class <u>Tested</u>	Planting <u>Date</u>	Harvest <u>Date</u>	N Ferti Timing	lizer (lb/a)
North Missouri Res <u>Spickard</u> Jack Cooley Carl Watson	earch Center Hard and Soft	Sep. 25	July 5	F S	40 80
Agronomy Research Columbia John Poehlmann	Hard and Soft	Sep. 24	June 24 June 21-22	F S	40 80
Southwest Research Mt. Vernon Calvin Hoenshell	Hard and Soft	Oct. 8	June 20	F S	40 80
Greenley Memorial Novelty Randall Smoot Maryann Redelfs	Research Center Soft	Sep. 23	Winter-killed	d F S	40 80
Lamar David Sheat Rick Mammen	Soft	Oct. 8	June 23	FS	70 30
Bertrand Junior Peters John Garrett	Soft	Oct. 13	June 20	F S	40 100
Delta Center Portageville Kathryn Ross Paul Tracy	Soft	Oct. 13	June 10	F S	40 80

Yield was obtained using a plot combine to harvest the total plot area after the ends of the plot were trimmed to a standard length. The grain was weighed on an electronic scale and weights were converted to bushels/acre (60 pounds/bushel). Yield was corrected to 13 % moisture.

Test weight and moisture were obtained on the grain of each plot using a Dickey-John GAC II moisture tester.

Thousand kernel weights were obtained for each plot by counting 250 seeds from a sample obtained after testing bushel weight and moisture. Those seeds were oven dried at

165 deg. F. for at least two days prior to weighing. The resultant weight was multiplied by 4 to obtain the weight of 1,000 seeds.

Entering Varieties in the Testing Program

All public varieties which show any obvious potential are entered at all locations where tests are conducted. The Missouri Seed Improvement Association provides funding to conduct the testing of these varieties. Privately developed varieties are entered into the Missouri test by their originators 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 expenses of these tests. 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 1988 performance test contained 53 soft red and 22 hard red winter wheat varieties. Of those soft varieties, 25 were public and 28 were private varieties. The hard red winter wheat tests contained 14 public varieties, 5 private varieties, and 3 private hybrids. The soft wheat tests have been planted separately from the hard wheat tests the past several years. In order to provide some check between the hard and soft tests, TAM 107 and Arkan (hard wheats) have been included as checks at all soft wheat locations. Caldwell (a soft wheat) has been planted as a check at each hard wheat testing site.

Table 2. Private company entrants and their entries in the 1988 Wheat Performance Tests.

Entrant	Class	Brand	Name
Nickerson American Plant Breeders RR2, P.O. Box 411 Brookston, IN 47923 317-563-3111	Soft	Agripro Agripro Agripro Agripro Agripro Agripro	Hancock Lincoln Magnum Steele Traveler Twain
Nickerson American Plant Breeders P.O. Box 30 Berthoud, CO 80513 303-532-3721	Hard	Agripro Agripro Agripro Agripro	Abilene Mesa Thunderbird NA-W85-120 Exp
Cargill Seed Division 2540 East Drake Rd. Ft. Collins, CO 80525 303-482-8818	Hard	Bounty Hybrid Bounty Hybrid Bounty Hybrid	122 205 WH 180001 Exp
Coker Pedigreed Seeds, Inc. P.O. Box 729 Bay, AR 72411 501-483-7691 or P.O. Box 507 Lebanon, IN 46502 317-482-0403	Soft	Coker Coker Coker Coker Coker Coker	McNair 1003 916 9227 9323 9733 9766 9877

Table 2. (continued)

Entrant	Class	Brand	Name
Merschman Seeds, Inc. 103 Ave D West Point, IA 52656 319-837-6111	Soft	Merschman Merschman Merschman Merschman Merschman	Bintee IV Genie III Julie II Katie III Katie IV Meggie III
Pioneer Hi-Bred Intl., Inc. 7000 Pioneer Parkway Box 256 Johnston, IA 50131 515-270-2170	Soft	Pioneer Pioneer	2551 2555
Reeds Seeds, Inc. P.O. Box 130 Chillicothe, MO 64701 816-646-4426	Soft	Reeds Reeds	1004 1008
Lakeside States 920 Long Blvd Suite 8 Lansing, MI 48911 517-694-646	Soft	Lakeside States	Hillsdale
Terra International # 3 Henson Place Champaign, IL 61820 217-398-1585	Soft	Тегга Тегга	SR 86 SR 87
United Agri Seeds P.O. Box 4011 Champaign, IL 61820 217-373-5300	Soft	United AgriSeeds United AgriSeeds United AgriSeeds	7101 86-3104 87-3106

New Variety Descriptions

Soft Wheats

Clark is a new release from Purdue University and was tested under the experimental number IN 77249. It has reddish-brown colored heads at maturity. It appeared to have excellent winter survival. Large seeds seem to be a trend with this variety. Although its reaction to foliar diseases was difficult to obtain in 1988, leaf rust pustules were evident and their reaction type indicated that it may be susceptible to that disease. That is somewhat unusual for varieties released by Purdue.

Dynasty is the newest release from the Ohio State University. Since Ohio varieties have done well in Missouri locations in the past, we always test their new releases. Dynasty is a bearded variety which appears to be somewhat earlier maturing than older Ohio released

Becker and Cardinal. It appears to be somewhat susceptible to leaf rust and did not distinguish itself in this, its first year of testing in Missouri.

Florida 303 and FL 7927-G29 (Exp) were added to the test for the first time this year. Since Florida 302 has performed well in southern Missouri, we have been testing any new Florida lines as they become available. Both of these varieties are very susceptible to winter injury and should not be recommended for planting in Missouri - even in the Bootheel.

Massey was tested for the first time this year even though it has been released some time ago by Virginia. Although it performed fairly well at some locations and was the highest yielding variety at Lamar, it appears to be very susceptible to leaf rust and is likely also susceptible to other rust species.

Recently released varieties - Cardinal (Ohio) and Keiser (Arkansas) - have been tested several years and were described in last year's report.

Hard Wheats

Arapahoe is a new release from Nebraska and was tested as NE 82656. It did not distinguish itself in its first year of testing. Yield, test weight, seed weight, and winter survival were below average. It is relatively late in maturity and may not be well suited to Missouri growers.

KS 83-1374 (Exp) is an experimental line being considered for release by Kansas State University. In this first year of testing, it yielded well only at Mt. Vernon in southwest Missouri. It appears to be early maturing and has very good leaf rust resistance.

Relatively new releases - **Redland** (Nebraska), **Dodge** (Kansas) and **Norkan** (Kansas) - were described in last year's report. None of them performed well in 1988 in Missouri.

There were many newly tested private wheat varieties in 1988. For information on those private varieties, please consult with the entrants listed in Table 2.

Analyzing the Results

The 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 in statistical terminology - "significant." The Least Significant Difference (LSD) is that statistical tool which we have used in this report to help determine "real" differences and is listed at the bottom of each column for which we have a statistical analysis. Unless two varieties differ in yield or any other characteristic 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 factors. 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 within each test has two asterisks. 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, harvest moisture, height, standability, and pest resistance are also important in selecting a variety and that information is shown in the tables following this narrative.



Figure 2. 1988 Wheat Variety Testing Sites in Missouri.

Table 3. Yield (Bu/A) of soft red winter wheat varieties at Missouri Test Locations - 1988.

Brand and/or Name	Spickard	Columbia	Lamar	Mt. Vernon	Bertrand	Portage- ville	Average
Pioneer 2555	53.7 *	84.8 *	59.3 *	61.6*	90.0 **	58.4 *	67.9 **
Merschman Katie IV	65.6 * *	79.6	52.8	58.4	74.4	65.5 **	66.1 *
Agripro Steele	62.3 *	73.8	49.9	62.8 *	81.7 *	55.8	64.4
• .	58.9 *	81.8 *	40.7	61.2	81.7 *	60.5 *	64.1
Reeds 1008	61.1 *	78.5	43.9	58.4	72.7	63.8 *	63.1
Pike	01.1	70.5	43.9	30.4	12.1	03.0	03.1
MO 10501 (Exp)	50.5	78.5	50.4	58.5	77.4	62.9 *	63.0
Гyler	53.6 *	82.8 *	45.0	59.4	81.9 *	54.9	63.0
Pioneer 2551	57.5 *	82.6 *	40.9	59.5	75.6	59.0 *	62.5
erra SR 86	54.3 *	79.6	39.9	60.0	81.1	58.8 *	62.3
Becker	60.5 *	81.3 *	40.7	60.4	68.8	59.6 *	61.9
Coker 916	47.1	75.5	55.2 *	56.3	79.8	56.8	61.8
Jnited AgriSeeds 86-3104	60.6 *	73.7	39.6	59.0	79.1	57.6 *	61.6
Inited AgriSeeds 87-3106	50.7	73.2	54.1 *	61.5 *	74.2	51.7	60.9
Cardinal	51.0	71.8	51.0	59.4	78.8	53.2	60.9
Massey	45.3	76.4	60.4 **	56.3	67.5	59.0 *	60.8
erra SR 87	54.1 *	75.2	44.8	55.3	69.4	64.8 *	60.6
Saluda	59.7 *	74.2	28.9	64.2 *	82.2 *	54.0	60.5
Caldwell	56.7 *	79.2	40.4	57.2	74.2	54.4	60.4
gripro Hancock	40.9	76.0	53.9 *	58.9	75.8	56.3	60.3
MO 9965 (Exp)	48.8	76.9	45.6	57.5	78.1	54.3	60.2
lorida 302	33.1	73.9	35.2	68.1 **	81.2	65.4 *	59.5
Merschman Katie III	51.5 *	79.1	44.8	60.3	64.2	56.8	59.4
oker 9227	34.8	66.4	55.0 *	65.4 *	73.4	56.0	58.5
lerschman Julie II	53.8 *	78.1	31.1	58.4	74.1	54.9	58.4
lerschman Bintee IV	58.1 *	76.5	31.2	51.1	76.2	55.8	58.1
		70.0	45.0	47.0	07.0		E0.4
ynasty	63.2 *	72.2	45.6	47.6	67.6	52.5	58.1
oker 9877	34.1	61.1	52.0	58.8	79.5	60.2 *	57.6
gripro Twain	48.6	76.6	40.2	60.9	60.2	57.1 *	57.3
losen Clark	49.8 45.3	70.2 68.2	42.7 53.5 *	53.7 56.3	71.5 68.3	55.6 51.7	57.3 57.2
	40.0	00.2	00.0		00.0	•	
Coker McNair 1003	33.9	70.5	46.6	61.3	73.8	55.8	57.0
Coker 9323	38.9	65.4	32.6	62.7 *	80.2	60.7 *	56.8
Scotty	46.3	70.3	41.9	49.9	66.7	57.3 *	55.4
Agripro Lincoln	52.3 *	71.5	28.7	55.4	66.2	55.9	55.0
Agripro Traveler	29.3	58.6	46.4	59.4	76.2	59.9 *	54.9
Ceiser	36.3	71.6	39.8	51.6	70.2	56.1	54.3
oker 9766	43.1	70.7	30.7	52.7	69.7	57.4 *	54.1
oker 9733	30.2	62.1	48.1	61.0	70.9	52.0	54.1
Reeds 1004	47.8	68.3	40.5	47.6	64.0	54.3	53.8
compton	45.9	66.3	39.0	50.6	67.8	52.0	53.6
Janachman Ozzila III		66.7	00.0	F.4.	60.6	E 4 7	F0.0
lerschman Genie III	46.7	69.7	28.8	54.4	68.0	51.7	53.2
gripro Magnum	40.2	62.4	36.6	52.0	68.1	53.8	52.2
lelson	42.7	64.9	43.5	45.3	63.6	52.4	52.1
lorida 303 IO 10503 (Exp)	18.9 43.3	38.9 70.2	53.8 * 23.0	60.1 46.9	73.6 61.3	58.8 * 59.0 *	50.7 50.6
	70.0			, , , ,	0.10		
nited AgriSeeds 7101	50.5	67.6	22.5	40.5	65.4	50.1	49.4
dder	38.1	61.1	33.7	43.6	68.8	46.6	48.6
L 7927-G29 (Exp)	18.1	32.3	49.4	64.7 *	74.9	52.2	48.5
illmore	43.3	61.1	22.8	45.6	63.8	47.5	47.3
rthur 71	44.2	64.5	28.3	40.2	54.9	51.8	47.3
Muburn	46.5	62.9	24.0	40.9	62.4	41.8	46.4
lorida 301	10.1	31.7	43.5	49.0	59.3	58.3 *	42.1
akeside States Hillsdale	46.1	55.0	9.6	33.9	55.6	43.5	40.6
AM 107 (hard)	65.0	97.0 **	51 1	50.2	76.4	55.2	64.3
Arkan (hard)	65.0 * 47.1	87.9 ** 73.5	51.1 35.0	50.3 40.1	66.0	55.2 54.5	52.4
				continued of organization			
verage SD .05	48.2 14.5	70.2 6.7	41.3 7.4	55.0 6.6	71.8 8.6	55.6 8.6	56.8 3.5

 $^{^{\}star\star}$ - Highest yielding Variety in the Test. * - Indicates those varieties which do not differ significantly (LSD= .05) from the highest.

Table 4. Yield (as percent of test average) of soft winter wheat varieties - Missouri Test Locations-1988.

				Mt.		Portage-	
Brand and/or Name	Spickard	Columbia	Lamar	Vernon	Bertrand	ville	Average
Pioneer 2555	111*	121*	144 *	112*	125 **	105 *	120 **
Merschman Katie IV	136 **	113	128	106	104	118 **	116 *
Agripro Steele	129 *	105	121	114*	114 * 114 *	100 109*	113 113
Reeds 1008	122 *	117 * 112	99 106	111	101	115 *	111
Pike	127 *	112	100	100	101	110	
MO 10501 (Exp)	105	112	122	106	108	113 *	111
Tyler	111 *	118 *	109	108	114 *	9 9	111
Pioneer 2551	119 *	118 *	9 9	108	105	106 *	110
Terra SR 86	113 *	113	97	109	113	106 *	110 109
Becker	125 *	116 *	99	110	9 6	107 *	109
Coker 916	98	108	134 *	102	111	102	109
United AgriSeeds 86-3104	126 *	105	96	107	110	104 *	108
United AgriSeeds 87-3106	105	104	131 *	112 *	103	93	107
Cardinal	106	102	123	108	110	96	107
Massey	9 4	109	146 **	102	9 4	106 *	107
Tarra SD 87	112 *	107	108	101	9 7	117*	107
Terra SR 87 Saluda	112*	107	70	117*	114 *	97	107
Caldwell	118 *	113	98	104	103	98	106
Agripro Hancock	85	108	131 *	107	106	101	106
MO 9965 (Exp)	101	110	110	105	109	98	106
				40.000	440	140+	105
Florida 302	69	105	85	124 ** 110	113 89	118 * 102	105 105
Merschman Katie III Coker 9227	107 * 72	113 95	108 133 *	119 *	102	101	103
Merschman Julie II	112 *	111	75	106	103	99	103
Merschman Bintee IV	120 *	109	76	93	106	100	102
Dynasty	131 *	103	110	87	9 4	94	102
Coker 9877	71	87	126	107	111	108 *	101 101
Agripro Twain	101 103	109 100	97 103	111 98	8 4 1 0 0	103 * 100	101
Rosen Clark	94	97	130 *	102	9 5	93	101
Siaik		٠.					
Coker McNair 1003	70	100	113	111	103	100	100
Coker 9323	8 1	93	79	114*	112	109 *	100
Scotty	96	100	101	9 1	93	103 *	98
Agripro Lincoln	109 * 61	102 83	69 112	101 108	92 106	101 108 *	97 97
Agripro Traveler	0 1	0.3	11.2	100	100	100	3,
Keiser	75	102	96	9 4	98	101	96
Coker 9766	8 9	101	74	96	9 7	103 *	9 5
Coker 9733	6 3	88	116	111	9 9	9 4	9 5
Reeds 1004	9 9	97	98	87	8 9	98	9 5
Compton	9 5	9 4	9 4	9 2	9 4	9 4	9 4
Merschman Genie III	9 7	99	70	9 9	9 5	93	9 4
Agripro Magnum	83	89	89	9 5	9 5	97	9 2
Nelson	8 9	92	105	8 2	89	9 4	9 2
Florida 303	3 9	5 5	130 *	109	103	106 *	89
MO 10503 (Exp)	9 0	100	56	8 5	8 5	106 *	8 9
United AgriSeeds 7101	105	96	5 4	7 4	9 1	9 0	87
Adder	79	9 6 8 7	82	7 9	96	84	86
FL 7927-G29 (Exp)	38	46	120	118*	104	9 4	85
Fillmore	90	87	5 5	83	8 9	8 5	83
Arthur 71	9 2	9 2	6 9	73	76	9 3	83
Aubum				7.4	0.7	7 5	82
Auburn Florida 301	97 21	9 0 4 5	58 105	74 89	87 83	75 105 *	74
Lakeside States Hillsdale	96	78	23	62	77	78	71
		. •		J.	• •		
TAM 107 (hard)	135 *	125 **	124	9 1	106	9 9	113
Arkan (hard)	98	105	8 5	73	9 2	98	9 2
Average	100	100	100	100	100	100	100
Average LSD .05	100 30.0	100 9.5	100 18.0	100 12.0	100 12.0	15.5	6.2
LOD .03	30.0	3.3	10.0	12.0	12.0	10.0	U.2

^{** -} Highest yielding Variety in the Test.
* - Indicates those varieties which do not differ significantly (LSD= .05) from the highest.

Table 5. Two year average yield (bu/a) of soft red winter wheat varieties at Missouri Test Locations-1987-1988.

1907-1900.						_	
		C & NE #		Mt.		Portage-	
Brand and/or Name	Spickard	Missouri	Lamar	Vernon	Bertrand	ville	Average
Pioneer 2555	64.2 *	74.8 *	61.0 **	55.7	70.2 *	68.1 *	65.7 **
Pioneer 2551	70.4 *	75.0 *	42.2	55.1	66.9	70.8 *	63.4 *
Reeds 1008	61.2	75.5 *	41.8	59.2 *	70.7 *	67.2	62.6 *
Caldwell	70.0 *	70.0 *	49.9	52.9	66.8	63.7	62.2
MO 10501 (Exp)	61.4 *	67.6	51.3	53.2	70.6 *	68.6 *	62.1
Cardinal	62.5 *	63.9	53.1 *	56.6	73.4 *	61.7	61.9
Florida 302	51.9	67.1	41.1	63.7 * *	72.0 *	74.5 **	61.7
Tyler	56.8	74.4 *	49.4	54.7	71.2 *	62.2	61.5
Saluda	67.6 *	69.5 *	24.6	62.1 *	77.3 **	67.1	61.4
Becker	65.5 *	72.4 *	40.5	57.2	64.3	67.4	61.2
MO 9965 (Exp)	61.9 *	66.3	48.7	54.4	66.3	60.1	59.6
Pike	62.5 *	65.9	43.8	47.0	67.0	70.2 *	59.4
Coker McNair 1003	47.2	64.8	46.9	59.2 *	72.0 *	64.6	59.1
Merschman Julie II	58.4	68.6	42.1	54.0	65.8	63.1	58.7
Merschman Bintee IV	62.2 *	68.9	34.9	48.2	67.2	62.5	57.3
Coker 9733	47.5	58.1	47.7	56.1	65.3	61.8	56.1
Reeds 1004	56.4	60.1	44.3	49.2	63.9	61.5	55.9
Scotty	52.9	61.8	44.9	51.2	60.9	61.9	55.6
Compton	57.2	63.7	36.7	47.6	66.5	60.7	55.4
Rosen	51.5	60.0	40.7	50.3	64.8	63.0	55.0
Merschman Genie III	56.8	63.4	34.8	53.3	59.8	60.9	54.8
Nelson	52.9	59.4	47.2	44.4	63.2	59.0	54.3
Keiser	45.2	58.3	38.1	51.4	67.6	62.2	53.8
Fillmore	48.4	52.4	39.4	48.7	59.6	54.5	50.5
Adder	42.9	52.1	36.4	40.8	63.5	57.2	48.8
Addel	42.0	02.1	00.4	40.0	00.0	0	
Arthur 71	53.2	57.0	33.9	40.7	53.1	55.0	48.8
Auburn	49.8	59.6	32.3	42.6	57.3	50.0	48.6
Florida 301	30.0	33.8	46.8	45.6	59.2	62.7	46.4
Tiorida 301	30.0	33.0	40.0	40.0	00.2	02.7	40.4
TAM 107 (hard)	70.5 **	76.3 **	52.0 *	44.9	67.6	59.3	61.8
Arkan (hard)	56.9	63.8	39.0	35.1	58.9	59.0	52.1
Alkali (liatu)	30.3	03.0	33.0	33.1	30.3	33.0	74.1
Average	56.5	64.2	42.9	51.2	65.8	62.7	57.2
LSD .05	9.4	6.9	9.0	4.9	8.6	6.7	3.1
C.V. %	15.7	10.2	19.9	9.1	12.4	10.1	12.8
U.V. 70	13.7	10.2	19.9	3.1	14.7	10.1	12.0

^{# -} Average of Novelty trials in 1987 (NE) and Columbia trials in 1988 (C).
** - Highest yielding Variety in the Test.
* - Indicates those varieties which do not differ significantly (LSD= .05) from the highest.

Table 6. Two year average yields (as percent of test average) of soft red winter wheat varieties at Missouri Test Locations - 1987-1988.

Missouri Test Location	0113 - 1307-13	C & NE		Mt.		Portage-	
Brand and/or Name	Spickard	Missouri	Lamar	Vernon	Bertrand	ville	Average
Brand and/or Name	Spickaru	MISSOUT	Lamai	Vernon	Dornana	71110	Tivelege
Pioneer 2555	114 *	117 *	142 **	109	107 *	109 *	115 * *
Pioneer 2551	125 *	117 *	98	108	102	113 *	111 *
Reeds 1008	108	118 *	97	116 *	107 *	107	109 *
Caldwell	124 *	109 *	116	103	101	102	109
MO 10501 (Exp)	109 *	105	120	104	107 *	109 *	109
Cardinal	111 *	100	124 *	111	112 *	98	108
Florida 302	9 2	105	96	124 * *	109 *	119 * *	108
Tyler	101	116 *	115	107	108 *	99	107
Saluda	120 *	108 *	57	121 *	118 **	107	107
Becker	116 *	113 *	9 4	112	98	107	107
MO 9965 (Exp)	110 *	103	114	106	101	9 6	104
Pike	111 *	103	102	9 2	102	112 *	104
Coker McNair 1003	8 3	101	109	116 *	109 *	103	103
Merschman Julie II	103	107	98	105	100	101	103
Merschman Bintee IV	110 *	107	8 1	9 4	102	100	100
0.1				440	99	9 9	98
Coker 9733	8 4	9 0	111	110	97	98	98
Reeds 1004	100	9 4	103	96	97	99	97
Scotty	94	96	105	100		97	97
Compton	101	9 9	86	93 98	101 99	100	96
Rosen	9 1	9 3	9 5	98	99	100	90
Merschman Genie III	101	9 9	8 1	104	9 1	9 7	9 6
Nelson	9 4	9 2	110	8 7	96	9 4	9 5
Keiser	8 0	9 1	8 9	100	103	99	9 4
Fillmore	8 6	8 2	9 2	9 5	9 1	8 7	88
Adder	76	8 1	8 5	8 0	97	9 1	8 5
					2.1		
Arthur 71	9 4	8 9	79	79	8 1	8 8	8 5
Auburn	8 8	9 3	75	8 3	8 7	8 0	8 5
Florida 301	5 3	5 3	109	8 9	9 0	100	8 1
TAM 107 (hard)	125 **	119 **	121 *	8 8	103	9 5	108
Arkan (hard)	101	9 9	9 1	69	8 9	9 4	91
Average	100	100	100	100	100	100	100
LSD .05	17	11	2 1	10	13	11	5
C.V. %							

^{# -} Average of Novelty trials in 1987 (NE) and Columbia trials in 1988 (C).
** - Highest yielding Variety in the Test.
* - Indicates those varieties which do not differ significantly (LSD= .05) from the highest.

Table 7. Test Weight (Lb/Bu) of soft red winter wheat varieties at Missouri Test Locations - 1988.

				Mt.		Portage-	
Brand and/or Name	Spickard	Columbia	Lamar	Vernon	Bertrand	ville	Average
Coker 9227	61.3	63.0	64.0	64.6	62.1	63.6	63.1
Saluda	61.0	63.4	62.6	63.7	62.0	63.0	62.6
Reeds 1004	60.9	62.5	61.9	62.6	60.8	62.3	61.8
Agripro Hancock	61.1	62.2	61.4	61.4	59.5	61.9	61.2
Compton	60.2	61.9	61.2	61.6	60.0	61.1	61.0
MO 9965 (Exp)	61.0	61.6	60.7	61.2	59.6	61.6	60.9
Agripro Traveler	59.7	61.3	61.8	60.5	60.8	61.5	60.9
Florida 303	58.4	60.5	61.7 60.9	61.7	60.7	62.2	60.8
Merschman Genie III United AgriSeeds 86-3104	59.8 58.9	61.8 61.0	61.1	61.7 62.0	61.0 60.5	59.8 61.2	60.8 60.8
United Agriseeds 80-3104	30.9	01.0	01.1	02.0	60.5	01.2	00.0
Nelson	59.0	61.9	61.6	60.3	60.0	61.8	60.8
Coker 916	59.7	62.7	61.4	60.2	59.0	61.6	60.8
Caldwell	58.7	61.6	61.5	60.9	60.4	61.6	60.8
Pike	59.7	61.6	61.6	62.0	58.7	60.9	60.7
Massey	58.5	61.4	61.6	61.4	59.9	61.5	60.7
Arthur 71	59.7	61.8	61.1	61.4	58.0	62.4	60.7
Agripro Twain	59.6	63.5	62.0	61.6	56.8	60.5	60.7
Keiser	58.5	61.0	61.9	61.7	59.9	60.5	60.6
Merschman Julie II	59.7	61.3	60.7	61.6	60.2	59.3	60.5
Pioneer 2555	58.6	60.9	61.7	61.0	58.6	61.0	60.3
Merschman Bintee IV	58.8	61.1	61.4	60.6	59.7	59.8	60.2
Dynasty	59.3	61.1	61.1	60.3	58.3	61.2	60.2
Agripro Magnum	58.7	61.4	61.1	60.7	59.3	60.1	60.2
Florida 301	55.4	60.4	60.1	61.2	61.1	62.8	60.1
MO 10501 (Exp)	58.1	60.7	60.8	61.2	59.5	60.5	60.1
FL 7927-G29 (Exp)	56.6	59.4	62.4	62.2	59.1	61.0	60.1
Merschman Katie III	59.0	60.9	60.3	61.1	58.3	60.8	60.0
Terra SR 87	59.3	60.3	60.5	61.3	58.1	60.7	60.0
Coker 9733 Merschman Katie IV	58.4	61.0	62.3	60.3	56.9	61.1 60.9	60.0 59.9
Merschman Katle IV	59.4	60.0	59.5	60.2	59.3	60.9	59.9
Terra SR 86	57.6	60.3	61.2	60.7	58.8	60.3	59.8
Reeds 1008	58.0	59.8	61.5	61.1	58.3	59.9	59.8
Coker 9766	58.5	59.9	60.9	60.1	58.7	59.3	59.5
Agripro Lincoln Tyler	59.3 58.2	60.4 59.9	60.0 61.1	60.3 60.1	56.1 58.9	61.1 58.8	59.5 59.5
i yier	56.2	59.9	01.1	60.1	56.9	30.0	39.3
Scotty	58.1	60.7	60.1	60.6	56.8	60.7	59.5
Florida 302	58.6	59.7	61.0	59.5	58.3	58.9	59.3
Rosen	57.9	59.6	59.7	60.3	58.2	60.3	59.3
Pioneer 2551	58.4	59.1	61.0	59.6	57.8	59.7	59.3
Coker 9323	57.9	59.5	59.9	60.3	57.6	59.4	59.1
Clark	58.0	60.0	59.3	59.4	57.5	60.1	59.1
Cardinal	57.9	60.1	60.0	59.7	58.0	58.2	59.0
Coker 9877	58.1	59.1	61.6	59.3	56.6	59.1	59.0
Auburn	58.2	60.8	60.7	59.3	57.3	55.7	58.7
Agripro Steele	57.4	58.9	58.9	59.6	58.1	58.3	58.5
Fillmore	57.7	60.7	60.4	60.2	57.4	54.1	58.4
United AgriSeeds 7101	58.3	60.7	60.2	59.0	54.2	57.2	58.3
Coker McNair 1003	56.8	59.2	59.1	58.7	56.4	58.5	58.1
Adder	55.7	59.6	60.5	57.5	57.0	58.6	58.1
United AgriSeeds 87-3106	56.9	59.0	58.5	58.9	57.1	58.1	58.1
MO 10503 (Exp)	56.8	59.3	57.8	58.1	55.8	59.9	58.0
Becker Lakeside States Hillsdale	57.2	58.8	58.4	57.5	55.7	58.4	57.7 54.6
	57.0	59.1	57.0	55.6	51.7	47.3	54.6
TAM 107 (hard)	61.3	62.8	62.8	57.8	59.0	61.9	60.9
Arkan (hard)	60.5	62.6	61.4	63.6	60.8	62.4	61.9
Average	58.8	60.8	60.8	60.5	58.5	60.1	59.9
LSD .05	1.4	0.8	0.8	2.0	2.1	1.7	0.6
C.V. %	1.6	1.0	0.9	2.4	2.6	2.0	1.8

Table 8. Two year average Test Weight (Ib/bu) of soft red winter wheat varieties at Missouri Test locations - 1987 - 1988.

		C & NE #		Mt.		Portage-	
Brand and/or Name	Spickard	Missouri	Lamar	Vernon	Bertrand	ville	Average
Reeds 1004	59.4	61.6	61.0	60.4	60.4	60.7	60.6
Saluda	58.8	61.9	59.7	59.4	60.3	60.1	60.0
Compton	59.3	61.6	59.9	59.3	59.5	60.0	59.9
Arthur 71	58.7	61.0	60.4	59.1	58.1	60.5	59.6
Nelson	58.0	61.1	60.5	57.6	59.8	60.4	59.5
Caldwell	58.3	61.3	60.7	56.6	58.0	60.2	59.2
MO 9965 (Exp)	59.0	61.0	59.7	57.6	57.6	59.7	59.1
Pike	58.7	60.4	59.7	58.3	57.6	58.9	59.0
Merschman Bintee IV	57.7	60.7	60.4	58.4	58.3	58.3	59.0
Coker 9733	58.4	61.1	61.4	58.6	53.7	60.1	58.9
Merschman Genie III	58.5	61.6	60.0	57.6	57.2	58.2	58.9
Keiser	57.0	59.6	60.6	57.8	58.0	59.3	58.7
MO 10501 (Exp)	57.6	60.2	59.9	58.3	57.2	59.1	58.7
Florida 301	55.5	60.2	59.3	57.0	59.4	60.9	58.7
Merschman Julie II	58.1	60.6	59.9	57.4	58.0	57.8	58.7
Cardinal	57.4	59.8	59.5	58.0	57.9	56.6	58.2
Rosen	56.8	59.0	59.1	58.5	56.9	58.7	58.2
Pioneer 2555	56.9	59.7	59.6	57.3	55.5	59.6	58.1
Reeds 1008	56.0	58.5	60.6	57.5	56.7	58.2	57.9
Auburn	57.9	60.7	60.6	57.4	55.8	54.5	57.8
Scotty	57.1	59.7	59.0	58.2	54.1	58.6	57.8
Fillmore	57.8	57.4	60.9	58.1	57.1	54.8	57.7
Tyler	56.1	59.5	59.8	56.3	56.0	56.9	57.4
Florida 302	56.8	56.5	60.1	56.8	56.4	57.7	57.4
Pioneer 2551	57.1	59.0	59.4	56.3	54.6	57.6	57.3
Coker McNair 1003	55.6	58.9	58.4	56.5	55.5	57.0	57.0
Adder	55.1	58.4	59.5	54.4	56.3	57.3	56.8
Becker	55.7	58.5	57.0	55.4	52.8	57.0	56.1
TAM 107 (hard)	59.2	62.1	61.6	55.3	58.3	59.9	59.4
Arkan (hard)	59.0	61.9	60.6	59.2	60.4	60.5	60.3
Average	57.6	60.4	60.0				
LSD .05	1.1	60.1	60.0	57.6	57.3	58.6	58.5
C.V. %		1.5	1.2	1.8	2.6	1.4	0.7
U.V. 70	1.8	2.4	1.8	3.0	4.3	2.3	2.7

^{# -} Average of Novelty trials in 1987 (NE) and Columbia trials in 1988 (C).

Table 9. Weight of 1000 seeds (grams) of soft red winter wheat varieties at Missouri Test Locations - 1988.

	Planted	0-1-1	0 - 1 1 -		Mt.	Dantanad	Portage-	Augraga
Brand and/or Name	Seed	Spickard	Columbia	Lamar	Vernon	Bertrand	ville	Average
Pioneer 2555	39.7	29.6	35.0	37.4	32.8	36.3	36.7	34.6
Coker McNair 1003	36.8	31.8	33.8	36.6	31.6	34.8	36.6	34.2
Florida 302	39.2	29.9	34.5	36.2	30.2	32.9	35.9	33.3
Reeds 1004	41.8	29.4	31.7	33.8	29.4	37.5	36.3	33.0
Merschman Katie IV	32.3	27.9	33.4	33.3	30.5	34.1	35.3	32.4
Florida 301	34.5	28.2	31.0	30.8	31.4	35.0	35.9	32.1
Florida 303	35.3	28.5	30.6	33.5	29.8	34.0	35.2	31.9
Agripro Traveler	33.5	29.0	31.7	32.6	29.3	34.1	33.4	31.7
Clark	35.4	28.4	32.0	32.8	31.2	32.2	33.2	31.6
FL 7927-G29 (Exp)	33.1	26.1	28.9	33.7	31.4	33.1	34.8	31.3
Coker 9227	34.0	27.6	31.9	30.9	31.8	32.4	33.1	31.3
Cardinal	31.9	27.8	29.9	32.2	30.6	34.3	32.6	31.2
Coker 916	31.5	28.6	31.5	32.7	28.9	31.2	33.7	31.1
United AgriSeeds 87-3106	36.6	28.2	30.4	31.7	30.3	32.5	33.3	31.1
Massey	38.6	26.2	31.1	32.5	28.9	32.3	33.7	30.8
Rosen	29.5	28.0	29.6	31.1	28.4	31.3	33.6	30.3
Keiser	33.1	26.3	29.5	33.4	28.6	31.5	31.5	30.1
Compton	34.2	27.6	28.5	29.5	28.5	33.1	33.7	30.1
Pike	36.7	27.1	31.0	30.7	29.3	30.7	31.7	30.1
Coker 9733	35.4	28.6	30.3	31.0	28.5	30.0	32.0	30.1
Agringo Twoin	32.7	24.9	29.7	34.4	29.8	29.1	31.0	29.8
Agripro Twain Agripro Steele	36.9	24.9	28.3	34.4	29.8	32.5	32.2	29.8
0 .	31.5	28.2	29.6	29.3	28.6	30.2	31.5	29.6
MO 9965 (Exp) Reeds 1008	32.4	26.1	29.4	31.9	27.8	30.3	32.0	29.6
Saluda	33.0	25.7	28.8	29.9	29.4	33.1	30.0	29.5
Saluda	33.0	20.7	20.0	23.3	23.4	00.1	00.0	2010
Agripro Hancock	30.8	26.1	28.8	29.9	28.5	30.5	31.9	29.3
Arthur 71	37.6	27.1	29.1	28.2	27.6	31.1	32.4	29.2
United AgriSeeds 86-3104	31.1	26.5	27.6	29.7	28.7	31.3	30.8	29.1
Becker	34.9	26.7	28.3	33.1	27.6	28.1	30.8	29.1
MO 10501 (Exp)	31.1	25.5	29.1	29.7	27.9	30.9	30.6	29.0
					00.0	20.0	20.0	28.7
Tyler	29.2	26.4	28.2	31.5	26.3	30.2 30.0	29.8 32.0	28.7
Coker 9877	30.6	25.6	27.7	31.4	24.8	29.1	30.7	28.5
Terra SR 87 Nelson	33.9 25.9	26.2 26.8	28.8 27.5	28.2 28.6	28.0 26.7	31.0	29.7	28.4
Terra SR 86	32.2	24.3	27.0	31.3	27.9	29.7	29.7	28.3
16114 511 66	02.2	24.0	27.0	01.0	27.0		2011	
Scotty	31.0	25.9	27.3	30.0	28.2	27.4	31.1	28.3
Merschman Katie III	31.7	25.5	28.3	28.2	28.1	27.3	30.4	27.9
Merschman Julie II	30.1	24.9	26.8	28.6	27.3	30.2	29.0	27.8
United AgriSeeds 7101	31.3	24.2	27.1	30.6	26.2	26.5	31.5	27.7
Coker 9766	29.7	25.1	26.5	32.7	25.2	28.3	28.1	27.7
D					04.0	20.0	28.9	27.5
Pioneer 2551	28.6	26.2	26.3	30.5	24.3 26.4	29.0 29.5	29.4	27.5
Agripro Magnum	31.6	23.9	26.7	29.2	24.3	25.6	30.5	27.4
Lakeside States Hillsdale Merschman Genie III	39.6	25.4 23.5	26.4 25.7	32.4 27.4	26.6	30.8	30.4	27.4
Dynasty	30.1 30.6	25.4	27.1	28.8	24.7	28.3	29.0	27.2
Dynasty	30.0	23.4	27.1	20.0	24.7	20.0	20.0	
Agripro Lincoln	32.6	23.7	26.2	31.3	25.6	25.7	29.6	27.0
MO 10503 (Exp)	27.2	23.7	25.7	29.6	24.0	27.5	29.7	26.7
Merschman Bintee IV	30.8	22.7	26.5	27.8	25.7	27.9	28.5	26.5
Fillmore	31.9	21.8	24.7	28.8	25.0	26.6	31.1	26.3
Coker 9323	27.0	23.1	25.6	27.4	24.6	27.6	28.6	26.2
Oaldwall		64.6	0.5.0	00.7	04.0	20.4	27.0	25.7
Caldwell	31.2	21.9	25.8	26.7	24.9 23.2	28.1 27.3	27.0 27.3	25.7 25.7
Adder Auburn	33.1 36.0	22.9 23.0	24.1 25.1	29.5 27.5	23.2	26.7	26.3	25.7
Aubuiii	30.0	23.0	23.1	21.3	24.4	20.1	20.5	23.3
TAM 107 (hard)	33.8	30.2	31.5	35.1	31.5	31.5	32.8	32.1
Arkan (hard)	23.8	25.6	28.4	26.5	27.0	29.6	29.0	27.7
Average		26.2	28.8	30.9	27.9	30.5	31.5	29.3
LSD .05		3.4	1.5	1.7	2.5	2.5	1.6	0.8
C.V. %		5.3	3.8	3.9	6.3	5.8	3.6	4.8

Table 10. Two year average weight of 1,000 seeds (grams) of soft red winter wheat varieties at Missouri Test Locations - 1987-1988.

		C & NE #		Mt.		Portage-	
Brand and/or Name	Spickard	Missouri	Lamar	Vernon	Bertrand	ville	Average
Coker McNair 1003	32.8	34.3	37.3	31.1	33.1	34.9	33.9
Pioneer 2555	31.0	35.1	37.0	31.0	32.3	35.0	33.6
Reeds 1004	30.6	33.1	35.1	28.8	35.2	34.9	32.9
Florida 302	30.7	33.9	36.9	29.2	30.8	34.7	32.7
Cardinal	29.6	31.8	33.3	29.7	31.6	31.5	31.2
Cardillai	20.0	01.0	00.0	23.1	31.0	31.3	31.2
Florida 301	29.9	31.8	31.9	28.7	32.7	33.1	31.2
Compton	28.7	30.3	32.5	27.5	30.5	31.8	30.2
Rosen	29.1	31.4	33.1	27.2	28.8	31.7	30.2
Keiser	27.8	29.8	34.2	27.6	30.2	30.9	30.1
Coker 9733	30.0	30.5	31.7	28.1	28.4	30.7	29.8
Pike	28.6	31.5	31.8	27.5	28.9	29.5	29.6
MO 10501 (Exp)	28.0	30.6	30.7	27.0	29.8	28.9	29.1
MO 9965 (Exp)	28.8	30.5	30.0	26.9	28.0	30.0	29.0
Becker	27.5	29.7	33.2	26.5	26.7	29.8	28.9
Arthur 71	28.6	29.9	30.0	25.9	30.1	28.9	28.7
Reeds 1008	25.8	30.1	31.5	27.1	27.4	30.2	28.7
Saluda	26.5	28.9	31.3	27.4	29.0	27.9	28.5
Scotty	27.7	28.5	30.3	26.7	27.2	29.1	28.2
Nelson	27.6	28.8	29.3	25.5	29.6	28.2	28.2
Tyler	25.9	29.4	31.6	25.8	27.5	27.7	28.0
Tyler	20.5	23.4	31.0	25.0	27.5	21.1	20.0
Pioneer 2551	27.4	27.9	30.8	24.0	28.0	27.1	27.5
Merschman Bintee IV	25.0	28.3	29.7	24.2	26.5	27.2	26.8
Merschman Julie II	26.0	27.5	28.8	24.9	27.0	26.3	26.7
Merschman Genie III	25.1	27.3	27.6	24.4	28.0	27.8	26.6
Fillmore	24.5	25.9	29.8	24.7	24.9	28.5	26.4
Adder	25.2	25.5	30.4	21.9	26.0	25.9	25.9
Caldwell	23.2	27.1	27.6	23.5	25.1	25.9	25.4
Auburn	24.2	26.6	27.0	22.8	24.4	24.9	25.0
Aubum	24.2	20.0	27.1	22.0	24.4	24.9	23.0
TAM 107 (hard)	30.9	32.7	34.4	28.4	29.7	30.7	31.1
Arkan (hard)	27.1	29.6	27.5	24.4	27.6	27.1	27.2
			THE PERSON NAMED IN COLUMN		The state of the s		
Average	27.8	30.0	31.5	26.6	28.8	29.7	29.1
LSD .05	2.2	1.2	1.6	1.8	2.0	2.2	0.7
C.V. %	7.4	3.9	4.7	6.3	6.4	7.1	6.0

^{# -} Average of Novelty trials in 1987 (NE) and Columbia trials in 1988 (C).

Table 11. Survival (%) of soft red winter wheat varieties at Missouri Test Locations - 1988.

					Mt.	Burtuand	Portage-	Average
Brand and/or Name	Spickard	Novelty	Columbia	Lamar	Vernon	Bertrand	ville	Average
Pioneer 2555	9 1	6 6	9 4	8 9	100	9 9	100	95
Becker	9 2	80	8 9	9 4	9 9	99	99 100	9 5 9 5
Clark	91	76	90	9 1 9 3	98 98	99 95	100	94
Compton	9 1 9 4	6 4 5 1	90 91	86	98	98	100	9 4
Agripro Steele	94	51	9 1	80	30	30	100	5 4
Dynasty	93	79	9 1	9 1	9 5	96	99	9 4
Pioneer 2551	9 1	6 9	93	90	96	9 4	100	9 4
Merschman Katie IV	9 5	70	8 9	8 9	9 5	9 8	98	9 4
Pike	9 5	78	8.5	89	9 9	9 4	99	93 93
United AgriSeeds 87-3106	9 0	58	9 1	86	9 5	96	100	93
Scotty	9 4	76	86	89	9 5	9 4	100	93
Agripro Twain	9 1	7 4	86	9 1	9 4	9 4	99	93
United AgriSeeds 7101	93	76	9 1	8 4	9 3	9 5	100	93
Coker 916	80	3 3	88	9 5	100	9 5	96	9 2
Lakeside States Hillsdale	8 4	5 4	80	9 5	100	9 5	100	9 2
Australia di Innanta	0.2		0.6	86	9 3	96	100	9 2
Agripro Lincoln	93 88	63 38	8 6 8 5	88	100	93	100	92
Reeds 1004 Fillmore	87	80	89	88	100	89	98	9 2
Adder	88	5 4	94	78	9 4	98	100	9 2
Arthur 71	89	6 5	88	88	9 6	9 1	99	9 2
	2						400	0.0
MO 10501 (Exp)	89	5 4	88	88	93 94	9 4 9 1	100 98	9 2 9 1
Caldwell	93	79	89	85	93	96	99	91
Agripro Hancock	9 1 8 8	75 66	8 8 8 5	83 88	96	93	99	9 1
Merschman Katie III United AgriSeeds 86-3104	89	46	88	85	96	93	98	9 1
Olited Agriseeds 00-3104	0.5	7.0	00		• •			
Massey	76	28	80	93	100	100	99	9 1
Auburn	89	4 4	89	8 4	9 4	93	9 9	9 1
Rosen	88	2 1	80	86	98	9 5	100	9 1
Terra SR 86	9 1	8 0	8 4	8 9	9 5	9 1	9 5	91
Merschman Genie III	89	2 5	86	8 1	9 6	9 1	100	9 1
Merschman Julie II	90	6 3	88	83	9 4	9 0	99	9 0
MO 10503 (Exp)	85	58	88	85	9 4	9 1	99	9 0
Reeds 1008	93	66	76	90	9 4	9 1	98	9 0
Merschman Bintee IV	86	5 4	89	79	9 4	93	99	9 0
MO 9965 (Exp)	88	3 4	8 5	81	93	9 1	99	8 9
					0.4	0.4	96	89
Tyler	89	74	78	83 85	9 4 9 6	9 4 9 1	100	89
Terra SR 87	8 8 7 8	6 8 1 6	7 2 8 1	85	96	93	99	89
Coker 9766 Nelson	86	3 4	79	79	93	9 4	9 9	88
Keiser	70	2 4	78	90	9 1	9 6	9 9	8 7
Keisei								
Saluda	86	3 3	83	78	8 9	88	98	8 7
Cardinal	8 9	48	79	83	8 9	86	90	86
Coker McNair 1003	6 5	23	75	74	9 5	88	98 95	8 2 8 2
Coker 9733	75	25	54	89	9 0 8 8	8 8 8 6	93	8 2
Coker 9323	70	28	70	74	0 0	0.0	3 3	0.0
Coker 9877	56	8	56	9 5	8 4	8 1	9 1	77
Coker 9227	55	8	6 5	80	90	8 1	90	77
Agripro Magnum	79	58	6 6	58	6 9	6 5	9 5	7 2
Florida 302	3 4	10	5 0	71	8 9	8 5	9 1	70
Agripro Traveler	43	9	5 0	5 9	79	6 3	8 5	6 3
Florido 201	7	5	9	6 1	83	6 1	79	5 0
Florida 301	7 6	5	10	45	71	56	59	41
FL 7927-G29 (Exp) Florida 303	7	5	11	45	76	49	53	4 0
10.100 000	•	_						540.40
TAM 107 (hard)	93	5 1	9 4	83	90	9 1	98	91
Arkan (hard)	8 6	71	83	83	9 4	9 0	100	89
A	00.0	40 E	78.3	82.7	92.7	89.5	95.8	86.5
Average	80.0 8.6	49.5 22.1	78.3 7.9	82.7	4.6	4.8	4.3	2.7
LSD .05 C.V. %	7.7	31.9	7.3	7.4	3.5	3.8	3.2	5.6
U.V. 70	7.1	91.9						

Table 12. Two year average survival ratings of soft red winter wheat varieties at Missouri test locations - 1987-1988.

		C & NE #		Mt.		Portage-	
Brand and/or Name	Spickard	Missouri	Lamar	Vernon	Bertrand	ville	Average
Becker	9 3	9 1	9 1	9 7	9 7	96	9 3
Pioneer 2555	9 3	9 1	8 9	9 9	9 6	9 9	9 2
Pioneer 2551	9 3	9 3	9 1	9 7	9 1	96	9 1
Scotty	9 5	8 4	9 1	96	9 3	97	9 1
Pike	9 4	8 6	8 6	9 9	9 2	96	9 1
Compton	9 2	8 9	8 9	9 4	9 2	96	9 0
MO 10501 (Exp)	9 1	8 8	8 9	9 5	9 3	96	8 9
Caldwell	9 4	8 7	8 6	91	8 7	9 1	8 8
Arthur 71	9 1	8 9	8 6	9 5	8 8	9 5	8 8
Reeds 1008	9 3	8 4	8 7	9 2	8 9	97	8 8
Tyler	9 1	8 4	8 4	9 2	9 1	9 5	8 8
Merschman Julie II	9 2	8 9	86	93	8 8	9 5	8 8
Adder	9 0	9 2	8 2	9 4	9 5	9 4	8 8
Reeds 1004	9 1	8 6	8 9	97	9 3	97	8 7
Fillmore	8 8	8 6	8 3	9 1	8 6	9 1	8 7
Merschman Bintee IV	8 9	9 1	8 3	9 2	8 9	9 4	8 7
Saluda	90	88	8 2	93	89	97	86
Auburn	9 1	86	8 4	9 4	91	90	8 6
Cardinal	9 1	8 4	8 4	8 9	8 9	9 2	8 5
Nelson	8 9	8 4	83	9 4	93	9 4	8 5
MO 9965 (Exp)	9 0	8 9	8 4	9 4	8 9	9 1	8 5
Merschman Genie III	91	87	83	95	8 9	94	8 4
Rosen	90	74	88	93	92	95	83
Keiser	79	77	90	94	94	96	83
Coker 9733	8 4	69	90	87	89	94	80
Coker McNair 1003	77	8 2	76	9 2	0.0	0.6	8 0
Florida 302	5 9	66		92	8 9	96	
Florida 302 Florida 301	43	36	8 0 6 9	9 2 8 4	8 6 7 4	95	7 4 6 0
Florida 301	4 3	3 0	6.9	8 4	7 4	8 6	60
TAM 107 (hard)	9 3	9 2	8 6	8 9	9 1	9 2	8 9
Arkan (hard)	8 9	8 7	8 4	9 3	8 9	9 4	8 6
Average	8 8	8 4	8 5	9 3	9 0	9 4	8 6
LSD .05	5.1	6.5	5.4	3.8	3.6	3.7	2.6
C.V. %	5.5	7.3	6.0	3.9	3.8	3.7	7.4

^{# -} Average of Novelty trials in 1987 (NE) and Columbia trials in 1988 (C).

Table 13. Harvest Moisture (%) of soft red winter wheat varieties at Missouri Test Locations - 1988.

Brand and/or Name	Spiekard	Columbia	Lames	Mt.		Portage-	
	Spickard	Columbia	Lamar	Vernon	Bertrand	ville	Average
United AgriSeeds 87-3106	10.4	9.0	9.6	9.7	9.3	10.3	9.7
Adder Becker	9.7 10.4	9.0 9.3	9.9	9.4	9.6	11.6	9.9
Rosen	10.3	9.3	9.8 9.6	9.7 9.9	9.7 9.7	10.8	9.9 10.0
Agripro Steele	10.2	9.2	9.7	10.1	9.7	11.1 10.8	10.0
			0.17		3.0	10.0	10.0
Scotty	10.2	9.1	9.6	10.0	9.7	11.4	10.0
Agripro Traveler	10.0	9.6	10.1	9.9	10.0	10.7	10.0
Clark Coker McNair 1003	10.6	9.2	9.7	9.8	10.1	11.0	10.0
Coker 916	10.1	9.4 9.4	10.0	10.3	10.0	10.8	10.1
OOKET 310	10.4	3.4	10.0	10.0	9.8	11.0	10.1
Arthur 71	10.4	9.4	9.8	9.9	9.9	11.3	10.1
Compton	10.7	9.1	9.8	10.1	9.7	11.3	10.1
Pioneer 2551	10.3	9.0	9.9	9.7	10.1	12.0	10.2
Nelson	10.5	9.5	10.2	10.0	9.9	11.2	10.2
Coker 9323	10.6	9.4	10.0	9.8	10.2	11.3	10.2
United AgriSeeds 86-3104	10.5	9.5	9.9	10.3	9.6	11.5	10.2
Agripro Magnum	10.4	9.6	10.1	10.2	10.2	10.9	10.2
FL 7927-G29 (Exp)	10.0	9.8	10.4	10.4	9.8	11.0	10.2
Coker 9766	10.4	9.6	9.9	10.3	10.0	11.3	10.2
Massey	10.2	9.5	10.2	10.2	10.0	11.3	10.3
MO 996E (Exp)	10.0						
MO 9965 (Exp) MO 10503 (Exp)	10.9 10.5	9.5 9.0	9.9 9.6	10.1 9.7	10.2	11.2	10.3
Caldwell	10.8	9.6	10.1	10.1	9.9 10.1	13.2 11.3	10.3
Reeds 1004	10.8	9.7	10.1	10.1	10.1	11.3	10.3
Agripro Hancock	10.9	9.6	10.1	10.0	10.0	11.7	10.4
Pioneer 2555	10.7	9.7	10.5	10.2	10.1	11.2	10.4
Merschman Katie III Reeds 1008	10.8	9.8	10.3	10.4	9.8	11.4	10.4
Agripro Lincoln	10.6 10.9	9.4 9.5	10.1	10.4	10.4	11.6	10.4
Keiser	10.7	9.5	9.9 10.1	10.7 10.5	9.7 10.2	12.0 11.7	10.4
	10.7	3.3	10.1	10.5	10.2	11.7	10.4
Coker 9227	10.6	9.7	10.4	10.7	10.2	11.2	10.4
Dynasty	10.6	9.5	9.9	10.1	9.8	12.9	10.4
Florida 301	11.8	9.5	10.2	10.1	10.2	11.2	10.5
Terra SR 86 Florida 303	11.0	9.5	10.2	10.5	10.2	11.6	10.5
Florida 303	10.6	9.8	10.5	10.3	10.5	11.6	10.5
Florida 302	10.6	9.8	10.3	10.4	10.1	12.2	10.5
Merschman Katie IV	11.1	9.5	10.4	10.3	10.1	12.0	10.6
Coker 9733	11.0	9.9	10.5	10.5	10.1	11.4	10.6
Tyler	10.9	9.6	10.3	10.5	10.0	12.1	10.6
Saluda	10.7	9.9	10.2	10.6	10.5	11.7	10.6
MO 10501 (Exp)	10.9	9.7	10.3	10.0	40.0	44.0	
Terra SR 87	11.1	9.7	10.3	10.8 10.5	10.0 10.4	11.8 11.4	10.6 10.6
Agripro Twain	11.2	10.0	10.3	10.5	10.5	11.4	10.6
Pike	10.8	9.8	10.5	10.9	10.4	11.8	10.7
Merschman Julie II	10.7	9.5	9.9	10.3	10.2	14.8	10.9
Manager British and				7.52			
Merschman Bintee IV Merschman Genie III	10.8	9.5	10.3	10.2	10.2	15.0	11.0
Coker 9877	10.4 10.6	9.5 10.0	9.9	10.6	9.7	16.1	11.0
Cardinal	11.0	9.5	10.4 10.3	11.3 10.9	10.9 10.7	14.5 16.9	11.3 11.5
United AgriSeeds 7101	10.6	9.1	9.6	9.7	11.1	19.0	11.5
-				•		13.0	11.5
Auburn	10.2	9.2	9.8	10.1	10.0	20.9	11.7
Fillmore	10.7	9.4	9.8	10.6	11.0	25.6	12.9
Lakeside States Hillsdale	10.3	9.1	9.2	10.1	12.7	35.3	14.4
TAM 107 (hard)	11.0	9.2	10.3	9.8	10.3	10.7	10.0
Arkan (hard)	10.7	9.5	10.3	9.8	9.9	10.7 11.1	10.2 10.1
				711	0.0		10.1
Average	10.6	9.5	10.0	10.2	10.1	12.8	10.5
LSD .05	0.5	0.3	0.3	0.3	0.8	1.8	0.3
C.V. %	3.2	2.0	2.0	2.4	5.7	9.9	5.7

Table 14. Two year average Harvest Moisture (%) of soft red winter wheat varieties at Missouri Test Locations - 1987-1988.

		C & NE #		Mt.		Portage-	
Brand and/or Name	Spickard	Missouri	Lamar	Vernon	Bertrand	ville	Average
Becker	12.5	11.3	10.1	10.4	11.4	12.5	11.4
Pioneer 2551	12.2	11.2	10.5	10.3	11.3	13.3	11.5
Coker McNair 1003	12.3	11.2	10.8	10.8	11.5	13.0	11.6
Scotty	12.5	11.4	10.6	10.6	11.3	13.4	11.6
Rosen	12.6	11.3	10.5	10.7	11.7	12.9	11.6
Arthur 71	12.5	11.3	10.7	10.8	11.5	12.9	11.6
Adder	12.2	12.2	10.6	10.0	11.6	13.3	11.7
MO 9965 (Exp)	12.7	11.4	10.6	10.6	11.8	12.7	11.7
Nelson	12.5	11.4	11.1	10.6	11.8	12.8	11.7
Compton	13.0	11.4	10.5	10.6	11.9	13.1	11.8
Caldwell	12.8	11.7	10.9	10.7	11.9	13.0	11.8
Keiser	12.6	11.8	10.8	10.8	11.8	13.3	11.9
Saluda	12.8	11.7	10.7	10.9	12.3	13.1	11.9
Florida 301	13.2	11.6	10.9	10.7	12.2	12.8	11.9
Pioneer 2555	12.8	12.3	11.1	10.4	11.7	13.2	11.9
Reeds 1004	12.9	11.7	11.1	10.9	12.0	13.5	12.0
Reeds 1008	12.8	11.6	11.0	10.9	12.3	13.5	12.0
Tyler	12.9	12.2	11.1	11.0	11.7	13.8	12.1
MO 10501 (Exp)	13.1	11.8	11.3	11.1	11.9	13.6	12.1
Coker 9733	13.2	12.2	11.4	11.0	11.7	13.5	12.2
Merschman Julie II	12.8	11.6	10.7	10.9	11.9	15.2	12.2
Florida 302	12.9	13.7	11.1	10.5	11.8	13.9	12.3
Pike	13.1	12.5	11.2	11.3	12.2	13.7	12.3
Merschman Bintee IV	12.9	11.9	10.8	10.4	12.3	15.9	12.3
Merschman Genie III	12.9	11.8	10.8	10.9	11.5	16.5	12.4
Cardinal	13.3	11.9	11.1	11.4	12.2	17.6	12.9
Auburn	12.7	11.8	10.8	10.7	12.0	22.0	13.3
Fillmore	13.0	14.2	11.0	11.1	13.0	25.1	14.6
TAM 107 (hard)	12.9	11.4	10.9	10.3	12.0	12.5	11.7
Arkan (hard)	12.6	11.4	10.8	10.3	12.0	12.6	11.6
Average	12.8	11.8	10.9	10.7	11.9	14.3	12.1
LSD .05	0.4	0.9	0.3	0.3	0.6	1.0	0.3
C.V. %	2.7	7.3	2.5	2.4	4.6	6.7	5.0

^{# -} Average of Novelty trials in 1987 (NE) and Columbia Trials in 1988 (C).

Table 15. Lodging ratings and Heading dates (days after January 1) of soft red winter wheat varieties at Missouri Test Locations - 1988.

Heading Dates

	Lodging #					
Brand and/or Name	Bertrand	Spickard	Columbia	Mt. Vernon	Portage- ville	Average
Agripro Traveler	0.2	133	129	127	114	126
Coker 9227	3.3	135	129	127	114	126
Coker 916	0.6	134	129	128	114	126
Florida 301	3.0	137	129	127	112	126
Florida 303	0.2	137	131	128	112	127
FL 7927-G29 (Exp)	0.9	137	131	128	113	127
United AgriSeeds 87-3106	1.8	134	130	129	116	127
Clark	1.6	134	129	130	118	128
Nelson	2.5	134	129	130	119	128
MO 9965 (Exp)	0.2	134	130	129	119	128
Merschman Katie IV	0.6	135	131	130	118	128
Coker 9323	0.8	136	130	129	118	128
Agripro Magnum	1.9	135	131	130	118	128
Coker 9733	2.3	136	129	130	119	129
Merschman Katie III	2.5	135	131	130	120	129
Terra SR 87	2.2	136	131	130	119	129
Agripro Twain	1.4	136	130	130	120	129
Rosen	0.7	136	131	130	120	129
Pike	3.6	135	131	130	121	129
Reeds 1004	3.4	135	131	130	121	129
MO 10501 (Exp)	1.0	135	132	130	121	129
Arthur 71	5.1	135	131	131	120	129
Agripro Steele	0.2	136	132	130	120	129
Pioneer 2555	0.2	136	132	130	120	129
Massey	1.8	137	131	131	119	129
Caldwell	0.2	135	131	130	122	129
Saluda	1.6	135	132	160	121	130
United AgriSeeds 86-3104	0.6	136	132	130	121	130
Keiser	4.0 0.9	137 136	131 132	130 160	121 121	130 130
Scotty	0.9	130	132	160	121	130
Merschman Bintee IV	0.2	136	131	130	122	130
Coker McNair 1003 Agripro Lincoln	1.8	137 136	131 132	130 130	121 121	130 130
Terra SR 86	1.2	135	132	130	123	130
Merschman Julie II	0.2	135	132	130	123	130
Florida 302	0.2	137	131	121	121	130
Compton	1.4	137	133	131 130	121	130
Agripro Hancock	2.5	134	133	131	122	130
Merschman Genie III	0.2	136	132	131	123	130
Coker 9766	2.2	138	132	131	121	130
Adder	1.3	136	133	131	122	130
Pioneer 2551	0.2	136	133	131	123	131
Dynasty	0.2	135	133	132	123	131
Reeds 1008	3.1	136	133	132	123	131
Tyler	2.1	137	133	133	123	131
Becker	0.7	137	134	132	123	131
Cardinal	0.6	136	134	131	125	131
Coker 9877	2.1	138	133	133	123	132
MO 10503 (Exp)	1.7	138	133	133	124	132
United AgriSeeds 7101	1.0	137	133	132	126	132
Auburn	0.2	136	133	133	128	132
Fillmore	2.1	137	136	136	128	134
Lakeside States Hillsdale	2.8	137	137	137	129	135
TAM 107 (hard)	0.6	134	129	127	115	126
Arkan (hard)	4.1	135	130	130	116	128
Average	1.5	135.5	131.4	130.3	120.3	129.4
LSD .05	1.7	2.0	0.8	0.9	1.2	0.6
C.V. %	82.3	1.0	0.5	0.5	0.7	0.7

^{# -} Belgian Lodging scale: 0.2 = whole plot erect; 9.0 = whole plot completely flat.

Table 16. Two year average heading date (Julian - days after January 1) for soft red winter wheat varieties at Missouri Test Locations - 1987-1988.

Brand and/or Name	Spickard	Mt. Vernon	Portage- ville	Average
	400	400	440	105
Florida 301	136	126	112 118	125 126
Nelson	134 134	127 126	119	126
MO 9965 (Exp) MO 10501 (Exp)	134	128	120	127
Arthur 71	135	128	120	127
Artiful 71	133	120	120	127
Coker 9733	137	128	119	127
Reeds 1004	135	128	120	127
Caldwell	135	127	121	128
Rosen	136	128	119	128
Pioneer 2555	136	128	120	128
Scotty	136	128	120	128
Pike	136	128	120	128
Merschman Bintee IV	135	127	121	128
Merschman Julie II	135	128	122	128
Coker McNair 1003	137	128	120	128
Saluda	135	128	122	128
Compton	136	128	120	128
Keiser	137	128	121	128
Florida 302	138	129	120	129
Pioneer 2551	136	129	122	129
Fiolieei 2551	130	123	122	123
Adder	137	128	121	129
Merschman Genie III	136	128	122	129
Reeds 1008	136	130	122	129
Cardinal	136	129	123	129
Tyler	137	130	122	130
Becker	137	130	122	130
Auburn	137	131	126	131
Fillmore	138	132	127	133
TABLE 107 (bond)	100	106	445	105
TAM 107 (hard)	133	126	115	125
Arkan (hard)	134	128	116	126
Average	136	128	120	128
LSD .05	1.3	0.7	1.2	0.5
C.V. %	0.9	0.5	0.9	0.8

Table 17. Height (Inches) Of soft red winter wheat varieties at Missouri Test Locations -1988

Brand and/or Name	Spickard	Columbia	Lamar	Mt.	Partrand	Portage-	Average
Brand and/or Name	Spickaru	Columbia	Lamar	Vernon	Bertrand	ville	Average
Adder	2 4	3 1	38	3 3	38	3 4	3 3
United AgriSeeds 7101	26	3 4	36	3 0	3 9	3 4	3 3
Becker	26	3 1	36	3 3	38	3 4	3 3
Fiorida 303 Saluda	2 2 2 7	30	38	36	38	35	3 3
Saluda	21	3 2	3 7	3 4	38	3 4	3 4
FL 7927-G29 (Exp)	22	3 0	4 0	38	3 9	36	3 4
Coker 9323	2 4	3 3	37	37	4 0	36	3 4
Merschman Genie III	27	3 6	3 6	3 4	38	36	3 4
Agripro Magnum	2 6	3 3	38	3 5	4 0	36	3 5
Agripro Hancock	27	3 4	38	3 5	4 0	3 5	3 5
Auburn	28	3 5	38	3 2	3 9	37	3 5
Rosen	28	3 3	3 9	34	40	35	35
Agripro Traveler	2 5	3 3	38	37	3 9	37	35
Compton	27	3 3	39	3 4	4 1	36	3 5
Pioneer 2551	2 9	3 4	38	3 4	3 9	36	3 5
MO 10503 (Exp)	25	3 4	4 0	3 4	41	37	3 5
Pioneer 2555	27	33	40	3 4	41	36	35
United AgriSeeds 87-3106 Scotty	28 28	3 5 3 5	39 39	3 6 3 4	3 9 4 1	35 37	3 5 3 5
Coker 9766	25	35	41	3 5	41	37	36
00.01			7.	0.0	7.	57	3.0
Coker 916	27	3 5	40	36	4 1	36	3 6
Agripro Steele	28	3 4	39	37	4 0	36	3 6
United AgriSeeds 86-3104	27	3 6	39	36	4 1	36	3 6
Merschman Bintee IV	29	3 5	38	36	4 0	36	3 6
MO 9965 (Exp)	3 0	3 5	3 9	3 5	4 0	3 6	3 6
Coker 9877	23	3 4	42	36	4 2	39	36
Agripro Lincoln	28	35	38	35	4 2	39	36
Merschman Julie II	27	36	41	36	41	37	36
Coker 9227	27	3 4	41	37	4 2	37	3 6
Florida 302	25	3 7	41	38	4 1	37	3 6
Dynasty	29	3 5	40	3 6	4 2	38	3 7
Caldwell Clark	3 1	36	3 9	37	4 1	37	37
Coker McNair 1003	29 25	3 5 3 7	4 0 4 1	37 37	4 2 4 4	37 38	37 37
Lakeside States Hillsdale	25	37	44	35	43	39	37
							•
Fillmore	2 9	38	4 0	37	4 2	39	37
Arthur 71	3 0	3 4	4 0	38	4 4	39	3 7
Merschman Katie IV	2 9	3 6	42	38	4 2	37	3 7
Massey	27	38	43	37	4 4	39	38
Cardinal	28	38	4 3	3 7	4 6	3 9	38
Tyler	28	38	4 3	3 9	4 3	4 1	3 9
Agripro Twain	29	37	4 4	40	4 4	38	39
Pike	3 2	38	40	38	4 5	4 1	3 9
Merschman Katie III	30	38	41	39	4 5	40	3 9
Florida 301	2 4	3 4	4 4	4 5	4 5	42	3 9
T CD 00						4.0	
Terra SR 86	29	3 8 4 0	45 43	39 37	4 4 4 6	4 0 4 2	39 39
Reeds 1008 Terra SR 87	29 32	38	39	37	4 6	42	39
MO 10501 (Exp)	29	38	44	38	46	41	39
Reeds 1004	29	38	45	40	46	40	40
			0.07		200	10/5	
Nelson	3 1	3 9	4 4	40	4 5	4 0	4 0
Coker 9733	30	3 9	4 6	40	47	4 2	4 0
Keiser	26	4 2	48	4 1	4 9	4 4	4 2
TAM 107 (hard)	28	36	38	3 3	4 0	3 5	3 5
Arkan (hard)	28	38	41	37	43	37	37
Average	27.5	35.4	40.3	36.4	41.7	37.5	36.4
LSD .05	3.1	2.3	2.1	2.0	1.7	1.5	0.9
C.V. %	7.9	4.6	3.7	3.9	3.0	2.9	4.2

Table 18. Two year average height (inches) of soft red winter wheat varieties at Missouri Test Locations - 1987-1988.

		C & NE #		Mt.		Portage-	
Brand and/or Name	Spickard	Missouri	Lamar	Vernon	Bertrand	ville	Average
Becker	28	3 0	3 2	3 1	0.7	0.5	
Adder	27	30	3 4	31	3 7 3 7	3 5	3 2
Saluda	28	31	3 3	3 2	38	3 5	3 2
Pioneer 2551	30	33	33	30	37	3 5 3 6	3 3
Rosen	29	3 2	3 4	3 2	38	35	3 3
nosen	23	3 2	3 4	3 2	3 8	3 5	3 3
Merschman Genie III	29	3 4	3 4	3 2	37	37	3 4
Compton	3 0	3 2	3 4	3 1	3 9	37	3 4
Pioneer 2555	3 0	3 2	3 6	3 2	3 9	3 6	3 4
MO 9965 (Exp)	3 0	3 4	3 5	3 2	3 8	3 6	3 4
Auburn	3 1	3 4	3 5	3 1	38	37	3 4
Scotty	3 0	3 3	3 6	3 2	3 9	37	3 5
Merschman Bintee IV	3 1	3 4	3 4	3 3	38	38	3 5
Merschman Julie II	3 0	3 5	3 7	3 3	3 9	3 7	3 5
Florida 302	2 9	3 5	3 7	3 5	3 9	38	3 6
Caldwell	3 3	3 4	3 5	3 5	3 9	3 7	3 6
Coker McNair 1003	2 9	3 5	37	3 3	4 1	3 8	3 6
Arthur 71	33	3 4	36	36	41	39	36
Fillmore	3 2	36	37	36	41	39	37
Pike	33	37	36	3 4	43	41	37
Cardinal	3 2	37	38	3 4	4 4	39	37
		٠,	00	3.4	44	3 9	37
Nelson	3 4	3 7	38	3 6	4 2	3 9	3 8
Tyler	3 2	3 7	3 9	3 5	4 2	4 2	3 8
Reeds 1008	3 3	3 8	38	3 5	4 3	4 1	3 8
MO 10501 (Exp)	3 2	3 7	3 9	3 5	4 4	4 1	3 8
Reeds 1004	3 2	3 6	3 9	3 7	4 4	4 1	3 8
Florida 301	3 0	3 5	4 0	4 1	4.4	4 2	3 8
Coker 9733	3 3	3 9	41	37	45	4 2	39
Keiser	3 1	4 1	43	38	46	43	40
					7.0	40	40
TAM 107 (hard)	3 0	3 3	3 4	3 0	38	3 5	3 3
Arkan (hard)	3 1	3 5	3 6	3 3	4 0	3 7	3 6
A							- Control Cont
Average	30.8	34.7	36.3	33.8	40.3	38.2	35.7
LSD .05	1.9	1.6	1.7	1.8	1.7	1.9	0.7
C.V. %	5.9	4.3	4.5	5.0	4.1	4.6	4.7

^{# -} Average of Novelty trials in 1987 (NE) and Columbia trials in 1988 (C).

Table 19. Disease ratings for soft red winter wheat varieties at Missouri Test Locations - 1988.

	Barley	Yellow Dwa Rating #	rf Virus	Dryland Footrot	Powdery Mildew	Leaf Rust	
Brand and/or Name	Columbia	Lamar	Portage- ville	Average	Mt. Vernon	Bertrand	Bertrand
	Dwarf Reaction	Color Reaction	Color Reaction	BYDV Rating	%	%	%
Keiser	3.0	3.0	2.0	2.7	2	9	0.0
Coker 9877	3.8	2.5	1.8	2.7	1	26	0.0
Florida 302	4.0	3.0	1.3	2.8	0	0	0.3
MO 10503 (Exp) Merschman Katie IV	4.3 3.3	2.5	1.5	2.8	1 3	43 33	0.0
Moraelinan Ratio IV	0.0	2.0	2.3	2.0	3	33	0.0
Pioneer 2551	2.3	2.8	3.5	2.8	1	6	0.0
Caldwell Agripro Steele	3.3 3.5	3.5 2.8	2.3 3.0	3.0 3.1	1	2 5 5	0.8
Massey	2.5	4.3	2.5	3.1	3	1	5.8
Dynasty	3.5	3.5	2.3	3.1	1	4	2.3
Reeds 1008	2.8	3.8	3.0	3.2	1	0	2.0
Coker 9227	2.3	3.8	3.5	3.2	ò	3	0.0
Terra SR 86	3.5	3.8	2.3	3.2	1	2 5	2.0
Coker 9323	4.3	3.5	2.0	3.3	0	0	0.0
Florida 303	3.5	3.5	3.0	3.3	1	0	0.0
MO 10501 (Exp)	3.3	4.5	2.3	3.3	2	18	0.0
United AgriSeeds 7101	4.3	3.5	2.3	3.3	8	13	0.0
Cardinal Tyler	4.8 3.3	3.8	1.8	3.4	0	2 4 4	0.0 3.3
Nelson	3.5	4.0	2.8	3.4	1 2	18	0.0
Pike	2.8	4.5	3.0	3.4	2	35	0.0
Merschman Bintee IV	3.5	4.3	2.8	3.5	3	15	0.3
Agripro Traveler	4.3	3.8	2.5	3.5	0	0	0.0
Merschman Katie III	3.0	4.0	3.8	3.6	1	9	0.0
FL 7927-G29 (Exp)	6.0	3.3	3.5	3.7	0	0	0.0
Fillmore	4.5	5.0	1.5	3.7	0	10	0.0
Coker 9733 Clark	3.3 4.5	4.5 3.3	3.3 3.3	3.7 3.7	0 1	0 4.5	0.0 1.5
Saluda	6.0	3.5	1.8	3.8	ò	0	0.3
Agripro Lincoln	4.8	4.0	2.5	3.8	1	9	0.0
MO 9965 (Exp)	3.8	3.8	4.0	3.8	1	4 9	0.8
Coker 916	3.8	4.8	3.0	3.8	1	1	0.0
Lakeside States Hillsdale	4.0	5.0	2.5	3.8	0	1 9	0.0
Compton Merschman Genie III	4.8 5.0	4.5 5.3	2.8	4.0 4.1	3 0	3	0.0 0.0
Scotty	3.8	4.8	4.0	4.2	10	1	0.0
United AgriSeeds 86-3104	4.8	4.8	3.3	4.3	3	1	0.0
Florida 301	5.0	5.3	3.3	4.3	0	4	0.0
Rosen	5.0	4.8	3.3	4.3	6	23	1.3
Merschman Julie II	5.3	5.3	2.5	4.3	1	5	0.0
Pioneer 2555	3.3	4.8	5.0	4.3	1	6	0.3
Terra SR 87	5.0	5.5	2.5	4.3	2	10	0.0
Coker 9766 United AgriSeeds 87-3106	4.5 4.0	5.0 4.8	3.8 4.5	4.4 4.4	1 2	0 9	0.0
Auburn	4.5	5.8	3.5	4.4	1	6	0.0
Agripro Magnum	6.0	5.3	2.5	4.6	5	1	0.3
Reeds 1004	4.5	5.5	4.0	4.7	6	4	0.0
Arthur 71	3.3	6.5	4.5	4.8	1 2	18	0.3
Agripro Twain	3.8	6.0	5.5	5.1	1	0	0.0
Becker	5.5	5.3	4.8	5.2	0	5 9	2.8
Agripro Hancock	3.5	7.3	6.3	5.7	0	3	1.0
Coker McNair 1003 Adder	5.0	6.3	6.0	5.8	0 6	4 3	1.3
	5.8	6.8	5.0	5.8	0	3	0.0
TAM 107 (hard)	1.3	4.8	4.8	3.6	1 25	0 2 9	2.8
Arkan (hard)	3.3	5.3	3.8	4.1			
Average LSD .05	3.9	4.4	3.1	3.8 0.8	2 3	1 2 1 3	0.5 1.5
C.V. %	1.4 23.4	1.6 25.9	1.5 33.6	27.3	96	81	203
	20,7						

^{# -} BYDV ratings: 0 = No plants in the plot showing symptoms; 9 = all of the plants in the plot showing symptoms