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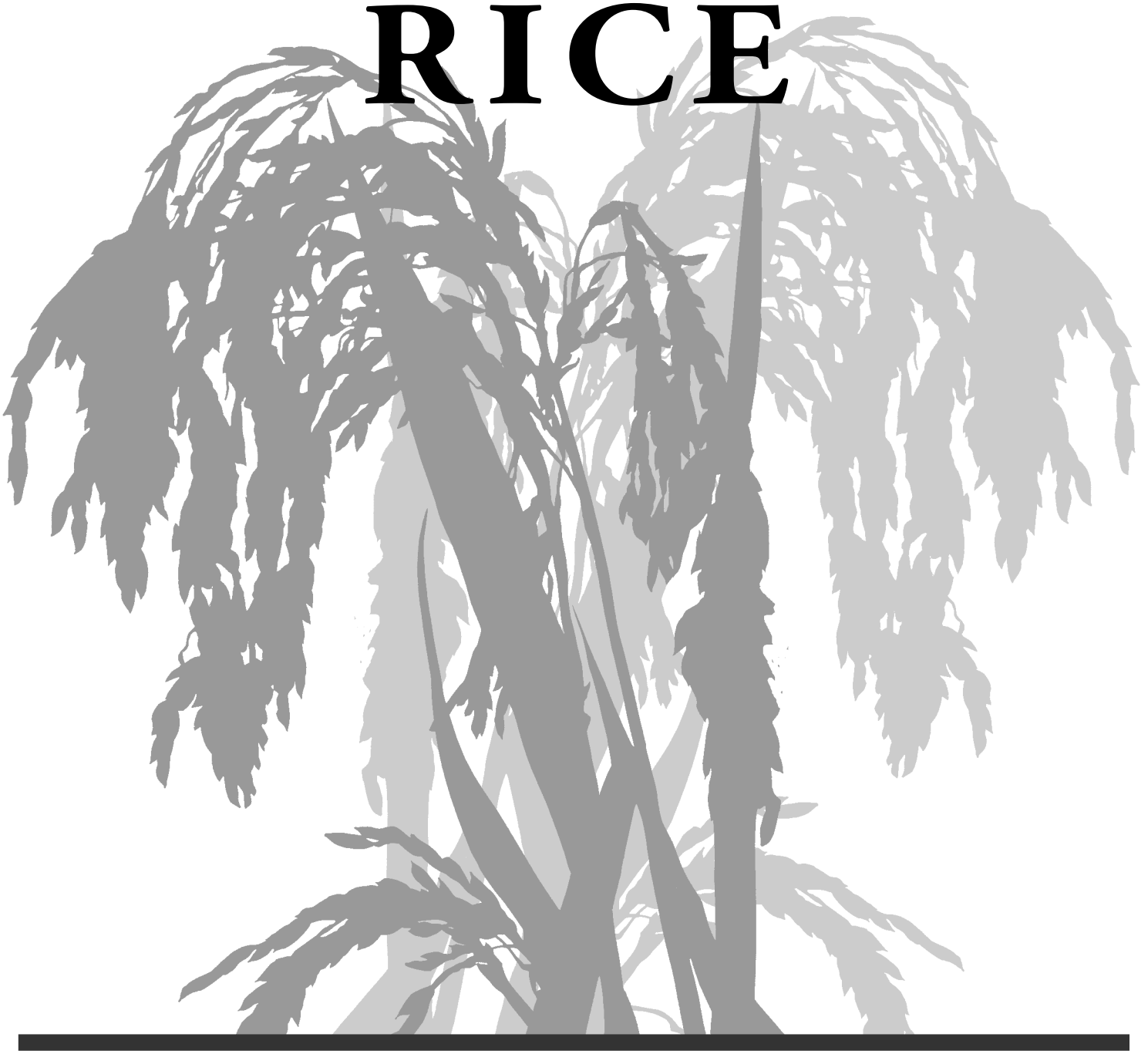
MISSISSIPPI RICE



VARIETY TRIALS, 2012

MAFES

Mississippi Agricultural & Forestry Experiment Station • George M. Hopper

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NOTICE TO USER

This Mississippi Agricultural and Forestry Experiment Station Information Bulletin is a summary of research conducted under project number MIS-1530 at the Delta Research and Extension Center in Stoneville, Mississippi, and several other locations shown on the map on the third page. It is intended for colleagues, cooperators, and sponsors. The interpretation of data presented in this publication may change after additional experimentation. This information 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 Mississippi Rice Promotion Board is gratefully acknowledged.

Trade names of commercial products used in this research project are included only for clarity and understanding. All available names (i.e., trade names, chemical names, experimental product code names or numbers, etc.) of products used in this research project are listed in the tables and footnotes contained in this report.

Mississippi Rice Variety Trials, 2012

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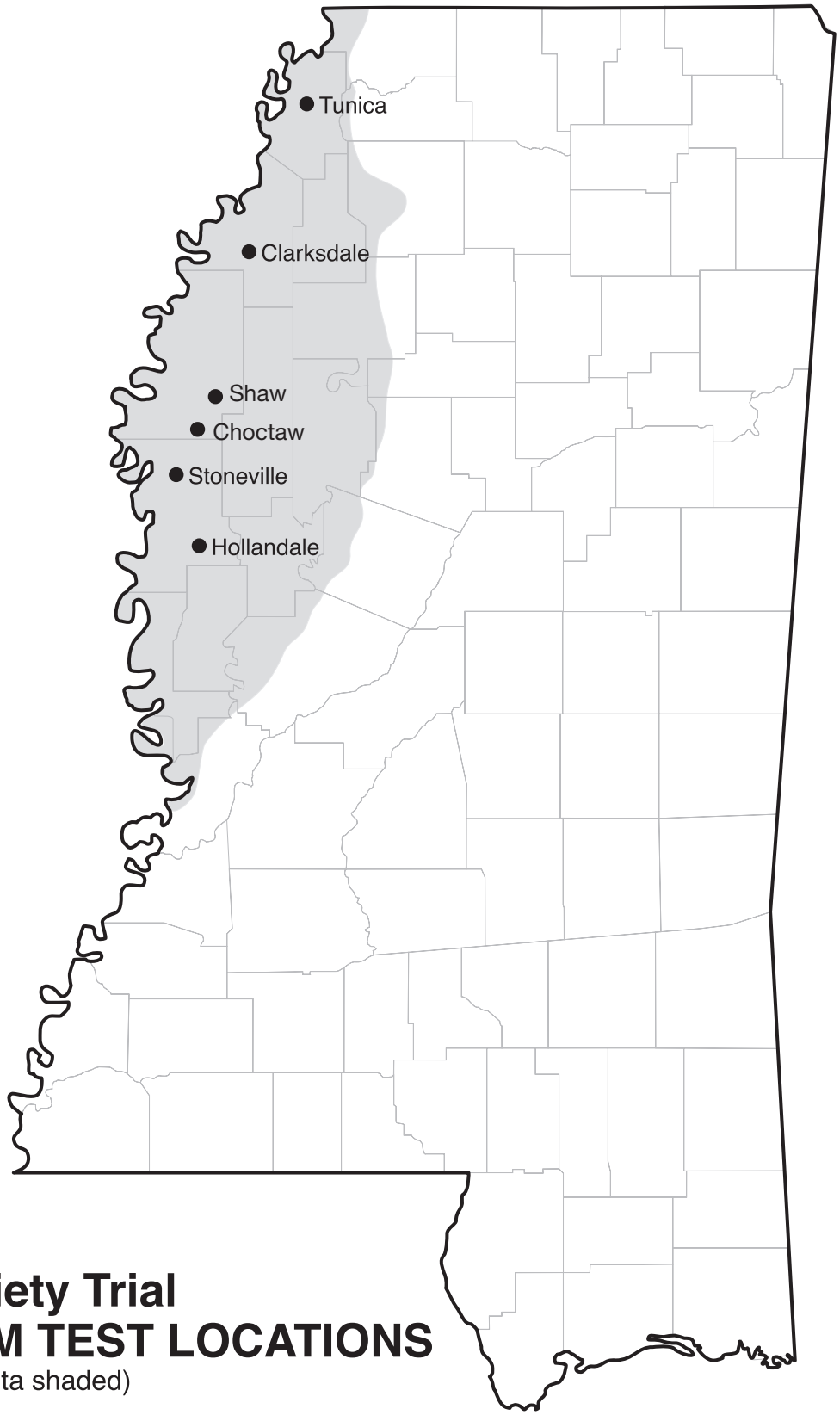
We would like to offer our sincere appreciation to the Mississippi Rice Promotion Board for financially supporting these research efforts. We also extend our thanks to the rice growers who provided land, inputs, and their willingness to endure the inconvenience these tests can cause. This report was approved for publication as MAFES Information Bulletin 472 of the Mississippi Agricultural and Forestry Experiment Station, Mississippi State University. It was published by the Office of Agricultural Communications, a unit of the Mississippi State University Division of Agriculture, Forestry, and Veterinary Medicine.



Rice Variety Trial
ON-FARM TEST LOCATIONS

(Mississippi Delta shaded)

Mississippi Rice Variety Trials, 2012

Introduction

The USDA projected that 126,000 acres of rice were planted in the Mississippi Delta counties in 2012. This amount represented a 35% decrease in acreage from 2012 and a 44% decrease from the 10-year average. It is the lowest acreage in Mississippi since 1977. The low 2012 rice acreage can be attributed to lower rice prices, lower rice yields in previous years, and higher prices for other crops such as soybean and corn. Two Clearfield® varieties and two Clearfield® hybrids accounted for approximately 65% of the total rice acreage. CLXL745 and CLXL729 were planted on 32% and 11% of the acreage, respectively, while CL151 and CL111 each were planted on 11% of the acreage. Cocodrie continued to be a favorite among conventional varieties and accounted for 11% of the acreage, whereas the conventional hybrids XL723 and XL753 were planted to 8% and 6% of the acreage, respectively. The newly released conventional variety 'Rex' was planted on approximately 6% of the acreage. The remaining 4% was planted primarily to CL152, Sabine, Hidalgo, XP744, and Clearfield® XP4534.

Rice planting began in earnest around March 20 with 20% being planted before April 1, which was well ahead of the 5-year average of 3%. By the end of April, 95% of the crop was planted, compared with only 64% for the 5-year average. Early-summer temperatures allowed the crop to progress rapidly with heading beginning in early June. By mid-July, approximately 60% of the crop had headed, which allowed harvest to begin much earlier than normal. Approximately 50% of the crop was harvested by the end of August and 95% by the end of September, compared with a 5-year average of 20% and 70%, respectively. A warm spring, relatively hot and dry summer, and favorable harvest conditions all contributed to above-average rice grain yields (7,100 pounds per acre or 158 bushels per acre). Though daytime temperatures reached similar extremes as in 2010 and 2011, nighttime temperatures were lower; therefore, pollination problems experienced in 2010 and 2011 were not experienced in 2012. Initial reports from production fields, as well as results presented in this report, suggest that milling may be reduced compared with recent years. This could be related to grain maturation in the months of July and August, when hot daytime temperatures prevailed.

The purposes for conducting on-farm rice variety trials are multiple. Advanced experimental lines are evaluated under various production environments, which gives the breeding program necessary information to select lines for release as public varieties. Specific information includes lodging, yield and milling performance, and insect and disease susceptibility. Placing these trials at multiple locations throughout the Delta exposes these rice lines and varieties to conditions and practices that are common to commercial production that cannot always be reproduced at the experiment station. In addition to providing the breeder and agronomist worthwhile information, the trials provide growers with side-by-side comparisons of the currently available rice varieties and hybrids. This information can be used to guide variety selection in the succeeding year. Variety selection is one of the most important decisions a grower makes in production planning. Growers should attempt to select varieties that offer the best combination of yield and quality while also considering the variety's susceptibility to yield-limiting factors. Furthermore, breeders and agronomists use the variety trials as an educational tool for growers, private consultants, industry personnel, and research and Extension staff. Oftentimes, these trials are used to give interested parties the "first look" at new or potential releases from Mississippi State University and other rice-breeding institutions, as well as private industry.

Test Procedures

A total of 38 entries, including named varieties, hybrids, and experimental lines, were planted at six on-farm locations. One location (Tunica) was not harvested due to poor stands and excessive lodging. Of the 38 entries, 11 are conventional, publicly released, long-grain varieties; five are Clearfield®, inbred varieties; one is a conventional, medium-grain variety; one is a Clearfield®, medium-grain variety; four are conventional hybrids; and two are Clearfield® hybrids. Ten advanced conventional experimental lines and four advanced experimental Clearfield® lines were also included. Individual plots consisted of eight drill rows 15 feet in length and spaced 8 inches apart. Varieties and experimental lines were planted at 85 pounds of seed per acre, and the hybrids were planted at 25 pounds of seed per acre. Seeds were planted approximately 1.25 inches deep into stale seedbeds at all locations. All entries were replicated three times at each location. Three on-farm locations (Clarksdale, Shaw, and Hollandale) received all agricultural inputs based on the whole field. Due to other experiments being conducted in the same field, the Choctaw and Stoneville sites received only one application of urea at 150 pounds of N per acre immediately before flood establishment. Herbicide, insecticide, and fungicide applications were made according to the need of the field at all locations. All management applications are included in **Tables 1-5** [Note: Readers who may be less familiar with pesticide formulations and application rates may wish to refer to pesticide product label information available on the Web or to the 2013 Weed Control Guidelines for Mississippi (MSU-ES/MAFES Pub. No. 1532)].

Agronomic and phenological data were collected at appropriate times during the growing season. Lodging ratings were obtained on a plot-by-plot basis. The entire plot was harvested with a small-plot combine equipped with a computerized weigh system and moisture meter. Due to differences in maturity, the majority of the entries at each location were required to achieve appropriate harvest moisture before they were harvested. Average harvest grain moisture for each entry is reported in **Tables 1-5**. Subsamples of each entry were collected at harvest. Those subsamples were used to determine milling, bushel weight, and 1,000-seed-weight analyses. Replicated research has shown that the border effect common in small-plot research produces increases in grain yields of 10% for inbred varieties and 15% for hybrids. Plot yields for entries should be compared in a relative manner rather than looking at just reported yield potential alone.

All relevant data were subjected to analysis of variance procedures using SAS statistical software. The least significant difference test at the 5% significance level was used to differentiate between entries. If yield differences of two entries reported in **Tables 1-7** were greater than the LSD value reported, the entries were statistically different. In addition, a coefficient of variation (CV) was calculated for each test. This measurement is an indication of the level of precision of each test. Lower CV values indicate greater reliability of the test. The LSD and CV values for yield are reported in the footnotes of **Tables 1-5**.

Results

The performance of each entry in the five individual test locations is presented in **Tables 1-5**. On-Farm Variety Trials were planted over a range of about 1 month (Choctaw planted March 27, and Shaw planted April 28). However, three of the five trials were planted March 27 and 28. Stands were excellent with uniform emergence and optimum plant density. Growing conditions were excellent. Problems that would influence data quality were minimal. Three of the five locations received a fungicide for sheath blight. Furthermore, environmental conditions were not optimum for sheath blight to limit yield. With the optimum planting dates, uniformity of rice stands, and minimal yield-limiting problems during the growing season, rice yields were exceptionally high and, averaged across all varieties, only varied slightly across all locations for the reported entries. The range was 212 bushels per acre at Shaw to 229 bushels per acre at Clarksdale. The CVs for yield ranged from 5% to 13%, which is respectable for yield tests. Milling yields tended to be lower than normal for most entries. As stated earlier, rice maturation occurred in July and August under above-average daytime temperatures.

Table 6 provides a five-location summary of grain yields for the 38 entries. The conventional RiceTec hybrids demonstrated a clear yield advantage (approximately 20%) over conventional inbred varieties. Additionally, Clearfield® hybrids demonstrated a yield advantage over the popular Clearfield® varieties. CLXL745 yields averaged 15% more than the average of Clearfield® varieties. CLXP4534 was 25% more than the average of Clearfield® varieties. However, based on information presented earlier regarding the border effect, as well as large plot demonstrations, growers should not expect more than a 10–15% yield advantage when

planting hybrids compared with high-yielding inbred varieties. For inbred varieties, Mermentau and Rex ranked first and second, respectively, in grain yield when averaged across the five locations. Mermentau is a new release from Louisiana. We will closely monitor this variety in 2013 as it is advertised to have better grain quality (appearance), an issue that has drawn attention in export markets. Rex, released by MAFES in February 2010, continues to be a high-yielding, stable, and essentially lodging-resistant conventional variety. As stated earlier, approximately 7,500 acres were planted in 2012, and many growers have made positive comments. CL151 and CL111 led the Clearfield® inbred varieties.

Entries that begin with RU represent advanced breeding lines that have performed well in multiple stages of yield testing. They represent the best lines from different breeding programs for overall performance and are at the final stage of testing before a decision on their release. RU1104122 is a Clearfield® line that produced yields similar to the commercially available CL111 and CL151. RU1104122 does not show substantial improvement in lodging compared with CL111 and CL151. However, RU1104154 yielded equal to CL142-AR and milled 7% more whole grain with less lodging compared with CL151. RU1104191 and RU1104077 are conventional lines that performed well and have cooking characteristics similar to Bowman and Sabine. These lines will be evaluated through the winter months and into 2013 for possible release.

Table 8 provides agronomic, yield, and milling data from select rice varieties that have been included in on-farm tests for the last 3 years. Variety selection should include emphasis on performance stability over many environments. Varieties such as Cocodrie and Cheniere have been relatively stable over many years, thus they have been popular varieties in Mississippi and the Midsouth. As stated earlier, Rex has also shown tremendous stability over multiple locations both in Mississippi and other states.

Variety and hybrid reactions to common diseases and straighthead disorder are found in **Table 9**. Decisions about the use of fungicides should be made considering a variety's susceptibility to a particular disease, the potential for the disease to cause economic loss, and efficacy of fungicides that are available to combat or prevent the respective disease.

Nitrogen fertilization rate guidelines are provided in **Table 10**. These guidelines were generated from multi-year, multisite N response studies conducted for newly released varieties. A combination of current economics, yield potential, and individual varieties' susceptibility to lodging is included in determining the rate guidelines. Annually, coarse-textured soils, commonly referred to as silt loams, require approximately 30 pounds of nitrogen per acre less than fine-textured or clay soils. Applying less N on silt loam soils can decrease disease and lodging incidence without sacrificing yield and quality.

Suggested conventional varieties for Mississippi rice growers are Bowman, Cocodrie, Cheniere, Rex, Templeton, and Wells. Sabine is often grown on limited acreage by contract. XL723 is a good choice for conventional hybrid rice production. For growers who need to utilize the Clearfield® technology to control red rice, CL111, CL142-AR, CL151, CL152, and CL162 will be available in 2013. Clearfield® hybrids, solely offered by RiceTec Inc. have demonstrated excellent yield potential. Unbiased testing for CLXL745 has been minimal. RiceTec offers information for production of Clearfield® hybrid rice. Seed costs for Clearfield® rice have increased in recent years. Clearfield® rice should be used as a tool with careful attention given to stewardship so the technology can last into the future. Stewardship should encompass minimizing the potential for outcrossing of red rice and Clearfield® rice. Stewardship should also include addition of postemergence and residual herbicides for grass control so that selection pressure is minimized. Incidences of ALS-resistant (Newpath®, Beyond®) barnyardgrass and sedges have increased in the last few years. Outcrossing and grass resistance jeopardize this important technology.

As has been demonstrated in previous years, no variety or hybrid is perfect. Each variety that is released has qualities or characteristics that add value to the marketplace. Varietal performance over time and in different environments should be considered when choosing which to plant. For varieties with high yield potential, consider risks such as lodging and disease, and plan to manage for those yield-limiting factors. Multiple varieties, both Clearfield® and conventional, are recommended for average-sized rice farms to further spread the risks associated with rice production.

Table 1. Performance of rice varieties, hybrids, and lines grown on Alligator clay soil near Clarksdale, Coahoma County, Mississippi, 2012.[1]

Entry	Yield[2]	Milled head rice	Whole milled rice	Total milled rice	Harvest moisture	Bushel weight	Plant height	50% heading[3]	Lodging[4]	Lodging[5]	1,000 seed weight[6]
	bu/A	*lb/A*	*%*	*%*	*%*	*lb*	*in*	*days*	*%*	*(0-5)*	*g*
Conventional											
Antonio	220	5690	56.1	70.2	13.6	43.3	38	94	3	1.7	22.8
ARIZE1003	161	3514	44.7	66.6	18.5	37.3	45	104	93	4.0	24.7
01H10010	178	3256	33.4	66.6	14.8	37.8	46	98	100	4.3	25.3
Bowman	238	6254	57.3	68.8	14.7	44.2	40	95	13	2.0	24.7
Caffey[7]	229	6185	60.7	68.3	15.6	45.3	38	96	30	2.0	27.6
Cheniere	228	7009	59.4	70.8	12.5	42.2	36	89	33	2.0	21.7
Cocodrie	237	6699	58.5	69.4	13.1	43.5	37	88	7	1.3	23.0
Colorado	253	5835	50.6	68.1	13.5	41.6	38	86	47	2.7	25.2
Mermentau	263	7028	59.6	69.4	14.0	42.8	39	90	0	1.0	22.3
Rex	261	7072	56.7	67.9	14.4	42.8	46	96	10	1.3	26.4
RoyJ	180	3886	48.2	69.5	15.8	42.2	44	103	20	1.7	23.5
Sabine	206	5953	60.6	69.3	13.9	43.8	37	96	52	2.7	22.7
Taggart	214	4185	45.2	68.9	15.0	43.9	47	99	33	2.3	26.6
Templeton	227	5843	53.2	69.4	13.9	43.7	42	96	62	3.0	21.8
XP753	258	4820	40.9	69.2	12.6	41.7	35	84	30	1.7	24.8
XP4523	272	6579	50.4	69.2	12.5	41.8	35	84	30	2.0	24.7
RU1004053	236	5932	54.8	69.5	14.0	42.4	38	94	3	1.3	24.8
RU1004197	237	6878	58.1	69.7	13.3	43.0	37	89	0	1.0	22.6
RU1104077	235	6500	56.4	68.4	13.7	45.0	38	91	60	3.0	24.3
RU1104156	220	6269	57.5	67.8	14.5	42.2	40	95	0	1.0	25.4
RU1104157	213	5523	52.5	68.3	14.3	41.7	40	94	70	3.0	22.6
RU1104186	242	4844	45.3	69.2	13.6	43.3	35	95	0	1.0	24.7
RU1104191	229	5377	49.6	67.9	14.1	45.6	36	91	28	2.3	25.2
RU1104193	204	4170	40.7	68.4	14.3	43.3	34	94	0	1.0	24.8
RU1104194	200	4988	58.6	68.8	16.5	41.8	42	100	17	1.3	27.1
RU1104198	218	5038	53.4	67.2	15.5	41.1	40	99	0	1.0	25.5
Clearfield											
CL111	260	7282	58.1	69.7	13.3	42.9	40	88	40	2.3	24.2
CL142-AR	207	3446	39.1	68.6	15.0	43.1	46	92	67	3.0	26.3
CL151	253	6698	59.8	70.3	14.6	42.5	38	91	53	3.3	21.9
CL152	214	6741	60.0	69.1	14.7	42.1	41	95	57	2.7	20.8
CL162	207	3744	38.6	68.6	12.5	42.5	40	91	97	4.0	26.0
CL261[7]	185	4814	56.3	67.8	16.5	44.1	40	96	97	4.0	23.6
CLXP4534	309	6019	43.5	68.4	11.8	40.3	34	84	0	1.0	25.3
CLXL745	268	6620	53.8	70.2	13.1	40.0	44	89	80	3.3	25.2
RU1004083	239	5145	46.4	69.4	13.6	43.7	39	91	40	2.7	23.8
RU1104073	201	4279	51.1	68.4	14.9	42.1	42	89	60	4.0	22.2
RU1104122	263	6479	54.8	68.6	13.6	43.3	42	90	47	3.0	24.1
RU1104154	244	6729	55.3	68.4	14.0	42.5	38	91	33	2.0	24.3

[1]**Planting date:** March 28. **Emergence:** April 5. **Herbicides:** Gramoxone at 1 qt/A + Command at 1 pt/A on March 29; Grasp Xtra at 20 fl oz/A + Facet at 0.4 lb/A on April 30; Clincher at 15 fl oz/A on May 22. **Fertilizer:** 300 lb/A urea on May 1; 100 lb/A urea on May 30. **Insecticide:** Lambda® at 1 gal per 35 acres on July 20. **Fungicide:** Quadris at 12 fl oz/A on June 14. **Permanent Flood**: May 3. **Drained field:** August 1. **Harvested:** August 16. **A difference of 47 bushels per acre is required for one variety to differ from another at the 5% probability level; C.V. = 13%.**

[2]Rough rice at 12% moisture.

[3]Days after emergence.

[4]Percent of plot that was lodged.

[5]Severity of lodging: 1=plants totally erect, 5=plants completely on ground.

[6]Weight of 1,000 kernels.

[7]Medium grain.

Table 2. Performance of rice varieties, hybrids, and lines grown on Forestdale silty clay loam soil near Shaw, Bolivar County, Mississippi, 2012.[1]

Entry	Yield[2]	Milled head rice	Whole milled rice	Total milled rice	Harvest moisture	Bushel weight	Plant height	50% heading[3]	Lodging[4]	Lodging[5]	1,000 seed weight[6]
	bu/A	*lb/A*	*%*	*%*	*%*	*lb*	*in*	*days*	*%*	*(0-5)*	*g*
Conventional											
Antonio	220	6045	61.0	70.5	14.2	42.9	40	84	0	1.0	23.8
ARIZE1003	137	2498	39.4	64.9	19.4	36.2	41	94	0	1.0	21.9
01H10010	200	4063	45.2	66.9	14.7	39.0	43	94	78	4.0	24.2
Bowman	200	5325	59.2	69.2	16.4	44.9	40	94	0	1.0	26.1
Caffey[7]	219	6308	64.1	69.4	15.9	45.4	36	84	0	1.0	27.2
Cheniere	219	6184	62.8	71.2	14.6	43.4	39	90	2	1.3	22.6
Cocodrie	225	6481	64.1	70.9	14.1	43.5	40	83	7	1.3	23.3
Colorado	187	4791	56.6	69.0	14.7	41.7	41	81	38	3.0	26.4
Mermentau	224	6271	62.2	69.9	15.6	42.7	41	85	0	1.0	23.3
Rex	227	6107	59.9	68.4	15.4	43.6	41	84	0	1.0	27.6
RoyJ	176	4492	56.6	69.6	19.6	42.7	42	95	0	1.0	23.0
Sabine	178	4808	59.3	69.4	16.6	43.6	40	85	28	2.3	24.6
Taggart	214	5488	57.0	69.5	17.2	44.5	44	94	0	1.0	27.1
Templeton	213	6009	62.7	70.0	15.9	44.1	42	94	0	1.0	21.6
XP753	258	6625	57.0	69.6	13.3	42.5	40	83	7	1.3	24.5
XP4523	266	6486	54.0	69.4	13.1	41.9	39	81	40	1.7	24.1
RU1004053	203	5304	58.1	69.2	14.5	42.7	36	84	0	1.0	26.3
RU1004197	229	6399	62.2	70.5	14.2	43.9	39	84	0	1.0	24.0
RU1104077	207	5769	62.0	68.9	16.6	45.5	38	93	0	1.0	25.3
RU1104156	209	5636	59.9	68.3	16.0	42.9	39	89	0	1.0	27.5
RU1104157	202	5592	61.5	69.3	15.5	43.2	40	89	0	1.0	23.6
RU1104186	217	5918	60.6	70.2	15.6	45.0	36	90	0	1.0	25.8
RU1104191	197	5138	57.9	68.2	17.2	45.7	38	94	0	1.0	24.4
RU1104193	184	4633	56.0	68.9	15.1	44.3	34	90	0	1.0	25.5
RU1104194	194	5267	60.1	68.9	17.9	42.4	38	90	0	1.0	28.7
RU1104198	202	5353	58.9	68.2	18.8	42.5	37	93	0	1.0	28.0
Clearfield											
CL111	227	6325	61.9	69.8	15.2	44.1	43	84	7	2.3	25.9
CL142-AR	208	5054	54.0	69.4	15.9	45.5	46	91	17	1.3	27.1
CL151	201	5533	61.1	70.4	16.0	42.8	40	84	65	3.7	23.1
CL152	217	6290	64.3	69.8	16.1	43.6	41	90	0	1.0	22.1
CL162	155	3649	52.4	69.2	16.0	42.8	43	84	72	4.0	25.2
CL261[7]	199	5679	63.4	68.9	16.6	44.9	39	83	0	1.0	24.7
CLXP4534	290	7244	55.4	69.8	12.7	40.5	38	81	0	1.0	25.0
CLXL745	258	6862	59.0	70.4	13.8	39.7	46	83	65	3.3	25.7
RU1004083	226	5926	58.1	69.6	14.0	43.4	40	84	0	1.0	24.5
RU1104073	235	6416	60.8	68.5	15.4	42.5	43	85	3	1.3	22.8
RU1104122	222	5972	59.7	68.9	15.6	44.1	41	93	0	1.0	25.5
RU1104154	209	5255	55.9	68.2	15.5	41.9	41	84	0	1.0	23.6

[1]**Planting date:** April 28. **Emergence:** May 8. **Herbicides:** Roundup at 22 fl oz/A + Command at 1 pt/A on April 12; SuperWham at 4 qt/A + Facet at 0.5 lb/A on May 14; Regiment at 0.5 oz/A on June 6. **Fertilizer:** 100 lb/A urea on June 2, 10, 20, and 27. **Insecticide:** Karate at 2 fl oz/A on August 3. **Fungicide:** Stratego at 17.5 fl oz/A on July 20. **Irrigation:** Flushed May 12; flooded June 5. **Drained field:** August 29. **Harvested:** September 13. **A difference of 25 bushels per acre is required for one variety to differ from another at the 5% probability level; C.V. = 7%.**
[2]Rough rice at 12% moisture.
[3]Days after emergence.
[4]Percent of plot that was lodged.
[5]Severity of lodging: 1=plants totally erect, 5=plants completely on ground.
[6]Weight of 1,000 kernels.
[7]Medium grain.

Table 3. Performance of rice varieties, hybrids, and lines grown on Sharkey clay soil near Choctaw, Bolivar County, Mississippi, 2012.[1]

Entry	Yield[2]	Milled head rice	Whole milled rice	Total milled rice	Harvest moisture	Bushel weight	Plant height	50% heading[3]	Lodging[4]	Lodging[5]	1,000 seed weight[6]
	bu/A	*lb/A*	*%*	*%*	*%*	*lb*	*in*	*days*	*%*	*(0-5)*	*g*
Conventional											
Antonio	208	5981	63.8	73.0	17.7	44.5	35	87	0	1	25.2
ARIZE1003	233	5869	55.8	68.3	22.8	38.8	46	100	0	1	26.1
01H10010	241	5210	48.0	67.5	21.0	38.2	46	94	0	1	27.0
Bowman	214	5589	58.1	71.2	17.4	45.9	35	87	0	1	26.9
Caffey[7]	215	5986	61.6	70.3	18.5	46.0	36	90	0	1	30.1
Cheniere	214	6165	63.9	73.9	16.3	44.8	33	90	0	1	23.6
Cocodrie	218	6218	63.4	73.1	16.1	44.6	32	84	0	1	24.8
Colorado	217	5899	60.4	72.0	16.1	44.0	34	84	0	1	27.7
Mermentau	220	6449	65.2	72.7	17.4	43.9	32	87	0	1	23.8
Rex	210	5936	62.9	70.4	17.0	44.5	37	90	0	1	28.8
RoyJ	211	5694	60.1	73.5	17.1	42.2	40	93	0	1	25.3
Sabine	212	6072	63.4	72.4	16.0	45.2	34	88	0	1	25.1
Taggart	222	5470	54.7	72.1	16.5	45.0	41	93	0	1	28.3
Templeton	202	4920	54.0	73.3	15.4	45.6	37	90	0	1	24.4
XP753	280	6241	49.5	70.7	14.6	41.9	37	81	0	1	26.4
XP4523	276	6172	49.4	70.8	14.5	41.9	36	81	0	1	26.3
RU1004053	208	5248	56.0	71.7	17.2	44.2	32	88	0	1	27.8
RU1004197	208	5954	63.7	73.4	15.7	44.6	33	86	0	1	25.2
RU1104077	223	5259	52.3	71.2	15.1	45.9	35	86	0	1	25.8
RU1104156	229	6393	62.1	69.3	17.7	44.0	36	88	0	1	28.2
RU1104157	248	6415	57.5	71.6	15.1	43.6	38	87	0	1	24.9
RU1104186	219	5089	51.4	71.8	15.7	44.2	33	88	0	1	27.7
RU1104191	243	5664	52.0	71.0	15.1	46.0	36	87	0	1	26.3
RU1104193	215	4878	50.3	71.6	16.0	45.1	34	90	0	1	28.2
RU1104194	235	6760	63.8	70.6	18.8	42.9	38	92	0	1	30.1
RU1104198	225	6371	62.9	70.5	19.1	42.9	36	92	0	1	29.6
Clearfield											
CL111	217	5587	57.3	72.7	14.8	44.6	34	86	0	1	26.8
CL142-AR	230	5476	52.9	72.1	18.5	45.3	42	90	0	1	28.0
CL151	245	6821	61.8	72.6	18.2	44.0	35	88	0	1	24.3
CL152	223	6500	64.9	72.7	16.9	44.0	36	89	0	1	23.2
CL162	227	5469	53.4	71.4	15.0	44.4	37	86	0	1	27.4
CL261[7]	208	5994	64.1	70.6	17.7	46.0	36	89	0	1	26.6
CLXP4534	285	5653	44.1	69.1	14.2	40.5	35	81	0	1	27.3
CLXL745	275	6463	52.2	71.4	14.4	39.8	37	81	0	1	27.1
RU1004083	208	4659	49.6	71.6	15.8	45.2	35	87	0	1	26.5
RU1104073	231	6532	62.7	72.0	17.3	43.8	36	88	0	1	24.4
RU1104122	214	5485	56.9	72.0	15.2	44.9	36	87	0	1	26.5
RU1104154	224	5594	55.3	71.5	17.0	43.5	34	89	0	1	26.2

[1]**Planting date:** March 27. **Emergence:** April 4. **Herbicides:** Intensity One at 16 fl oz/A+ Valor at 2 oz/A + Choice at 6.4 oz/A + 2,4-D Low Vol 4 at 1 qt/A + Roundup PowerMax at 22 fl oz/A on January 24. Touchdown Total at 1 qt/A + Command at 1 pt/A on March 30. Regiment at 0.6 oz/A + Facet at 0.33 lb/A on April 29. **Fertilizer:** 100 lb/A DAP+AMS on April 19; 326 lb/A urea on May 2. **Insecticide:** Karate at 1.8 fl oz/A on July 9. **Irrigation**: Flooded May 4. **Drained field:** July 23. **Harvested:** August 9. **A difference of 26 bushels per acre is required for one variety to differ from another at the 5% probability level; C.V. = 7%.**

[2]Rough rice at 12% moisture.

[3]Days after emergence.

[4]Percent of plot that was lodged.

[5]Severity of lodging: 1=plants totally erect, 5=plants completely on ground.

[6]Weight of 1,000 kernels.

[7]Medium grain.

Table 4. Performance of rice varieties, hybrids, and lines grown on Tunica clay soil at Stoneville, Washington County, Mississippi, 2012.[1]

Entry	Yield[2]	Milled head rice	Whole milled rice	Total milled rice	Harvest moisture	Bushel weight	Plant height	50% heading[3]	Lodging[4]	Lodging[5]	1,000 seed weight[6]
	bu/A	*lb/A*	*%*	*%*	*%*	*lb*	*in*	*days*	*%*	*(0-5)*	*g*
Conventional											
Antonio	194	5403	62.0	72.1	15.2	42.9	38	82	0	1.0	24.2
ARIZE1003	266	6973	58.3	69.0	19.9	39.2	47	87	40	1.7	25.9
01H10010	258	5703	49.2	68.9	16.3	38.7	46	82	90	2.0	25.6
Bowman	221	5402	54.2	70.4	15.4	44.4	39	82	0	1.0	26.2
Caffey[7]	239	5555	51.6	69.6	16.2	44.0	38	83	0	1.0	29.4
Cheniere	228	6422	62.5	73.0	14.9	43.0	37	78	0	1.0	22.5
Cocodrie	221	6204	62.4	74.0	14.3	43.3	37	75	0	1.0	24.2
Colorado	214	5417	56.2	70.9	14.6	41.7	42	74	8	1.7	25.3
Mermentau	228	6325	61.6	71.6	15.1	42.2	38	78	0	1.0	22.2
Rex	214	5586	57.9	69.3	14.6	42.3	41	81	0	1.0	27.8
RoyJ	225	5655	55.8	72.3	15.4	43.0	43	84	0	1.0	24.6
Sabine	200	5540	61.4	70.7	14.8	43.1	38	81	0	1.0	23.7
Taggart	229	5023	48.6	70.8	14.7	44.2	47	82	0	1.0	27.2
Templeton	216	4955	50.9	71.5	14.1	44.2	45	82	0	1.0	22.7
XP753	290	6391	48.8	70.6	13.5	41.3	43	72	17	1.3	24.7
XP4523	288	6405	48.8	70.2	13.7	41.6	42	72	17	1.3	25.0
RU1004053	214	4684	48.7	70.9	14.7	42.2	36	81	0	1.0	25.6
RU1004197	214	5628	58.6	72.3	14.5	42.8	38	77	0	1.0	23.5
RU1104077	226	4804	47.3	70.0	14.3	44.6	40	78	0	1.0	25.0
RU1104156	210	5649	59.7	68.6	14.9	41.3	41	78	0	1.0	26.4
RU1104157	212	5143	53.9	70.2	14.2	41.4	40	78	0	1.0	23.0
RU1104186	212	3987	41.6	71.2	14.3	43.1	36	82	0	1.0	26.2
RU1104191	231	4958	47.6	70.4	14.1	44.6	41	78	0	1.0	12.5
RU1104193	214	4706	48.2	70.9	14.1	43.5	36	78	0	1.0	26.1
RU1104194	212	5828	61.1	70.2	16.3	40.8	42	78	0	1.0	28.2
RU1104198	214	5496	57.2	69.0	16.5	40.7	36	82	0	1.0	27.2
Clearfield											
CL111	226	5865	57.6	71.5	14.0	42.8	42	77	0	1.0	25.2
CL142-AR	232	4750	45.4	71.2	14.8	44.5	47	78	0	1.0	26.7
CL151	231	6048	57.9	72.5	15.0	41.9	39	77	0	1.0	23.4
CL152	215	5314	54.9	70.5	14.5	41.8	39	77	0	1.0	21.4
CL162	212	4832	50.7	70.7	14.4	42.0	45	72	30	2.7	26.5
CL261[7]	201	5162	57.1	70.3	15.0	44.0	44	77	0	1.0	24.9
CLXP4534	302	5895	43.3	69.4	13.7	40.2	39	69	0	1.0	25.6
CLXL745	267	6328	52.6	71.0	13.7	38.9	45	74	60	2.0	26.4
RU1004083	222	4606	46.1	70.7	14.2	43.3	39	78	0	1.0	25.0
RU1104073	215	5766	59.6	70.7	14.9	42.3	41	81	0	1.0	22.9
RU1104122	226	5668	55.7	70.0	14.4	43.0	38	78	0	1.0	25.6
RU1104154	219	5153	52.4	70.3	14.5	42.0	39	77	0	1.0	25.2

[1]**Planting date:** April 24. **Emergence:** May 2. **Herbicides:** Gramoxone at 2 pt/A + Command at 1 pt/A on April 27; 3 qt/A RiceShot + 0.5 lb/A Facet + 0.8 oz/A Permit. **Fertilizer:** 350 lb/A urea on May 21. **Insecticide:** Karate at 2 oz/A on July 27. **Permanent Flood**: May 23. **Drained field:** August 15. **Harvested:** August 28. **A difference of 15 bushels per acre is required for one variety to differ from another at the 5% probability level; C.V. = 4%.**

[2]Rough rice at 12% moisture.

[3]Days after emergence.

[4]Percent of plot that was lodged.

[5]Severity of lodging: 1=plants totally erect, 5=plants completely on ground.

[6]Weight of 1,000 kernels.

[7]Medium grain.

Table 5. Performance of rice varieties, hybrids, and lines grown on Sharkey clay soil near Hollandale, Washington County, Mississippi, 2012.[1]

Entry	Yield[2]	Milled head rice	Whole milled rice	Total milled rice	Harvest moisture	Bushel weight	Plant height	50% heading[3]	Lodging[4]	Lodging[5]	1,000 seed weight[6]
	bu/A	*lb/A*	*%*	*%*	*%*	*lb*	*in*	*days*	*%*	*(0-5)*	*g*
					Conventional						
Antonio	213	5280	54.0	68.8	13.3	44.0	35	89	13	1.3	24.1
ARIZE1003	261	5893	49.0	64.8	15.7	39.9	46	96	80	2.0	25.4
01H10010	246	4381	40.7	63.5	15.9	39.0	49	98	93	3.7	25.4
Bowman	221	5024	49.4	68.6	14.2	45.6	37	94	47	1.7	26.0
Caffey[7]	222	5566	54.3	70.0	14.3	45.6	37	93	7	1.3	27.6
Cheniere	230	5241	50.5	70.1	13.3	43.6	33	89	0	1.0	22.6
Cocodrie	221	5412	53.2	68.6	12.9	44.1	35	86	0	1.0	24.0
Colorado	180	4020	47.6	65.5	13.6	42.1	36	83	63	2.7	26.3
Mermentau	235	5883	54.9	66.9	13.8	43.5	34	87	13	1.7	23.5
Rex	236	5992	54.8	66.5	13.8	43.5	41	89	0	1.0	27.2
RoyJ	231	4293	40.2	68.6	13.6	43.5	42	94	0	1.0	23.5
Sabine	194	4291	49.2	68.9	13.3	44.6	36	89	50	1.7	24.2
Taggart	225	3820	38.5	68.3	13.4	44.3	42	94	0	1.0	26.8
Templeton	214	4067	41.7	68.3	13.1	44.6	42	90	0	1.0	22.9
XP753	258	5230	43.7	67.3	12.3	42.1	38	84	33	1.7	24.9
XP4523	255	5268	44.6	66.9	12.6	41.9	37	84	40	1.7	25.0
RU1004053	211	4506	46.0	68.2	13.7	43.5	34	89	0	1.0	25.8
RU1004197	230	5444	53.0	68.6	13	44.3	36	86	27	1.7	24.8
RU1104077	239	4934	44.8	68.1	13.5	45.8	37	90	47	2.0	25.4
RU1104156	253	6317	53.6	67.5	13.9	42.9	38	89	0	1.0	27.2
RU1104157	221	5055	50.4	66.6	13.2	43.0	37	89	40	2.0	23.7
RU1104186	222	3538	34.6	69.8	13.3	43.8	34	93	0	1.0	24.9
RU1104191	231	4762	45.2	68.4	13.6	45.7	37	89	17	1.3	25.5
RU1104193	201	2932	31.6	67.4	12.9	44.5	33	90	0	1.0	24.7
RU1104194	226	6186	59.5	68.3	14.4	42.3	37	90	0	1.0	26.7
RU1104198	230	5291	49.5	66.1	14.5	42.1	37	94	0	1.0	26.4
					Clearfield						
CL111	222	5304	52.0	69.1	12.9	43.7	37	85	7	1.3	25.6
CL142-AR	240	3626	33.6	68.8	14	45.1	45	89	30	1.7	27.4
CL151	233	5314	49.4	68.0	13.6	42.9	37	86	0	1.0	23.3
CL152	233	5064	48.4	66.7	13.1	43.3	38	89	0	1.0	21.7
CL162	198	3862	43.4	69.6	13.4	43.5	41	86	90	3.3	27.1
CL261[7]	208	5615	60.3	68.3	14.3	45.2	39	86	10	1.3	24.7
CLXP4534	262	4695	39.7	66.0	12.3	41.0	35	83	17	1.3	26.1
CLXL745	235	4683	45.2	68.0	13	39.9	41	83	27	1.3	25.8
RU1004083	215	3901	38.8	69.1	13.4	44.5	36	88	0	1.0	27.1
RU1104073	231	4987	47.3	66.7	13.7	43.1	38	89	17	1.7	23.2
RU1104122	230	5089	49.4	67.1	13.9	44.1	38	90	73	3.0	24.8
RU1104154	225	4944	47.1	67.0	13.2	43.3	36	89	0	1.0	24.7

[1]**Planting date:** March 28. **Emergence:** April 8. **Herbicides:** Roundup at 22 fl oz/A + Command at 21.3 fl oz/A + Sharpen at 2 oz/A on March 29; Regiment at 0.5 oz/A on May 8. **Fertilizer:** 200 lb/A urea on May 9; 100 lb/A urea on May 30 and June 6. **Insecticide:** Province at 3.9 fl oz/A on July 10. **Fungicide:** Quilt XL at 14 fl oz/A on June 27. **Irrigation**: Flushed April 30; flooded May 9. **Drained field:** July 30. **Harvested:** August 21. **A difference of 18 bushels per acre is required for one variety to differ from another at the 5% probability level; C.V. = 5%.**

[2]Rough rice at 12% moisture.

[3]Days after emergence.

[4]Percent of plot that was lodged.

[5]Severity of lodging: 1=plants totally erect, 5=plants completely on ground.

[6]Weight of 1,000 kernels.

[7]Medium grain.

Table 6. Average rough rice yields of varieties, hybrids, and lines evaluated in on-farm trials at five locations, 2012.

Entry	Clarksdale	Shaw	Choctaw	Stoneville	Hollandale	Average	Stability
	bu/A	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	
			Conventional				
Antonio	220	220	208	194	213	211	5.1
ARIZE1003	161	137	233	266	261	212	27.9
01H10010	178	200	241	258	246	225	15.1
Bowman	238	200	214	221	221	219	6.3
Caffey	229	219	215	239	222	225	4.2
Cheniere	228	219	214	228	230	224	3.1
Cocodrie	237	225	218	221	221	224	3.3
Colorado	253	187	217	214	180	210	13.8
Mermentau	263	224	220	228	235	234	7.3
Rex	261	227	210	214	236	229	8.9
RoyJ	180	176	211	225	231	204	12.4
Sabine	206	178	212	200	194	198	6.6
Taggart	214	214	222	229	225	221	3.0
Templeton	227	213	202	216	214	214	4.2
XP753	258	258	280	290	258	272	5.6
XP4523	272	266	276	288	255	269	4.5
RU1004053	236	203	208	214	211	214	6.0
RU1004197	237	229	208	214	230	223	5.4
RU1104077	235	207	223	226	239	226	5.5
RU1104156	220	209	229	210	253	224	8.1
RU1104157	213	202	248	212	221	219	8.0
RU1104186	242	217	219	212	222	222	5.2
RU1104191	229	197	243	231	231	226	7.6
RU1104193	204	184	215	214	201	204	6.1
RU1104194	200	194	235	212	226	214	8.0
RU1104198	218	202	225	214	230	218	4.9
			Clearfield				
CL111	260	227	217	226	222	231	7.4
CL142-AR	207	208	230	232	240	223	6.7
CL151	253	201	245	231	233	233	8.5
CL152	214	217	223	215	233	221	3.6
CL162	207	155	227	212	198	200	13.6
CL261	185	199	208	201	208	200	4.7
CLXP4534	309	290	285	302	262	290	6.2
CLXL745	268	258	275	267	235	261	6.0
RU1004083	239	226	208	222	215	222	5.3
RU1104073	201	235	231	215	231	222	6.4
RU1104122	263	222	214	226	230	231	8.2
RU1104154	244	209	224	219	225	224	5.7
Mean	229	212	227	228	227	—	—
LSD	47	25	26	15	18	—	—
CV	13	7	7	4	5	—	—
Planting Date	March 28	April 28	March 27	April 24	Mar. 28	—	—
Emergence date	April 5	May 8	April 4	May 2	April 8	—	—

Table 7. Average agronomic and milling performance of varieties, hybrids, and lines grown at six on-farm locations, 2012.

Entry	Origin[1]	Yield[2]	Milled head rice	Whole milled rice	Total milled rice	Harvest moisture	Bushel weight	Plant height	50% heading[3]	Lodging[4]	Lodging[5]	1,000 seed weight[6]	Approximate seeds/pound
		bu/A	*lb/A*	*%*	*%*	*%*	*lb*	*in*	*days*	*%*	*(0-5)*	*g*	*no.*
Conventional													
Antonio	TX	211	5710	60.0	71.1	14.8	43.5	37	87	3	1.2	24.0	18884
ARIZE1003	Bayer	212	4987	49.8	66.9	19.3	38.3	45	96	43	1.9	24.8	18290
01H10010	Bayer	225	4631	44.3	66.9	16.5	38.6	46	93	72	3.0	25.5	17788
Bowman	MS	219	5500	56.0	69.8	15.6	45.0	38	90	12	1.3	26.0	17460
Caffey[7]	LA	225	5927	58.6	69.6	16.1	45.3	37	89	7	1.3	28.4	15983
Cheniere	LA	224	6216	60.6	72.0	14.3	43.4	36	87	7	1.3	22.6	20071
Cocodrie	LA	224	6225	61.0	71.6	14.1	43.8	36	83	3	1.1	23.9	19011
Colorado	TX	210	5233	55.1	69.5	14.5	42.2	38	82	31	2.2	26.2	17326
Mermentau	LA	234	6381	61.2	70.4	15.2	43.0	37	85	3	1.1	23.0	19705
Rex	MS	229	6078	58.8	68.7	15.0	43.3	41	88	2	1.1	27.6	16459
RoyJ	AR	204	4914	53.4	70.9	16.3	42.7	43	94	4	1.1	24.0	18916
Sabine	TX	198	5365	59.4	70.3	14.9	44.1	37	88	26	1.7	24.1	18853
Taggart	AR	221	4920	49.9	70.1	15.4	44.4	44	92	7	1.3	27.2	16676
Templeton	AR	214	5190	53.3	70.7	14.5	44.5	41	90	12	1.4	22.7	20000
XP753	RT	272	6229	49.9	69.4	13.3	41.9	38	80	25	1.5	25.0	18129
XP4523	RT	269	5990	48.8	69.7	13.3	41.9	39	81	17	1.4	25.1	18101
RU1004053	MS	214	5122	53.1	70.1	14.8	43.0	35	87	1	1.1	26.1	17406
RU1004197	MS	223	6045	59.7	71.2	14.1	43.7	37	85	5	1.1	24.0	18884
RU1104077	MS	226	5441	53.2	69.4	14.7	45.4	38	88	21	1.6	25.2	18032
RU1104156	MS	224	6016	59.0	68.4	15.4	42.7	39	88	0	1.0	26.9	16837
RU1104157	MS	219	5585	55.7	69.5	14.5	42.6	39	87	22	1.6	23.6	19253
RU1104186	MS	222	4750	47.7	70.6	14.5	43.9	35	90	0	1.0	25.9	17541
RU1104191	MS	226	5197	50.9	69.3	14.8	45.6	38	88	9	1.3	25.3	17921
RU1104193	MS	204	4374	46.8	69.7	14.5	44.1	34	88	0	1.0	25.9	17541
RU1104194	MS	214	5840	60.9	69.5	16.8	42.0	39	90	3	1.1	28.2	16108
RU1104198	MS	218	5563	57.1	68.4	16.9	41.8	37	92	0	1.0	27.3	16591
Clearfield													
CL111	LA-HA	231	6039	57.7	70.7	14.0	43.6	39	84	11	1.6	25.5	17760
CL142-AR	AR-HA	223	4614	46.3	70.2	15.6	44.7	45	88	23	1.6	27.1	16738
CL151	LA-HA	233	6095	58.5	71.0	15.5	42.8	38	85	24	2.0	23.2	19552
CL152	LA-HA	221	5994	59.1	70.0	15.1	42.9	39	88	11	1.3	21.8	20769
CL162	MS-HA	200	4389	48.7	70.0	14.2	43.0	41	84	58	3.0	26.4	17156
CL261[7]	LA-HA	200	5490	60.5	69.3	16.0	44.9	40	86	21	1.7	24.9	18217
CLXP4534	RT	290	5985	45.7	68.7	13.0	40.5	36	80	3	1.1	25.9	17541
CLXL745	RT	261	6275	53.0	70.4	13.6	39.7	43	82	46	2.2	26.0	17419
RU1004083	MS	222	4897	48.6	70.2	14.2	44.0	38	86	8	1.3	25.4	17872
RU1104073	MS	222	5744	57.4	69.5	15.2	42.7	40	86	16	1.8	23.1	19636
RU1104122	MS	231	5732	55.8	69.6	14.5	43.9	39	88	24	1.8	25.3	17929
RU1104154	MS	224	5489	53.5	69.3	14.9	42.6	38	86	7	1.2	24.8	18290
Mean		225	5530	54.5	69.8	15.0	43.1	39	—	15	1.5	25.2	—
LSD		16	583	2.3	0.4	0.5	0.4	4	—	14	0.4	0.4	—
CV		10	14	5.5	0.8	4.8	1.1	1	—	127	38.0	1.9	—

[1]AR = Arkansas; LA = Louisiana; MS = Mississippi; HA = Horizon Ag, in conjunction with the respective state; RT = RiceTec Inc.
[2]Rough rice at 12% moisture.
[3]Days after emergence.
[4]Percent of plot that was lodged.
[5]Severity of lodging: 1=plants totally erect, 5=plants completely on ground.
[6]Weight of 1,000 kernels.
[7]Medium grain.

Table 8. Average agronomic and milling performance of varieties, hybrids, and lines grown at on-farm locations from 2010-12.[1]

Entry	Origin[2]	Yield[3]	Milled head rice	Whole milled rice	Total milled rice	Bushel weight	Plant height	50% heading[4]	1,000 seed weight[5]	Approximate seeds/pound
		bu/A	*lb/A*	*%*	*%*	*lb*	*in*	*days*	*g*	*no.*
Bowman	MS	212	5519	58.0	69.3	44.0	40	90	25.7	17716
Cheniere	LA	212	5824	60.5	71.3	42.2	38	87	22.0	20688
CL111	LA-HA	233	6035	57.6	69.6	41.9	41	83	24.8	18403
CL142-AR	AR-HA	234	5126	48.8	68.7	42.9	46	86	26.6	17168
CL151	LA-HA	230	5914	57.2	69.7	41.3	40	84	22.9	19788
CL162	MS-HA	204	4897	53.2	69.3	41.2	43	83	25.2	17975
CL261[6]	LA-HA	198	5521	61.8	68.8	43.5	42	85	24.2	18736
CLXL745	RT	274	6833	55.3	70.5	38.8	44	81	25.1	18037
Cocodrie	LA	226	6150	60.3	70.2	42.7	39	84	23.5	19432
Rex	MS	226	5847	57.6	67.9	41.9	42	85	26.5	17088
Taggart	AR	220	4957	50.3	69.7	43.0	45	91	26.4	17075
Templeton	AR	211	5166	54.1	69.6	43.4	43	89	21.9	20906

[1]Data presented are the averages of 17 total sites that served as the On-Farm Variety Trials for 2010-12. Only entries that were included in all 3 years are presented.
[2]AR = Arkansas; LA = Louisiana; MS = Mississippi; HA = Horizon Ag, in conjunction with the respective state; RT = RiceTec Inc.
[3]Rough rice at 12% moisture.
[4]Days after emergence.
[5]Weight of 1,000 kernels.
[6]Medium grain.

Table 9. Reactions of rice varieties and hybrids to common diseases.[1]

Variety/ Hybrid	Sheath blight	Blast	Stem rot	Kernel smut	False smut	Brown leaf spot	Straight head	Lodging	Black sheath rot	Bacterial panicle blight	Narrow brown leaf spot	Leaf smut
Bowman	MS	S	S	S	S	R	MS	MS	MS	S	MR	—
Cheniere	S	S	S	S	S	MR	MR	MS	MS	MS	VS	MR
CL111	VS	S	VS	S	S	R	MS	S	S	S	S	
CL142-AR	MS	S	S	S	S	R	MS	MS	S	S	MS	
CL151	S	VS	VS	S	S	R	VS	S	S	VS	S	—
CL152	S	MS			S		MR	MR		MS	R	
CL162	S	S	S	S	S	—	MR	VS	S	MR	R	—
CL261	MS	MS	S	MS	S	R	S	MR	MS	S	S	
CLXL729	MS	MR	MS	MS	S	R	MR	S	MS	MR	MS	—
CLXL745	MS	MR	MS	MS	S	R	MR	S	MS	MR	MS	—
Cocodrie	S	S	S	S	S	MR	VS	MS	MS	VS	MS	MS
Rex	S	VS					MR	MR		VS	VS	
Sabine	S	S	S	S	S	R	—	MR	S	S	MS	—
Taggart	MS	S	S	S	S	—	—	MS	S	S	—	—
Templeton	MS	R	S	S	S	—	—	MS	S	S	—	—
Wells	S	S	S	MS	S	MR	MR	S	—	VS	R	—
XL723	MS	MR	MS	MS	S	R	MR	S	MS	MR	MS	—

[1]Abbreviations: R = resistant, MR = moderately resistant, MS = moderately susceptible, S = susceptible, VS = very susceptible. Note: These ratings are subject to change as new or further information may become available.

Table 10. Nitrogen fertility rate guidelines.

Variety/ Hybrid	Clay soils[1]			Silt loam soils[2]		
	Preflood	Midseason	Boot Split	Preflood	Midseason	Boot Split
	lb/A	*lb/A*	*lb/A*	*lb/A*	*lb/A*	*lb/A*
Bowman	120-150	30-60	0	90-120	30-60	0
Cheniere	120-150	30-60	0	90-120	30-60	0
CL111	120	45	0	90-120	45	0
CL142-AR	120	45	0	90-120	45	0
CL151[3]	90-135	0-45	0	90	45	0
CL152[4]	120-150	45	0	120	45	0
CL162	120	45	0	90-120	45	0
Cocodrie	120-150	30-60	0	90-120	30-60	0
Rex	120-150	45	0	120	45	0
Sabine	120-150	30-60	0	90-120	30-60	0

[1]Clay soils include soils with CEC greater than 20 $cmol_c\ kg^{-1}$.
[2]Silt loam soils include soils with CEC less than 20 $cmol_c\ kg^{-1}$.
[3]CL151 is highly prone to lodging.
[4]Two years and only three site years for clay and two site years for silt loam. Recommendations are subject to change with further locations.

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