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Mississippi Agricultural and Forestry Experiment Station

Wheat and Oats 1995 Variety Trials

July 1995

NOTICE TO USER

This Mississippi Agricultural and Forestry Experiment Station Information Bulletin is a summary of research conducted under project number MIS 1701 at the following locations:

- Delta Branch -- Stoneville -- 1, 2
- North Mississippi Branch -- Holly Springs -- 3
- Pontotoc Ridge-Flatwoods Branch -- Pontotoc -- 4, 5
- Northeast Mississippi Branch -- Verona -- 6
- Black Belt Branch -- Brooksville -- 7
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It is intended for the use of colleagues, cooperators, and sponsors. The interpretation of data presented herein may change after additional experimentation. Information included herein is not to be construed either as a recommendation for use or as an endorsement of a specific variety or product by Mississippi State University or the Mississippi Agricultural and Forestry Experiment Station.

This report contains data generated as part of the Mississippi Agricultural and Forestry Experiment Station research program. Joint sponsorship by the organizations listed [at the bottom of this document](#) is gratefully acknowledged.

Trade names of commercial products used in this report are included only for clarity and understanding. All available names (i.e., trade names, code numbers, chemical names, etc.) of varieties or products used in this research project are listed [at the bottom of this document](#).

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Mississippi Wheat and Oat Variety Trials, 1995

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Trials were conducted at [11 locations](#) in Mississippi in 1994-5. [Public varieties](#) were selected by the Technical Advisory Committee for evaluation at each location.

Procedures

Experimental design for each crop species at each location was a randomized complete block with four replications. Plots consisted of 7 rows spaced 7 inches apart and 20 feet long. Cultural and pest control practices used in each trial were as follows. Plots were limed and fertilized with P₂O₅ and K₂O according to soil test recommendations. Nitrogen was applied at 20 pounds per acre at planting and 80 and 45 pounds per acre in late February for wheat and oats respectively. Foliar fungicides were not applied to insure that varieties were evaluated under conditions of maximum disease pressure. Herbicides, Hoelon and Harmony for wheat and Harmony alone for oats, were applied at each location, as needed, for broadleaf and grass weed control.

Source of Seed...Seed of all private entries were supplied by participating companies. Seed of all public varieties were Breeder or Foundation Seed from the state that developed the variety.

Planting Rate...All seeds were packaged for planting at the rate of 20 seeds per foot of row for both crops. Plots were planted with a cone, spinner-divider planter.

Yield...A plot combine was used to harvest the total plot area after the plots were trimmed to a standard length. Harvested seed were converted to bushels/acre (60 pounds/bushel for wheat and 32 pounds/bushel for oats).

Heading Date...The date when 50 percent of the heads were extended above the flag leaf.

Plant Height...The height of plants was measured from the soil to the top of the spike or panicle.

Lodging...Lodging was rated on a scale of 1 = almost all plants erect, 2 = all plants leaning slightly or only a few plants down, 3 = all plants leaning moderately or 25% to 50% of plants down, 4 = all plants leaning considerably, or 50% to 80% of plants down, and 5 = all plants down.

Seed Test Weight...The test weight for each variety was determined from a composite sample from all replications.

Disease Ratings...All varieties were rated for development of leaf rust and Septoria leaf and glume blotch according to James' Manual of Assessment Keys for Plant Diseases. At growth stages 10.5 (spikes emerged) and 11.1 (milky ripe), 10 plants were selected at random from each plot at each location. The percentage of leaf area affected by each disease on the flag leaf was recorded. From these data an assessment was made of the overall disease response of each variety.

Production

Wheat can be grown in most counties in Mississippi for grain and for grazing. Over the past few years, wheat acreage has declined as a result of adverse fall weather, disease intensity, and price received for grain by farmers. Oats can be grown in most counties of Mississippi and be used as farm feed grain or grazing.

Wheat yields generally range from 30 to 40 bushels per acre. Under favorable weather and management conditions, wheat sometimes yields as high as 70 bushels per acre. Although wheat is cold tolerant, during severe winters it may be killed or damaged. Oats are also subject to winterkill or damage.

Cold Requirements

Winter varieties of wheat require a certain amount of cold weather (about 35 °F) before the plants will form reproductive structures (seed heads). The period of time varies with variety, but somewhere between four and nine weeks of low temperatures are required for seed-head formation. Most of the wheat varieties planted in the area require low temperatures to reproduce; oats do not.

Land Selection and Preparation

Wheat and oats are adapted to many soil types throughout the state. However, these grains will not tolerate poor drainage conditions and still produce an economical yield. Internal as well as external drainage are equally important to wheat and oat production. Also, these grains will not produce economic yields on very thin, badly eroded soils.

Good seedbed preparation will insure a good, fast stand of small grains. Wheat and oats may be planted with a drill or broadcast into a prepared seedbed. A grain drill should be used in no till or minimum till situations. Seeding rates should be increased when planting in poor seed beds.

There is some interest in seeding grains in standing soybeans. This method of sowing involves greater risk for stand establishment. When this method is used, grain should be seeded as soybean leaves turn yellow and about 10% of

the leaves have dropped. Seeding rates in standing soybeans should be increased.

Varieties

When selecting wheat varieties, farmers should refer to the *Wheat and Oat Variety Trial* Publication. It is an excellent source for review when considering which variety should be grown. The publication lists private and public varieties that are tested at different locations across the state each year. Pertinent agronomic data are recorded for each variety at each test location. Disease ratings for varieties also are included. A variety with good agronomic and disease characteristics should be selected from the information supplied. It is also best to select a variety that has performed well in many test locations. The average yield table will provide this information.

Seeding Rates

Seeding rates should be based upon a set number of seed per foot of row. Use the low rate when planting at the normal times and the upper rates when planting at a later date or when planting conditions are poor. For seven- to nine-inch drill spacings, the normal seeding rate is 20 seeds per foot of row. Wheat seed normally have from 12,000 to 16,000 seed per pound. Normal seeding rates for drill planting vary from 70 to 90 pounds of seed per acre, depending upon the variety selected and planting time. When seeds are broadcast and covered with a field cultivator, 90 to 100 pounds should be planted. If aerial seeding in standing soybeans is practiced, then apply 125 pounds per acre. Aerial seeding into standing soybeans is not a recommended practice. Seeding rates in seed per foot for oats is similar.

Planting Dates

Planting before recommended planting dates does not insure better yields and sometimes results in increased problems (freeze injury, aphids, Hessian fly, and disease problems). If grazing is not a consideration, planting on the late side of the recommended time usually results in fewer insect and disease problems. The three area planting dates are:

North Mississippi	October 1 to November 15
Central Mississippi	October 15 to November 25
South Mississippi	November 1 to December 10

Disease and Disease Resistance

Several diseases may affect wheat and oat plants in Mississippi. Leaf rust, stem rust, Septoria leaf and glume blotch, and several head diseases are very common. Planting resistant varieties is the most practical, economical, and effective control. However, chemical control is recommended for certain diseases in certain circumstances. For more specific information, refer to Extension Plant Disease Dispatch M-123.

Seed Treatment

Proper seed treatment reduces the number of disease causing organisms on the surface of the seed and loss due to seedling diseases. Several recommended seed treatment fungicides are Captan, Vitavax, Terra-Coat, Dithane, Baytan, and others. These materials are available in various formulations and under several brand names. Seed may already be treated when purchased, or fungicides should be applied according to label instructions.

Insects

Several insects that can cause economic damage to wheat and oats are Hessian fly, aphids (including greenbugs), armyworms, cutworms and other soil insects, and grasshoppers. Plant resistant varieties in areas where Hessian fly is a problem. Refer to Mississippi Cooperative Extension Information Sheet 1160 for threshold and insecticide information for control of the other pests listed above.

Fertilization

Apply phosphate and potash according to soil test recommendations. Soils testing high in phosphate and/or potash will not need any additional material. Soils testing medium should receive a maintenance application of 30 pounds, and soils testing low should receive 60 pounds of P₂O₅ and K₂O per acre.

If soybeans are to follow a wheat crop in heavy soils (clays, clay loams, and silt loams), phosphate (P) and potash (K) for the soybean crop may be applied before planting the wheat. This practice of applying P & K in the fall for both crops on sandy and sandy loam soils is questionable as far as K is concerned, because some K may be lost through leaching on lighter soil types.

Some nitrogen (N), 20 to 30 pounds per acre, should be applied before planting unless following soybeans are planted on soils containing two percent or more organic matter. In these cases no pre-planting nitrogen is necessary. If the previous crop were grain sorghum, 30 to 40 pounds of pre-plant nitrogen is recommended.

Wheat should be topdressed with 80 to 100 pounds of N per acre in mid February or early March. If nitrogen is aerially applied, applications may be split—one in February and another in early March to improve coverage and use efficiency. Soil pH should be 5.6 or higher. Soil test and lime according to recommendations.

Weed Control

Mississippi Cooperative Extension Service Publication 1344, *Grain Crops*, provides detailed information for controlling weeds in wheat and oats. Wild garlic, dock, and many other broadleaf weeds can be controlled using the herbicide Harmony Extra. Use 2,4-D for economical control of wild onion and many broadleaf weeds. Wild garlic and wild onion may not be killed with the rates of 2,4-D that can be used without injury to wheat. This treatment normally causes the garlic and onion plants to curl down and reduces the amount of bublets that get into the grain during harvest. Banvel (or Dicamba plus 2,4-D) is a good treatment if legumes, such as winter peas and vetch, are a problem. Ryegrass is best controlled using Hoelon either pre-emergence or early post-emergence. Most treatments can be applied post-emergence in liquid nitrogen. However, nitrogen rates should be below 50 pounds of nitrogen per acre, and air temperatures should be below 60 °F to reduce the danger of injury to the wheat.

Management for Grain Following Grazing

Many farmers graze small grains during the fall and winter and then harvest a grain crop in the spring. If maximum grain yields are to be made, livestock must be removed in mid February to early March when the nitrogen topdressing is applied. At about this time, the seed heads are beginning to form, and in a short while, stem elongation will follow. Grazing after stem elongation begins removes the forming seed heads. There will be no initiation of new seed heads, and yield is reduced.

Harvesting

Wheat and oats will mature in late May to early June. Most harvesting occurs in early June. If drying facilities are available, grain should be harvested at 16 to 18 percent moisture and then dried. Harvesting at this moisture content allows harvest 10 days to 14 days earlier than if grain is allowed to dry to 12 to 13 percent moisture in the field. When grain is allowed to dry in the field, there is a probability that quality may be reduced and lodging may occur due to a prolonged rainy period. If grains are to be double cropped with soybeans, this could be a great advantage for bean planting.

Weather Summary by Location

Locations 1 and 2--Delta Branch: High rainfall amounts in October delayed ground preparation and planting. Heavy rains after planting packed and sealed the sandy loam site, causing the seed to rot. The sandy site was not replanted due to the late first planting and rain. The clay site had poor emergence, but no cold injury was noted. Heavy damage from birds feeding was observed in many plots.

Location 3--North Mississippi Branch: Good moisture at planting and timely rains allowed quick emergence of all varieties. No cold injury was observed due to mild winter temperatures. A hail storm during the spring caused lodging of some varieties.

Location 7--Black Belt Branch: Near normal rainfall occurred during November 1994 for good stand development. Following stand establishment, growth progressed normally due to moderate temperatures and sufficient rainfall during February and March. Spring weather conditions were optimum for wheat development at Brooksville.

Location 8--Brown Loam Branch: Adequate soil moisture and warm temperatures resulted in excellent stand establishment of both wheat and oats. Warm temperatures from December through March produced good tillering and plant growth. Heavy rainfall in early March and again in late April caused lodging in some varieties. Ryegrass control was excellent, and insects were not a problem during the growing season. Diseases were light to moderate, developed late in the growing season, and did not appear to affect yield.

Location 9--Coastal Plain Branch: Adequate soil moisture following planting allowed quick germination and emergence. Above normal soil and air temperatures during the winter months allowed for good growth. Spring conditions were optimum for grain development, and disease did not appear until late and did not reach harmful levels. Birds continue to be a menace to oat varieties every year.

Location 11--Mississippi State: An excellent stand was established quickly. All plots looked good at the end of February. By April there were noticeable differences in the plant growth within plots. The yields were not as high as the appearance indicated. The oat varieties were extremely short and did not appear as vigorous as they should. This location had no bird damage.

Notes on Locations 1, 2, 4, 5, 6 and 10:

The tests at the **Pontotoc** and **Verona** locations were not planted due to excessive moisture and lack of time for ground preparation. As the weather summary indicates, the **Stoneville loam** test never developed a stand. The **Stoneville clay** test looked good but because of erratic stands, late planting, and bird damage, only two replications were usable, which resulted in high CVs. The **Poplarville** test was planted but not harvested because of erratic stands.

Only two oat locations were harvested, and yields were low. The other locations had little or no seed produced by the plants, and birds ate what was produced.

Table 1. Results of the 1994-95 Mississippi Wheat Variety

Trials at the MAFES North Mississippi Branch (Holly Springs, location 3) on silt loam soil

Brand/Variety	Yield 94-95	3-Yr Avg	Test Wt (lb/bu)	Seed (g/1000)	Date Headed	Plant Ht (in)	Lodging Score (1-5)
	----- (bu/a) -----						
Coker 9835	39.8	51.6	57	28.0	4/12	31	1
Clemens	39.5	---	59	31.2	4/19	34	1
Pioneer Variety 2684	36.6	---	59	37.0	4/12	31	1
XW631	36.6	---	57	28.6	4/10	31	1
Coker 9803	35.7	52.2	60	30.5	4/17	31	1
DS 2368	35.2	47.4	58	26.4	4/12	34	1
Morey	34.1	---	57	33.9	4/12	32	1
Clemson 201	30.7	42.9	57	22.0	4/12	32	1
Terral TV 8825	30.5	50.2	56	20.4	4/16	24	1
Wakefield	30.4	52.0	55	23.3	4/17	33	1
Coker 9543	30.1	---	58	25.4	4/17	30	1
Tracker	30.0	---	55	20.7	4/17	33	2
Stuckey	30.0	---	55	28.0	4/12	30	1
Terral 101	30.0	48.2	55	24.1	4/19	34	1
Terral TVX 8555	29.9	---	57	25.2	4/19	31	1
Pioneer Variety 2643	29.7	---	57	25.3	4/15	28	1
Pioneer Variety 2580	29.6	47.4	56	24.4	4/14	34	1
Verne	29.4	48.5	56	30.0	4/17	37	1
Pioneer Variety 2628	29.2	---	58	34.3	4/15	31	1
91D-2308	29.1	---	58	33.8	4/12	32	1
Florida 304	29.1	41.8	58	27.4	4/16	33	1
AgriPro Mallard	28.9	52.1	56	23.2	4/17	32	1
Pioneer Variety 2566	28.3	50.7	56	27.4	4/18	31	1
Coker 9134	27.9	48.4	57	25.5	4/10	33	2
Gore	27.7	43.9	58	28.0	4/16	32	1
EK 114	27.0	---	52	36.3	4/17	33	1
Florida 302	26.9	44.0	56	34.0	4/14	33	2
Shiloh	26.4	---	57	29.9	4/18	31	1
AgriPro Hickory	25.9	50.5	57	20.7	4/12	36	1
Dozier	25.7	---	58	25.1	4/16	32	1
Hazen	24.6	---	57	27.6	4/17	33	1
Ernie	24.5	---	58	35.3	4/14	30	1
Jackson	23.5	---	57	22.8	4/18	34	2
Smoker	21.6	---	55	29.6	4/20	35	2
Andy	21.3	46.0	57	32.4	4/10	32	1

Madison	18.8	49.0	55	29.6	4/13	33	2
Overall Mean	29.3	48.1					
LSD @ .10	6.9	4.3					
Standard Error of Mean	5.9	6.3					
Error Degrees of Freedom	105	153					
CV %	20.1	13.1					
Date Planted	Nov. 4						
Date Harvested	June 7						
Soil Fertility	pH=6.2, P=H, K=H						

Table 2. Results of the 1994-95 Mississippi Wheat Variety Trials at the MAFES Black Belt Branch (Brooksville, location 7) on silty clay soil

Brand/Variety	Yield 94-95	3-Yr Avg	Test Wt (lb/bu)	Seed (g/1000)	Date Headed	Plant Ht (in)	Lodging Score (1-5)
	----- (bu/a) -----						
Pioneer Variety 2628	44.6	---	59	36.9	4/10	30	1
Pioneer Variety 2643	39.6	---	57	28.3	4/10	29	1
Terral TV 8825	37.2	48.1	58	27.9	4/10	31	1
Pioneer Variety 2684	37.2	---	59	35.4	4/07	30	1
Coker 9803	36.8	50.8	59	29.0	4/07	31	1
Ernie	35.2	---	58	35.5	4/17	31	1
Pioneer Variety 2580	33.7	52.8	57	27.5	4/10	29	1
AgriPro Hickory	33.5	---	58	24.9	4/10	29	1
Gore	33.0	53.6	56	29.8	4/10	31	1
Shiloh	32.4	---	58	31.0	4/13	31	1
Florida 302	32.0	42.2	57	30.3	4/10	31	1
Jackson	31.7	---	57	27.0	4/13	29	1
Wakefield	31.5	45.1	55	29.4	4/10	31	1
Coker 9835	31.2	51.8	56	26.8	4/13	26	1
LA8644A3-3-2-P2-P2	31.2	---	57	33.7	4/10	30	2
LA85422-C13-1-4-P2	30.8	---	58	30.9	4/07	27	1
Verne	30.7	47.8	55	29.6	4/13	32	1
LA8644A3-1-1	30.5	--	58	28.4	4/10	32	2
Pioneer Variety 2566	30.0	49.7	56	25.3	4/13	29	1
Dozier	29.7	---	57	22.8	4/13	28	1
LA8982AX7-3-P1	29.7	---	58	31.8	4/03	34	1
Coker 9134	29.1	51.1	57	26.1	4/13	28	1
Terral 1011	28.9	47.0	53	24.4	4/13	31	1

LA8673AA21-4-P1	28.8	---	58	34.0	4/07	30	1
Stuckey	28.4	---	57	31.7	3/30	29	2
DS 2368	28.3	42.1	57	28.2	4/07	28	1
Madison	27.2	---	58	32.5	4/07	28	1
Morey	27.0	---	55	31.7	3/30	29	1
XW631	26.9	---	56	27.5	3/30	29	1
Coker 9543	26.7	---	58	25.0	4/10	28	1
EK 114	26.6	---	55	29.0	4/10	29	1
Andy	26.5	43.7	56	28.2	3/30	28	1
91D-2308	26.0	---	57	34.4	4/10	28	1
LA85411-D4-P5	25.8	---	58	26.9	4/10	30	1
Clemson 201	25.7	39.4	57	26.2	4/03	27	2
Tracker	24.1	---	56	31.3	4/10	32	1
Hazen	23.0	---	56	29.4	4/13	28	1
AgriPro Mallard	22.8	---	55	22.4	4/10	27	1
LA8716A7-X-1-3	22.6	---	58	33.3	3/30	38	2
Smoker	22.4	---	54	24.8	4/21	33	1
Florida 304	19.4	37.5	56	29.1	4/10	29	1
Terral TVX 8555	17.5	---	55	27.7	4/13	27	1
Overall Mean	29.4	46.8					
LSD @ .10	7.7	3.9					
Standard Error of Mean	6.6	5.7					
Error Degrees of Freedom	123	126					
CV %	22.3	12.2					
Date Planted	Nov. 3						
Date Harvested	June 5						
Soil Fertility	pH=6.4, P=VL, K=L						
Fertilizer Added	300 lbs 0-20-20 + 65 lbs 0-46-0						

Table 3. Results of the 1994-95 Mississippi Wheat Variety Trials at the MAFES Brown Loam Branch (Raymond, location 8) on silt loam soil

Brand/Variety	Yield 94-95	3-Yr Avg	Test Wt (lb/bu)	Seed (g/1000)	Date Headed	Plant Ht (in)	Lodging Score (1-5)
	----- (bu/a) -----						
Pioneer Variety 2684	45.6	---	59	32.1	4/05	37	1

Pioneer Variety 2643	44.4	---	57	24.0	4/09	34	1
91D-2308	42.7	---	57	33.9	4/03	37	1
Gore	41.9	50.6	58	28.4	4/09	39	1
DS 2368	39.0	44.7	58	27.8	4/03	36	1
Terral TVX 8555	37.6	---	58	26.6	4/12	36	1
Coker 9835	37.5	51.9	56	27.2	4/05	36	1
Wakefield	37.2	53.0	59	35.1	4/12	39	1
AgriPro Hickory	37.2	54.0	56	17.9	4/09	40	1
Coker 9134	37.2	49.9	57	20.6	4/12	39	1
Terral TV 8825	37.0	51.9	57	25.8	4/05	38	1
Ernie	35.9	---	57	31.8	4/07	38	1
Clemson 201	35.6	46.1	56	22.1	3/29	38	2
XW631	35.2	---	55	23.2	3/30	33	1
Dozier	34.0	---	59	23.9	4/12	37	1
Morey	33.8	---	55	28.0	4/12	36	1
Verne	33.7	---	58	29.6	4/12	41	1
Hazen	32.7	---	59	31.1	4/12	38	1
Madison	32.7	45.6	57	30.2	4/07	37	1
Andy	32.6	47.6	57	26.2	3/29	36	1
Pioneer Variety 2566	32.6	52.1	57	22.0	4/12	37	1
Jackson	32.2	---	58	22.0	4/12	39	1
Pioneer Variety 2628	30.8	---	57	29.3	4/09	39	1
Florida 304	30.4	46.0	58	29.5	4/09	40	1
EK 114	30.2	---	56	26.9	4/12	40	1
Stuckey	26.5	---	50	27.0	3/30	34	2
Florida 302	25.3	41.7	53	30.4	4/07	39	2
Overall Mean	35.2	48.8					
LSD @ .10	7.9	4.3					
Standard Error of Mean	6.7	6.4					
Error Degrees of Freedom	78	108					
CV %	19.0	13.1					
Date Planted	Nov 8						
Date Harvested	May 24						
Soil Fertility	pH=6.0, P=M, K=H						
Fertilizer Added	100 lbs 0-46-0						

Table 4. Results of the 1994-95 Mississippi Wheat Variety Trials at the MAFES Coastal Plain Branch (Newton, location 9) on fine sandy loam soil

Brand/Variety	Yield 94-95	2-Yr Avg	Test Wt (lb/bu)	Seed (g/1000)	Date Headed	Plant Ht (in)	Lodging Score (1-5)
	----- (bu/a) -----						
Pioneer Variety 2684	45.4	48.7	60	33.9	3/31	34	1
XW631	41.1	---	57	26.7	3/24	34	1
Coker 9835	40.6	40.4	57	27.3	3/31	33	1
Pioneer Variety 2643	37.3	44.4	59	28.5	4/06	35	1
91D-2308	37.1	---	57	33.4	3/24	35	1
Verne	36.2	43.9	59	31.4	4/10	40	1
Madison	35.0	37.2	57	29.4	3/31	38	1
Morey	34.5	---	56	30.1	3/24	37	1
Coker 9134	34.3	43.3	60	27.9	4/06	39	1
Dozier	34.3	---	60	26.2	4/10	34	1
Pioneer Variety 2566	33.9	41.3	60	27.7	4/10	34	1
Gore	33.3	40.8	60	30.9	4/06	38	1
DS 2368	33.0	41.5	59	26.6	3/31	36	1
AgriPro Hickory	32.5	41.2	59	25.9	4/04	38	1
Wakefield	32.3	43.9	58	33.4	4/10	38	1
Florida 304	31.8	37.5	59	31.8	4/06	38	1
Ernie	31.1	---	58	28.1	4/04	36	1
Jackson	30.6	40.8	59	25.6	4/10	38	1
Pioneer Variety 2628	30.3	41.0	58	31.2	4/10	36	1
Clemson 201	30.2	35.7	57	26.6	3/24	39	1
Stuckey	28.6	---	55	26.1	3/28	34	1
Terral 101	28.0	36.2	56	24.0	4/10	38	1
Andy	25.8	40.7	57	30.5	3/21	36	1
Florida 302	25.5	36.4	55	29.0	4/04	39	1
EK 114	24.7	---	57	28.0	4/10	38	1
Hazen	21.3	36.3	56	23.8	4/10	36	1
Overall Mean	32.6	40.6					
LSD @ .10	3.5	3.3					
Standard Error of Mean	3.0	4.0					
Error Degrees of Freedom	75	108					
CV %	9.1	9.8					
Date Planted	Nov 8						
Date Harvested	May 25						
Soil Fertility	pH=7.0, P=H, K=H						

Table 5. Results of the 1994-95 Mississippi Wheat Variety Trials at the MAFES Mississippi State University Branch (Mississippi State, location 11) on silty clay soil

Brand/Variety	Yield 94-95	2-Yr Avg	Test Wt (lb/bu)	Seed (g/1000)	Date Headed	Plant Ht (in)	Lodging Score (1-5)
	----- (bu/a) -----						
Coker 9803	50.7	67.1	60	29.8	5/06	33	1
Gore	49.2	68.3	57	27.8	4/11	37	1
Pioneer Variety 2684	49.1	69.2	59	34.4	4/11	34	1
Verne	48.5	69.9	57	30.3	4/21	41	1
Coker 9134	48.0	68.1	58	26.5	4/19	36	1
Pioneer Variety 2643	48.0	67.0	57	26.8	5/08	30	1
Shiloh	47.7	---	58	30.8	5/08	33	1
91D-2308	46.7	---	57	34.2	4/10	34	1
Coker 9543	44.9	65.9	57	23.2	4/25	33	1
Ernie	44.8	---	56	29.3	4/14	34	1
XW631	43.0	---	54	24.2	4/05	32	1
Pioneer Variety 2566	42.8	68.8	56	25.7	4/29	33	1
Terral TV 8825	42.8	65.9	57	25.4	4/21	37	1
AgriPro Mallard	42.6	62.0	56	25.4	5/08	33	1
Clemson 201	42.4	58.9	56	25.0	4/08	35	1
Madison	42.2	68.6	57	30.7	4/13	36	1
Pioneer Variety 2580	41.0	65.6	56	24.9	4/18	34	1
Terral 101	40.8	59.7	53	25.4	4/26	38	1
Pioneer Variety 2628	40.4	62.5	57	29.3	5/08	35	1
Clemens	39.6	---	57	26.7	4/25	39	1
Terral 1011	39.6	63.0	54	25.7	4/22	38	1
Morey	39.5	---	55	27.6	4/07	34	1
Stuckey	39.4	---	55	26.0	4/07	32	1
AgriPro Hickory	39.0	65.7	57	24.1	4/18	38	1
Tracker	38.6	---	54	26.5	4/18	36	1
DS 2368	38.5	58.8	57	26.9	4/07	34	1
Wakefield	38.1	67.2	56	29.7	4/27	37	1
Terral TVX 8555	37.7	---	56	23.0	5/08	32	1
Dozier	37.5	---	58	20.6	5/06	32	1
Florida 304	37.0	58.7	58	28.3	4/23	36	1
Andy	36.4	60.4	53	25.0	4/03	33	1
Jackson	36.0	64.0	56	23.1	4/24	36	1
EK 114	35.7	---	52	24.9	4/30	34	1

Coker 9835	35.2	65.2	55	25.3	5/06	31	1
Hazen	33.5	57.2	53	22.9	5/06	34	1
Florida 302	31.1	58.0	55	27.6	4/26	36	1
Smoker	20.9	---	53	20.9	5/08	35	1
Overall Mean	40.8	64.2					
LSD @ .10	5.1	4.0					
Standard Error of Mean	4.4	4.9					
Error Degrees of Freedom	108	144					
CV %	10.7	7.6					
Date Planted	Nov 3						
Date Harvested	June 8						
Soil Fertility	pH=7.7, P=VL, K=M						
Fertilizer Added	150 lbs 0-20-0 + 130 lbs 0-46-0						

Table 6. Wheat varietal reaction to disease in Mississippi

Brand/Variety	Leaf Rust	Septoria Leaf Blotch
AgriPro Clemens	---	---
AgriPro Hickory	MR	MS
AgriPro Mallard	MR	MR
AgriPro Shiloh	R	R
AgriPro 91D-2308	R	MS
Andy	MR	S
Buckshot DS 2368	MR	MS
Clemson 201 (was SC 85-0559)	R	MS
Coker 9134	MR	MR
Coker 9543	MR	MS
Coker 9803	MR	MS
Coker 9835	MR	S
Dozier	R	MR
EK 114	MS	MR
Ernie	MS	MS
Florida 302	S	S
Florida 304	MR	S
Gore	R	MS
Hazen	MS	MS
Jackson	S	MS
Madison	S	MS
Morey	MR	MR

Pioneer Variety 2566	R	MS
Pioneer Variety 2580	MR	MS
Pioneer Variety 2684	R	MS
Pioneer Variety 2643 (was XW522)	R	R
Pioneer Variety 2628 (was XW523)	MS	MS
Smoker	MS	R
Stuckey	MR	S
Terral 101	R	MS
Terral 1011	MR	MR
Terral TV 8825 (was Terral 8822)	R	MS
Terral TVX 8555	R	MS
Tracker	MS	R
Verne	MS	MR
Wakefield	MS	MR

R = resistant; little or no disease; MR = moderately resistant; little or no economic loss; MS = moderately susceptible; moderate economic loss possible; S = susceptible; economic loss probable; - = disease symptoms not observed.

Prepared by Dr. Larry Trevathan, Plant Pathologist, Department of Entomology and Plant Pathology

Table 7. Average number of seeds per pound for varieties entered in the Mississippi Wheat Variety Trials

Brand/Variety	1994-95 Average	2-Year Average
AgriPro Clemens	17290	---
AgriPro Hickory	13968	13874
AgriPro Mallard	14144	14495
AgriPro Shiloh	12415	---
AgriPro 91D-2308	11184	---
Andy	15601	12396
Buckshot DS 2368	13855	15528
Clemson 201 (was SC 85-0559)	15143	15605
Coker 9134	13282	13330
Coker 9543	14533	14748
Coker 9803	12745	13350
Coker 9835	14124	14474
Dozier	14460	---
EK 114	11621	---
Ernie	10328	---
Florida 302	11520	12244

Florida 304	14058	21154
Gore	12666	12944
Hazen	14460	14376
Jackson	13146	13312
Madison	11283	11558
Morey	11938	---
Pioneer Variety 2566	16542	15511
Pioneer Variety 2580	12793	13224
Pioneer Variety 2684	11817	12966
Pioneer Variety 2643 (was XW522)	13632	13562
Pioneer Variety 2628 (was XW523)	12655	12633
Pioneer Variety XW631	13912	---
Smoker	12378	---
Stuckey	13598	---
Terral 101	13685	13980
Terral 1011	14557	14527
Terral TV 8825 (was Terral 8822)	15133	15381
Terral TVX 8555	11735	---
Tracker	10762	---
Verne	11677	11547
Wakefield	9940	10217

Table 8. Results of the 1994-95 Mississippi Oat Variety Trials at the MAFES Black Belt Branch (Brooksville, location 7) on silty clay soil

Brand/Variety	Yield 94-95	3-Yr Avg	Test Wt (lb/bu)	Date Headed	Plant Ht (in)	Lodging Score (1-5)
	----- (bu/a) -----					
LA85495-1-B2-AB13	82.2	---	34	4/17	40	1
LA85495-1-B2-AB4	81.1	---	34	4/19	41	1
FL 874-S1-G3	79.8	---	33	3/30	42	2
Citation	72.2	91.8	33	4/10	41	4
Heavy Grazer 7630	67.4	---	36	4/10	44	3
LA85603-AB11	66.4	---	33	4/13	43	1
LA90113X-X-AB2	66.3	---	31	3/30	39	1
FL 874-E55	65.5	---	30	4/10	38	1
LA85603-AB6	65.3	---	34	4/13	43	2
Ozark	61.5	90.2	35	4/17	44	2

Simpson	60.5	83.1	34	4/14	44	2
Florida 502	58.5	86.8	33	3/30	40	3
Bob	57.1	86.9	35	4/10	41	3
Mitchell	53.9	---	33	4/10	38	2
Overall Mean	66.8	87.7				
LSD @ .10	14.2	13.0				
Standard Error of Mean	11.9	18.8				
Error Degrees of Freedom	39	36				
CV %	17.9	21.5				
Date Planted	Nov 3					
Date Harvested	June 5					
Soil Fertility	pH=6.4, P=VL, K=L					
Fertilizer Added	300 lbs 0-20-0 + 65 lbs 0-46-0					

Table 9. Results of the 1994-95 Mississippi Oat Variety Trials at the MAFES Mississippi State University Branch (Mississippi State, location 11) on silty clay soil

Brand/Variety	Yield 94-95	3-Yr Avg	Test Wt (lb/bu)	Date Headed	Plant Ht (in)	Lodging Score (1-5)
	----- (bu/a) -----					
LA85603-AB6-X	58.3	---	30	5/6	40	1
Ozark	52.5	93.4	32	5/06	36	1
Citation	51.9	77.2	30	5/06	39	1
Heavy Grazer 7630	50.8	---	34	4/29	38	1
Simpson	50.2	102.3	31	5/06	39	1
LA90113X-X-AB2	39.9	---	33	4/24	35	1
LA85495-1-B2-AB13	48.8	---	31	5/6	37	1
LA5603-AB11	49.4	---	31	5/1	39	1
LA85495-1-B2-AB4	49.3	---	31	5/6	35	1
FL 874-S1-G3	34.4	---	29	4/18	38	1
FL 874-E55	33.3	---	28	5/06	32	1
Bob	32.7	88.6	32	5/06	37	1
Mitchell	26.3	---	30	5/06	30	1
Florida 502	18.2	78.6	29	5/06	33	1
Overall Mean	42.6	88.0				
LSD @ .10	7.7	8.7				
Standard Error of Mean	6.4	12.6				

Error Degrees of Freedom	39	36
CV %	15.1	14.3
Date Planted	Nov 3	
Date Harvested	June 8	
Soil Fertility	pH=7.7, P=VL, K=M	
Fertilizer Added	150 lbs 0-20-20 + 130 lbs 0-46-0	

Table 10. Average number of seeds per pound, for varieties entered in the Mississippi Oat Variety Trials

Brand/Variety	1994-95 Average	2-Year Average
Bob	12782	11645
Citation	13861	13642
Florida 502	14273	14699
FL 874-E55	16002	---
FL 874-S1-G3	13856	---
Heavy Grazer 7630	14347	14563
Mitchell	13095	13769
Ozark	11712	12332
Simpson	15448	15510

Public Service Wheat Varieties Entered

Clemson University
 Department of Agronomy and Soils
 Box 340359
 Clemson, South Carolina 29634-0359

- Clemson 201 (was SC 85-0559)

North Florida Research and Education Center
 University of Florida
 Route 3, Box 4370
 Quincy, Florida 32351

- Florida 302
- Florida 304

University of Arkansas
 115 Plant Science Building
 Fayetteville, Arkansas 72701

- Hazen
-

University of Georgia
Agronomy Department
Griffin, Georgia 30223

- Andy
 - Dozier
 - Gore
 - Morey
 - Stuckey
-

University of Kentucky
Department of Agronomy
Lexington, Kentucky 40546

- Verne
-

University of Missouri
Department of Agronomy
Columbia, MO 65211

- Ernie
-

Virginia Tech
Department of Crop and Soil Environmental Sciences
Blacksburg, Virginia 24061

- Jackson
 - Madison
 - Wakefield
-

Participating Companies and Wheat Brand/Varieties Entered

AgriPro Seeds, Incorporated
Route 2, Box 411
Brookston, Indiana 47923

- AgriPro Clemens
 - AgriPro Hickory
 - AgriPro Mallard
 - AgriPro Shiloh
 - AgriPro 91D-2308
-

Delhi Seed Company, Inc.
Post Office Box 176
Highway 17 North
Delhi, Louisiana 71232

- Buckshot DS 2368
-

Delta King Seed Company
Post Office Box 970
McCrary, Arkansas 72101

- Pacer
 - Tracker
-

ERWIN-KEITH, INC.
Route 1, Box 130
Wynne, Arkansas 72396

- EK 114
-

Northrup King Company
Post Office Box 729
Bay, Arkansas 72411

- Coker 9134
 - Coker 9543
 - Coker 9803
 - Coker 9835
-

Pioneer Hi-Bred International
1000 West Jefferson Street
Tipton, Indiana 46072

- Pioneer Variety 2566
 - Pioneer Variety 2580
 - Pioneer Variety 2628 (was XW523)
 - Pioneer Variety 2643 (was XW522)
 - Pioneer Variety 2684
 - Pioneer XW631
-

Terral-Norris Seed Company, Inc.
Post Office Box 826
Lake Providence, Louisiana 71254

- Terral 101
- Terral 1011
- Terral TV 8825 (was 8822)

- Terral TVX 8555
-

Participating Companies and Public Service Oat Brand/Varieties Entered

Clemson University
Department of Agronomy and Soils
Box 340359
Clemson, South Carolina 29634-0359

- Simpson
-

Delhi Seed Company, Inc.
Post Office Box 176
Delhi, Louisiana 71232

- Heavy Grazer 7630
-

North Florida Research and Education Center
University of Florida
Route 3, Box 4320
Quincy, Florida 32351

- Florida 502
 - FL 874-E55
 - FL 874-S1-G3
-

Terral-Norris Seed Company, Inc.
Post Office Box 826
Lake Providence, Louisiana 71254

- Citation
-

University of Arkansas
115 Plant Science Building
Fayetteville, Arkansas 72701

- Bob
 - Ozark
-

University of Georgia
Crop and Soil Sciences
Georgia Experiment Station
Griffin, Georgia 30223

- Mitchell
-



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