DIVISION OF AGRICULTURE
RESEARCH & EXTENSION
University of Arkansas System

RICE INFORMATION

No. 173 December 2014

Arkansas Rice Performance Trials, 2012-2014[1]

Cultivar selection is likely the most important management decision made each year by rice producers. This choice is generally based upon past experience, seed availability, agronomic traits, and cultivar yield potential. When choosing a rice cultivar, grain yield, milling yield, lodging, maturity, disease susceptibility, seeding date, field characteristics, potential for quality reductions due to pecky rice, and market strategy should all be considered. Cultivar performance data included in this publication are from the Arkansas Rice Performance Trials (ARPT), Producer Rice Evaluation Program (PREP) plots in grower fields, and from seeding date studies conducted during 2012-2014. Additional information can be found on the Arkansas Cooperative Extension website (http://www.uaex.edu) and the annual B.R. Wells Rice Research Series publication (http://arkansasagnews.uark.edu/1356.htm).

Cultivars grown in the Arkansas Rice Performance Trials (ARPT) in 2014 averaged **185** bu/A of rough rice compared to the state average yield of **167** bu/A as reported by the USDA Crop Reporting Service (http://usda.mannlib.cornell.edu/usda/current/CropProd/CropProd-11-10-2014.pdf). Data averaged over years and locations are more reliable than a single year of data for evaluating rice performance for such important factors as grain yield, milling yield, kernel size, maturity, lodging resistance, plant height and disease susceptibility. It is critical to evaluate as many years of information as possible, particularly when extreme weather conditions occur which may unfairly impact results for certain cultivars in a given year.

The ARPT, PREP, and seeding date studies are supported through grower check-off funds administered by the Arkansas Rice Research and Promotion Board. These studies are conducted every year to compare promising new experimental lines and newly-released cultivars from the breeding programs in Arkansas, Louisiana, Texas, and Mississippi with established cultivars currently grown in Arkansas. Descriptions of cultivars are provided in Table 8 at the

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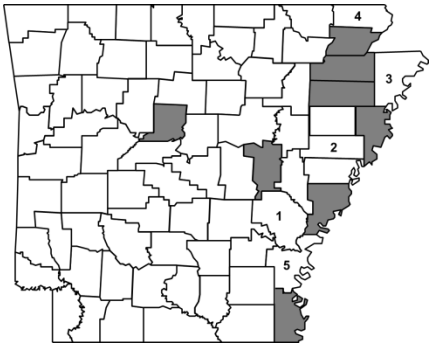
end of this report. The 2014 ARPTs were conducted at five locations in Arkansas (Figure 1). Multiple locations each year allow for continued reassessment of the performance and adaptability of advanced breeding lines and commercial cultivars to environmental conditions, soil properties, and management factors. Ninety entries, which were either promising breeding lines or established cultivars, were grown across a range of maturities.



1. Rice Research & Extension Center (RREC), Stuttgart, AR
2. Pine Tree Research Station (PTRS), Colt, AR
3. Northeast Research & Extension Center (NEREC), Keiser, AR
4. Turner Farm, Clay County, AR
5. Whitaker Farm, Desha County, AR

Figure 1. Locations (1 - 5) of the Arkansas Rice Performance Trials and Producer Rice Evaluation Program sites (shaded) conducted in 2014.

The 2014 ARPTs were located at the Rice Research & Extension Center (RREC) near Stuttgart, AR; Pine Tree Research Station (PTRS) near Colt, AR; Northeast Research & Extension Center (NEREC) near Keiser, AR; the Jerry & Keith Turner farm in Clay County (CLAY); and the Jim Whitaker farm in Desha County (DESHA). The studies were seeded on May 2, May 6, May 7, April 23, and May 5, respectively. Cultural practices varied somewhat among the ARPT locations, but overall the trials were grown under conditions for high yield. Nitrogen was applied to ARPT tests located on Experiment Stations in a single application of 120-130 lbs N/acre at preflood on silt loam soils and 150 lbs N/acre on clay soils. Phosphorus and potassium fertilizers were applied before seeding at each location.

The average yields for the 2012, 2013, and 2014 ARPTs are listed in Table 1. RiceTec XL753, Roy J, Caffey, and LaKast have been the highest yielding cultivars averaged across the past three years. Roy J, Caffey, LaKast, and Jupiter were the highest yielding conventional varieties from 2012 to 2014. Experimental lines AREX1021 and AREX1084 had comparable or greater yields over the same period. Antonio, CL152, CL151, and CL172 had the highest overall milling yields from 2012 to 2014. Agronomic traits and grain yields from the 2014 ARPTs are shown in Table 2. Averaged across all locations, RiceTec XL753, AREX1021, AREX1084, and Caffey were the top yielding cultivars in the 2014 ARPT. Antonio, CL172, Mermentau, CL151, and CL152 had the highest overall milling yields of the long-grain cultivars in the 2014 ARPT. Jupiter had the highest milling yield among medium-grain cultivars.

The most recent disease ratings for each cultivar are listed in Table 3. Ratings for disease susceptibility should be evaluated critically to optimize cultivar selection. Cultivars should be

selected for specific fields, relative to the potential yield limitations observed in historical yields. For example, Francis and Wells are both susceptible to blast disease and should be planted in fields with low risk of this disease. Other cultivars should be considered for fields that have limited water availability, poor water-holding ability, historical blast infestations, and tree lines or other natural barriers that encourage long dew periods. Potential for bacterial panicle blight should also be considered and fields with a history of this disease should be planted to relatively resistant cultivars (hybrids and Jupiter). Pureline varieties should be planted early and prior to planting hybrids. Also, pureline varieties should be managed as timely as possible to avoid unnecessary stress. Disease ratings are a general guide based on our expectations of the cultivar reaction under conditions that strongly favor disease; however, environment will modify the actual reaction of a cultivar in different fields. Also, resistance to diseases, such as blast, can be overcome by the pathogen over time. Do not expect these ratings to be an absolute predictor of cultivar performance with respect to a particular disease in all situations.

Each year replicated trials are established in numerous grower fields to monitor rice cultivar reaction to diseases. The counties where the 2014 Arkansas Producer Rice Evaluation Program (PREP) trials were located are shaded in Figure 1. Grain yield and milling yield information from these trials provides additional valuable information on how cultivars and advanced experimental lines perform across the state when subjected to different environments and management practices (Tables 4, 5). Cultivar disease reaction data from these trials are used to help establish disease susceptibility ratings. Averaged across all locations, RiceTec XL753, Jupiter, AREX1021, Caffey, and LaKast were the highest yielding cultivars tested in the PREP trials. Antonio, CL172, and RiceTec CL XL729 had the highest overall milling yields across locations. Milling yields were comparable among the medium-grain cultivars during 2014. Performance variability among the locations represents different environments, management practices, and susceptibility to various diseases present at specific locations.

Planting date studies are conducted annually to establish rice DD50 thresholds and to evaluate performance of new cultivars over a range of seeding dates at the RREC (Table 6). Results from previous years can be found in past Rice Information Sheets.

In 2014, planting date studies were drill-seeded and then fertilized and flooded at the 5-leaf stage. Urea was applied as a single pre-flood application of 130 lbs N/A to all cultivars. The highest grain yields were observed in plots seeded on April 18 (Table 6). The unique conditions of the 2014 season resulted in an atypical grain yield response to planting date. In most years grain yield decline from early planting to late planting is relatively linear. In 2014, yields generally declined later in the season, but some later planting dates performed equal to or greater than earlier planting dates. A notable example was the June 18 planting date outperforming the June 5 planting date. RiceTec XL753 was the most consistent cultivar across all planting dates and had one of the highest overall yields at most dates. In the March 26

planting date, Jupiter, AREX1021, Caffey, and Roy J were the highest yielding cultivars. In the April 18 planting date, Jupiter, AREX1021, LaKast, and RiceTec XL753 were the highest yielding. In the May 2 planting date RiceTec XL753, AREX1021, RiceTec CL XL729, and LAEX2071 were the highest yielding. In the May 21 planting date RiceTec XL753, AREX1021, Jupiter, and RiceTec CL XL729 were the highest yielding. In the June 5 planting date RiceTec XL753, RiceTec CL XL729, RiceTec CL XL745, and AREX1021 were the highest yielding. In the June 18 planting date RiceTec CL XL729, RiceTec XL753, AREX1021, and RiceTec CL XL745 were the highest yielding. Exposure to erratic average daily temperatures in June, July, and August likely resulted in greater yield variability across planting dates (Table 7). Antonio, CL151, CL172, and Wells had the highest overall milling yields averaged across planting dates. Average milling yield for all cultivars was similar at each planting date.

Descriptions of the rice cultivars tested are provided in Table 8.

Growers are encouraged to seed newly released cultivars on a small acreage to evaluate performance under their specific management practices, soils, and environment. Growers are also encouraged to seed rice acreage in several cultivars to reduce the risk of disease epidemics and environmental effects. Cultivars that have been tested under Arkansas growing conditions will reduce potential risks associated with crop failure. Additional information on specific cultivars not listed in this publication is available upon request. Contact your local county Extension agent for more information.

ADDITIONAL INFORMATION SOURCES

University of Arkansas Cooperative Extension Service http://www.uaex.edu

- Rice Information Sheet No. 166
- Rice Information Sheet No. 167
- Rice Information Sheet No. 168
- Rice Information Sheet No. 169
- Rice Information Sheet No. 170
- Rice Information Sheet No. 171
- Rice Information Sheet No. 172

Table 1. Results of the Arkansas Rice Performance Trials averaged across the three-year period of 2012-2014.

Cultivar	Grain Length[1]	Straw Strength[2]	50% Heading[3]	Plant Height	Test Weight	Milled Kernel Wt[4]	Chalky Kernels[4]	Milling Yield by Year				Grain Yield by Year			
								2012	2013	2014[5]	Mean	2012	2013	2014[5]	Mean
		Rating	Days	in.	lbs/bu	mg	%	% Head Rice - % Total Rice				Bushels / Acre			
Antonio	L	2.0	83	37	42.1	20.50	1.99	64-71	65-70	66-72	**65-71**	187	176	164	**176**
Caffey	M	2.2	85	38	42.3	23.83	1.38	60-69	58-67	57-69	**58-68**	197	198	202	**199**
CL111	L	2.1	81	38	41.9	21.13	0.94	62-71	64-69	63-71	**63-70**	169	162	170	**167**
CL151	L	1.6	83	39	41.6	19.78	1.93	63-71	65-70	65-71	**64-71**	191	169	190	**184**
CL152	L	1.7	85	37	41.7	18.03	1.55	63-71	66-70	65-71	**65-71**	179	153	144	**158**
CL172	L	1.0	84	35	41.6	21.50	1.39	62-71	66-70	66-71	**64-71**	214	174	165	**184**
Colorado	L	3.4	81	38	41.2	22.05	1.88	61-70	63-69	63-70	**62-70**	163	143	174	**160**
Jazzman-2	L	2.1	84	38	41.5	18.86	0.71	63-70	66-69	64-70	**64-70**	157	151	170	**159**
Jupiter	M	2.9	86	38	41.7	20.83	1.72	61-68	61-66	59-68	**60-67**	197	178	196	**190**
LaKast	L	2.5	83	42	41.6	21.95	0.71	61-72	63-70	62-71	**62-71**	196	186	193	**192**
Mermentau	L	1.4	83	37	41.6	19.7	1.90	65-71	65-69	66-71	**65-70**	199	173	168	**180**
RT CL XL729	L	3.9	83	43	41.4	20.45	1.97	59-70	62-69	61-70	**61-70**	184	188	191	**188**
RT CL XL745	L	4.1	80	43	41.6	21.56	1.09	57-72	61-69	61-71	**60-71**	185	165	193	**181**
RT XL753	L	2.5	81	42	41.9	21.32	1.83	57-71	60-70	57-71	**58-71**	229	225	246	**233**
Roy J	L	1.0	88	41	41.7	21.00	0.76	64-72	63-70	62-70	**63-71**	219	188	192	**200**
Taggart	L	1.8	87	44	41.7	23.00	0.83	56-71	62-69	60-70	**59-70**	187	186	187	**186**
Wells	L	2.1	85	41	42.0	21.56	1.03	54-71	62-70	57-70	**58-70**	194	178	182	**185**
AREX1021	M	1.5	79	38	41.5	22.75	1.95	54-68	58-67	55-69	**56-68**	224	193	220	**212**
AREX1084	L	1.8	84	41	41.4	21.70	1.10	----	62-68	61-69	**62-69**	----	203	206	**204**
Mean		**2.1**	**84**	**39**	**41.7**	**21.13**	**1.402**	**60-71**	**63-69**	**62-70**	**62-70**	**191**	**178**	**185**	**184**

[1] Grain Length: L=long grain; M=medium grain.

[2] Relative straw strength based on field tests using the scale: 1=very strong straw, 5=very weak straw; based on percent lodging.

[3] Number of days from emergence until 50% of the panicles are visibly emerging from the boot.

[4] Data from 2011-2013. Based on weight of 1,000 kernels. Data from Riceland Grain Quality Lab.

[5] Data from Clay, Desha, PTRS, and RREC only.

Table 2. Results of the Arkansas Rice Performance Trials at four locations during 2014.

Cultivar	Grain Length[1]	Straw Strength[2]	50% Heading[3]	Plant Height	Test Weight	Milling Yield[4]	Grain Yield by Location and Planting Date				
							CLAY April 23	DESHA May 5	PTRS May 6	RREC May 2	MEAN
		Rating	Days	in.	lbs/bu	%HR-%TR	Bushels / Acre				
Antonio	L	1.0	86	37	42.5	66-72	174	162	169	152	**164**
Caffey	M	1.6	87	38	42.3	57-69	219	174	217	195	**202**
CL111	L	1.4	85	37	42.5	63-71	178	173	183	146	**170**
CL151	L	1.8	86	38	42.4	65-71	194	195	196	176	**190**
CL152	L	1.0	88	36	42.2	65-71	147	146	156	127	**144**
CL163	L	1.8	88	38	42.1	63-70	182	165	174	176	**174**
CL172	L	1.0	87	35	42.3	66-71	193	148	169	150	**165**
CL271	M	1.6	89	37	42.1	58-70	201	165	178	164	**177**
Colorado	L	2.2	85	37	42.6	63-70	169	177	190	160	**174**
Jazzman-2	L	1.4	87	39	42.3	64-70	168	172	179	159	**170**
Jupiter	M	2.6	87	38	41.6	59-68	163	187	220	215	**196**
LaKast	L	1.4	87	40	42.2	62-71	205	190	205	172	**193**
Mermentau	L	1.2	86	37	42.5	66-71	179	160	177	158	**168**
RT CL XL729	L	1.8	87	42	42.4	61-70	187	196	207	173	**191**
RT CL XL745	L	2.4	83	42	42.8	61-71	200	193	198	181	**193**
RT XL753	L	1.4	84	41	42.9	57-71	254	253	250	227	**246**
Roy J	L	1.0	90	41	42.2	62-70	208	184	197	178	**192**
Taggart	L	1.4	89	43	42.4	60-70	213	177	189	168	**187**
Wells	L	1.2	88	42	42.4	57-70	196	179	181	171	**182**
AREX1021	M	2.0	83	39	42.1	55-69	226	217	215	221	**220**
AREX1084	L	1.6	87	41	42.4	61-69	207	207	202	206	**206**
Mean		**1.6**	**87**	**39**	**42.3**	**62-70**	**192**	**182**	**192**	**174**	**185**

[1] Grain Length: L=long grain; M=medium grain.

[2] Relative straw strength based on field tests using the scale: 1=very strong straw, 5=very weak straw; based on percent lodging.

[3] Number of days from emergence until 50% of the panicles are visibly emerging from the boot.

[4] Data from Clay, Desha, PTRS, and RREC only.

Table 3. Rice cultivar reactions[1] to diseases (2014).

Cultivar	Sheath Blight	Blast	Straight head	Bacterial Panicle Blight	Narrow Brown Leaf Spot	Stem Rot	Kernel Smut	False Smut	Lodging	Black Sheath Rot	Sheath Spot
Antonio	S	S	--	MS	MS	S	S	MS	MS	--	--
Bengal	MS	S	VS	VS	S	VS	MS	MS	MR	MR	--
Caffey	MS	MR	--	S	R	--	--	MS	--	--	--
Cheniere	S	VS	VS	VS	S	S	S	S	MR	MS	--
CL111	VS	MS	S	VS	VS	VS	S	S	MS	S	--
CL142-AR	MS	S	MS	S	S	S	S	S	S	S	--
CL151	S	VS	VS	VS	S	VS	S	S	MR	S	--
CL152	S	VS	S	S	MR	--	VS	S	--	--	--
CL163	MS	--	--	MS	--	--	--	--	--	--	--
CL172	MS	MR	--	MS	--	--	--	S	--	--	--
CL261	MS	VS	S	VS	S	VS	MS	S	MS	MS	--
CL271	S	MR	--	MS	MR	--	--	--	--	S	--
Cocodrie	S	S	VS	S	S	VS	S	S	MR	S	--
Colorado	S	VS	--	S	MS	--	--	S	--	--	--
Della-2	S	R	--	S	MS	--	--	--	--	--	--
Francis	MS	VS	MR	VS	S	S	VS	S	MS	S	--
Jazzman	MS	S	S	S	S	S	MS	S	MS	MS	--
Jazzman-2	VS	S	--	VS	MR	--	S	S	--	--	--
JES	S	R	VS	S	R	VS	MS	MS	S	MR	--
Jupiter	S	S	S	MR	MS	VS	MS	MS	MS	MR	--
LaKast	S	S	MS	S	MS	S	S	S	MS	MS	S
Mermentau	S	S	VS	MS	MS	--	S	S	MS	--	--
Rex	S	S	S	S	MS	S	S	S	MR	S	--
Roy J	MS	S	S	S	MR	S	VS	S	MR	MS	--
RT CL XL729	MS	R	MS	MR	MS	S	MS	S	S	S	--
RT CL XL745	S	R	R	MR	MS	S	MS	S	S	S	--
RT CL XP756	MS	--	--	--	--	--	--	S	--	S	--
RT XL723	MS	R	S	MR	MS	S	MS	S	MS	S	--
RT XL753	MS	R	MS	MR	--	--	MS	S	--	S	--
RT XP754	MS	--	--	--	--	--	--	S	--	S	S
Taggart	MS	MS	R	MS	MS	S	S	S	MS	MS	--
Templeton	MS	R	S	MS	S	MS	S	S	MS	MS	--
Wells	S	S	S	S	S	VS	S	S	MS	MS	--

[1] Reaction: R = Resistant; MR = Moderately Resistant; MS = Moderately Susceptible; S = Susceptible; VS = Very Susceptible (cells with no values indicate no definitive Arkansas disease rating information is available at this time). Reactions were determined based on historical and recent observations from test plots and in grower fields across Arkansas. In general, these ratings represent expected cultivar reactions to disease under conditions that most favor severe disease development.

Table prepared by Y. Wamishe, Assistant Professor/Extension Plant Pathologist

Table 4. Performance of selected cultivars in Producer Rice Evaluation Program trials located in grower fields in Arkansas during 2014.

Cultivar	Grain Yield by Location Planting Date								
	Chicot April 21	Conway April 11	Craighead April 21	Crittenden April 24	Greene April 23	Phillips April 24	Poinsett April 23	Prairie May 8	MEAN
	Bushels / Acre								
Antonio	129	104	----	195	222	145	215	189	**171**
Caffey	223	196	246	217	250	182	234	224	**221**
CL111	153	143	180	202	221	169	269	178	**189**
CL151	181	146	225	184	242	173	265	219	**204**
CL152	175	141	185	207	222	160	230	196	**190**
CL163	169	156	223	185	234	143	241	196	**193**
CL172	192	166	195	204	240	160	232	198	**198**
CL271	181	165	238	178	232	140	249	196	**197**
Jazzman-2	137	52	----	188	211	128	220	163	**157**
Jupiter	220	217	286	228	272	183	268	241	**239**
LaKast	209	181	252	205	258	189	253	212	**220**
Mermentau	169	174	190	197	224	171	225	199	**194**
RT CL XL729	215	167	230	245	213	209	255	212	**218**
RT CL XL745	185	166	231	239	220	217	265	202	**215**
RT XL753	227	199	267	263	280	223	268	220	**243**
Roy J	209	200	240	176	230	169	217	206	**206**
Taggart	201	189	234	210	242	186	247	219	**216**
AREX1021	224	216	246	241	270	179	281	225	**235**
AREX1084	215	----	241	195	----	----	----	----	**217**
MEAN	**190**	**164**	**230**	**208**	**238**	**173**	**246**	**205**	**205**

Table 5. Performance of selected cultivars in Producer Rice Evaluation Program trials located in grower fields in Arkansas during 2014.

Cultivar	Milling Yield by Location Planting Date								
	Chicot April 21	**Conway April 11**	**Craighead April 21**	**Crittenden April 24**	**Greene April 23**	**Phillips April 24**	**Poinsett April 23**	**Prairie May 8**	**MEAN**
	Head Rice – Total Rice								
Antonio	57-68	64-67	----	67-69	67-71	67-70	71-74	65-71	**65-70**
Caffey	68-72	66-70	60-71	65-68	65-70	67-72	65-69	50-69	**63-70**
CL111	58-67	66-70	60-70	66-68	61-69	64-68	69-73	57-70	**62-69**
CL151	57-70	66-69	59-68	66-68	65-70	63-66	67-69	63-72	**63-69**
CL152	60-69	65-69	62-69	65-67	64-70	60-63	66-68	62-70	**63-68**
CL163	61-68	64-68	63-68	62-65	62-69	62-65	65-69	61-70	**63-68**
CL172	66-71	66-69	64-70	66-68	66-70	65-68	67-70	62-70	**65-70**
CL271	68-72	67-70	60-70	67-69	66-71	60-68	65-69	52-70	**63-70**
Jazzman-2	53-67	62-65	----	63-64	64-68	61-63	64-66	60-68	**61-66**
Jupiter	67-71	64-69	62-71	64-67	65-69	63-70	61-68	59-69	**63-69**
LaKast	59-69	66-71	62-70	65-69	62-70	63-69	65-72	56-70	**62-70**
Mermentau	64-69	65-68	60-63	66-68	65-70	62-64	66-68	65-70	**64-68**
RT CL XL729	58-69	67-70	59-69	67-70	66-71	67-72	67-71	58-69	**64-70**
RT CL XL745	53-69	64-70	59-70	66-69	59-70	63-70	64-71	57-71	**61-70**
RT XL753	57-70	63-70	52-68	68-70	59-71	61-69	65-72	53-71	**60-70**
Roy J	64-71	65-71	62-70	66-69	63-69	61-67	64-70	59-70	**63-70**
Taggart	58-70	65-70	61-70	66-69	61-69	64-70	63-70	56-70	**62-70**
AREX1021	63-71	67-70	56-72	68-70	62-70	65-71	68-70	48-70	**62-70**
AREX1084	60-70	----	62-69	66-69	----	----	----	----	**63-69**
MEAN	**60-70**	**65-69**	**60-69**	**66-68**	**63-70**	**63-68**	**66-70**	**58-70**	**63-69**

Table 6. Influence of seeding date on grain yield and milling yield of selected rice cultivars in studies conducted at the RREC during 2014.

Cultivar	Grain Yields (bu/A)							Milling Yield (%HR-%TR)						
	Mar 26	April 18	May 2	May 21	June 5	June 18	Mean	Mar 26	April 18	May 2	May 21	June 5	June 18	Mean
Antonio	197	192	177	174	122	132	**166**	67-72	70-73	70-73	66-69	67-70	70-72	**68-71**
Caffey	249	231	157	207	132	147	**187**	66-69	66-70	65-70	64-69	65-71	67-70	**66-70**
CL151	225	232	191	181	140	151	**186**	66-71	69-72	70-72	65-68	69-72	68-71	**68-71**
CL152	220	209	174	173	139	143	**176**	69-72	70-73	67-69	64-66	67-69	69-72	**68-70**
CL163	216	206	173	171	107	138	**168**	62-69	67-70	67-70	66-69	66-70	67-70	**66-70**
CL172	235	213	183	182	137	141	**182**	66-70	69-72	69-71	67-70	68-71	68-71	**68-71**
CL271	218	219	153	174	136	136	**173**	67-71	67-71	67-70	65-69	67-72	69-71	**67-71**
Colorado	94	178	177	166	111	110	**139**	55-64	65-71	65-70	63-68	66-70	67-71	**64-69**
Jupiter	258	269	195	223	133	154	**205**	64-68	63-68	64-68	61-67	64-69	65-69	**64-68**
LaKast	242	255	203	199	131	147	**196**	62-70	64-71	66-71	64-70	68-72	67-71	**65-71**
Mermentau	194	210	185	173	139	136	**173**	67-71	69-72	69-71	63-66	66-69	68-71	**67-70**
RT CLXL729	244	242	213	211	166	187	**210**	61-70	65-71	67-71	63-69	64-70	67-71	**65-70**
RT CLXL745	207	229	207	190	160	160	**192**	59-70	64-72	66-72	65-71	64-70	68-72	**64-71**
RT XL753	221	253	240	240	189	180	**221**	59-71	64-72	66-72	64-71	64-70	67-72	**64-71**
Roy J	245	224	163	170	130	140	**179**	65-71	68-72	67-71	66-70	68-72	68-71	**67-71**
Wells	239	225	187	179	133	158	**187**	64-71	68-72	69-72	67-72	69-73	68-72	**68-72**
AREX1021	257	261	225	238	147	163	**215**	63-70	68-71	67-70	65-69	66-71	68-70	**66-70**
LAEX2071	232	246	212	200	141	154	**198**	66-71	68-71	67-70	65-69	69-72	67-71	**67-71**
Mean	**222**	**226**	**189**	**191**	**138**	**148**	**185**	**64-70**	**67-71**	**67-71**	**64-69**	**66-71**	**68-71**	**66-70**

Table 7. Influence of seeding date on days from emergence to ½" internode elongation and 50% heading for selected rice cultivars in studies conducted at the RREC during 2014.

Cultivar	Days to ½" Internode Elongation					Days to 50% Heading						
	March 26	April 18	May 21	June 5	Mean	March 26	April 18	May 2	May 21	June 5	June 18	Mean
	days after emergence					days after emergence						
Antonio	66	56	44	44	**53**	99	89	82	79	75	73	**87**
Caffey	----	----	----	----	----	100	92	88	79	75	73	**90**
CL151	----	----	----	----	----	98	89	82	79	75	74	**87**
CL152	----	----	----	----	----	101	91	85	80	77	78	**89**
CL163	68	61	54	51	**59**	97	91	85	80	76	78	**88**
CL172	68	60	51	49	**57**	98	90	84	79	75	75	**88**
CL271	72	62	54	53	**60**	99	92	88	81	78	79	**90**
Colorado	65	55	44	44	**52**	94	86	81	77	72	69	**85**
Jupiter	73	64	54	53	**61**	100	91	84	80	75	73	**89**
LaKast	70	60	47	48	**56**	97	88	81	78	74	73	**86**
Mermentau	64	56	44	44	**52**	98	90	82	79	75	74	**87**
RT CL XL729	----	----	----	----	----	96	86	81	79	75	74	**85**
RT CL XL745	----	----	----	----	----	92	84	78	75	71	71	**82**
RT XL753	63	54	44	45	**51**	93	86	79	76	73	70	**83**
Roy J	71	61	51	51	**59**	105	95	89	83	80	82	**93**
Wells	69	59	51	50	**57**	99	92	84	80	76	80	**89**
AREX1021	69	58	49	49	**56**	93	85	79	75	72	71	**83**
LAEX2071	67	55	44	44	**52**	105	93	84	80	79	75	**90**
Mean	**68**	**59**	**48**	**48**	**56**	**97**	**89**	**83**	**79**	**83**	**82**	**87**

Table 8. General characteristics of cultivars tested in the Arkansas Rice Performance Trials and Producer Rice Evaluation Program.

Cultivar	Year Released & Source	Pedigree	Highlights
Antonio	2012 – Texas	Cypress/Cocodrie	A short season, semi-dwarf long-grain variety with very good yield potential and milling quality. Similar to Cocodrie for agronomic characteristics.
Bengal	1992 – Louisiana	Mars/M-201//Mars	A short season, semi-dwarf medium-grain variety with good yield potential and milling quality. It has a preferred large grain size.
Bowman	2007 – Mississippi	RU8603006/3/Mars/Newrex//Tebonnet	A short season, high-amylose long-grain variety designed for canning rice market. Has good grain and milling yield potential and is susceptible to blast and moderately susceptible to sheath blight and straighthead.
Caffey	2011 – Louisiana	Bengal//Mercury/Rico/3/Mercury/Rico//Bengal	A short season, semi-dwarf medium-grain variety with excellent yield potential and milling quality. Susceptible to blast, sheath blight, and panicle blight.
Cheniere	2003 – Louisiana	Newbonnet/Katy/3/82CAY21/Lemont//L-202	A short season, semi-dwarf long-grain variety with good yield potential and milling quality comparable to Cypress. Susceptible to sheath blight and blast.
CL111	2008 – BASF, Horizon Ag	Proprietary variety	An early season, semi-dwarf long-grain Clearfield variety similar to CL 131. Susceptible to blast, straighthead, and bacterial panicle blight.
CL142-AR	2009 – BASF, Horizon Ag	Proprietary variety: Francis//Wells/CL161	A mid-season, semi-dwarf long-grain Clearfield variety similar to Francis with good yield potential and high tolerance to Newpath herbicide. It is susceptible to blast and bacterial panicle blight, and moderately susceptible to sheath blight and straighthead.
CL151	2007 – BASF, Horizon Ag	Proprietary variety: CFX-26/4/Lemont/2001-5/3/Lemont//L-202/Taducan	A mid-season, semi-dwarf long-grain Clearfield variety similar to Cocodrie with good yield potential and high tolerance to Newpath herbicide. It is very susceptible to blast and straighthead, and susceptible to lodging and sheath blight.
CL152	2011 – BASF, Horizon Ag	Proprietary variety: Tacauri/3/Cypress//L-202/Tebonnet/4/CL161	A mid-season, semi-dwarf long-grain Clearfield variety similar to CL151 with good yield potential and high tolerance to Newpath herbicide. Improved lodging and chalk compared to CL151.
CL172	2014 – BASF, Horizon Ag	Proprietary variety: 248Drew16C-1-3/6/LaGrue//Katy/Starbonnet/5/Newbonnet/Katy//RA73/Lemont/4/LeBonnet/9902/3/Dawn/9695//Starbonnet	A mid-season, semi-dwarf long-grain Clearfield variety with good yield potential and milling quality. High tolerance to Newpath herbicide. Moderately resistant to blast and lodging. Susceptible to sheath blight.
CL261	2008 – BASF, Horizon Ag	Proprietary variety: Bengal/CL161	A short season, medium-grain Clearfield variety similar to Bengal.
CL271	2014 – BASF, Horizon Ag	Proprietary variety	A mid-season, medium-grain Clearfield variety.
CL XL729	2007 – RiceTec, Inc.	Proprietary hybrid	A short season, long-grain Clearfield hybrid with excellent yield potential and moderately susceptible to sheath blight, and moderately resistant to blast.

Table 8 (cont.). General characteristics of cultivars tested in the Arkansas Rice Performance Trials and Producer Rice Evaluation Program.

Cultivar	Year Released & Source	Pedigree	Highlights
CL XL745	2008 – RiceTec, Inc.	Proprietary hybrid	A short season, long-grain Clearfield hybrid with excellent yield potential, moderately susceptible to sheath blight, and moderately resistant to blast, and susceptible to lodging. Reported to have improved tolerance to shattering.
CL XP756	2011 – RiceTec, Inc.	Proprietary hybrid	A mid-season, long-grain Clearfield hybrid with good yield potential and average milling quality. Similar to CL XL729.
CL XP4534	2013 – RiceTec, Inc.	Proprietary hybrid	A short season, long-grain Clearfield hybrid with good yield potential.
Colorado	2012 – Texas	Cocodrie/L-202	A short season, semi-dwarf long-grain variety with good yield potential and milling quality.
Della-2	2012 – Louisiana	Cypress//L-205/Della	A short season, semi-dwarf long-grain aromatic variety with good yield and very good grain quality. Improved lodging compared to Della.
Drew	1996 – Arkansas	Newbonnet/Katy	A mid-season, long-grain variety with average yield potential and milling quality. It is blast resistant, straighthead tolerant, and has a larger kernel size than Kaybonnet.
Francis	2002 – Arkansas	Lebonnet/9902/3/Dawn/9695/Starbonnet/4/ LaGrue	A short season, long-grain variety with excellent yield potential, susceptible to rice blast and very susceptible to kernel smut. It is the best long grain for high pH and salt soils of NE Arkansas west of Crowley's ridge but should not be stressed for water due to blast concerns.
Jazzman	2009 – Louisiana	Chinese aromatic/Ahrent	A mid-season, Jasmine-type aromatic variety with good yield potential and milling quality.
Jazzman-2	2011 – Louisiana	RU0302195/RU0302125	A mid-season, Jasmine-type aromatic variety with fair yield and good milling compared to Jazzman. Susceptible to sheath blight, bacterial panicle blight, and straighthead.
Jupiter	2006 – Louisiana	Mercury//Mercury/Koshihikari/3/Bengal// Mercury/Rico	A mid-season, semi-dwarf, medium-grain variety with excellent yield potential and milling quality. It has a small grain size but has moderate resistance to bacterial panicle blight.
LaKast	2014 – Arkansas	LaGrue//Katy/Starbonnet/3/LaGrue	A mid-season, long-grain variety with excellent yield potential and good milling quality. Susceptible to blast and sheath blight.
Mermentau	2012 – Louisiana	AR1188/Cocodrie//9502088/LaGrue	A mid-season, semi-dwarf, long-grain variety with good yield potential and physical characteristics similar to Cocodrie, Cheniere, and Catahoula.
Rex	2010 – Mississippi	Rosemont//Rexmont/IR36	A short season, semi-dwarf long-grain variety with excellent yield potential and good milling quality. Very good straw strength, but is susceptible to most diseases.
Roy J	2010 – Arkansas	LaGrue//Katy/Starbonnet/5/Newbonnet/Katy//RA73/Lemont/4/Lebonnet/9902/3/Dawn/9695//Starbonnet	A mid-season, long-grain variety with excellent yield potential and good milling quality. Excellent straw strength. Susceptible to blast and moderately susceptible to sheath blight.
Taggart	2009 – Arkansas	LaGrue//Katy/Starbonnet/5/LaGrue//Lemont/RA73/3/LaGrue/4/LaGrue	A mid-season, long-grain variety with very good yield potential and average milling quality. Resistant to straighthead. Moderately susceptible to sheath blight and rice blast.
Wells	1999 – Arkansas	Newbonnet/3/Lebonnet/CI9902//Labelle	A short season, long-grain variety with excellent yield potential, average to good milling quality, large kernel size similar to Lemont, but is susceptible to rice blast. Only moderately susceptible to kernel smut and most other diseases.

Table 8 (cont.). General characteristics of cultivars tested in the Arkansas Rice Performance Trials and Producer Rice Evaluation Program.

Cultivar	Year Released & Source	Pedigree	Highlights
XL723	2005 – RiceTec, Inc.	Proprietary hybrid	A short season, long-grain hybrid with excellent yield potential, average milling quality; resistant to blast and moderately susceptible to sheath blight.
XL753	2011 – RiceTec, Inc.	Proprietary hybrid	A short season, long-grain hybrid with excellent yield potential. Resistant to blast, moderately susceptible to sheath blight and straighthead.
XP754	2011 – RiceTec, Inc.	Proprietary hybrid	A mid-season, long-grain hybrid with excellent yield potential and good milling quality.
XP760	2014 – RiceTec, Inc.	Proprietary hybrid	A short season, long-grain hybrid with good yield potential.
XP4523	2013 – RiceTec, Inc.	Proprietary hybrid	A short season, long-grain hybrid with good yield potential.