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RICE INFORMATION

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Arkansas Rice Performance Trials, 2007-2009[1]

Variety selection is one of the most important management decisions made each year by rice producers. This choice is generally based upon past experience, seed availability, agronomic traits and variety yield potential. When choosing a rice variety, grain and milling yields, lodging, maturity, disease susceptibility, seeding date, field characteristics, the potential for quality reductions due to pecky rice, and market strategy should all be considered. Variety performance data included in this publication are from the Arkansas Rice Performance Trials (ARPT), disease observation plots in grower fields, and from seeding date studies conducted during 2007-2009. Additional information can be found on the Arkansas Cooperative Extension website (www.uaex.edu) and the annual B.R. Wells Rice Research Series publication (http://www.uark.edu/depts/agripub/Publications/researchseries/).

Varieties grown in the Arkansas Rice Performance Trials (ARPT) in 2009 averaged **167** bu/A of rough rice compared to the state average yield of **150** bu/A as reported by the USDA Crop Reporting Service (http://usda.mannlib.cornell.edu/usda/current/CropProd/CropProd-11-10-2009.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 and milling yields, kernel size, maturity, lodging resistance, plant height and disease susceptibility.

The ARPT, seeding date studies, and disease observation tests 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 varieties from the breeding programs in Arkansas, Louisiana, Texas, Mississippi and

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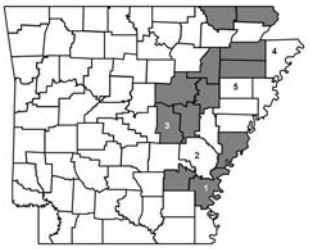
California with established varieties currently grown in Arkansas. Descriptions of varieties included in the ARPT and disease observation tests are provided in Table 7 at the end of this report. The 2009 ARPT were conducted at five locations in Arkansas (Figure 1). Multiple locations each year allow for continued reassessment of the performance and adaptability of advanced breeding lines and commercial varieties to environmental conditions, soil properties, and management factors. Four maturity groups, early-season, very-short-season, short-season, and mid-season, were grown at each ARPT location. Twenty-six entries, which were either promising breeding lines or established varieties, were grown in each of the four maturity groups.



1. Rohwer, Arkansas (Perry clay)
2. Stuttgart, Arkansas (Dewitt silt loam)
3. Moery Farm, Lonoke County (DeWitt silt loam)
4. Keiser, Arkansas (Sharkey clay)
5. Pine Tree Branch Experiment Station (Calloway silt loam)

Figure 1. Locations (1 - 5) of the Arkansas Rice Performance Trials and Rice Disease Monitoring Sites (shaded) conducted in 2009.

The 2009 ARPT tests were located at Rohwer (SEREC), Stuttgart (RREC), on the Moery farm in Lonoke County, at Pine Tree (PTBS), and at Keiser (NEREC), and were seeded on April 22, May 13, May 13, May 28, and May 22, respectively. Cultural practices varied somewhat among the ARPT locations, but overall the trials were grown under conditions for high yield. Nitrogen was typically applied to ARPT tests located on Experiment Stations in a single application of 120 lbs N/A at preflood on the silt loam soils and 150 lbs N/A on the clay soils. Phosphorus and potassium fertilizers were applied before seeding at the Stuttgart, PTBS, and Jackson County locations.

The average yields for the 2007, 2008, and 2009 ARPT are listed in Table 1. Agronomic traits and grain yields from the 2009 ARPT are shown in Table 2. Averaged across all locations, Jupiter, and Neptune (both medium grains) were among the top yielding varieties in the 2009 ARPT (Table 2). Rice Tec CL 729 and XL 723 were the highest yielding long grains in 2009 while Francis, Taggart, and Wells were the highest yielding conventional long grain varieties in 2009. Rice Tec XL 723 was the highest yielding cultivar averaged across the past three years (Table 1). Francis, Taggart, and Wells were the top three yielding conventional varieties from 2007 to 2009 (Table 1).

The most recent disease ratings for each variety are listed in Table 3. Ratings for disease susceptibility should be evaluated critically to optimize variety selection. Varieties 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 rice blast disease and should be planted in fields with low risk of this disease. Other varieties should be considered for fields that have

limited water availability, poor water-holding ability, historical blast infestations, high risk of straighthead, and tree lines or other natural barriers that encourage long dew periods. 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 in different fields. Also, resistance to particular diseases, like blast, can be overcome by the fungus over time. This has happened to the variety Banks since 2004. Released originally as resistant (R) to blast disease, it is now considered to be susceptible due to a buildup of the new blast race IE-1k, which attacks Banks. Banks should no longer be considered a blast resistant variety in Arkansas. Do not expect these ratings to be an absolute predictor of variety performance with respect to a particular disease in all situations.

Descriptions of the varieties tested in the 2009 ARPT are provided in Table 8. CL 142 AR is a new Clearfield variety that has better yield potential than CL 161 or CL 171 AR. Other new varieties tested during 2009 include CL 181AR, JES, Jazzman, Taggart, and Templeton. CL 181AR is a new semi-dwarf Clearfield variety with yields similar to CL 142AR but better milling yield potential. JES and Jazzman are two new aromatic rices that have good yield potential but will likely involve specialty markets. Taggart is a new long grain with excellent yield potential and has a tendency to display mild disease risk. Major diseases such as sheath blight and blast do infect Taggart, but little economic losses have been observed. It has a large kernel which is desirable for some export markets. Templeton is a new variety that has resistance to all of the major races of blast, including the new race that infected Banks.

Each year replicated variety trials are established in numerous grower fields to monitor rice variety reaction to diseases (Table 4). The counties where the 2009 Rice Disease Monitoring Plots (ARDMP) were located are shaded in Fig. 1. Yield information from these trials provides additional valuable information on how varieties and advanced experimental lines perform across the state when subjected to different environments and management practices. Variety disease reaction data from these trials are used to help establish disease susceptibility ratings presented in Table 3. A Clearfield-only version is also conducted as a few locations to enable monitoring the impact of Newpath herbicides on the Clearfield varieties (Table 5). In general, information from these trials on variety yield potential supports data from the ARPT. Rice Tec CL XL 745, CL XL 729, and XL 723 were the highest yielding cultivars across all locations. Similar to the ARPT, the top yielding conventional varieties in the ARDMP were Wells, Jupiter, and Taggart. Yield variability among the various locations represents different environments, but also susceptibility to various diseases present at specific locations. Rice blast disease was present in Randolph, White, and Woodruff counties. Straighthead was severe in Phillips County and was also observed in Jackson County.

Planting date studies are conducted annually to establish rice DD50 thresholds and to evaluate performance of new varieties over a range of seeding dates at the RREC (Tables 6 and 7). Results from 2006, 2007, and 2008 planting date studies can be found in Rice Information Sheet No. 164, 166, and 167, respectively. These publications are available either on the Cooperative Extension Service website (http://www.aragriculture.org) or at your local county Extension office.

Seeding date studies were drill-seeded and then fertilized and flooded at the 5-leaf stage. Urea was applied as a single preflood application of 120 lb N/A to all varieties. Most varieties produced their highest yield when seeded on either March 26 or April 16 (Table 6). Later planted rice is more likely to head during the high temperatures commonly encountered during August. Temperatures above 95°F are detrimental to pollination and may result in excessive blanking. Also, shorter vegetative growth with later planting results in less stored carbohydrates needed for grain filling (Table 7). Consequently, late-planted rice resulted in a 18 to 64% reduction in yield potential during 2008. CL 181, Wells, Arize 1003, and Rice Tec XL 723 were among the most consistent cultivars in the study between early and late planting dates.

During 2009, the weather was abnormally cool at times during the season. The extremely long time measured to reach ½-inch internode and 50% heading, particularly for the early seeding dates, suggest that the weather delayed the crop substantially. This data illustrates the importance of DD50 in predicting growth stages in the field.

Growers are encouraged to seed newly released varieties 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 varieties to reduce the risk of disease epidemics and environmental effects. Varieties that have been tested under Arkansas growing conditions will reduce potential risks associated with crop failure. Additional information on specific varieties not listed in this publication is available upon request. Contact your local county Extension agent for more information.

ADDITIONAL INFORMATION SOURCES

Univ. of Arkansas Cooperative Extension Service Web www.uaex.edu

- Rice Information Sheet No. 151
- Rice Information Sheet No. 153
- Rice Information Sheet No. 154
- Rice Information Sheet No. 156
- Rice Information Sheet No. 162
- Rice Information Sheet No. 164

University of Arkansas Agricultural Publications
http://www.uark.edu/depts/agripub/Publications/

- B.R. Wells Rice Research Studies 2001 - 2006

Table 1. Results of the Arkansas Rice Performance Trials averaged across the three-year period of 2007-2009.

Maturity Group and Variety	Grain Length[1]	Straw Strength[2]	50% Heading[3]	Plant Height	Milling Yield				Grain Yield by Year			
					2007	2008	2009	Mean	2007	2008	2009	Mean
		Rating	Days	in.	% Head Rice - % Total Rice				Bushels / Acre			
Very Short Season												
CL 131	L	2.0	89	33		64-73	66-72	65-72		138	148	143
Rice Tec XL 723	L	3.7	87	43	55-70	62-72	66-73	61-72	212	161	188	187
Trenasse	L	3.7	85	40	55-69	60-71	61-69	59-70	166	141	150	152
Short Season												
Bengal	M	3.0	89	37	57-65	66-73	65-73	63-70	178	151	181	170
Catahoula	L	1.5	92	35		59-72	66-73	63-73		130	133	132
Cheniere	L	2.0	92	35		61-72	67-73	64-72		140	161	151
CL 142AR	L	3.0	90	44	46-71	55-71	60-73	54-71	191	155	161	169
CL 161	L	3.0	92	38	61-70	60-71	64-71	62-71	155	142	149	149
CL 171AR	L	1.7	92	39	58-71	58-72	62-73	59-72	167	135	150	151
CL 181AR	L	1.7	91	33	56-69	60-71	74-71	60-71	162	152	153	156
Cocodrie	L	2.3	90	36	61-70	64-72	67-72	64-72	163	148	147	153
Cybonnet	L	1.0	91	36	59-71	64-72	68-73	63-72	171	144	157	157
Francis	L	3.0	90	39	54-70	62-72	67-72	61-71	185	170	183	179
Jupiter	M	4.0	89	37	61-70	65-73	64-71	63-72	178	174	194	182
Medark	M	2.7	88	35	60-70	69-73	68-73	66-72	154	161	180	165
Neptune	M	1.5	92	35		69-74	65-74	67-74		172	196	184
Wells	L	2.3	92	41	48-71	57-72	62-74	56-72	185	165	183	178
Mid-Season												
Arize QM1003	L	4.0	98	44		44-66	51-70	47-68		168	181	174
Bowman	L	1.0	93	37		59-70	71-58	59-70		149	163	156
Drew	L	2.3	94	44	52-69	60-71	63-73	59-71	175	139	164	159
JES	L	3.0	94	35	47-68	58-69	61-70	55-69	161	151	157	156
Lagrue	L	3.7	93	45	52-69	57-70	63-71	57-70	186	161	165	171
Taggart	L	3.0	96	45	50-70	61-71	65-73	59-71	190	165	183	179
Templeton	L	2.7	93	41	51-71	58-71	65-72	58-71	179	156	170	168
Mean		2.6	91	39	55-70	61-71	63-72	60-71	175	153	167	164

1 Grain Length: L=long grain; M=medium grain

2 Relative straw strength based on field tests using the scale: 0=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

Table 2. Results of the Arkansas Rice Performance Trials at five locations during 2009.

Maturity Group and Variety	Grain Length[1]	Straw Strength[2]	50% Heading[3]	Plant Height	Test Weight	Milling Yield	Grain Yield by Location					
							RREC	Lonoke County	PTBS	NEREC	SEREC	Mean
		Rating	Days	in.	lbs/bus	%HR–%TR	Bushels / Acre					
CL 111	L	1	90	39	46.13	62-71	150	142	148	174	114	146
CL 131	L	1	90	32	46.37	66-72	165	149	141	170	117	148
RT CL XL729	L	3	88	41	46.30	59-73	215	161	203	238	153	194
RT CL XL745	L	4	87	43	45.99	63-73	214	237	179	173	109	183
Trenasse	L	2	87	41	45.59	61-69	159	157	151	166	116	150
Short Season												
Bengal	M	2	90	37	45.80	65-73	189	217	153	187	158	181
Bowman	L	1	94	38	46.79	71-58	168	174	125	167	182	163
Catahoula	L	1	94	35	46.12	66-73	157	170	135	127	77	133
Cheniere	L	1	94	35	46.48	67-73	175	189	145	186	109	161
CL 142AR	L	3	93	44	45.70	60-73	161	183	154	147	160	161
CL 151	L	5	90	37	45.78	64-71	147	175	164	156	132	155
CL 161	L	3	96	38	46.49	64-71	192	166	139	150	100	149
CL 171AR	L	1	95	38	46.64	62-73	161	171	136	162	121	150
CL 181AR	L	1	93	33	46.40	74-71	168	162	146	168	122	153
Cocodrie	L	1	93	36	46.14	67-72	171	175	138	180	73	147
Cybonnet	L	1	94	37	46.76	68-73	161	199	139	166	123	157
Francis	L	2	92	40	46.26	67-72	182	206	156	191	183	183
Jupiter	M	4	90	38	45.40	64-71	205	231	179	206	151	194
Medark	M	2	90	36	45.16	68-73	198	204	154	179	167	180
Neptune	M	1	93	36	46.05	65-74	212	208	157	216	189	196
Rice Tec XL 723	L	2	90	43	46.51	66-73	182	231	180	202	144	188
Wells	L	2	95	41	46.61	62-74	192	209	163	198	155	183
Mid-Season												
Arize QM1003	L	4	99	45	45.71	51-70	203	171	196	147	186	181
Drew	L	1	97	45	46.37	63-73	165	185	157	161	152	164
Jazzman	L	2	98	39	46.54	61-69	185	177	150	170	166	170
JES	L	1	97	36	46.01	61-70	197	160	140	124	162	157
Lagrue	L	4	97	45	46.09	63-71	157	194	153	156	165	165
Taggart	L	3	97	45	45.86	65-73	183	203	159	176	193	183
Templeton	L	2	97	41	47.02	65-72	182	184	142	186	158	170

1 Grain Length: L=long grain; M=medium grain; **2** Relative straw strength based on field tests using the scale: 0=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;

Table 3. Rice variety reactions[1] to diseases (2009).

Variety/Hybrid	Sheath Blight[1]	Blast[2]	Straighthead	Bacterial Panicle Blight	Narrow Brown Leaf Spot	Stem Rot[3]	Kernel Smut	False Smut	Brown Spot	Lodging	Black Sheath Rot
Arize QM1003	MR	R	VS	MR	MR	MR	MS	MS	MR	S	MR
Bengal	MS	S	VS	VS	S	VS	MS	MS	VS	MR	MR
Bowman	MS	VS	R	S	MR	VS	MS	S	R	MR	MS
Catahoula	VS	R	MS	S	MR	S	S	S	R	MR	MS
Cheniere	S	S	MR	S	S	S	S	S	R	MR	S
CL 261	MS	MS	S	S	S	S	MS	S	R	MR	MS
CL 111	VS	S	S	S	VS	VS	S	S	R	MS	S
CL 131	VS	MS	VS	VS	VS	VS	S	S	R	MR	S
CL 142	MS	S	MS	S	S	S	S	S	R	MS	S
CL 151	S	VS	VS	VS	S	VS	S	S	R	S	S+
CL 161	VS	S	MS	S	S	VS	S	S	R	MS	S
CL 171AR	VS	S	MS	S	S	VS	S	S	R	MS	S
CL 181	VS	S	MS	VS	S	VS	S	S	R	MR	S
Cocodrie	S	S	VS	S	S	VS	S	S	R	MR	S
Cybonnet	VS	R	R	S	S	VS	S	S	R	MS	S
Francis	MS	VS	MR	VS	S	S	VS	S	R	MS	MS
Jazzman	MS	S	S	S	S	S	MS	S	R	MS	MS
JES	MS	R	MR	MS	R	VS	MS	MS	R	S	MR
Jupiter	S	S	S	MR	MS	VS	MS	MS	R	MS	MR
Neptune	MS	MS	VS	S	MS	VS	MS	MS	R	MR	MR
Rice Tec CL XL729	MS	R	MS	MR	MS	MS	MS	S	R	S	MS
Rice Tec CL XL745	MS	R	R	MR	MS	MS	MS	S	R	S	MS
Rice Tec XL 723	MS	R	S	MR	MS	MS	MS	S	R	MS	MS
Taggart	MS	S	R	MS	MS	S	S	S	R	MS	MS
Templeton	MS	R	S	S	S	MS	S	S	R	MS	MS
Wells	S	S	MS	S	S	VS	S	S	R	MS	MS

[1] Reaction: R = Resistant; MR = Moderately Resistant; MS = Moderately Susceptible; S = Susceptible; VS = Very Susceptible. Reactions were assigned based on cultivar assessment data collected across multiple locations and years in Arkansas, and data from the LSU rice pathology program (D. Groth, were also utilized). In general, assessment data were collected using published 0-9 severity scales for the respective disease, and from sites where conditions favored uniform disease severity across varieties. Locations included on-farm rice disease monitoring program test sites, URRN test plots, ARPT test plots, grower fields, rice disease nurseries at the Rice Research and Extension Center near Stuttgart and the Pine Tree Branch Experiment Station near Colt and fungicide test plots in Arkansas; and the LSU Rice Station (Crowley, LA). Reactions above would be expected in commercial fields where conditions strongly favor development of one or more of the listed diseases.

[2] Based on reaction to common races of the rice blast fungus in Arkansas. Race IE-1k of the blast pathogen is relatively rare in the state, but can attack all varieties with primary resistance conferred by the Pi-ta blast resistance gene (e.g. Banks). Because of the ability of the blast fungus to develop new races and overcome host resistance, all rice varieties (including hybrids) should be monitored annually for blast symptoms and suspect samples submitted to the Cooperative Extension Service Plant Health Clinic thru the local county extension office for testing and confirmation.

[3] Other Notes: Most cultivars will be susceptible to stem rot under low K and high N conditions. Bengal and certain other cultivars become very susceptible to brown spot under low K conditions. Low soil K may also increase other diseases, including sheath blight, narrow brown leaf spot, etc. Most cultivars are susceptible to false smut under high N, late planted conditions. Kernel smut, false smut and many other diseases are increased by excessive nitrogen fertilization, especially when applied at preflood.

Table prepared by R.D. Cartwright, Professor/Extension Plant Pathologist and F.N. Lee, Professor of Plant Pathology.

Table 4. Performance of selected cultivars in replicated rice disease monitoring tests located in grower fields in Arkansas during 2009.

	Grain Yields									
	Clay[2]	Desha	Jackson[3]	Phillips[4]	Poinsett	Randolph	White	Woodruff	Mean	C.V.%
	bushels/acre									
Arize QM1003	84	207	162	58	199		123	223	151	42.4
Bengal	60	205	106	49	149	145	124	201	130	44.5
Bowman	31	179	157	92	120	93	95	145	114	40.8
Catahoula	41	163	148	90	125	122	155	166	126	34.1
Cheniere	93	189	149	110	146	138	159	190	147	23.2
CL111	137	205	168	44	151	128	183	207	153	34.5
CL131	107	187	139	39	146	145	168	174	138	34.0
CL151	126	184	160	29	172	105	155	228	145	41.2
CL161	40	165	139	30	130	121	138	176	117	46.0
CL171AR	94	177	164	39	127	119	159	181	132	36.5
Cocodrie	66	190	110	36	147	134	159	190	129	43.1
Cybonnet	80	163	159	117	139	103	176	162	137	24.9
Francis	62	204	161	70	164	148	141	197	143	36.8
Jazzman	47	193	158	89	156	109	150	163	133	35.8
JES	27	136	113	76	172	107	138	186	119	43.0
Jupiter	117	228	163	113	180	101	161	199	158	28.5
Neptune	62	228	117	68	169	125	146	202	140	42.3
Rice Tec CL XL729	129	227	222	109	213	132	218	238	186	28.5
Rice Tec CL XL745	192	191	249	150	230	133	206	206	195	19.7
Rice Tec XL 723	113	233	223	73	222		211	230	187	34.9
Taggart	58	204	163	104	167	130	162	207	149	33.6
Templeton	79	183	125	67	162	148	171	199	142	33.8
Wells	116	199	201	79	163	155	182	215	164	28.4
Mean	89	190	154	78	162	123	156	193	143	30.1
LSD	28	26	43	48	26	49	31	52		
C.V.	19.4	7.8	20.6	37.0	9.5	24.2	12.0	14.0		

[1]C.V.= coefficient of variation, provides an indication of yield variability across environments. Lower numbers are better.
[2]Seeded June 12
[3]Moderate straighthead present at this location
[4]Severe straighthead and June planting greatly impacted yield potential at this location.

Table 5. Comparison of Clearfield rice varieties and hybrids in on-farm trials during 2009.

Variety/Hybrid	Grain Yield						
	Craighead	Jackson	Lincoln	Poinsett	RREC	Mean	C.V.
	Bushels/acre						%
CL 111	183	152	181	156	143	163	11.0
CL 131	180	107	173	150	114	145	23.0
CL 142AR	177	171	183	142	163	167	9.6
CL 151	201	122	193	152	143	162	20.7
CL 161	176	133	160	130	128	145	14.9
CL 171AR	167	162	154	137	120	148	13.1
CL 181AR	164	126	176	135	146	149	13.6
Rice Tec CL XL729	231	231	228	202	180	215	10.5
Rice Tec CL XL745	208	193	227	189	167	197	11.4
Means	172	147	175	145	150	156	8.3
LSD	19	43	14	14	20		
C.V.	6.7	17.6	4.8	5.8	9.3		

Table 6. Influence of seeding date on grain yield of selected rice varieties studies conducted at the RREC during 2009.

Variety	Grain Yield					Milling Yield				
	March 30	April 16	May 19	June 16	Mean	March 30	April 16	May 19	June 16	Mean
	Bushels/acre					%HR-%TR				
Arize QM1003	222	228	193	138	196	57-65	63-67	45-37	50-68	54-66
Bowman	209	174	145	75	151	58-68	65-68	40-66	27-53	47-64
Catahoula	176	165	148	97	146	66-73	68-72	53-63	60-67	62-69
CL 111	204	185	147	111	162	61-69	66-70	55-67	53-66	59-68
CL 131	175	181	160	144	165	66-72	68-71	59-69	59-67	63-70
CL 142	184	176	149	103	153	63-72	65-71	54-69	49-63	58-69
CL 151	231	192	167	124	178	58-69	64-68	57-67	49-61	57-66
CL 171AR	182	161	154	117	153	65-71	68-71	57-69	53-65	61-69
CL 181	198	195	152	126	167	59-67	64-70	63-68	55-63	60-67
Jazzman	202	185	127	98	153	64-71	66-68	61-70	52-64	61-68
JES	209	177	188	115	172	61-69	66-69	57-68	53-67	59-68
Neptune	210	216	175	109	178	70-72	71-73	66-71	62-67	67-71
Rice Tec CL XL729	273	246	183	146	212	61-70	65-71	61-69	55-66	60-69
Rice Tec CL XL745	240	216	162	121	185	58-70	66-73	53-70	50-64	56-69
Rice Tec XL 723	263	212	201	149	206	61-70	67-71	65-71	47-69	60-70
RU0701124	171	182	127	121	150	61-67	63-67	53-63	45-60	55-65
RU0801076	179	184	183	97	161	59-69	63-68	60-68	56-65	60-68
Taggart	230	195	165	95	171	60-71	65-71	60-67	41-60	56-67
Templeton	232	191	167	119	177	62-70	67-70	57-67	39-64	57-68
Wells	215	192	191	135	183	64-72	66-70	61-69	54-65	61-69
Mean	210	193	164	117	171	62-70	66-70	57-68	50-64	59-68

Table 7. Influence of seeding date on days from emergence to ½" Internode elongation and 50% heading for selected rice varieties in seeding date studies conducted at the RREC during 2008.

Variety	Days to ½" Internode Elongation					Days to 50% Heading				
	March 26	April 17	May 19	June 12	Mean	March 26	April 17	May 19	June 12	Mean
	days after emergence					days after emergence				
Arize QM1003	60	58	44	37	50	96	101	82	78	89
Bowman	66	68	54	45	58	91	96	80	75	86
Catahoula	59	57	45	37	49	89	97	76	68	83
CL 111	58	57	44	37	49	87	90	79	72	82
CL 131						83	90	78	72	81
CL 142	61	61	48	44	53	88	92	80	76	84
CL 151	57	56	44	40	49	83	89	80	76	82
CL 171AR						89	98	81	76	86
CL 181	61	59	49	42	53	88	95	81	75	85
Jazzman	67	65	52	47	58	89	94	80	76	85
JES	63	62	48	40	53	93	98	81	78	87
Neptune	67	68	55	50	60	93	93	80	78	86
Rice Tec CL XL729						84	89	83	76	83
Rice Tec CL XL745	57	57	47	41	50	82	85	78	71	79
Rice Tec XL 723	60	57	46	40	51	87	90	82	74	83
RU0701124	55	55	40	32	45	78	80	70	61	72
RU0801076	65	66	51	44	56	96	102	82	79	90
Taggart	64	64	50	43	55	93	99	82	77	88
Templeton	62	63	50	43	55	92	99	83	78	88
Wells	61	63	50	44	55	89	96	80	76	85
Mean	83	61	48	41	53	89	94	80	75	84

Table 8. General characteristics of varieties tested in the Arkansas Rice Performance Trials and Arkansas Rice Disease Monitoring Program.

Variety/Hybrid	Year Released & State	Pedigree	Highlights
Arize QM1003	2008 – Bayer Cropscience	Proprietary Hybrid	A mid-season, long-grain hybrid with good yield potential and is moderately resistant to sheath blight.
Bengal	1992 – Louisiana	Mars/M-201//Mars	A short season, semi dwarf, medium-grain 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 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.
Catahoula	2008 - Louisiana	LA9502008-A/Drew	A semi-dwarf, long-grain with good yield and milling potential and resistance to blast.
Cheniere	2003 - Louisiana	Newbonnet/Katy/3/82CAY21/Lemont//L-202	A short season semi-dwarf long-grain with good yield potential and milling quality comparable to Cypress. Susceptible to sheath blight and blast.
CL 111	2008 – BASF, Horizon Ag	Proprietary variety	An early season, semi-dwarf long grain similar to CL 131. Suscpetible to blast, straighthead, and bacterial panicle blight.
CL 131	2005– BASF, Horizon Ag	Proprietary variety; Developed from Cocodrie	A midseason, semi-dwarf long-grain similar to CL 161 with shorter plant height, moderately susceptible to blast, very susceptible to straighthead and sheath blight, but improved grain yield potential.
CL 142 AR	2009 – BASF, Horizon Ag	Proprietary variety; Developed from Francis & Wells	A midseason, semi-dwarf long-grain Clearfield 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.
CL 151	2007 – BASF, Horizon Ag	Proprietary variety	A midseason, semi-dwarf long-grain similar to Cocodrie with good yield potential and high tolerance to Newpath herbicide. It is very susceptible to blast, straighthead, and susceptible to lodging and sheath blight. Represented about 11.8% of the 2009 rice acreage in Arkansas.
CL 161	2002 – BASF, Horizon Ag	Proprietary variety; Developed from Cypress	A midseason, semi-dwarf, long-grain similar to Cypress with high tolerance to Newpath herbicide. It is very susceptible to sheath blight, susceptible to blast and moderately susceptible to straighthead.
CL 171 AR	2006 - BASF, Horizon Ag	Proprietary variety; Developed from Wells	A midseason, semi-dwarf, long-grain similar to Wells with high tolerance to Newpath herbicide. It is susceptible to sheath blight, moderately susceptible to blast and straighthead. Yield is similar to CL 161.
CL 181 AR	2009 – BASF, Horizon Ag	Proprietary variety; Developed from Francis	A midseason, semi-dwarf, long-grain Clearfield with good yield potential and milling quality.
CL 261	2008 – BASF, Horizon Ag	Proprietary variety	A short-season, medium-grain Clearfield variety similar to Bengal.
Rice Tec CL XL 729	2006 – Rice Tec, Inc.	Proprietary Hybrid	A short-season, long grain with excellent yield potential and moderately susceptible to sheath blight, and moderately resistant to blast. Represented about 15.1% of the 2009 rice acreage in Arkansas.
Rice Tec CL XL 730	2005– Rice Tec, Inc.	Proprietary Hybrid	A short-season, long grain with excellent yield potential and moderately susceptible to sheath blight, and moderately resistant to blast. Somewhat susceptible to lodging under extreme conditions. Represented about 9.4% of the 2008 rice acreage in Arkansas.
Rice Tec CL XL 745	2007– Rice Tec, Inc.	Proprietary Hybrid	A short-season, long grain 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. Represented about 8.1% of the 2009 rice acreage in Arkansas.

Table 8 (con.). General characteristics of varieties tested in the Arkansas Rice Performance Trials and Arkansas Rice Disease Monitoring Program.

Variety/Hybrid	Year Released & State	Pedigree	Highlights
Cocodrie	1997 – Louisiana	Cypress//82CAY21/Tebonnet	A short season semi-dwarf long-grain with good yield potential and milling quality. Suseptible to sheath blight and straighthead. High bran oil content makes it somewhat of a milling concern to certain buyers.
Cybonnet	2004 – Arkansas	Cypress//Newbonnet/Katy	A short season, semidwarf long grain with good yield potential and excellent milling quality similar to Cypress. It has blast resistance similar to Katy and moderately susceptible to straighthead. Very susceptible to sheath blight.
Drew	1996 – Arkansas	Newbonnet/Katy	A mid-season, long-grain 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 very short season, long-grain 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. Represented about 9.6% of the 2009 rice acreage in Arkansas.
Jazzman	2009 – Louisiana	Chinese aromatic/Ahrent	A Jasmine-type aromatic rice with good yield potential and milling quality.
JES	2009 – Arkansas	KDM ef sd	A Jasmine-type aromatic rice with good yield potential and milling quality.
Jupiter	2006 – Louisiana	Mercury//Mercury/Koshihikari/3/Bengal// Mercury/Rico	A short season, semi dwarf, medium-grain with excellent yield potential and milling quality. It has a small grain size but has resistance to bacterial panicle blight. Represented about 12.5% of the 2009 rice acreage in Arkansas.
Lagrue	1993 – Arkansas	Bonnet73/Nova76/Bonnet73/3/Newrex	A short season, long-grain with excellent yield potential and variable milling quality. It is susceptible to rice blast and and very susceptible to kernel smut.
Medark	2004 – Arkansas	Bengal/Short Rico	A short season, semidwarf, medium-grain with good yield potential and milling quality. It has a preferred large grain size but undesirable color.
Neptune	2007 – Louisiana	Bengal//Mercury/Rico/3/Mercury/Rico/Bengal	A short season, semi dwarf, medium-grain with excellent yield potential and milling quality. It has a preferred large grain size.
Trenasse	2005 - Louisiana	Cypress//82CAY21/Tebonnet	A very short season, long grain with excellent yield potential. It is very susceptible to sheath blight, straighthead, and susceptible to blast.
Wells	1999 Arkansas	Newbonnet/3/Lebonnet/CI9902//Labelle	A short season, long grain 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 and is the most widely adapted long grain rice in Arkansas. Represented about 16.5% of the 2009 rice acreage in Arkansas.
Rice Tec XL 723	2003- Rice Tec, 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.