MISSISSIPPI RICE

VARIETY TRIALS, 2023

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MISSISSIPPI'S OFFICIAL VARIETY TRIALS

MISSISSIPPI STATE UNIVERSITY™
MS AGRICULTURAL AND
FORESTRY EXPERIMENT STATION

Mississippi Rice Variety Trials, 2023

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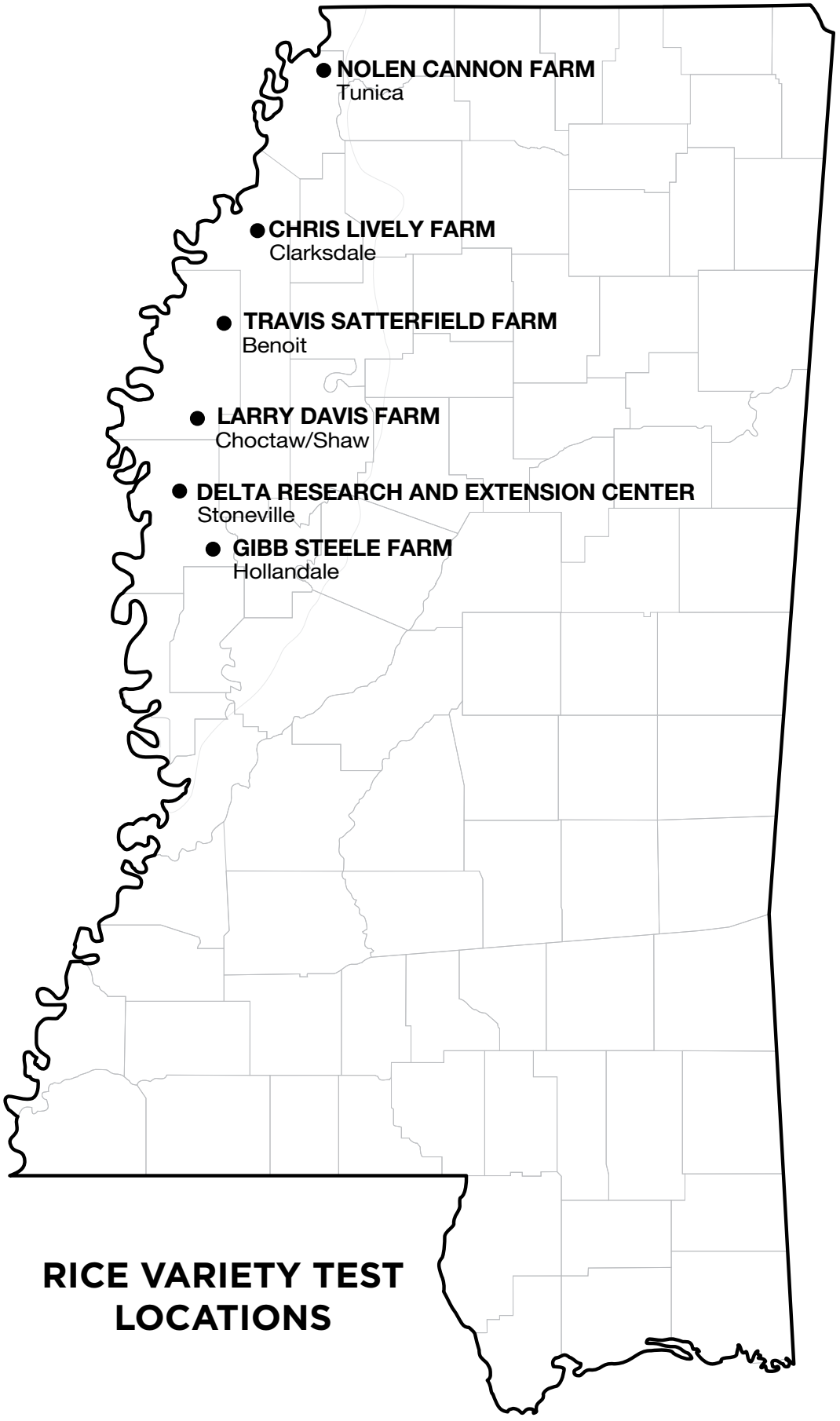
Find variety trial information online at **mafes.msstate.edu/variety-trials.**



RICE VARIETY TEST LOCATIONS

INTRODUCTION

The United States Department of Agriculture (USDA) National Agricultural Statistics Service (NASS) estimated the 2023 planted rice area in Mississippi to be about 120,000 acres. The USDA Farm Service Agency (FSA), on the other hand, certified the 2023 harvested rice area in the state to be 119,639 acres. This FSA estimate is 41% higher than the 84,566 rice acres planted in 2022, which was the lowest reported acreage for Mississippi rice since 1973. However, it is still 15,936 acres or 12% lower than the running 10-year average for Mississippi rice of 135,575 acres (2014-2023; Tables 1 and 2).

The USDA NASS also reported that the total rice production for Mississippi in 2023 was 8.96 million (M) hundredweight (cwt) or 455,189 metric tons (mt), up 44% from the 2022 production of 6.19 M cwt or 314,466 mt. At the estimated December 2023 US long-grain rice price of $17.80/cwt, MS rice production value was $159.6 M, which was 56% higher than the 2022 crop production value of $102.1 M. Rice yield was 7,470 pounds (lbs) per acre (A) or 166 bushels (bu)/A, up 100 lbs/A from 2022 and a new record for statewide average yield. The 10-year moving statewide yield average is 7,342 lbs/A (163.1 bu/A) and previous statewide average yield record was first set in 2014 and 2020 at 7,420 lbs/A (164.9 bu/A or 8,318 kilograms per hectare).

Fifteen counties produced rice in Mississippi during 2023 as certified by the USDA FSA (Table 2). The top rice-producing counties were Tunica (31,724 A), Bolivar (27,412 A), Sunflower (11,142 A), Quitman (9,706 A), and Coahoma (9,441 A). Unlike in 2021 and 2022, where only two counties planted rice on more than 10,000 acres, three of the top five rice producing counties in 2023 exceeded 10,000 acres with the next two counties almost reaching this acreage level. Bolivar and Tunica counties have been the top two rice-producing counties for Mississippi for ten years running (2014-2023), with Bolivar being the top-producing rice county in 2022. The top-three counties with significant increases in rice acreage compared to 2022 were Tunica (13,054 A), Coahoma (4,959 A), and Bolivar (3,912 A).

The 2023 rice planting in Mississippi began in late March. This planting window was like that in 2021 and 2022 and was earlier compared to previous years. Early planting progress was good but was interrupted by a rain event during Easter. By April 14, however, fields began to dry up and planting resumed. By the end of the first week of May, about 80% of the state's rice area had been planted. Historically, close to 90% of MS rice is planted by the third week of May.

Among the few production issues reported in 2023 were (a) cold weather conditions (below 70°F) early in the season (up to first week of May) that delayed rice growth in early-planted rice; and (b) off-target herbicide drift in some areas resulting from rice and soybean acres being planted at about the same time, leading to higher herbicide drift incidence. Favorable weather during the later vegetative and reproductive growth stages, including minimal high nighttime temperature stress during the flowering period, plus the absence of serious disease and insect pest damage, resulted in excellent yields. Harvesting started in late August in some areas with 90% being completed by end of September, a faster pace compared to 2022, aided by favorable weather.

ON-FARM VARIETY TRIALS

On-farm varietal evaluation is a vital step in the variety development process for many crops, including rice. Conducting variety trials under producers' field conditions helps identify the released varieties or hybrids and elite experimental breeding lines that are best suited to specific growing environments, including niche markets. It also helps determine which specific entries are widely adapted to and/or have consistent performance across varying growing conditions. This information not only helps in future breeding but is also important for the proper deployment of released varieties.

It is typical in on-farm variety trials for standard varieties, hybrids, new releases, and elite experimental lines to be evaluated in their target growing environments. In the case of elite breeding lines, based on their performance in these multi-environment tests, the most promising are selected for release as new varieties. The information collected on these lines includes yield and milling performance, insect and disease susceptibility, tolerance to environmental stresses, vigor, and lodging scores. However, apart from using the data generated for line advancement decisions, they could also be used to recycle yet-imperfect lines back into the hybridization program.

With the inclusion of released varieties from Mississippi and the U.S. Mid-South as entries in the on-farm trials, the testing process also helps local rice producers to determine the most suitable released variety to plant on their respective farms based on the test locations. By placing these trials at multiple key locations throughout the Mississippi Delta, varieties, hybrids, and elite lines are exposed to the prevalent growing conditions and practices that are commonly used in commercial production in Mississippi. Many of these growing conditions and management practices cannot be reproduced at Mississippi State University's Delta Research and Extension Center in Stoneville, thus there is an immense value to on-farm evaluations from a research and development perspective. In return, growers are afforded the opportunity to evaluate the current varieties and hybrids in commercial circulation, side-by-side under their own management conditions. This process helps them decide which variety or hybrid to use on their farms the following year and place advanced seed orders for their chosen varieties or hybrids accordingly.

Potential New Release trials.

Variety selection is one of the most important decisions a grower makes in crop production planning. Growers should attempt to select varieties that offer the best combination of yield and quality factors while also considering the variety's tolerance or susceptibility to both biological and environmental factors that could limit yield potential. As grain quality is becoming more important for improving U.S. rice global competitiveness, producers will benefit from having grain quality data for the commercial varieties evaluated in the variety trials. Millers, consolidators, and traders may also use this grain quality data for implementing 'identity preserved'-related strategies that are gaining importance for improving overall rice grain quality. Rice research and extension specialists can use variety trials as an educational platform for demonstrating the merits of on-farm evaluation to other scientific or technical staff, growers, private consultants, rice industry personnel, students, policy makers, and the public. Through these trials, interested parties are afforded a "first look" at new or potential releases from Mississippi State University and other participating rice breeding programs, including from the private industry.

TEST PROCEDURES

For 2023, the Rice Official Variety Trials consisted of 34 entries including five hybrids/FullPage® herbicide technology-based materials, 13 Clearfield® or Provisia® purelines (6 released varieties and 7 elite experimental lines) and 16 conventional purelines (4 released varieties and 12 elite experimental lines). All hybrids/Full Page® materials were provided by RiceTec. HorizonAg provided all the Clearfield® and Provisia® herbicide technology-based purelines. The conventional pureline released varieties came from the public breeding programs of Mississippi (3) and Arkansas (1). Due to limited resources available for the year, the trials were conducted in only five locations in the Mississippi Delta, namely, in Hollandale, Stoneville, Choctaw (Shaw), Clarksdale, and Tunica. Results from a sixth trial in Benoit were discarded due to inadvertent herbicide application. Individual plots consisted of eight drilled rows that were 15 feet in length and spaced 8 inches apart. Varieties and experimental lines were planted at a seeding rate of 85 pounds of seed per acre while the hybrids were planted at 25 pounds of seed per acre. Seeds were mechanically drilled approximately 1.25 inches deep into stale seedbeds at all locations. All entries were replicated three times at each location using a randomized complete block experimental design. Crop management practices for each location, as well as the stresses encountered, are presented in Tables 5-9. For more information on pesticide formulations and application rates, please refer to the pesticide product label information available on the internet or to the 2023 Weed Control Guidelines for Mississippi that is available both in print and online at https://extension.msstate.edu/sites/default/files/publications/publications/P1532_web.pdf.

Agronomic and crop phenology 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 using a Wintersteiger Delta plot combine equipped with a computerized weighing system and a moisture meter. Due to differences in maturity, most of the entries at each location were required to have achieved the appropriate harvest moisture level prior to the test being harvested. Average harvest grain moisture levels for each entry are reported in Tables 5-9. Subsamples of each entry were collected at harvest, and these were used for measuring milling-related traits, bushel weight, and 1,000-seed weight. For yield, previous replicated research has shown that the border effect common in small-plot research could result in increases in grain yield estimates of 10% for inbred varieties and 15% for hybrids. Therefore, the plot yields reported for the test entries should be compared in a relative manner rather than just through the absolute values for the reported yield potential.

Analysis of variance procedure was conducted for all relevant data gathered from the trials. The Least Significant Difference (LSD) test at the 5% significance level may be used to determine if significant differences existed between entries. If the value of the yield difference between any two trial entries at a location, as computed from the yields reported in Tables 5-9, is greater than the LSD value for that location, the entries may be deemed to be statistically different from each other. In addition, a coefficient of variation (CV) was calculated for each test. This measure is an indication of the variability or 'noise' in the trial, and thus the level of precision of each test. Lower CV values indicate greater reliability of the test. Coefficient of variation values of 10% or less are considered optimum for plant breeding trials and CV values above 25% are considered unacceptable. The LSD and CV values for yield in these tests are reported in the footnotes of Tables 5-9.

Leland variety trials.

RESULTS

To assist Mississippi rice producers in their variety selection process for 2024, preliminary results of the 2023 Rice Official Variety Trials were processed soon after harvesting ended. The preliminary summary tables were made available online by 1 December 2023 via the Mississippi Agricultural and Forestry Experiment Station or MAFES Variety Trials website (https://www.mafes.msstate.edu/variety-trials/includes/crops/rice.php).

Complete details on the performance of each entry at each of the five test locations are presented in Tables 5-9. As a result of the favorable early season weather in 2023, the yield evaluations were planted in a narrow window of about 5 weeks (March 30 to May 4), which was like most previous years. The Stoneville trial was the last to be planted and was the only trial conducted at an experiment station. In general, plant stands were excellent, with uniform emergence and optimum plant density for all five locations. Disease and insect pest incidence were not observed in the trials during the year. Lodging incidence occurred in Stoneville, with 18 out of the 34 entries affected by up to 75% lodging. The four other locations, however, only had one out of 34 entries affected by lodging. In general, favorable weather conditions were experienced throughout the growing season, with extreme weather events notably absent.

The average rice yield across entries and locations for the 2023 trials was 220 bu/A, or 27 bu/A (or 11%) lower than the 2022 average of 247 bu/A, and 11 bushels (5%) less than the 231 bu/A running 10-year variety trial overall yield average (2014-2023). The 2023 average yield is comparable to those obtained for the Rice Official Variety Trials in the years 2015 (220 bu/A), 2018 (221 bu/A), and 2019 (225 bu/A).

Location yield averages ranged from 149 bu/A for Hollandale to 270 bu/A for Choctaw. Choctaw has been among the top-yielding sites during the last four years. It was also the highest yielding site for the 2020 trials and second highest yielding site in the 2021 and 2022 trials. For the fourth year running, the Stoneville location had good yields due to minimal blackbird damage, unlike in past years when the location average yields for Stoneville were consistently below 200 bu/A.

The coefficient of variation, or CV, values for yield were all acceptable and ranged from 8.2% for Tunica to 18.5% for Stoneville, all below the 25% acceptability threshold. These CV values reflected the favorable growing conditions in 2023 and the absence of significant production challenges during the year. The grain yield summary data for all entries at each location are provided in Table 3. Moreover, summary data for all other measured parameters averaged over the seven locations are provided in Table 4.

Among hybrid/FullPage® entries, the Fullpage® hybrid RT7421 FP was the highest yielding among these group of entries as well as for the entire trial with average yield of 303 bu/A. It was the highest yielding entry in Tunica and Clarksdale, which are in northern MS Delta counties known to grow hybrids in a substantial proportion of their respective rice acres. RT7241 FP was the third highest yielding hybrid in the 2022 trials (334 bu/A) and the fourth highest yielding entry in the 2021 trials (289 bu/A). The second highest yielding hybrid was RT7302 with an average yield of 299 bu/A. It was the highest yielding hybrid entry for the southern MS Delta locations of Hollandale, Stoneville, and Choctaw/Shaw. The conventional hybrid XP753, a regular entry in this group that has not been tested since 2021, had been the highest yielding hybrid in these trials for six of the last ten years with an average yield across locations of 297 bu/A in 2018, 296 bu/A in 2017, 274 bu/A in 2016, 275 bu/A in 2015, 306 bu/A in 2014, and 278 bu/A in 2013, or an average yield of 284 bu/A for this entire seven-year period. Its yield superiority over other hybrids and conventional pureline entries had been consistent over the years. Historically, hybrids have yielded, on average, about 21% (46 bu/A) higher than pure line varieties, both for Clearfield® and conventional types, in the Mississippi Rice Official Variety Trials. For 2023, this hybrid/FullPage® group yield advantage was, on average, 38% over both Clearfield® and conventional variety types. However, since the plot border effect is greater on hybrids than in purelines, the actual yield differences may be expected to be closer when comparing the highest yielding hybrid to the highest yielding purelines.

Among the 13 Clearfield®/Provisia® type pureline entries, the highest yielding entry was the commercial

variety CLL16 (220 bu/A) followed closely by two other released varieties CLL19 (219 bu/A) and CLL16 (216 bu/A). CLL16 and CLL18 were also the top two highest yielders in this group in the 2022 trials with CLL18 being the highest yielder (269 bu/A) and CLL16 ranking second (263 bu/A). Moreover, CLL16 was the second highest yielding entry for this group in 2021, thus demonstrating consistent performance during the last three years. Similarly, the experimental line RU2104087 again performed well in 2023 with the fifth highest average yield of 210 bu/A after being among the five highest entries in both the 2022 (251 bu/A) and the 2021 trials (260 bu/A). The recently released and Mississippi-bred long-grain Clearfield® variety CLHA02, which has the unique Cheniere-type cereal chemistry and that was among the top entries for yield in the 2018, 2019, and 2020 trials, was ranked eighth out of the 13 entries in this group for 2023 with 206 bu/A. On the other hand, the recent Provisia® pureline variety releases PVL04 (207 bu/A) and PVL03 (203 bu/A) were the 7th and 10th highest yielding entries in this group. PVL03 ranked 11th out of the fourteen entries in this group in 2022 with an average yield of 225 bu/A.

For the 14 conventional-type pureline entries, the five highest yielding were all experimental lines under development—RU2004091 (230 bu/A), RU2104123 (219 bu/A), RU2104127 (217 bu/A), RU2104115 (217 bu/A), and RU2104083 (215 bu/A). RU2004091 was also the highest-yielding entry for this group in both the 2022 and 2021 trials, thus demonstrating consistent yield performance for the last three years. RU2104127, on the other hand, was also among the top-five highest yielders in the group in 2022 with an average yield of 237 bu/A. RU1904139, another top-performing entry in the last two trials, did not yield well this year (ranked 11th of 14 with 202 bu/A). Diamond, an Arkansas-bred variety that had become popular among Mississippi growers in recent years due to its having topped the 2019 and 2017 trials and raking 4th and 6th for yield in the 2021 and 2022 trials, respectively, was the highest yielder among released varieties in this group for 2023 (ranked 7th with 213 bu/A). The most recent Mississippi conventional variety releases Thad and Leland were ranked eighth (211 bu/A) and 13th (199 bu/A) for yield in this year's trials. Rex, another Mississippi variety which is still grown by some Mississippi growers due to its proven reliable performance in these trials in years past, was ranked 12th for yield (200 bu/A) in this group of entries.

Entries that begin with RU designations are elite experimental breeding lines that have performed well in the sequential, multistage, yield evaluation conducted by the MSU rice breeding program. They have usually entered or are about to be entered in the multistate Rice Uniform (hence, RU) Regional Research Nursery or URRN. This URRN system is conducted by public breeding institutions in the US to evaluate elite lines in other rice-growing states while sharing elite materials among US breeders. The entries represent the best lines from different breeding programs and are typically at the final stages of testing. Entries from Mississippi in the URRN have the number "4" as the first digit of the last four digits of the RU designation (e.g., RU2004191).

Milling traits varied among the test entries, and high-yielding entries did not necessarily have the best grain quality characteristics. Aside from these trait considerations for variety selection, performance stability over different environments and across years also needs to be considered. Certain varieties have had stable performance over many years and thus have been adopted by Mississippi growers in the past. Thad was unanimously accepted by all major rice milling and exporting companies in the U.S. due to its excellent grain quality traits that are favored by sectors of the rice food processing industry. Similarly, the new release Leland has also been rated very favorably for commercial acceptability and grain/milling quality by the U.S. rice milling and export industry. Rex, on the other hand, continues to be grown by some rice growers due to its excellent yield stability over multiple locations in Mississippi and other rice-growing states in the Mid-South.

Variety and hybrid reactions to common diseases and straight head disorder are listed in Table 10. 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 11. These guidelines were generated from multi-year, multi-site N response studies conducted for newly released varieties. A combination of current economics, individual varieties' susceptibility to lodging, and yield potential are included in determining the rate guidelines. Annually, coarse-textured soils, commonly referred to as silt loams, require approximately 30 pounds per acre less nitrogen than fine-textured or clay soils. By applying less N on silt loam soils, disease and lodging incidence tend to decrease without sacrificing yield and quality.

Based on the 2023 Rice Official Variety Trial results and taking into consideration previous years' performance in the same trials, the conventional varieties suggested for Mississippi rice growers are Leland, Thad, Diamond, and Rex. The recent release CLHA02 in addition to Thad and CL163, all high-amylose varieties with excellent grain qualities and cereal chemistry profiles desired by the rice processing industry, provides more varietal options to the U.S. rice processing industry as well as U.S. rice export markets requiring high-amylose rice. The same can be said of the top-yielding potential release RU2004091, also a high amylose conventional line with similar cereal chemistry and cooking characteristics as CLHA02.

For RiceTec's Inc. hybrids, using the FullPage® (FP) technology provides growers with new generation IMI herbicide tolerance to control red rice. This year's top-yielding hybrid RT7421 FP has consistently performed well in these trials over the last three years as mentioned earlier. Other hybrids that have consistently given the highest yield among all entries, regardless of variety, in earlier trials include RT7521FP (2019, 2020 and 2021 trials) and as earlier mentioned, the conventional hybrid XP753. Detailed additional information on production of conventional and FullPage® hybrids is available at RiceTec, Inc. (**https://ricetec.com/seeds-and-solutions/**).

Among the Clearfield® released varieties that are offered exclusively by HorizonAg (**https://www.horizonseed.com/varieties**), the recently released long-grain types CLL18 as well as CLL16 have been performing well consistently over the past two to three years. The most recent release CLL19 appears to be promising as well, ranking second this year for yield. The Provisia-type variety releases (PVL03 and PVL04) have not performed as well for yield in these trials compared to commercially available Clearfield-types with both having lower yields than some experimental breeding lines. CLHA02, developed by the MAFES rice breeding program and released in 2021, is a high amylose rice option among long-grain Clearfield® rice varieties. There were no medium grain Clearfield® entries in the 2023 trials. Clearfield® rice should be used as a tool with careful attention given to stewardship so that 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 the addition of post-emergence and residual herbicides for grass control so that selection pressure that could break down herbicide resistance is minimized. It should be noted that incidences of ALS-resistant [Newpath®, Beyond®] barnyard grass and sedges have increased in the last few years. Outcrossing and grass resistance jeopardize this important technology. The new Provisia® line of commercial varieties such as PVL03 promises to be a useful companion technology to extend the usefulness of the Clearfield® rice system for controlling red rice. However, it is important to follow the technology recommendations, such as being out of rice for a year when switching from Clearfield® to Provisia® varieties.

As is well known to rice producers, no pureline variety or hybrid is always perfect for all cropping conditions. Each cropping year may bring about recurring or new biological and/or environmental factors with the potential to negatively impact varietal performance and a rice producers' bottom line. Breeders must, therefore, continue to develop new strains that satisfy the needs of both producers and end-users. The breeding program must cater to the needs of rice growers who are faced with an ever-changing production landscape. At the same time, it must also consider the varying needs of millers, the food industry, and consumers who continually demand higher quality rice for consumption and/or processing. The best of these new strains must perform well under farm conditions before they can be released. Each new variety release would be expected to have qualities or characteristics that add value to end-

users. Varietal performance over time and in different environments, in addition to economics, should be considered when choosing which variety to plant among the many available options. This is where the regular conduct of on-farm trials derives an excellent value for rice producers. For varieties with high yield potential, producers should consider risks such as lodging and disease incidence and plan t o manage for those yield-limiting factors to derive maximum benefit. Planting several pureline varieties or hybrids, FullPage®, Clearfield®, Provisia®, and conventional types may help mitigate the risks associated with large production areas that are commonly found in Mississippi.

Table 1. The United States Department of Agriculture National Agriculture Statistics Survey history of Mississippi rice acreage by year, 1949-2023.

Year	Acres	Year	Acres	Year	Acres	Year	Acres
1949	5,000	1969	60,000	1989	235,000	2009	243,000
1950	7,000	1970	51,000	1990	250,000	2010	303,000
1951	26,000	1971	51,000	1991	220,000	2011	157,000
1952	40,000	1972	51,000	1992	275,000	2012	129,000
1953	51,000	1973	62,000	1993	245,000	2013	124,000
1954	77,000	1974	108,000	1994	313,000	2014	190,000
1955	52,000	1975	171,000	1995	288,000	2015	149,000
1956	44,000	1976	144,000	1996	208,000	2016	194,000
1957	31,000	1977	111,000	1997	238,000	2017	118,000
1958	39,000	1978	215,000	1998	268,000	2018	135,000
1959	44,000	1979	207,000	1999	323,000	2019	116,000
1960	44,000	1980	240,000	2000	218,000	2020	171,000
1961	44,000	1981	337,000	2001	253,000	2021	101,000
1962	49,000	1982	245,000	2002	253,000	2022	85,000
1963	49,000	1983	161,000	2003	234,000	2023	120,000
1964	49,000	1984	190,000	2004	234,000	2024	.
1965	50,000	1985	188,000	2005	263,000	2025	.
1966	55,000	1986	198,000	2006	189,000	2026	.
1967	55,000	1987	198,000	2007	189,000	2027	.
1968	67,000	1988	260,000	2008	229,000	2028	.

Table 2. The United States Department of Agriculture Farm Service Agency certified planted rice acres by Mississippi county, 2014-2023.											
County	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**10-Year Average**
Adams	0	0	157	0	157	0	0	0	0	0	31
Bolivar	47,702	42,139	47,839	27,431	34,659	32,338	43,107	28,131	23,500	27,412	35,426
Carroll	0	0	0	0	0	0	102	0	0	0	10
Coahoma	14,453	9,933	12,885	7,788	9,970	5,768	10,248	7,115	4,482	9,441	9,208
DeSoto	2,316	99	1,896	1,261	1,605	586	1,009	585	770	1,887	1,201
Grenada	0	893	402	143	0	55	278	197	233	55	226
Holmes	203	195	655	0	1,036	126	207	0	154	417	299
Humphreys	3,426	2,576	5,695	3,874	4,264	4,089	6,242	2,478	398	2,731	3,577
Issaquena	483	345	764	427	435	0	0	100	271	368	319
Lee	3	0	3	0	0	0	0	0	0	0	1
Leflore	6,000	5,059	7,734	1,770	5,035	3,150	10,050	4,040	4,793	5,565	5,320
Panola	10,188	5,966	9,668	8,458	7,343	7,411	9,040	5,147	5,759	6,128	7,511
Quitman	15,565	12,220	20,515	10,763	10,311	10,248	15,056	5,852	6,773	9,706	11,701
Sharkey	857	789	1,123	282	647	0	202	186	0	0	409
Sunflower	25,241	15,612	19,944	7,843	12,458	9,854	19,284	10,816	8,179	11,142	14,037
Tallahatchie	12,859	7,142	12,330	7,083	6,803	7,890	10,361	6,133	4,967	7,364	8,293
Tate	1,082	955	1,123	822	797	935	1,220	682	948	802	937
Tunica	28,608	25,833	34,812	27,286	31,403	24,090	25,938	22,128	18,671	31,725	27,049
Washington	15,690	13,027	12,135	8,442	8,091	8,319	11,775	8,272	4,669	4,896	9,532
Yazoo	867	914	1,571	893	0	64	567	0	0	0	488
Total	185,543	143,697	191,251	114,565	135,014	114,923	164,686	101,862	84,566	119,639	135,575

Table 3. Average rough rice yields of varieties, hybrids, and experimental lines evaluated in on-farm trials at five locations in Mississippi, 2023.							
Entry	**Hollandale**	**Stoneville**	**Choctaw**	**Clarksdale**	**Tunica**	**Average**	**Stability[1]**
	bu/A	**bu/A**	**bu/A**	**bu/A**	**bu/A**	**bu/A**	
Hybrids							
RT7401	209	276	318	290	307	280	15
RT7302	214	341	366	271	301	299	20
RT7421 FP	213	339	338	286	340	303	18
RT7523 FP	212	253	323	247	339	275	20
RT7331 MA	218	292	323	250	331	283	17
Clearfield/Provisia							
21CLST003	129	245	235	180	236	205	24
21CLST005	122	221	240	177	245	201	26
21CLST018	143	209	240	177	218	197	19
21CLST028	133	202	253	209	258	211	24
CLHA02	129	219	252	189	243	206	24
CLL16	131	251	268	179	273	220	28
CLL18	134	256	237	203	251	216	23
CLL19	165	187	287	207	248	219	22
PVL03	144	203	233	200	235	203	18
PVL04	139	207	257	196	233	207	21
RU2104087	157	205	270	185	233	210	21
RU2104209	135	215	251	190	253	209	23
RU2104219	150	180	256	197	226	202	20
Conventional							
21CVST007	131	223	259	184	243	208	25
21CVST008	108	200	247	180	251	197	30
21CVST018	120	239	232	156	248	199	29
Diamond	133	211	282	187	251	213	27
Leland	136	192	234	193	240	199	21
Rex	148	185	265	182	219	200	22
RU1904139	136	184	257	184	246	202	25
RU2004083	126	185	249	156	260	195	30
RU2004091	162	263	285	198	244	230	22
RU2104083	158	202	265	204	248	215	20
RU2104091	140	181	270	205	240	207	24
RU2104107	151	214	282	177	244	214	24
RU2104115	132	244	266	182	260	217	27
RU2104123	128	248	277	210	231	219	26
RU2104127	120	212	284	203	266	217	30
Thad	157	217	280	172	226	211	23
Mean	149	227	270	200	256	220	
LSD (.05)	28	70	45	31	35	21	
CV (5)	11.4	18.5	10.1	9.3	8.2	5.8	
Planting Date	17-Apr	4-May	30-Mar	14-Apr	18-Apr		

[1]Stability is calculated by dividing the standard deviation by the mean and multiplying by 100. The lower the number, the more stable it is across multiple locations.

Table 4. Average agronomic and milling performance of varieties, hybrids, and experimental lines grown at five locations in Mississippi, 2023.											
Entry	Origin[1]	Yield[2]	Whole Milled Rice	Total Milled Rice	Harvest Moisture	Bushel Weight	Plant Height	50% Heading[3]	Lodging[4]	1000 Seed Weight[5]	Approximate seeds/pound
		bu/A	%	%	%	lb	in	days	(1-5)	g	no.
Hybrids											
RT7401	RT	280	42.6	68.1	14.2	40.2	41.0	85	1	23.7	19197
RT7302	RT	299	43.4	69.1	15.1	41.8	42.4	84	1	24.3	18686
RT7421 FP	RT	303	40.2	67.7	15.3	39.9	44.3	86	1	23.2	19592
RT7523 FP	RT	275	38.6	67.5	14.3	41.3	44.2	87	1	24.6	18457
RT7331 MA	RT	283	41.9	68.2	13.5	42.6	41.5	83	1	24.1	18846
Clearfield/Provisia											
21CLST003	MS	205	46.3	68.5	19.1	43.0	39.7	88	1	22.2	20450
21CLST005	AR	201	46.4	68.9	16.3	43.9	37.9	89	1	25.6	17739
21CLST018	MS	197	49.5	67.4	17.1	43.2	39.9	89	1	24.0	18918
21CLST028	MS	211	57.0	71.4	17.3	44.0	39.7	92	1	25.2	18020
CLHA02	HA	206	45.6	67.4	15.8	45.5	37.3	87	1	23.7	19173
CLL16	HA	220	44.1	67.6	20.7	44.0	41.1	89	1	23.9	18996
CLL18	HA	216	41.5	66.5	16.5	43.5	40.3	85	1	23.0	19745
CLL19	HA	219	48.0	68.5	13.5	44.7	36.8	83	1	24.1	18846
PVL03	HA	203	46.5	69.5	14.3	44.7	39.4	85	1	23.6	19243
PVL04	HA	207	47.8	68.7	15.8	43.6	37.5	87	1	23.8	19088
RU2104087	MS	210	48.0	65.8	15.4	43.5	38.7	88	1	25.1	18088
RU2104209	MS	209	55.0	69.2	16.6	43.8	37.2	87	1	23.2	19640
RU2104219	MS	202	52.3	69.7	14.7	45.7	40.0	85	1	22.3	20379
Conventional											
21CVST007	MS	208	50.2	67.8	27.5	42.3	39.7	87	1	23.6	19243
21CVST008	MS	197	44.2	66.1	28.4	42.5	39.3	90	1	23.0	19745
21CVST018	MS	199	38.2	67.8	15.8	44.4	38.2	88	1	22.7	20010
Diamond	AR	213	42.9	68.9	16.6	45.1	43.8	88	1	25.2	18130
Leland	MS	199	51.2	69.7	15.6	45.7	44.5	88	1	22.4	20282
Rex	MS	200	49.8	67.2	14.8	44.8	38.4	87	1	26.2	17329
RU1904139	MS	202	48.9	68.4	21.1	42.9	41.1	87	1	24.4	18668
RU2004083	MS	195	44.5	68.8	17.2	45.6	41.5	89	1	23.2	19569
RU2004091	MS	230	44.2	68.5	18.1	44.0	41.6	89	1	25.7	17668
RU2104083	MS	215	38.5	68.0	13.5	45.8	41.6	84	1	24.1	18878
RU2104091	MS	207	37.9	68.2	13.7	45.4	41.8	86	1	23.0	19739
RU2104107	MS	214	39.3	67.9	13.9	45.5	42.0	84	1	23.5	19336
RU2104115	MS	217	45.7	69.2	18.7	42.6	42.3	86	1	22.9	19829
RU2104123	MS	219	40.2	67.7	14.6	45.1	42.4	84	1	24.6	18455
RU2104127	MS	217	43.1	68.9	17.1	44.1	41.2	89	3	22.6	20090
Thad	MS	211	48.8	68.4	17.8	44.4	39.5	88	1	24.3	18709
Mean		220	45	68	17	44	41	87	1	23.9	19082
CV (%)		5.8	26.8	0.7	6.7	1.1	2.1	0.7	17.1	3.8	4
LSD (.05)		21	24.7	1.6	1.9	0.8	1.7	1.3	0.3	1.5	1170

[1]AR = Arkansas; MS = Mississippi; HA = Horizon Ag; RT = RiceTec.
[2]Rough rice at 12% moisture.
[3]Days after emergence.
[4]Severity of lodging: 1=plants totally erect, 5=plants completely on ground.
[5]Weight of 1000 kernels.

GIBB STEELE FARM, HOLLANDALE

Table 5. Performance of rice varieties, hybrids, and experimental lines grown at Gibb Steele Farm, Hollandale, Mississippi.[1]

Entry	Yield[2]	Whole Milled Rice	Total Milled Rice	Harvest Moisture	Bushel Weight	Plant Height	50% Heading[3]	Lodging[4]	Lodging[5]
	bu/A	%	%	%	lb	in	days	%	(1-5)
Hybrids									
RT7401	209	32.0	66.6	11.3	41.0	36.3	83.0	0	1.0
RT7302	214	27.9	66.6	13.1	43.2	34.8	81.0	0	1.0
RT7421 FP	213	30.8	66.3	10.9	41.2	39.0	83.5	0	1.0
RT7523 FP	212	26.7	65.0	13.1	41.5	38.0	86.5	0	1.0
RT7331 MA	218	29.9	67.9	11.2	43.8	36.0	81.5	0	1.0
Clearfield/Provisia									
21CLST003	129	34.2	65.8	17.5	43.6	33.8	83.5	0	1.0
21CLST005	122	29.8	65.4	14.0	44.4	32.0	84.5	0	1.0
21CLST018	143	43.4	66.2	18.3	42.9	36.5	87.0	0	1.0
21CLST028	133	57.8	70.3	21.0	43.7	34.5	90.5	0	1.0
CLHA02	129	35.6	64.9	15.8	45.5	32.5	87.0	0	1.0
CLL16	131	33.5	66.4	19.3	44.8	37.5	86.0	0	1.0
CLL18	134	31.7	65.0	13.6	44.8	33.3	84.0	0	1.0
CLL19	165	37.2	66.6	11.3	45.9	31.8	83.5	0	1.0
PVL03	144	31.6	68.0	11.3	45.7	34.3	83.5	0	1.0
PVL04	139	40.3	67.0	11.1	45.3	30.5	82.0	0	1.0
RU2104087	157	40.9	63.6	14.2	44.3	32.8	85.5	0	1.0
RU2104209	135	43.9	67.2	14.1	45.1	31.5	84.0	0	1.0
RU2104219	150	41.9	68.3	12.2	46.8	34.0	81.0	0	1.0
Conventional									
21CVST007	131	45.4	65.6	31.4	41.0	35.8	87.0	0	1.0
21CVST008	108	36.3	63.5	32.6	40.8	34.3	90.5	0	1.0
21CVST018	120	22.3	66.6	12.1	45.7	33.8	86.5	0	1.0
Diamond	133	26.9	66.0	15.0	45.8	39.0	85.5	0	1.0
Leland	136	45.8	69.0	14.7	46.8	39.3	85.0	0	1.0
Rex	148	46.2	65.4	14.7	44.9	33.5	85.0	0	1.0
RU1904139	136	48.9	68.4	20.9	43.3	35.8	87.0	0	1.0
RU2004083	126	37.2	66.9	17.1	45.6	38.3	86.0	0	1.0
RU2004091	162	38.4	66.4	17.5	44.3	35.8	86.0	0	1.0
RU2104083	158	31.4	66.9	12.1	46.7	39.0	81.5	0	1.0
RU2104091	140	31.1	66.8	12.2	46.7	37.5	81.0	0	1.0
RU2104107	151	31.5	66.6	13.0	46.2	38.0	82.0	0	1.0
RU2104115	132	42.9	68.9	17.7	43.0	37.8	82.0	0	1.0
RU2104123	128	28.2	65.9	13.1	45.6	34.8	81.5	0	1.0
RU2104127	120	28.7	66.6	14.8	45.1	34.3	86.0	53	3.7
Thad	157	48.9	68.5	21.5	44.3	37.5	86.5	0	1.0

[1]Planting date: April 17 Emergence: April 30 Harvested: August 30
LSD = A yield difference of 28 bu/A is required for one variety to differ from another at the 5% probability level. C.V. = 11.4%
[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.

MAFES DELTA BRANCH STATION, STONEVILLE

Table 6. Performance of rice varieties, hybrids, and experimental lines grown at the MAFES Delta Branch, Stoneville.[1]

Entry	Yield[2]	Whole Milled Rice	Total Milled Rice	Harvest Moisture	Bushel Weight	Plant Height	50% Heading[3]	Lodging[4]	Lodging[5]
	bu/A	%	%	%	lb	in	days	%	(1-5)
Hybrids									
RT7401	276	27.6	67.5	10.2	40.0	44.0	82.5	0	1.0
RT7302	341	33.6	68.7	12.1	40.8	43.3	83.5	13	1.7
RT7421 FP	339	30.6	68.2	10.0	40.1	46.5	84.5	72	3.3
RT7523 FP	253	30.0	67.8	10.4	40.4	48.0	86.0	5	1.3
RT7331 MA	292	31.7	68.7	10.7	41.8	41.8	83.5	63	3.3
Clearfield/Provisia									
21CLST003	245	42.4	70.2	14.2	44.3	39.5	89.5	0	1.0
21CLST005	221	50.1	70.7	12.6	44.1	40.0	89.0	23	1.7
21CLST018	209	50.7	69.3	13.0	44.3	39.5	88.5	0	1.0
21CLST028	202	46.9	71.7	11.9	44.5	42.0	89.5	23	2.0
CLHA02	219	37.9	68.6	12.4	45.8	38.8	84.0	0	1.0
CLL16	251	46.8	69.2	15.5	44.7	42.5	89.0	0	1.0
CLL18	256	45.6	69.0	13.8	43.3	40.3	84.0	0	1.0
CLL19	187	45.8	68.6	11.6	44.1	38.0	81.0	33	2.7
PVL03	203	44.6	70.1	12.5	43.5	42.8	83.0	17	1.7
PVL04	207	47.2	70.0	11.9	43.8	41.5	84.0	3	1.3
RU2104087	205	38.6	66.1	11.4	43.5	40.0	84.5	0	1.0
RU2104209	215	53.6	69.2	13.8	43.4	40.0	85.0	27	2.3
RU2104219	180	43.4	68.9	12.0	45.2	43.0	85.0	23	1.7
Conventional									
21CVST007	223	41.2	68.7	16.6	45.4	41.3	83.5	25	2.0
21CVST008	200	32.1	67.1	17.1	45.3	39.0	85.0	48	2.7
21CVST018	239	29.3	68.8	12.0	43.9	39.8	82.5	33	2.3
Diamond	211	35.2	69.5	12.5	44.9	45.0	85.0	0	1.0
Leland	192	44.1	69.5	11.5	44.9	46.5	89.0	0	1.0
Rex	185	47.3	68.0	12.0	44.5	39.3	89.0	17	1.7
RU1904139	184	46.7	69.2	15.1	43.7	44.8	83.0	0	1.0
RU2004083	185	50.7	70.9	12.6	45.7	42.8	84.0	72	3.7
RU2004091	263	47.2	70.2	14.1	44.6	44.3	89.0	0	1.0
RU2104083	202	35.1	68.4	11.6	44.4	43.0	83.0	17	2.0
RU2104091	181	37.7	68.7	11.1	43.7	44.5	84.0	0	1.0
RU2104107	214	37.9	68.6	11.5	44.2	43.0	84.0	0	1.0
RU2104115	244	50.6	71.9	14.6	42.7	43.5	89.0	0	1.0
RU2104123	248	41.0	68.9	12.5	43.4	43.0	83.5	0	1.0
RU2104127	212	38.6	69.4	12.6	44.0	41.3	89.0	85	4.7
Thad	217	37.3	68.5	13.0	45.4	39.8	84.0	0	1.0

[1]Planting date: May 4 Emergence: May 30 Harvested: September 20 LSD = A yield difference of 70 bu/A is required for one variety to differ from another at the 5% probability level. C.V. = 18.5%
[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.

LARRY DAVIS FARM, SHAW

Table 7. Performance of rice varieties, hybrids, and experimental lines grown at Larry Davis Farm, Shaw (Choctaw).[1]

Entry	Yield[2]	Whole Milled Rice	Total Milled Rice	Harvest Moisture	Bushel Weight	Plant Height	50% Heading[3]	Lodging[4]	Lodging[5]
	bu/A	%	%	%	lb	in	days	%	(1-5)
Hybrids									
RT7401	318	49.8	67.8	16.8	39.6	41.3	86.0	0	1.0
RT7302	366	47.6	68.8	18.6	40.4	42.5	86.5	0	1.0
RT7421 FP	338	43.2	67.5	20.3	39.5	42.8	89.5	0	1.0
RT7523 FP	323	41.1	67.2	17.3	41.8	41.8	90.0	0	1.0
RT7331 MA	323	46.6	68.6	16.0	41.9	42.0	84.0	0	1.0
Clearfield/Provisia									
21CLST003	235	42.3	67.0	21.2	42.2	39.8	90.5	0	1.0
21CLST005	240	48.3	69.0	19.3	43.2	38.3	92.0	0	1.0
21CLST018	240	50.4	66.7	20.1	42.4	41.8	91.0	0	1.0
21CLST028	253	54.3	69.8	17.6	44.2	42.8	95.0	0	1.0
CLHA02	252	52.2	67.0	16.9	45.2	39.8	89.5	0	1.0
CLL16	268	41.7	66.5	25.2	42.4	42.8	91.0	0	1.0
CLL18	237	40.8	65.7	19.3	42.7	43.8	85.0	0	1.0
CLL19	287	55.5	70.0	15.9	43.1	40.0	85.5	0	1.0
PVL03	233	47.3	68.1	16.6	44.3	39.8	86.5	0	1.0
PVL04	257	48.2	68.3	18.4	43.2	39.0	90.5	0	1.0
RU2104087	270	65.0	66.3	22.4	42.0	41.0	95.0	0	1.0
RU2104209	251	50.4	69.3	18.9	43.3	38.3	88.5	0	1.0
RU2104219	256	59.6	70.3	17.1	45.3	41.8	84.5	0	1.0
Conventional									
21CVST007	259	51.2	67.1	27.6	41.8	41.5	89.5	0	1.0
21CVST008	247	47.7	66.7	31.1	41.3	42.8	95.0	0	1.0
21CVST018	232	29.9	65.8	17.1	44.2	38.5	88.5	0	1.0
Diamond	282	47.9	69.2	18.3	44.9	45.5	89.5	0	1.0
Leland	234	45.8	67.1	16.9	45.9	44.8	89.0	0	1.0
Rex	265	48.3	67.5	18.5	44.0	42.0	90.0	0	1.0
RU1904139	257	49.3	68.0	23.2	42.9	42.5	90.5	0	1.0
RU2004083	249	43.5	67.4	17.3	46.4	40.8	91.0	0	1.0
RU2004091	285	39.5	67.2	20.3	43.5	43.0	89.5	0	1.0
RU2104083	265	40.2	67.9	15.4	45.4	45.3	83.5	0	1.0
RU2104091	270	39.6	68.4	16.7	43.7	42.3	94.0	0	1.0
RU2104107	282	45.3	68.4	16.3	44.8	44.8	86.0	0	1.0
RU2104115	266	41.7	67.5	20.3	42.8	44.0	87.0	0	1.0
RU2104123	277	44.3	67.5	17.4	44.6	44.5	85.5	0	1.0
RU2104127	284	49.9	68.3	18.6	44.1	45.5	90.0	57	2.7
Thad	280	51.5	67.6	17.4	43.2	40.5	90.0	0	1.0

[1]Planting date: March 30 Emergence: April 17 Harvested: August 28
LSD = A yield difference of 45 bu/A is required for one variety to differ from another at the 5% probability level. C.V. = 10.1%
[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.

CHRIS LIVELY FARM, CLARKSDALE

Table 8. Performance of rice varieties, hybrids, and experimental lines grown at the Chris Lively Farm in Clarksdale.[1]

Entry	Yield[2]	Whole Milled Rice	Total Milled Rice	Harvest Moisture	Bushel Weight	Plant Height	50% Heading[3]	Lodging[4]	Lodging[5]
	bu/A	%	%	%	lb	in	days	%	(1-5)
Hybrids									
RT7401	290	50.6	68.2	19.5	39.3	41.5	88.0	0	1.0
RT7302	271	51.6	69.6	16.1	42.8	42.8	86.5	0	1.0
RT7421 FP	286	45.7	66.5	20.0	38.8	45.5	88.5	0	1.0
RT7523 FP	247	39.9	66.7	18.3	40.3	44.3	88.0	0	1.0
RT7331 MA	250	44.8	67.8	17.2	42.1	43.5	85.0	0	1.0
Clearfield/Provisia									
21CLST003	180	51.6	68.0	26.1	41.0	41.0	89.0	0	1.0
21CLST005	177	48.0	67.9	21.2	42.8	38.3	93.0	0	1.0
21CLST018	177	47.9	65.8	18.8	42.6	39.8	91.0	0	1.0
21CLST028	209	60.8	71.6	21.2	42.9	35.8	93.0	0	1.0
CLHA02	189	46.4	66.7	18.7	45.1	35.8	88.5	0	1.0
CLL16	179	44.1	66.2	23.3	43.2	39.3	89.5	0	1.0
CLL18	203	39.3	64.0	20.0	42.4	40.3	88.5	0	1.0
CLL19	207	49.5	67.9	16.5	44.7	35.3	84.5	0	1.0
PVL03	200	52.7	69.8	17.1	44.8	38.3	88.0	0	1.0
PVL04	196	51.1	68.5	19.9	42.6	34.0	89.5	0	1.0
RU2104087	185	47.6	65.9	18.0	43.3	38.5	90.0	0	1.0
RU2104209	190	64.6	69.1	21.5	42.9	35.8	90.5	0	1.0
RU2104219	197	55.0	68.8	18.0	44.9	37.5	88.0	0	1.0
Conventional									
21CVST007	184	52.6	66.9	34.8	39.5	38.5	89.5	0	1.0
21CVST008	180	48.2	64.0	35.4	41.1	39.0	91.5	0	1.0
21CVST018	156	55.4	67.8	21.9	43.3	36.8	93.0	0	1.0
Diamond	187	46.7	68.0	21.1	43.9	42.0	91.0	0	1.0
Leland	193	56.3	70.0	20.6	44.0	43.0	89.5	0	1.0
Rex	182	51.9	66.2	16.7	44.7	36.5	87.0	0	1.0
RU1904139	184	48.3	66.9	28.9	39.8	39.3	90.0	0	1.0
RU2004083	156	43.5	66.7	22.1	43.8	41.8	94.0	0	1.0
RU2004091	198	44.8	67.4	19.8	43.6	42.3	90.0	0	1.0
RU2104083	204	35.4	66.8	15.2	45.8	39.3	89.0	0	1.0
RU2104091	205	36.3	66.7	15.9	45.6	41.5	85.0	0	1.0
RU2104107	177	32.9	65.7	16.3	45.2	40.0	85.0	0	1.0
RU2104115	182	45.7	67.2	23.4	41.1	42.8	89.5	0	1.0
RU2104123	210	37.3	66.2	16.4	45.2	44.0	85.0	0	1.0
RU2104127	203	43.0	68.0	20.2	43.8	41.3	91.5	38	2.3
Thad	172	49.5	67.4	21.8	43.6	38.0	91.0	0	1.0

[1]Planting date: April 14 Emergence: April 28 Harvested: August 31
LSD = A yield difference of 31 bu/A is required for one variety to differ from another at the 5% probability level. C.V. = 9.3%
[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.

NOLEN CANNON FARM, TUNICA

Table 9. Performance of rice varieties, hybrids, and experimental lines grown at the Nolen Cannon Farm, Tunica.[1]

Entry	Yield[2]	Whole Milled Rice	Total Milled Rice	Harvest Moisture	Bushel Weight	Plant Height	50% Heading[3]	Lodging[4]	Lodging[5]
	bu/A	%	%	%	lb	in	days	%	(1-5)
Hybrids									
RT7401	307	53.0	70.3	13.4	40.8	42.0	84.0	0	1.0
RT7302	301	56.4	72.1	15.7	41.8	48.8	84.5	0	1.0
RT7421 FP	340	51.0	70.4	15.0	39.9	47.5	85.0	0	1.0
RT7523 FP	339	55.3	70.8	12.4	42.3	48.8	85.5	0	1.0
RT7331 MA	331	56.8	71.6	12.4	43.5	44.0	82.0	17	1.7
Clearfield/Provisia									
21CLST003	236	61.1	71.4	16.7	43.9	44.3	86.5	0	1.0
21CLST005	245	56.1	71.5	14.5	45.0	41.0	87.5	0	1.0
21CLST018	218	55.0	69.2	15.1	43.9	41.8	88.5	0	1.0
21CLST028	258	65.5	73.8	14.7	44.9	43.3	91.5	0	1.0
CLHA02	243	56.0	69.9	15.1	45.7	39.5	85.0	0	1.0
CLL16	273	54.2	70.1	20.0	44.9	43.5	89.0	0	1.0
CLL18	251	49.9	69.0	15.9	44.5	44.0	84.5	0	1.0
CLL19	248	51.9	69.2	12.0	45.6	38.8	82.5	0	1.0
PVL03	235	56.5	71.5	13.8	45.3	42.0	85.5	0	1.0
PVL04	233	52.4	69.9	17.4	43.1	42.5	88.0	0	1.0
RU2104087	233	47.8	67.1	11.1	44.5	41.3	82.5	0	1.0
RU2104209	253	62.9	71.1	14.8	44.3	40.5	84.5	0	1.0
RU2104219	226	61.5	72.1	14.3	46.1	43.5	87.0	0	1.0
Conventional									
21CVST007	243	60.5	70.5	27.0	43.6	41.5	85.0	0	1.0
21CVST008	251	56.7	69.5	26.0	44.0	41.5	87.5	0	1.0
21CVST018	248	54.4	70.0	16.2	45.0	42.0	90.0	0	1.0
Diamond	251	58.0	71.8	16.2	45.7	47.5	87.0	0	1.0
Leland	240	64.2	73.1	14.2	47.1	49.0	88.5	0	1.0
Rex	219	55.5	69.1	12.3	45.9	40.5	84.0	0	1.0
RU1904139	246	51.3	69.7	17.3	44.6	43.3	83.0	0	1.0
RU2004083	260	47.9	72.1	16.6	46.7	43.8	88.0	0	1.0
RU2004091	244	51.0	71.3	19.0	44.0	42.5	88.0	0	1.0
RU2104083	248	50.2	70.2	13.1	47.0	41.5	84.5	0	1.0
RU2104091	240	45.2	70.6	12.7	47.3	43.0	84.5	0	1.0
RU2104107	244	48.9	70.2	12.5	46.9	44.0	82.0	0	1.0
RU2104115	260	47.6	70.5	17.5	43.2	43.5	84.5	0	1.0
RU2104123	231	50.4	70.0	13.6	46.7	45.5	83.5	0	1.0
RU2104127	266	55.5	72.1	19.2	43.3	43.8	90.5	0	1.0
Thad	226	57.1	70.4	15.4	45.3	41.8	88.0	0	1.0

[1]Planting date: April 18 Emergence: May 3 Harvested: September 15
LSD = A difference of 35 bu/A is required for one variety to differ from another at the 5% probability level. C.V. = 8.2%
[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.

Table 10. Reactions of rice varieties and hybrids to common diseases in the US Mid-South.[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	
CLHA02	MS	MR								MR		
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
Leland	MS	R				MR		MR		MR	R	
Mermentau	S	S					MS			MS		
Rex	S	VS					MR	MR		VS	VS	
RoyJ	MS	S	S	VS	S	MR	S	MR	MS	S	MR	
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	--
XL753	R	MR								MR		

[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 11. Suggested nitrogen fertilizer rate guidelines for selected rice varieties.				
Varieties	**Clay Soils[1]**		**Silt Loam Soils[2]**	
	Preflood	**Midseason**	**Preflood**	**Midseason**
Bowman	120-150	30-60	90-120	30-60
Cheniere	120-150	30-60	90-120	30-60
CL151[3]	90-135	0-45	90	45
CL152	120-150	45	120	45
CL153	120-150	30-60	90-120	30-60
CL163	120-150	45	120	45
CL172	120-150	30-60	90-120	30-60
CLHA02	120-150	30-60	90-120	30-60
Cocodrie	120-150	30-60	90-120	30-60
Diamond	120-150	30-60	90-120	30-60
Lakast	120-140	30-45	90-120	30-45
Leland	120-150	30-60	90-120	30-60
Mermentau	120-150	30-60	90-120	30-60
PVL01	120-150	30-60	90-120	30-60
PVL02[4]	120-150	30-60	90-120	30-60
Rex	120-150	45	120	45
Sabine	120-150	30-60	90-120	30-60
Thad	120-150	30-60	90-120	30-60

[1]Clay soils include soils with CEC greater than 20 cmolc kg-1.
[2]Silt loam soils include soils with CEC less than 20 cmolc kg-1.
[3]CL151 is highly prone to lodging.
[4]Limited data for both clay and silt loam soils. Recommendations are subject to change with further testing.

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