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CALIFORNIA RICE VARIETIES

DESCRIPTION AND PERFORMANCE SUMMARY OF THE 2013 AND MULTIYEAR STATEWIDE RICE VARIETY TESTS IN CALIFORNIA

J. E. Hill, L.A. Espino, C. A. Greer, M.M. Leinfelder-Miles, R. G. Mutters, and R. L. Wennig*

University of California Cooperative Extension rice variety evaluation tests were conducted in the Sacramento and San Joaquin Valleys in 2013. This program, a cooperative effort involving the California Cooperative Rice Research Foundation, Inc. (CCRRFI) and the United States Department of Agriculture (USDA), compares advanced breeding lines with commercially available rice varieties and evaluates preliminary breeding lines to determine their adaptation to the principal rice growing areas of California. Entries in the tests include lines and varieties developed by CCRRFI rice breeders. The program is partially funded by the Rice Research Board and cooperating growers provide land, water and on-site management for the tests. Names and brief descriptions of the current publicly developed varieties are listed in Table 1.

Field preparations were completed early, however water availability concerns may have resulted in a slight decrease in acres planted (566,000 acres) compared to 2012. The estimated statewide yield was 8,480 lbs/ac, the third highest average yield on record. The harvest of 561,000 acres in 2013 was essentially the same as in 2012. Field preparation was completed earlier than normal due to a relatively dry spring. Planting was also completed earlier than normal, however several areas experienced delayed water deliveries this year resulting in large areas being planted in a short period of time. Relatively dry weather resulted in a timely harvest, high yields and good grain quality.

EXPERIMENTAL PROCEDURE

Cultivars and Locations

Field experiments were conducted at eight farm locations in the rice growing counties of California. Two classes of tests were conducted at each site: 1) Advanced tests consisting of advanced breeding lines and commercial varieties; and 2) Preliminary tests consisting of new lines

* Extension Agronomist, Department of Plant Sciences, UC Davis, UC Cooperative Extension Farm Advisors for Glenn/Colusa/Yolo, Sacramento/Placer/Sutter/Yuba, and Butte Counties, respectively, and Staff Research Associate, Department of Plant Sciences, UC Davis.

to be evaluated on a statewide basis. Advanced and preliminary tests were conducted in three maturity groups, Very Early, Early, and Intermediate/Late. Entries in each test were generally restricted to a single maturity group to avoid too early or too late maturation relative to the field variety of the test location. Commercial varieties in the very early and early maturity classes, however, were evaluated in both Very Early and Early tests. Advanced and preliminary lines from the three maturity groups were also evaluated at the Rice Experiment Station (RES), Biggs, California, for a total of 22 statewide tests. Advanced tests were arranged in randomized complete block designs with four replications, while preliminary lines were planted in two replications. Seed for the tests was provided by the RES. Maturity groups, test locations and commercial standards in each test were as follows:

Very Early Maturity Group

Seven advanced breeding lines and nine commercial varieties were evaluated in the advanced test at each of the following locations.

	Date Planted	Date Harvested
• Butte County (RES)	06/02	10/04
• Sutter County (Lauppe)	05/18	10/15
• Yolo County (Webster)	05/08	10/02
• San Joaquin (Del Rio Partners)	05/05 (drill-seeded)	10/17

Commercial varieties included Calmochi-101, Calhkari-201, Calhkari-202, S-102, M-104, M-105, M-202, M-206, and L-206. Thirty-two experimental lines and four commercial varieties (CA-201, M-205, M-208 and M-402) were evaluated in the preliminary test at each location. All advanced and preliminary experimental lines at each location were entries from the RES breeding program.

Early Maturity Group

Eight commercial varieties and ten advanced lines and were evaluated in the advanced test at each of the following locations.

	Date Planted	Date Harvested
• Butte County (RES)	06/02	10/05
• Butte County (Larrabee)	05/07	09/27
• Colusa County (Dennis)	05/13	10/09
• Yuba County (Matthews)	05/09	10/04

The advanced test included commercial varieties Calmochi-101, Calhkari-201, Calhkari-202, S-102, M-202, M-205, M-206, and L-206. Twenty-nine preliminary lines and seven commercial varieties (Calhkari-201, Calmati-202, A-201, A-301, M-105, and M-208) were included in a separate preliminary test at each site. All advanced and preliminary experimental lines were entries from the RES breeding program.

Late Maturity Group

Seven commercial varieties and three advanced lines were evaluated in the advanced test at each of the following locations.

	Date Planted	Date Harvested
• Butte County (RES)	06/04	10/09
• Glenn County (Wiley)	04/26	10/14
• Sutter County (Tucker)	05/04	09/24

Commercial varieties included Calhkari-201, Calhkari-202, M-202, M-205, M-206, M-402, and L-206. Twenty-two experimental lines and six commercial varieties (Koshihikari, Calmati-202, M-105, M-203, M-401, and A-201) were included in a separate preliminary test at each site. All advanced and preliminary experimental lines were entries from the RES breeding program.

Planting and Harvesting

Individual plots, except at San Joaquin, were water-seeded by hand at a planting rate of 144 lbs/acre. The plots at the San Joaquin Delta site were drill-seeded with a HEGE plot planter at a rate of 120 lbs/acre. Agronomic characteristics measured for each entry were seedling vigor, days to 50% heading, plant height, lodging at harvest, grain moisture at harvest and grain yield at 14% moisture. Seedling vigor was rated subjectively by visual observation on a scale of 1 (poor) to 5 (excellent) at three to four weeks after planting. Scores were based on plant health and stand at crop emergence (through the water). Days to 50% heading was measured as the number of days from planting to when 50% of the heads were free from the boot. Plant height was measured at harvest as the distance from the soil surface to the tip of the panicle. Plant lodging was rated visually at time of harvest on a scale of 1 (no lodging) to 99 (all plants completely lodged).

All tests were harvested with the ALMACO combine. The plots at the RES were harvested with the new RES ALMACO combine. The harvest areas for plots harvested by the ALMACO and new RES ALMACO combines were 156.7 and 140 ft² respectively. The plot lengths at San Joaquin were variable due to trimming the alleyways. Grain moisture was assessed at harvest and yields were adjusted to 14% moisture.

SUMMARY OF THE VERY EARLY RICE VARIETY TESTS

(<90 days to 50% heading at Biggs, CA)

A two location combined yield and agronomic performance summary is given in Table 3. Agronomic performance data for individual entries at each Very Early location are presented in Tables 4-7. Entries are ranked by grain yield with the highest yielding entry appearing first. A 5 year yield summary of selected Very Early commercial rice varieties by location and year (2009-2013) is presented in Table 8.

Grain yields in the advanced tests averaged 9160 lbs/ac overall, 9,500 lbs/ac at Biggs-RES, 9,740 lbs/ac at Sutter, 9,340 lbs/ac at Yolo and 8,050 lbs/ac at San Joaquin (Tables 3-7). Over all locations, the three highest yielding entries on average were advanced medium grain line 08Y3269, advanced long grain 11Y1005, and advanced short grain line 09Y2036 (9,790, 9,730, and 9,710 lbs/ac respectively). Top yielding commercial varieties M-105, L-206, M-104, and M-206 ranked seventh through tenth, respectively. Averaged across four locations, cultivar yields in the preliminary tests ranged from 7,300 to 10,290 lbs/ac (Table 3).

Medium grain cultivars 08Y3269, 10Y3286, and M-206 were the three highest yielding entries at the cooler San Joaquin trial (Table 7). The very early medium-grain commercial variety M-104 yielded eighth in the San Joaquin trial.

Average grain moisture at harvest, the number of days to 50% heading and % lodging increased (2.8%, 3 days, and 14% respectively) in 2013 as compared to 2012. Seedling vigor and plant height were essentially the same as in 2012.

Table 8 is a 5-year summary of very early commercial rice variety yields compared by locations and over years. Common year-location entries are compared to give relative yield as a percentage of M-104, the very early standard. An average of the very early tests, over the last 5 years, shows that M-206, L-206, M-202, S-102, and Calmochi-101 yielded 103%, 100%, 97%, 95%, and 91% (respectively) of the standard variety M-104. Over the 5-year period and across locations, M-206 was the highest yielding variety at 9,390 lbs/ac followed by L-206 and M-202 at 9,130 lbs/ac, and 8,870 lbs/ac respectively (Table 8).

SUMMARY OF THE EARLY RICE VARIETY TESTS

(90-97 days to 50% heading at Biggs, CA)

A four location combined advanced yield summary and a three location combined preliminary yield summary are presented in Table 9. Agronomic performance data for individual entries at each early location are presented in Tables 10-13. Entries are ranked by grain yield with the highest yielding entry appearing first. A 5 year yield summary of selected early commercial rice varieties by location and year (2009-2013) is found in Table 14.

Yields in the advanced line tests averaged 9020 lbs/ac overall, 8,810 lbs/ac at the RES, 8,950 lbs/ac at Butte, 9,050 lbs/ac at Colusa and 9,270 lbs/ac at Yuba (Tables 9-13). Advanced long grain 11Y1008 was the highest yielding entry (10,100 lbs/ac) followed by advanced long grain 09Y1122 (9,920 lbs/ac) and advanced medium grain 10Y3703 (9,480 lbs/ac) when averaged over four locations in 2013 (Table 9). The yield of commercial varieties L-206, M-205, M-206, and S-102, ranked sixth, tenth, eleventh, and fourteenth over all locations (Table 9).

Average days to 50% heading ranged from 85 days at Biggs to 90 days at the slightly cooler Yuba County site. The commercial standard M-206 headed at 82 days at Biggs and 87 days at Yuba. The average yield of M-105 decreased 1% compared to 2012. Eleven experimental lines averaged higher yields than M-105 in the Preliminary tests.

Table 14 is a 5-year summary of early commercial rice variety yields compared by locations and over years. Common year-location entries are compared to give relative yield as a percentage of M-202, the early standard. An average of the early tests, over the last 5 years, shows that L-206, M-205, M-206, M-105, and S-102 yielded 106%, 106%, 104%, 102%, and 95% (respectively) of the standard variety M-202. L-206 was the highest yielding commercial variety (9,620 lbs/ac) followed by M-205 (9,560 lbs/ac).

SUMMARY OF THE INTERMEDIATE-LATE RICE VARIETY TESTS
(intermediate = 98-105 days and late = > 105 days to 50% heading at Biggs, CA)

A three location combined yield summary is given in Table 15. Agronomic performance data for individual entries at each intermediate-late location are presented in Tables 16-18. Entries are ranked by grain yield with the highest yielding entry appearing first. A 5 year yield summary of selected intermediate-late commercial rice varieties by location and year (2009-2013) is found in Table 19.

Average yields in the advanced tests were 8,870 lbs/ac overall, 9,560 lbs/ac at the RES, 8,620 lbs/ac at Glenn and 8,420 lbs/ac at Sutter (Tables 15-18). The 2013 advanced over location average yield was 410 lbs/ac less than the 2012 average. The average yields at the RES and Sutter decreased 830 and 930 lbs/ac respectively, while increasing 530 lbs/ac at Glenn compared to the 2012 season. The lower yield and increased yield CV at Sutter was due to a very un-uniform seed distribution pattern resulting from planting in a 35 mph wind. The advanced medium premium quality grain entry 11Y2183 was the highest yielding entry overall (9,470 lbs/ac). M-206 was the highest yielding commercial variety (9,260 lbs/ac), ranking second overall. L-206 and M-205 were the next highest yielding commercial varieties across locations, ranking fourth and sixth respectively (Table 15).

Average days to 50% heading increased four days and lodging increased 10% compared to 2012. M-401 and M-402 were the latest varieties (110 days) to reach 50% heading among the commercial varieties at all locations (Table 15). Seedling vigor and plant height were essentially the same as last year.

Averaged over the last 5 years and across locations, M-205 (9,460 lbs/ac) is the highest yielding commercial variety. L-206 and M-402 yielded 105% and 101%, respectively, of the yield of the standard variety M-202 on average over the last 5 years (Table 19).

SUMMARY OF THE TWITCHELL ISLAND COLD TOLERANCE VARIETY TEST

The average yield of the Twitchell Island cold tolerance variety trial increased 1190 lbs/ac (16%) compared to 2012. The increase was due in part to improved cultivar selections and site location. Yields may have not reached their full potential in part due to the field being drained 3-4 weeks early. Timing of the final field drainage is very important in this area due to new field development and the peat soil structure. Sink holes and boggy areas can prevent large areas of the fields from being harvested if water is left on too long. Average yields ranged from 6360 to 8090 lbs/ac (Table 18). There were no significant yield differences between the varieties. Individual plot grain yields varied widely in a random pattern resulting in a test CV more than two times higher than normal for other test locations. The highest yielding entry was the short grain CM-101. Advanced medium grain M-206-Pi-ta2, M-206 and medium grain 12Y113 ranked second, third, and fourth in yield thus indicating the continued potential for short grain types and medium grain Calrose types in cold environments. At Twitchell Island, the average time to 50% heading for these very early varieties was 103 days after planting, 19 days later than the average days to heading for very early maturing varieties in the Sacramento Valley tests. The increased delay in maturity resulting from drill planting and the cool environment demonstrate two of the challenges of growing rice in this region.

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CHARACTERISTICS OF PUBLIC CALIFORNIA RICE VARIETIES - 2013

Grain Type	Maturity	Year Seed Widely Available	Stem Rot Score ¹	Seedling Vigor ²	Comments
Short Grain					
S-102 ⁶	Very Early ³	1998	5.6	4.3	Very high yield potential. Good resistance to blanking with a very large grain. Rough leaves and hulls, grain dries down rapidly during ripening. Susceptible to stem rot.
Medium Grains					
M-104 ^{6,7}	Very Early ³	2002	5.4	4.4	Replacement for M-103 in San Joaquin Valley and as an alternative to M-202 in other cool rice areas. Improved seedling vigor, lodging resistance, and yield compared to M-103. Milling yields similar to M-103. Heads 8 to 10 days earlier than M-202. Early planting in warm areas could limit yield and quality.
M-105 ^{6,7}	Very Early	2013	4.8	4.2	New release, earlier maturing than M-206 but not as early as M-104. The yield potential of M-105 is less than M-206 but greater than M-104. Very high stable milling yields. Not as cold tolerant as M-104 as a choice for cold areas or late plantings.
M-202	Early	1987	5.5	4.4	Good yield potential. Moderately susceptible to lodging. Long time favorite but is being replaced in many areas with newer varieties.
M-205 ^{6,7}	Early	2002	4.9	4.1	Very high yield potential. Primary adaptation area west of Highway 70 and north of Highway 20. Susceptible to blanking. Matures 4-7 days later than M-202. Improved milling yields and lodging tolerance relative to M-202. Not recommended for Escalon, Delta region or other cool areas.
M-206 ^{6,7}	Very Early to Early	2005	4.8	4.3	Very high yield potential. Adapted to entire rice area. Comparable to other medium grains. Improved resistance to blanking and improved milling yield. Four days later than M-104 and four days earlier than M-202. Avoid late planting in the Escalon/Delta areas.
M-208 ^{6,7}	Early	2008	6.6	4.3	Calrose cultivar released with IG-1 blast resistance. Released for blast problems areas of Glenn and Colusa Counties. Primarily adapted to north of the Yolo-Colusa County line and west of Hwy 70. Production practices comparable to M-206.
Long Grains					
L-206 ^{6,7}	Very Early to Early	2008	5.5	4.4	Conventional long grain with improved cooking quality. Very high yield potential. Four days earlier than L-205 and M-202. Considerably shorter than L-205 and M-202. Average head rice yield 62%. Adapted to most areas except in coldest and warmest rice growing regions. Harvest at 17 - 18% grain moisture.
Premium Quality					
M-401	Late	1983	5.1	4.3	<i>Premium quality</i> medium grain rice with large kernels. Good yield potential but susceptible to blanking, lodging and damage from premature drainage. Use 20-25% less nitrogen than on other medium grain varieties. Best adapted to warmer areas. Milling yields lower than other medium grain varieties.
M-402 ^{6,7}	Late	2001	4.7	4.2	<i>Premium quality</i> medium grain. Kernel size is smaller than M-401, much higher head rice potential. About 5-7 days earlier than M-401 with better straw strength. Adapted to warmer areas.
Calhikari-201 ^{5,6,7}	Early	2001	6.0	4.4	<i>Premium quality</i> short grain developed for the Japanese premium short-grain market. Has very good seedling vigor. A semidwarf with much greater yield potential and resistance to lodging than Japanese varieties. Rough leaves and hulls. Cold delays maturity and increases blanking. Use low nitrogen to maximize market quality.
Specialty Rices⁵					
Calmochi-101 ⁵	Very Early ^{3,4}	1987	5.3	4.2	Glutinous (sweet, waxy) rice. Excellent blanking resistance. Has rough leaves and hulls, no awns. Grain dries down rapidly during ripening.
Calamylo-201 ^{5,6}	Early ⁴	2009	6.2	4.2	Low amylose content (≈6-7%), opaque kernel and small short grain shape. Rough leaves and hull and not adapted to cool temperature areas. Low yield potential very limited market.
Calmati-202 ^{5,6,7}	Early ⁴	2008	6.0	4.4	A basmati type long grain with improved cooking quality and more slender grain. Excellent seedling vigor. Yield potential is 10% lower than CT-201. Pubescent leaves and hull. Average milling yield 58 - 60%. Susceptible to blanking and should not be grown in cool areas. Avoid excessive nitrogen. Harvest at 17-18% grain moisture.
<p>¹ Average stem rot score over last five years: 0 = no disease and 10 = severe disease.</p> <p>² Subjective rating of 1-5 where 1 = poor and 5 = excellent seedling vigor.</p> <p>³ Milling quality and yield may be reduced by early planting in warmer areas.</p> <p>⁴ Specialty varieties should not be grown unless arrangements have first been made with a marketing agency.</p> <p>⁵ These varieties are considered varieties of Commercial Impact (Tier 1) and are subject to production regulations.</p> <p>⁶ Protected under the Plant Variety Protection Act and only to be sold as a class of certified seed.</p> <p>⁷ Utility Patent</p>					

January 2012

Table 2. 2013 County Weather Data - Daily Maximums and Minimums (°F). (continued)

	Glenn (Willows)		Colusa (Colusa)		Yolo (Woodland)		Butte (Durham)		Sutter VE&L/L (Verona)		San Joaquin (Lodi, west)			Glenn (Willows)		Colusa (Colusa)		Yolo (Woodland)		Butte (Durham)		Sutter VE&L/L (Verona)		San Joaquin (Lodi, west)	
	max	min	max	min	max	min	max	min	max	min	max	min		max	min	max	min	max	min	max	min	max	min	max	min
Aug 01	55	92	58	86	54	87	53	84	54	87	49	82	Sep 01	59	87	63	85	61	92	63	81	61	92	58	90
Aug 02	61	92	55	92	54	91	54	89	54	91	52	88	Sep 02	57	87	64	82	65	85	63	83	65	85	65	82
Aug 03	59	94	56	90	52	91	54	90	52	91	52	86	Sep 03	57	88	57	85	59	87	58	85	59	87	57	83
Aug 04	54	92	56	89	52	89	55	88	52	89	52	84	Sep 04	53	87	55	86	54	88	54	85	54	88	55	85
Aug 05	53	92	54	89	50	90	53	87	50	90	52	84	Sep 05	55	95	60	84	57	89	56	85	57	89	53	85
Aug 06	54	92	53	85	50	86	53	86	50	86	51	79	Sep 06	60	94	54	91	57	92	53	93	57	92	55	89
Aug 07	54	85	56	80	52	84	56	80	52	84	57	75	Sep 07	57	92	53	96	54	99	52	94	54	99	52	95
Aug 08	53	84	56	83	53	83	54	83	53	83	53	81	Sep 08	57	92	55	97	57	101	55	98	57	101	56	96
Aug 09	54	87	56	83	52	83	55	84	52	83	57	80	Sep 09	63	104	56	101	62	103	58	103	62	103	55	98
Aug 10	54	88	57	85	53	86	55	84	53	86	55	82	Sep 10	63	96	58	93	60	94	58	91	60	94	58	86
Aug 11	57	90	57	88	54	89	56	87	54	89	51	85	Sep 11	58	88	56	83	57	85	57	82	57	85	60	78
Aug 12	58	95	57	89	54	90	56	87	54	90	52	88	Sep 12	57	91	57	87	57	89	57	86	57	84	60	85
Aug 13	56	95	56	94	53	94	55	92	53	94	50	93	Sep 13	62	92	61	91	58	93	60	88	58	89	56	89
Aug 14	58	95	58	94	55	95	65	92	55	95	52	91	Sep 14	60	91	59	89	55	90	59	89	57	86	52	83
Aug 15	58	94	60	93	58	96	56	91	58	96	53	91	Sep 15	55	88	57	86	50	90	57	86	55	84	47	83
Aug 16	63	96	74	94	61	95	59	93	61	95	58	93	Sep 16	54	88	54	86	55	88	54	85	54	85	51	86
Aug 17	63	98	62	97	61	97	59	92	61	97	57	89	Sep 17	55	87	58	82	56	82	59	81	56	82	53	80
Aug 18	65	98	64	98	60	99	62	92	60	99	58	97	Sep 18	65	89	52	85	56	86	51	86	56	86	51	84
Aug 19	72	96	69	92	68	103	66	89	68	103	63	100	Sep 19	55	90	46	89	48	94	46	85	48	94	45	88
Aug 20	69	97	69	94	65	95	57	88	65	95	63	90	Sep 20	57	89	47	86	50	86	49	84	50	86	49	79
Aug 21	67	93	64	88	60	93	64	88	60	93	56	87	Sep 21	60	72	53	66	54	65	56	66	54	65	53	71
Aug 22	60	91	60	88	56	90	60	89	56	90	52	82	Sep 22	49	83	47	74	52	75	49	76	52	75	49	73
Aug 23	57	92	55	88	52	90	54	86	52	90	54	87	Sep 23	52	84	50	83	54	84	50	84	54	84	48	82
Aug 24	58	90	60	86	55	91	57	86	55	91	53	86	Sep 24	55	81	59	79	57	82	60	79	57	82	55	79
Aug 25	62	88	63	87	62	88	61	85	62	88	59	87	Sep 25	46	77	46	73	54	74	48	73	54	74	54	73
Aug 26	57	92	59	88	57	89	58	85	57	89	56	86	Sep 26	54	80	51	74	54	75	50	74	54	75	51	74
Aug 27	58	90	54	90	53	93	53	90	53	93	52	92	Sep 27	55	81	48	78	52	79	53	86	52	79	50	79
Aug 28	54	92	61	90	57	93	58	89	57	93	57	89	Sep 28	46	82	48	82	46	83	47	80	46	83	42	85
Aug 29	60	93	63	90	60	93	63	90	60	93	58	88	Sep 29	58	81	59	77	56	78	60	74	56	78	54	80
Aug 30	60	94	60	95	59	97	58	92	59	97	56	95	Sep 30	54	88	56	79	57	78	56	78	57	78	53	78
Aug 31	60	95	61	94	57	96	57	92	57	96	55	91													
Oct 01	54	87	47	78	47	78	50	79	47	78	47	77													
Oct 02	54	85	49	79	58	79	49	80	58	79	51	79													
Oct 03	53	85	55	73	55	73	54	74	55	73	49	74													
Oct 04	51	84	50	79	57	80	54	79	57	80	48	81													
Oct 05	52	83	47	84	48	85	46	73	48	85	38	84													
Oct 06	52	84	40	82	44	85	42	83	44	85	40	86													
Oct 07	51	84	40	82	50	86	42	81	50	86	43	84													
Oct 08	51	84	48	77	55	79	52	77	55	79	41	77													
Oct 09	52	83	58	74	56	75	51	74	56	75	49	73													
Oct 10	52	83	47	75	50	75	50	72	50	75	45	75													
Oct 11	49	81	41	76	49	77	42	76	49	77	40	75													
Oct 12	50	81	42	76	44	77	42	76	44	77	39	77													
Oct 13	51	84	51	75	56	75	50	75	56	75	46	75													
Oct 14	50	84	47	77	53	78	48	77	53	78	48	80													
Oct 15	50	82	51	80	52	81	47	80	52	81	38	79													
Oct 16	49	81	39	80	45	81	37	81	45	81	47	78													
Oct 17	48	81	40	81	45	84	45	84	45	84	39	80													
Oct 18	48	80	42	81	43	83	40	83	43	83	46	78													
Oct 19	48	80	42	86	42	86	42	85	42	86	48	77													
Oct 20	48	80	42	87	43	88	42	85	43	88	47	76													
Oct 21	48	79	47	82	51	86	41	83	51	86	47	77													
Oct 22	49	78	43	86	46	85	46	88	46	85	41	82													
Oct 23	49	78	43	86	45	88	42	87	45	88	38	81													
Oct 24	49	78	42	77	42	76	40	78	42	76	41	68													
Oct 25	47	77	43	77	43	79	40	77	43	79	44	75													
Oct 26	48	77	42	78	42	81	40	79	42	81	38	78													
Oct 27	47	76	40	71	42	75	39	71	42	75	39	74													
Oct 28	47	73	40	63	41	67	40	60	41	67	47	66													
Oct 29	47	72	45	64	47	65	43	64	47	65	42	64													
Oct 30	45	71	39	68	40	69	36	69	40	69	36	67													
Oct 31	45	73	39	72	40	73	38	72	40	73	35	71													

Table 3. 2013 Very Early Rice Variety Tests - Four Location Summary

Advanced Lines and Varieties

Variety	Type	Over All Ave		Single Location Yields					Grain	Seedling	Days to	Lodging (1-99)	Plant Height (in)
		Grain 14% Moisture lbs/acre	14% Moisture	Biggs	Sutter	Yolo	San Joaquin	Moisture at Harvest (%)	Vigor (1-5)	50% Heading			
08Y3269	M	9790 (1)	10860 (2)	10320 (2)	9390 (10)	8580 (1)	7740 (14)	15.7 (11)	5.0 (5)	95 (16)	6 (11)	36 (8)	
11Y1005	L	9730 (2)	10980 (1)	10560 (1)	9620 (6)	8580 (1)	7740 (14)	15.7 (11)	4.9 (15)	90 (12)	1 (1)	38 (15)	
09Y2036	S	9710 (3)	10440 (3)	10250 (3)	10150 (1)	7990 (10)	7990 (10)	16.2 (10)	5.0 (1)	88 (10)	17 (14)	39 (16)	
08Y3126	M	9480 (4)	9490 (9)	10100 (4)	10060 (2)	8280 (5)	8280 (5)	18.4 (2)	4.9 (12)	88 (9)	5 (9)	37 (14)	
11Y2022	MPQ	9410 (5)	9630 (7)	9830 (7)	9880 (3)	8290 (4)	8290 (4)	17.6 (5)	5.0 (5)	89 (11)	4 (7)	37 (13)	
10Y3286	M	9300 (6)	9580 (8)	9770 (8)	9400 (9)	8470 (2)	8470 (2)	18.2 (7)	4.9 (11)	85 (4)	3 (6)	36 (6)	
M105	M	9240 (7)	9150 (10)	9940 (6)	9670 (5)	8220 (6)	8220 (6)	17.6 (6)	4.9 (9)	84 (2)	2 (3)	37 (12)	
L206	L	9210 (8)	9970 (4)	9700 (11)	9000 (13)	8180 (7)	8180 (7)	14.7 (13)	4.9 (14)	87 (8)	2 (4)	32 (1)	
M104	M	9200 (9)	9710 (6)	9510 (12)	9420 (8)	8140 (8)	8140 (8)	17.1 (8)	5.0 (4)	83 (1)	6 (10)	36 (5)	
M206	M	9130 (10)	8610 (14)	9710 (10)	9790 (4)	8410 (3)	8410 (3)	18.2 (3)	5.0 (5)	87 (6)	7 (13)	37 (11)	
10Y1008	Lsr	8980 (11)	9960 (5)	9740 (9)	9280 (11)	6950 (16)	6950 (16)	16.7 (9)	4.9 (15)	91 (13)	1 (2)	36 (9)	
M202	M	8940 (12)	8380 (16)	9990 (5)	9260 (12)	8140 (9)	8140 (9)	18.1 (4)	5.0 (1)	93 (15)	4 (7)	37 (10)	
CH202	SPQ	8880 (13)	8880 (12)	9240 (15)	9440 (7)	7950 (12)	7950 (12)	15.2 (12)	4.9 (12)	87 (7)	33 (15)	34 (2)	
CH201	SPQ	8710 (14)	8700 (13)	9480 (13)	8870 (14)	7790 (13)	7790 (13)	14.4 (14)	5.0 (3)	92 (14)	37 (16)	35 (3)	
S102	S	8690 (15)	9120 (11)	9300 (14)	8380 (15)	7960 (11)	7960 (11)	13.3 (15)	5.0 (8)	85 (3)	2 (5)	36 (7)	
CM101	SWX	8110 (16)	8580 (15)	8340 (16)	7830 (16)	7680 (15)	7680 (15)	13.2 (16)	4.9 (9)	86 (5)	7 (12)	35 (4)	
MEAN		9160	9500	9740	9340	8050	8050	16.4	4.9	88	9	36	
CV		4.1	5.8	3	2.8	4.2	4.2	4.1	1.1	1.1	124.5	3.7	
LSD (.05)		260	780	420	380	480	480	0.5	0	1	7	1	

Preliminary Lines and Varieties

10Y2043	S	10290 (1)	10610 (2)	11030 (1)	11350 (1)	8150 (21)	8150 (21)	14.8 (31)	4.9 (19)	87 (6)	5 (21)	35 (7)
09Y2141	SWX	9930 (2)	9560 (6)	10550 (4)	10630 (2)	8950 (2)	8950 (2)	16.2 (22)	5.0 (2)	88 (11)	9 (26)	38 (33)
09Y2122	S	9820 (3)	10400 (3)	10430 (5)	9920 (12)	8550 (4)	8550 (4)	15.7 (26)	5.0 (5)	90 (21)	18 (32)	39 (36)
12Y20	L	9790 (4)	9880 (4)	10350 (6)	10490 (3)	8450 (8)	8450 (8)	15.1 (30)	5.0 (12)	91 (29)	1 (1)	38 (27)
11Y2223	S	9730 (5)	10610 (1)	9940 (13)	9980 (7)	8380 (9)	8380 (9)	15.6 (27)	4.8 (36)	87 (6)	4 (20)	35 (4)
12Y113	M	9600 (6)	9850 (5)	10250 (8)	9950 (9)	8350 (12)	8350 (12)	17.3 (11)	4.9 (25)	90 (21)	23 (34)	38 (29)
11Y1008	L	9490 (7)	9310 (9)	10830 (2)	9860 (13)	7950 (27)	7950 (27)	14.3 (34)	4.9 (19)	90 (27)	1 (1)	36 (12)
11Y2160	SWX	9380 (8)	9550 (7)	9510 (30)	9950 (10)	8520 (5)	8520 (5)	15.6 (28)	4.9 (31)	90 (23)	14 (29)	37 (22)
M206+Pi-kh	M-blst	9320 (9)	9090 (13)	10080 (10)	10290 (4)	7830 (29)	7830 (29)	17.4 (10)	5.0 (7)	89 (14)	3 (16)	38 (31)
11Y3573	M	9310 (10)	8900 (18)	9820 (21)	10210 (5)	8310 (13)	8310 (13)	16.3 (21)	4.9 (34)	86 (5)	1 (1)	35 (3)
M206+Pi33	M-blst	9270 (11)	8650 (22)	9920 (14)	9940 (11)	8560 (3)	8560 (3)	17.7 (7)	4.9 (19)	90 (23)	2 (8)	37 (17)
10Y3477	M	9220 (12)	8610 (24)	10170 (9)	9970 (8)	8140 (22)	8140 (22)	16.6 (17)	5.0 (7)	88 (13)	14 (28)	37 (25)
11Y3209	M	9220 (13)	9150 (12)	10010 (11)	9250 (29)	8470 (6)	8470 (6)	16.4 (20)	4.9 (25)	88 (12)	2 (8)	36 (11)
12Y2010	SPQ	9220 (14)	9340 (8)	9530 (29)	10050 (6)	7960 (26)	7960 (26)	14.3 (33)	5.0 (2)	87 (8)	3 (17)	34 (2)
12Y2107	SWX	9210 (15)	9250 (10)	9970 (12)	9460 (22)	8170 (19)	8170 (19)	16.6 (16)	5.0 (7)	91 (31)	2 (8)	37 (23)
M208	M	9180 (16)	8810 (19)	10300 (7)	9350 (24)	8250 (15)	8250 (15)	16.9 (13)	5.0 (5)	91 (29)	2 (15)	37 (19)
12Y3097	MB	9170 (17)	8910 (17)	9900 (16)	9640 (15)	8230 (16)	8230 (16)	17.2 (12)	4.9 (33)	87 (9)	2 (14)	37 (18)
12Y2093	MPQ	9150 (18)	7790 (34)	10570 (3)	8970 (33)	9270 (1)	9270 (1)	17.7 (8)	5.0 (12)	91 (31)	10 (27)	37 (16)
M205	M	9050 (19)	9030 (16)	9850 (18)	9580 (18)	7740 (30)	7740 (30)	18.4 (3)	5.0 (7)	96 (35)	6 (24)	35 (6)
11Y3376	M	9030 (20)	8600 (25)	9690 (24)	9470 (21)	8360 (11)	8360 (11)	18.2 (4)	5.0 (7)	91 (33)	1 (1)	35 (5)
10Y2037	S	9020 (21)	9070 (14)	9640 (25)	9630 (17)	7740 (31)	7740 (31)	15.3 (29)	4.9 (31)	89 (17)	5 (22)	38 (32)
M206+Pi9	M-blst	9000 (22)	9160 (11)	9690 (23)	9570 (19)	7590 (32)	7590 (32)	18.6 (2)	5.0 (12)	89 (15)	20 (33)	34 (1)
11Y3532	M	8950 (23)	9050 (15)	9450 (31)	9120 (30)	8180 (18)	8180 (18)	16.6 (18)	5.0 (12)	83 (1)	2 (8)	35 (8)
M206+Pi-ta2	M-blst	8950 (24)	8020 (31)	9830 (19)	9570 (20)	8380 (10)	8380 (10)	17.5 (9)	4.9 (19)	89 (17)	15 (30)	37 (20)
11Y3241	M	8920 (25)	8370 (28)	9570 (27)	9280 (26)	8450 (7)	8450 (7)	16.7 (15)	4.9 (25)	86 (4)	5 (22)	36 (15)
13Y39	L	8880 (26)	7700 (35)	9900 (15)	9640 (16)	8260 (14)	8260 (14)	16.0 (23)	4.9 (19)	93 (34)	1 (1)	39 (35)
M206+Pi-40	M-blst	8870 (27)	7900 (32)	9820 (20)	9820 (14)	7940 (28)	7940 (28)	18.0 (5)	5.0 (12)	89 (15)	8 (25)	38 (28)
11Y3638	M	8850 (28)	8080 (29)	9720 (22)	9450 (23)	8160 (20)	8160 (20)	17.9 (6)	4.9 (25)	90 (27)	3 (18)	37 (24)
12Y2087	SPQ	8850 (29)	8690 (21)	9260 (34)	9340 (25)	8100 (23)	8100 (23)	13.3 (35)	5.0 (2)	87 (10)	4 (19)	37 (21)
11Y3411	M	8810 (30)	8700 (20)	9270 (33)	9090 (31)	8200 (17)	8200 (17)	16.8 (14)	5.0 (12)	89 (17)	1 (1)	36 (14)
11Y3305	M	8810 (31)	8520 (27)	9640 (26)	9060 (32)	8030 (24)	8030 (24)	16.0 (24)	4.9 (34)	83 (2)	2 (8)	38 (34)
11Y2229	SLA	8780 (32)	8550 (26)	9330 (32)	9270 (27)	7980 (25)	7980 (25)	14.6 (32)	4.9 (25)	90 (26)	35 (36)	36 (13)
11Y3693	M	8680 (33)	8620 (23)	9550 (28)	9260 (28)	7280 (35)	7280 (35)	16.5 (19)	4.9 (19)	90 (23)	2 (8)	35 (9)
11Y3406	M	8530 (34)	7860 (33)	9870 (17)	8940 (34)	7450 (33)	7450 (33)	15.9 (25)	5.0 (12)	86 (3)	1 (1)	38 (26)
M402	MPQ	8290 (35)	8070 (30)	8740 (35)	8920 (35)	7450 (34)	7450 (34)	19.2 (1)	5.0 (1)	108 (36)	16 (31)	38 (30)
CA201	SLA	7300 (36)	6970 (36)	8230 (36)	7680 (36)	6300 (36)	6300 (36)	13.2 (36)	4.9 (25)	89 (17)	31 (35)	35 (10)
MEAN		9110	8870	9840	9610	8110	8110	16.4	4.9	89	8	37
CV		4.7	7.8	2.7	3.4	3.7	3.7	4.9	1.5	1.6	177.8	6.1
LSD (.05)		430	1410	550	660	610	610	0.8	0.1	1	13	2

S = short; M = medium; L = long; PQ = premium quality; WX = waxy; blst = blast resistance; LA = Low Amalose; sr = stern rot resistant.

Subjective rating of 1-5 where 1 = poor and 5 = excellent seedling emergence.

Subjective rating of 1-99 where 1 = none and 99 = completely lodged.

Numbers in parentheses indicate relative rank in column.

Table 4. 2013 Biggs Very Early Rice Variety Tests

<i>Advanced Lines and Varieties</i>							
Variety	Grain Type	Grain Yield at 14%		Seedling Vigor (1-5)	Days to 50% Heading	Lodging (1-99)	Plant Height (in)
		Moisture lbs/acre	Moisture (%)				
11Y1005	L	10980 (1)	12.8 (10)	4.7 (14)	85 (14)	1 (1)	41 (16)
08Y3269	M	10860 (2)	15.4 (1)	4.9 (6)	91 (16)	2 (2)	40 (13)
09Y2036	S	10440 (3)	11.4 (12)	5.0 (1)	82 (8)	25 (14)	41 (15)
L206	L	9970 (4)	12.8 (9)	4.8 (10)	81 (4)	6 (5)	36 (1)
10Y1008	Lsr	9960 (5)	12.8 (11)	4.7 (14)	83 (11)	2 (2)	38 (5)
M104	M	9710 (6)	14.8 (6)	4.9 (4)	78 (1)	22 (12)	39 (7)
11Y2022	MPQ	9630 (7)	14.5 (8)	4.9 (6)	83 (10)	9 (8)	40 (12)
10Y3286	M	9580 (8)	14.6 (7)	4.8 (13)	83 (9)	11 (9)	38 (6)
08Y3126	M	9490 (9)	15.0 (5)	4.7 (16)	84 (12)	14 (10)	40 (13)
M105	M	9150 (10)	15.2 (3)	4.8 (11)	80 (3)	4 (4)	40 (10)
S102	S	9120 (11)	8.0 (15)	4.9 (5)	79 (2)	7 (6)	39 (9)
CH202	SPQ	8880 (12)	10.3 (13)	4.8 (9)	81 (4)	55 (16)	37 (4)
CH201	SPQ	8700 (13)	9.0 (14)	5.0 (3)	84 (13)	40 (15)	37 (3)
M206	M	8610 (14)	15.2 (2)	4.9 (6)	82 (7)	20 (11)	40 (10)
CM101	SWX	8580 (15)	7.5 (16)	4.8 (11)	81 (6)	24 (13)	37 (2)
M202	M	8380 (16)	15.1 (4)	5.0 (1)	89 (15)	7 (7)	39 (7)
MEAN		9500	12.8	4.8	83	15	39
CV		5.8	7.4	1.4	1.8	90.4	3.7
LSD (.05)		780	1.3	0.1	2	20	2
<i>Preliminary Lines and Varieties</i>							
11Y2223	S	10610 (1)	9.9 (27)	4.8 (24)	80 (3)	3 (13)	37 (5)
10Y2043	S	10610 (2)	9.3 (31)	4.9 (6)	80 (3)	1 (1)	40 (21)
09Y2122	S	10400 (3)	9.7 (30)	4.9 (6)	85 (29)	6 (26)	41 (29)
12Y20	L	9880 (4)	12.6 (23)	4.8 (15)	85 (29)	1 (1)	41 (29)
12Y113	M	9850 (5)	14.9 (4)	4.7 (30)	83 (14)	15 (33)	41 (33)
09Y2141	SWX	9560 (6)	9.8 (29)	5.0 (2)	82 (10)	8 (29)	42 (34)
11Y2160	SWX	9550 (7)	8.7 (32)	4.8 (15)	83 (14)	6 (26)	40 (25)
12Y2010	SPQ	9340 (8)	8.1 (35)	5.0 (2)	80 (3)	1 (1)	35 (2)
11Y1008	L	9310 (9)	12.5 (25)	4.8 (24)	83 (18)	1 (1)	37 (5)
12Y2107	SWX	9250 (10)	9.8 (28)	4.9 (10)	84 (21)	3 (13)	38 (8)
M206+Pi9	M-blst	9160 (11)	14.9 (6)	4.8 (15)	83 (14)	25 (36)	22 (1)
11Y3209	M	9150 (12)	14.2 (18)	4.7 (30)	81 (6)	3 (13)	37 (5)
M206+Pi-kh	M-blst	9090 (13)	14.5 (13)	4.9 (10)	84 (21)	5 (24)	40 (21)
10Y2037	S	9070 (14)	10.5 (26)	4.8 (15)	83 (14)	3 (13)	41 (29)
11Y3532	M	9050 (15)	13.9 (22)	4.8 (15)	79 (1)	3 (13)	38 (10)
M205	M	9030 (16)	14.6 (10)	4.9 (10)	92 (35)	1 (1)	39 (18)
12Y3097	MB	8910 (17)	14.9 (6)	4.8 (24)	82 (10)	5 (24)	39 (18)
11Y3573	M	8900 (18)	14.3 (15)	4.7 (30)	81 (6)	1 (1)	36 (3)
M208	M	8810 (19)	14.3 (15)	4.9 (6)	84 (26)	6 (26)	38 (10)
11Y3411	M	8700 (20)	14.6 (11)	4.8 (15)	84 (26)	1 (1)	39 (18)
12Y2087	SPQ	8690 (21)	8.3 (33)	5.0 (2)	81 (6)	3 (13)	39 (13)
M206+Pi33	M-blst	8650 (22)	14.8 (8)	4.8 (24)	84 (26)	3 (13)	39 (13)
11Y3693	M	8620 (23)	14.5 (14)	4.8 (24)	84 (21)	3 (13)	38 (8)
10Y3477	M	8610 (24)	14.7 (9)	4.9 (10)	82 (10)	8 (29)	41 (29)
11Y3376	M	8600 (25)	15.0 (2)	4.9 (10)	86 (32)	1 (1)	38 (10)
11Y2229	SLA	8550 (26)	8.2 (34)	4.7 (30)	85 (31)	16 (34)	36 (4)
11Y3305	M	8520 (27)	14.0 (20)	4.7 (30)	80 (2)	3 (13)	42 (34)
11Y3241	M	8370 (28)	14.0 (20)	4.7 (30)	82 (10)	3 (13)	39 (13)
11Y3638	M	8080 (29)	14.3 (17)	4.7 (30)	84 (21)	1 (1)	40 (25)
M402	MPQ	8070 (30)	18.4 (1)	5.0 (1)	112 (36)	1 (1)	44 (36)
M206+Pi-ta2	M-blst	8020 (31)	15.0 (2)	4.8 (24)	83 (18)	10 (32)	39 (13)
M206+Pi-40	M-blst	7900 (32)	14.9 (4)	4.8 (15)	83 (18)	20 (35)	40 (21)
11Y3406	M	7860 (33)	14.1 (19)	4.8 (15)	81 (6)	1 (1)	40 (21)
12Y2093	MPQ	7790 (34)	14.6 (11)	4.8 (15)	86 (32)	3 (13)	40 (25)
13Y39	L	7700 (35)	12.6 (24)	4.9 (6)	86 (32)	1 (1)	40 (25)
CA201	SLA	6970 (36)	7.3 (36)	5.0 (2)	84 (21)	8 (29)	39 (13)
MEAN		8870	12.8	4.8	84	5	38
CV		7.8	1.7	1.5	0.7	113.6	10.5
LSD (.05)		1410	0.4	0.1	1	11	

S = short; M = medium; L = long; PQ = premium quality; WX = waxy; blst = blast resistance; LA = Low Amalose; sr = stem rot resistant.

Subjective rating of 1-5 where 1 = poor and 5 = excellent seedling emergence.

Subjective rating of 1-99 where 1 = none and 99 = completely lodged.

Numbers in parentheses indicate relative rank in column.

Table 5. 2013 Sutter Very Early Rice Variety Tests

<i>Advanced Lines and Varieties</i>							
Variety	Grain Type	Grain Yield at 14%		Seedling Vigor (1-5)	Days to 50% Heading	Lodging (1-99)	Plant Height (in)
		Moisture lbs/acre	Moisture (%)				
11Y1005	L	10560 (1)	16.9 (11)	5.0 (1)	85 (10)	1 (1)	37 (16)
08Y3269	M	10320 (2)	19.5 (2)	5.0 (1)	92 (14)	21 (15)	35 (6)
09Y2036	S	10250 (3)	18.2 (8)	5.0 (1)	84 (9)	42 (16)	37 (15)
08Y3126	M	10100 (4)	19.4 (3)	5.0 (1)	84 (8)	3 (9)	36 (11)
M202	M	9990 (5)	20.5 (1)	5.0 (1)	92 (14)	3 (9)	35 (9)
M105	M	9940 (6)	18.4 (6)	5.0 (1)	82 (2)	1 (1)	36 (12)
11Y2022	MPQ	9830 (7)	18.9 (5)	5.0 (1)	88 (13)	3 (9)	36 (13)
10Y3286	M	9770 (8)	18.3 (7)	5.0 (1)	83 (6)	1 (1)	35 (9)
10Y1008	Lsr	9740 (9)	17.1 (10)	5.0 (1)	87 (12)	1 (1)	36 (14)
M206	M	9710 (10)	19.0 (4)	5.0 (1)	85 (11)	3 (9)	35 (8)
L206	L	9700 (11)	15.5 (15)	5.0 (1)	82 (4)	1 (1)	29 (1)
M104	M	9510 (12)	18.1 (9)	5.0 (1)	81 (1)	1 (1)	33 (4)
CH201	SPQ	9480 (13)	16.6 (13)	5.0 (1)	92 (16)	8 (14)	34 (5)
S102	S	9300 (14)	15.6 (14)	5.0 (1)	82 (2)	1 (1)	35 (6)
CH202	SPQ	9240 (15)	16.7 (12)	5.0 (1)	84 (7)	6 (13)	32 (2)
CM101	SWX	8340 (16)	15.3 (16)	5.0 (1)	82 (4)	1 (1)	33 (3)
MEAN		9740	17.8	5.0	85	6	35
CV		3	2.9		0.5	221.7	3.6
LSD (.05)		420	0.7		1	19	2
<i>Preliminary Lines and Varieties</i>							
10Y2043	S	11030 (1)	16.5 (30)	5.0 (1)	81 (3)	11 (21)	33 (3)
11Y1008	L	10830 (2)	15.2 (34)	5.0 (1)	84 (7)	1 (1)	34 (10)
12Y2093	MPQ	10570 (3)	18.4 (10)	5.0 (1)	88 (28)	36 (30)	35 (19)
09Y2141	SWX	10550 (4)	18.5 (9)	5.0 (1)	85 (11)	16 (25)	36 (27)
09Y2122	S	10430 (5)	17.2 (24)	5.0 (1)	86 (18)	65 (36)	37 (32)
12Y20	L	10350 (6)	15.6 (33)	5.0 (1)	87 (20)	1 (1)	37 (30)
M208	M	10300 (7)	17.5 (19)	5.0 (1)	89 (31)	1 (1)	35 (21)
12Y113	M	10250 (8)	18.0 (11)	5.0 (1)	89 (31)	35 (27)	36 (29)
10Y3477	M	10170 (9)	16.4 (31)	5.0 (1)	85 (11)	46 (32)	36 (26)
M206+Pi-kh	M-blst	10080 (10)	18.9 (4)	5.0 (1)	86 (16)	6 (17)	36 (27)
11Y3209	M	10010 (11)	17.1 (27)	5.0 (1)	85 (11)	1 (1)	34 (8)
12Y2107	SWX	9970 (12)	19.3 (2)	5.0 (1)	87 (20)	1 (1)	34 (10)
11Y2223	S	9940 (13)	17.1 (26)	5.0 (1)	81 (3)	11 (21)	33 (2)
M206+Pi33	M-blst	9920 (14)	18.7 (5)	5.0 (1)	89 (31)	1 (1)	36 (24)
13Y39	L	9900 (15)	17.4 (21)	5.0 (1)	89 (30)	1 (1)	38 (35)
12Y3097	MB	9900 (16)	17.5 (20)	5.0 (1)	84 (7)	1 (1)	35 (21)
11Y3406	M	9870 (17)	17.0 (28)	5.0 (1)	84 (6)	1 (1)	36 (24)
M205	M	9850 (18)	18.7 (5)	5.0 (1)	92 (35)	21 (26)	34 (7)
M206+Pi-ta2	M-blst	9830 (19)	17.7 (15)	5.0 (1)	87 (23)	35 (27)	36 (23)
M206+Pi-40	M-blst	9820 (20)	19.0 (3)	5.0 (1)	88 (27)	11 (21)	37 (32)
11Y3573	M	9820 (21)	17.3 (22)	4.9 (36)	84 (7)	1 (1)	33 (4)
11Y3638	M	9720 (22)	19.4 (1)	5.0 (1)	86 (18)	1 (1)	35 (17)
M206+Pi9	M-blst	9690 (23)	18.5 (8)	5.0 (1)	87 (23)	55 (34)	38 (36)
11Y3376	M	9690 (24)	18.6 (7)	5.0 (1)	89 (31)	1 (1)	34 (5)
10Y2037	S	9640 (25)	17.2 (23)	5.0 (1)	87 (20)	15 (24)	37 (32)
11Y3305	M	9640 (26)	16.6 (29)	5.0 (1)	80 (1)	1 (1)	37 (30)
11Y3241	M	9570 (27)	17.8 (13)	5.0 (1)	86 (16)	6 (17)	34 (10)
11Y3693	M	9550 (28)	17.6 (18)	5.0 (1)	85 (11)	1 (1)	34 (5)
12Y2010	SPQ	9530 (29)	16.2 (32)	5.0 (1)	84 (7)	6 (17)	32 (1)
11Y2160	SWX	9510 (30)	17.2 (25)	5.0 (1)	87 (23)	48 (33)	35 (19)
11Y3532	M	9450 (31)	17.8 (14)	5.0 (1)	80 (1)	1 (1)	34 (8)
11Y2229	SLA	9330 (32)	17.7 (16)	5.0 (1)	88 (28)	58 (35)	35 (14)
11Y3411	M	9270 (33)	17.9 (12)	5.0 (1)	85 (11)	1 (1)	34 (10)
12Y2087	SPQ	9260 (34)	15.0 (35)	5.0 (1)	83 (5)	6 (17)	35 (17)
M402	MPQ	8740 (35)	17.6 (17)	5.0 (1)	100 (36)	35 (27)	35 (14)
CA201	SLA	8230 (36)	14.7 (36)	5.0 (1)	87 (23)	45 (31)	35 (14)
MEAN		9840	17.5	5.0	86	16	35
CV		2.7	3.2	0.7	0.7	145	2.8
LSD (.05)		550	1.1		1		2

S = short; M = medium; L = long; PQ = premium quality; WX = waxy; blst = blast resistance; LA = Low Amalose; sr = stem rot resistant.

Subjective rating of 1-5 where 1 = poor and 5 = excellent seedling emergence.

Subjective rating of 1-99 where 1 = none and 99 = completely lodged.

Numbers in parentheses indicate relative rank in column.

Table 6. 2013 Yolo Very Early Rice Variety Tests

<i>Advanced Lines and Varieties</i>							
Variety	Grain Type	Grain Yield		Seedling Vigor (1-5)	Days to 50% Heading	Lodging (1-99)	Plant Height (in)
		at 14% Moisture lbs/acre	Grain Moisture at Harvest (%)				
09Y2036	S	10150 (1)	18.9 (8)	5.0 (1)	84 (9)	1 (1)	41 (16)
08Y3126	M	10060 (2)	19.9 (4)	5.0 (1)	83 (7)	1 (1)	40 (15)
11Y2022	MPQ	9880 (3)	19.6 (5)	5.0 (1)	83 (8)	1 (1)	39 (8)
M206	M	9790 (4)	20.6 (1)	5.0 (1)	80 (5)	3 (13)	40 (12)
M105	M	9670 (5)	20.1 (3)	5.0 (1)	77 (2)	1 (1)	39 (11)
11Y1005	L	9620 (6)	18.0 (10)	4.9 (12)	90 (16)	1 (1)	40 (14)
CH202	SPQ	9440 (7)	17.7 (12)	4.9 (15)	84 (9)	69 (15)	37 (2)
M104	M	9420 (8)	17.9 (11)	5.0 (1)	75 (1)	1 (1)	39 (8)
10Y3286	M	9400 (9)	18.6 (9)	5.0 (1)	78 (3)	1 (1)	38 (4)
08Y3269	M	9390 (10)	20.5 (2)	5.0 (1)	85 (12)	1 (1)	39 (7)
10Y1008	Lsr	9280 (11)	19.0 (6)	4.9 (12)	89 (15)	1 (1)	39 (8)
M202	M	9260 (12)	18.9 (7)	5.0 (1)	84 (11)	3 (13)	40 (12)
L206	L	9000 (13)	16.9 (14)	4.9 (15)	85 (12)	1 (1)	34 (1)
CH201	SPQ	8870 (14)	17.1 (13)	5.0 (1)	87 (14)	97 (16)	37 (3)
S102	S	8380 (15)	16.0 (15)	4.9 (12)	82 (6)	1 (1)	38 (6)
CM101	SWX	7830 (16)	15.3 (16)	5.0 (1)	80 (4)	1 (1)	38 (4)
MEAN		9340	18.4	5.0	83	12	39
CV		2.8	2.7	1.8	1	73.5	3
LSD (.05)		380	0.7		1	12	2

<i>Preliminary Lines and Varieties</i>							
10Y2043	S	11350 (1)	17.7 (22)	5.0 (1)	82 (8)	6 (28)	36 (1)
09Y2141	SWX	10630 (2)	18.8 (13)	5.0 (1)	83 (9)	1 (1)	40 (19)
12Y20	L	10490 (3)	16.7 (31)	5.0 (1)	87 (33)	1 (1)	41 (27)
M206+Pi-kh	M-blst	10290 (4)	19.2 (8)	5.0 (1)	83 (13)	1 (1)	42 (35)
11Y3573	M	10210 (5)	17.8 (21)	5.0 (1)	83 (13)	1 (1)	37 (3)
12Y2010	SPQ	10050 (6)	17.3 (29)	5.0 (1)	83 (13)	6 (28)	39 (14)
11Y2223	S	9980 (7)	18.1 (18)	4.9 (34)	84 (23)	1 (1)	38 (5)
10Y3477	M	9970 (8)	18.4 (16)	5.0 (1)	83 (13)	1 (1)	39 (16)
12Y113	M	9950 (9)	19.9 (4)	5.0 (1)	83 (13)	6 (28)	41 (29)
11Y2160	SWX	9950 (10)	18.9 (11)	5.0 (1)	86 (31)	1 (1)	40 (24)
M206+Pi33	M-blst	9940 (11)	19.9 (4)	5.0 (1)	83 (13)	1 (1)	39 (13)
09Y2122	S	9920 (12)	18.5 (14)	5.0 (1)	85 (29)	1 (1)	42 (34)
11Y1008	L	9860 (13)	16.3 (34)	5.0 (1)	89 (34)	1 (1)	38 (10)
M206+Pi-40	M-blst	9820 (14)	19.4 (7)	5.0 (1)	82 (6)	1 (1)	40 (19)
12Y3097	MB	9640 (15)	19.0 (9)	5.0 (1)	83 (9)	1 (1)	40 (17)
13Y39	L	9640 (16)	18.4 (15)	4.9 (34)	91 (35)	1 (1)	44 (36)
10Y2037	S	9630 (17)	17.4 (25)	5.0 (1)	80 (4)	1 (1)	41 (28)
M205	M	9580 (18)	18.8 (12)	5.0 (1)	87 (32)	1 (1)	37 (4)
M206+Pi9	M-blst	9570 (19)	21.1 (1)	5.0 (1)	84 (23)	1 (1)	40 (23)
M206+Pi-ta2	M-blst	9570 (20)	19.6 (6)	5.0 (1)	84 (23)	15 (33)	40 (19)
11Y3376	M	9470 (21)	19.0 (9)	5.0 (1)	84 (23)	1 (1)	37 (2)
12Y2107	SWX	9460 (22)	17.9 (20)	5.0 (1)	84 (28)	1 (1)	42 (32)
11Y3638	M	9450 (23)	20.0 (3)	5.0 (1)	83 (9)	1 (1)	41 (30)
M208	M	9350 (24)	17.3 (27)	5.0 (1)	83 (13)	1 (1)	40 (24)
12Y2087	SPQ	9340 (25)	15.7 (35)	5.0 (1)	82 (6)	6 (28)	40 (24)
11Y3241	M	9280 (26)	17.5 (23)	5.0 (1)	79 (3)	11 (32)	39 (15)
11Y2229	SLA	9270 (27)	16.3 (33)	5.0 (1)	83 (13)	68 (35)	39 (11)
11Y3693	M	9260 (28)	16.7 (32)	5.0 (1)	83 (13)	1 (1)	40 (19)
11Y3209	M	9250 (29)	17.5 (24)	5.0 (1)	83 (9)	1 (1)	38 (5)
11Y3532	M	9120 (30)	17.4 (26)	5.0 (1)	78 (2)	1 (1)	38 (7)
11Y3411	M	9090 (31)	18.0 (19)	5.0 (1)	83 (13)	1 (1)	38 (7)
11Y3305	M	9060 (32)	17.0 (30)	4.9 (34)	77 (1)	1 (1)	41 (30)
12Y2093	MPQ	8970 (33)	18.2 (17)	5.0 (1)	85 (30)	1 (1)	39 (11)
11Y3406	M	8940 (34)	17.3 (27)	5.0 (1)	81 (5)	1 (1)	40 (17)
M402	MPQ	8920 (35)	20.4 (2)	5.0 (1)	101 (36)	25 (34)	42 (32)
CA201	SLA	7680 (36)	15.0 (36)	5.0 (1)	84 (23)	70 (36)	38 (7)
MEAN		9610	18.1	5.0	84	7	40
CV		3.4	3.8	1.2	1.1	126.9	3.3
LSD (.05)		660	1.4		2	17	3

S = short; M = medium; L = long; PQ = premium quality; WX = waxy; blst = blast resistance; LA = Low Amalose; sr = stem rot resistant.

Subjective rating of 1-5 where 1 = poor and 5 = excellent seedling emergence.

Subjective rating of 1-99 where 1 = none and 99 = completely lodged.

Numbers in parentheses indicate relative rank in column.

Table 7. 2013 San Joaquin Very Early Rice Variety Tests

Advanced Lines and Varieties

Variety	Grain Type	Grain Yield at 14%		Grain Moisture at Harvest (%)	Seedling Vigor (1-5)	Days to 50% Heading	Lodging (1-99)	Plant Height (in)
		Moisture lbs/acre						
08Y3269	M	8580 (1)	19.0 (2)	17.6 (7)	5.0 (1)	113 (16)	1 (1)	31 (4)
10Y3286	M	8470 (2)	17.6 (7)	17.8 (4)	5.0 (1)	98 (3)	1 (1)	32 (5)
M206	M	8410 (3)	17.8 (4)	17.5 (8)	5.0 (1)	100 (5)	1 (1)	32 (8)
11Y2022	MPQ	8290 (4)	17.5 (8)	19.1 (1)	5.0 (1)	102 (9)	1 (1)	34 (15)
08Y3126	M	8280 (5)	19.1 (1)	16.7 (9)	5.0 (1)	101 (7)	1 (1)	34 (14)
M105	M	8220 (6)	16.7 (9)	13.5 (16)	5.0 (1)	97 (2)	1 (1)	33 (11)
L206	L	8180 (7)	13.5 (16)	17.6 (6)	5.0 (1)	101 (8)	1 (1)	29 (1)
M104	M	8140 (8)	17.6 (6)	17.9 (3)	5.0 (1)	96 (1)	1 (1)	32 (6)
M202	M	8140 (9)	17.9 (3)	16.3 (10)	5.0 (1)	109 (15)	1 (1)	33 (12)
09Y2036	S	7990 (10)	16.3 (10)	13.7 (15)	5.0 (1)	103 (11)	1 (1)	36 (16)
S102	S	7960 (11)	13.7 (15)	16.1 (11)	5.0 (1)	98 (4)	1 (1)	33 (9)
CH202	SPQ	7950 (12)	16.1 (11)	14.9 (14)	5.0 (1)	100 (5)	1 (1)	31 (2)
CH201	SPQ	7790 (13)	14.9 (14)	15.0 (12)	5.0 (1)	104 (13)	1 (1)	31 (2)
11Y1005	L	7740 (14)	15.0 (12)	14.9 (13)	5.0 (1)	103 (12)	1 (1)	33 (13)
CM101	SWX	7680 (15)	14.9 (13)	17.8 (5)	5.0 (1)	102 (10)	1 (1)	32 (7)
10Y1008	Lsr	6950 (16)	17.8 (5)	5.0 (1)	5.0 (1)	104 (14)	1 (1)	33 (9)
MEAN		8050	16.6	16.6	5.0	102	1	32
CV		4.2	4.1	4.1	0.8	0.8		4.5
LSD (.05)		480	1	1	1	1		2

Preliminary Lines and Varieties

12Y2093	MPQ	9270 (1)	19.6 (5)	17.8 (10)	5.0 (1)	105 (27)	1 (1)	33 (11)
09Y2141	SWX	8950 (2)	17.8 (10)	17.5 (14)	5.0 (1)	101 (8)	11 (34)	36 (36)
M206+Pi33	M-blst	8560 (3)	17.5 (14)	17.3 (18)	5.0 (1)	103 (13)	1 (1)	33 (18)
09Y2122	S	8550 (4)	17.3 (18)	17.0 (20)	5.0 (1)	103 (17)	1 (1)	36 (35)
11Y2160	SWX	8520 (5)	17.7 (11)	17.5 (14)	4.9 (31)	103 (17)	1 (1)	33 (18)
11Y3209	M	8470 (6)	17.0 (20)	17.5 (14)	5.0 (1)	103 (17)	1 (1)	34 (22)
11Y3241	M	8450 (7)	17.5 (14)	15.4 (33)	5.0 (1)	97 (3)	1 (1)	33 (11)
12Y20	L	8450 (8)	15.4 (33)	15.4 (33)	5.0 (1)	104 (24)	1 (1)	33 (15)
11Y2223	S	8380 (9)	17.5 (16)	17.6 (12)	4.8 (35)	102 (10)	1 (1)	32 (7)
M206+Pi-ta2	M-blst	8380 (10)	17.6 (12)	20.3 (2)	5.0 (1)	103 (13)	1 (1)	34 (25)
11Y3376	M	8360 (11)	20.3 (2)	16.4 (24)	5.0 (1)	107 (30)	1 (1)	32 (9)
12Y113	M	8350 (12)	16.4 (24)	16.0 (28)	5.0 (1)	104 (21)	36 (36)	33 (16)
11Y3573	M	8310 (13)	16.0 (28)	15.5 (32)	5.0 (1)	97 (3)	1 (1)	32 (8)
13Y39	L	8260 (14)	15.5 (32)	18.4 (8)	5.0 (1)	105 (28)	1 (1)	34 (22)
M208	M	8250 (15)	18.4 (8)	17.6 (12)	5.0 (1)	106 (29)	1 (1)	34 (27)
12Y3097	MB	8230 (16)	17.6 (12)	17.6 (12)	4.9 (31)	100 (6)	1 (1)	33 (18)
11Y3411	M	8200 (17)	16.6 (23)	17.0 (20)	5.0 (1)	104 (24)	1 (1)	33 (11)
11Y3532	M	8180 (18)	17.4 (17)	17.4 (17)	5.0 (1)	96 (1)	1 (1)	31 (5)
12Y2107	SWX	8170 (19)	19.5 (6)	17.4 (17)	5.0 (1)	110 (34)	1 (1)	35 (33)
11Y3638	M	8160 (20)	18.1 (9)	19.5 (6)	5.0 (1)	108 (33)	11 (34)	33 (16)
10Y2043	S	8150 (21)	15.6 (30)	18.1 (9)	4.9 (31)	104 (21)	1 (1)	33 (10)
10Y3477	M	8140 (22)	17.0 (20)	15.6 (30)	5.0 (1)	103 (13)	1 (1)	33 (18)
12Y2087	SPQ	8100 (23)	14.5 (35)	15.6 (30)	5.0 (1)	104 (21)	1 (1)	35 (32)
11Y3305	M	8030 (24)	16.3 (25)	15.6 (30)	5.0 (1)	96 (1)	1 (1)	35 (31)
11Y2229	SLA	7980 (25)	16.2 (26)	18.1 (9)	5.0 (1)	103 (17)	1 (1)	34 (29)
12Y2010	SPQ	7960 (26)	15.6 (30)	16.2 (26)	5.0 (1)	101 (7)	1 (1)	30 (1)
11Y1008	L	7950 (27)	13.2 (36)	16.2 (26)	5.0 (1)	104 (24)	1 (1)	33 (11)
M206+Pi-40	M-blst	7940 (28)	18.6 (7)	15.6 (30)	5.0 (1)	103 (13)	1 (1)	34 (28)
M206+Pi-kh	M-blst	7830 (29)	17.0 (20)	15.6 (30)	5.0 (1)	102 (10)	1 (1)	34 (22)
M205	M	7740 (30)	21.7 (1)	15.6 (30)	5.0 (1)	114 (35)	1 (1)	31 (4)
10Y2037	S	7740 (31)	16.0 (27)	15.6 (30)	4.9 (31)	107 (30)	1 (1)	34 (25)
M206+Pi9	M-blst	7590 (32)	19.8 (4)	15.6 (30)	5.0 (1)	102 (9)	1 (1)	34 (29)
11Y3406	M	7450 (33)	15.3 (34)	15.6 (30)	5.0 (1)	98 (5)	1 (1)	35 (33)
M402	MPQ	7450 (34)	20.3 (2)	15.6 (30)	5.0 (1)	117 (36)	1 (1)	31 (5)
11Y3693	M	7280 (35)	17.2 (19)	15.6 (30)	5.0 (1)	107 (30)	1 (1)	31 (2)
CA201	SLA	6300 (36)	15.7 (29)	15.6 (30)	4.8 (35)	102 (10)	1 (1)	31 (2)
MEAN		8110	17.2	17.2	5.0	103	2	33
CV		3.7	7.7	7.7	2.2	2.5	345.5	3.3
LSD (.05)		610	2.7	2.7	5	5		2

S = short; M = medium; L = long; PQ = premium quality; WX = waxy; blst = blast resistance; LA = Low Amalose; sr = stem rot resistant.

Subjective rating of 1-5 where 1 = poor and 5 = excellent seedling emergence.

Subjective rating of 1-99 where 1 = none and 99 = completely lodged.

Numbers in parentheses indicate relative rank in column.

Table 8. Grain Yield (lb/acre @14% moisture) Summary of Very Early Rice Varieties by Location and Year (2009-2013)

Location	Year	M-104	M-202	M-206	Calmochi		
					101	S-102	L-206
Biggs (RES)	2009	7180	8080	8940	7640	8230	9710
	2010	-	10470	11290	9470	9380	10200
	2011*	-	-	-	-	-	-
	2012	10260	10050	10420	8500	9370	10020
	2013	9710	8380	8610	8580	9120	9970
Location Mean		9050	9245	9815	8548	9025	9975
Sutter	2009	10040	9070	9390	7870	8480	10160
	2010	8270	6520	7890	9500	9360	8050
	2011*	-	-	-	-	-	-
	2012	8990	8810	9320	7500	8470	9570
	2013	9510	9990	9710	8340	9300	9700
Location Mean		9203	8598	9078	8303	8903	9370
Yolo	2009	11770	11400	12570	10760	11930	10880
	2010	8050	7890	8210	7190	7520	8230
	2011	10020	9590	10230	9320	9050	9490
	2012	9610	8930	9900	7450	8400	9060
	2013	9420	9260	9790	7830	8380	9000
Location Mean		9774	9414	10140	8510	9056	9332
San Joaquin	2009	8530	8720	8440	7650	7480	8120
	2010	8360	7760	7560	8070	7950	8170
	2011	8800	9090	9330	7850	7760	8340
	2012	8460	7490	8990	7880	8180	7570
	2013	8140	8140	8410	7680	7960	8180
Location Mean		8458	8240	8546	7826	7866	8076
Loc/Years Mean		9125	8869	9389	8282	8684	9134
Yield % M-104		100.0	97.2	102.9	90.8	95.2	100.1
Number of Tests		17	18	18	18	18	18

* Test locations not included in 2011 due to very high yield cvs.

Table 9. 2013 Early Rice Variety Tests - Four Location Summary

Advanced Lines and Varieties

Variety	Grain Type	Ave Grain Yield at 14% Moisture		Single Location Yields				Ave Grain Moisture at Harvest (%)	Seedling Vigor (1-5)	Days to 50% Heading	Lodging (1-99)	Plant Height (in)
		lbs/acre		Biggs	Butte	Colusa	Yuba					
11Y1008	L	10100 (1)	9180 (6)	10570 (1)	10570 (2)	10060 (1)	14.1 (14)	4.9 (9)	84 (4)	2 (4)	38 (6)	
09Y1122	L	9920 (2)	9400 (4)	9770 (2)	10620 (1)	9870 (3)	14.3 (13)	4.9 (3)	86 (9)	1 (1)	36 (2)	
10Y3703	M	9480 (3)	9890 (2)	9450 (4)	9010 (12)	9570 (9)	18.9 (2)	4.9 (12)	88 (10)	16 (10)	40 (15)	
11Y2183	MPQ	9460 (4)	9470 (3)	9250 (7)	9330 (9)	9780 (4)	19.9 (1)	4.9 (13)	93 (17)	12 (9)	39 (12)	
09Y2179	S	9430 (5)	9960 (1)	9070 (8)	10020 (4)	8680 (15)	17.2 (10)	4.9 (3)	92 (15)	1 (1)	41 (18)	
L206	L	9410 (6)	8420 (14)	9390 (5)	10250 (3)	9590 (8)	13.3 (16)	4.9 (10)	83 (3)	11 (8)	35 (1)	
12Y83	L	9370 (7)	8990 (8)	9710 (3)	9860 (5)	8930 (13)	13.9 (15)	4.9 (16)	84 (7)	1 (1)	40 (16)	
08Y3126	M	9280 (8)	8610 (11)	9330 (6)	9200 (10)	9970 (2)	17.6 (8)	4.9 (17)	85 (8)	29 (12)	40 (17)	
08Y3269	M	9260 (9)	9070 (7)	8570 (14)	9730 (6)	9690 (6)	18.3 (4)	4.9 (6)	89 (12)	7 (6)	39 (10)	
M205	M	9190 (10)	9230 (5)	8960 (10)	8930 (13)	9650 (7)	18.8 (3)	4.9 (8)	92 (16)	8 (7)	38 (7)	
M206	M	9150 (11)	8160 (16)	9020 (9)	9660 (8)	9750 (5)	17.9 (7)	4.9 (3)	84 (6)	22 (11)	39 (11)	
10Y3690	M	8860 (12)	8360 (15)	8210 (15)	9710 (7)	9150 (11)	18.1 (5)	4.9 (13)	90 (13)	4 (5)	37 (5)	
09Y2159	SLA	8530 (13)	8660 (9)	8930 (11)	7890 (14)	8610 (16)	17.4 (9)	4.8 (18)	93 (18)	35 (13)	39 (13)	
S102	S	8450 (14)	8640 (10)	8650 (13)	7220 (16)	9280 (10)	12.4 (18)	4.9 (6)	80 (1)	44 (15)	39 (9)	
M202	M	8400 (15)	7640 (18)	7870 (16)	9140 (11)	8950 (12)	18.0 (6)	5.0 (2)	89 (11)	41 (14)	39 (14)	
CH202	SPQ	8330 (16)	8480 (13)	8870 (12)	7060 (17)	8920 (14)	14.8 (11)	4.9 (13)	84 (5)	94 (18)	37 (3)	
CH201	SPQ	8050 (17)	8490 (12)	7840 (17)	7840 (15)	8040 (18)	14.4 (12)	5.0 (1)	91 (14)	61 (17)	37 (4)	
CM101	SWX	7660 (18)	7950 (17)	7540 (18)	6850 (18)	8290 (17)	13.0 (17)	4.9 (10)	82 (2)	55 (16)	38 (8)	
MEAN		9020	8810	8950	9050	9270	16.2	4.9	87	25	38	
CV		5.4	7.0	3.2	6.9	3.4	4.5	1.5	1.4	61	3.2	
LSD (.05)		340	870	400	890	450	0.5	0.1	1	10	1	

Preliminary Lines and Varieties

12Y2175	MPQ	9990 (1)	9890 (2)	9800 (4)	10580 (3)	9700 (3)	17.9 (7)	4.9 (22)	91 (30)	3 (15)	40 (32)
09Y2141	SWX	9900 (2)	9170 (4)	10360 (1)	9930 (13)	10170 (1)	15.5 (22)	4.9 (17)	82 (3)	45 (32)	41 (35)
12Y82	L	9540 (3)	8660 (7)	9520 (10)	10470 (4)	9510 (6)	14.7 (25)	4.9 (12)	90 (28)	1 (1)	37 (7)
10Y1008	Lsr	9490 (4)	8570 (10)	9710 (7)	10270 (6)	9390 (8)	14.6 (28)	4.9 (22)	85 (14)	2 (10)	38 (14)
12Y113	M	9390 (5)	8500 (11)	9530 (9)	9890 (15)	9640 (4)	18.2 (6)	4.9 (17)	86 (16)	34 (29)	39 (23)
12Y84	L	9390 (6)	7280 (30)	10010 (3)	10690 (1)	9580 (5)	13.8 (33)	4.8 (34)	85 (9)	4 (18)	39 (27)
10Y3394	M	9330 (7)	8590 (9)	9710 (6)	9240 (22)	9770 (2)	18.4 (5)	4.9 (22)	83 (4)	68 (36)	38 (15)
12Y1010	L	9300 (8)	8290 (15)	9800 (5)	10100 (9)	9030 (16)	14.6 (29)	5.0 (10)	83 (5)	2 (10)	38 (9)
10Y3737	M	9300 (9)	8440 (12)	9250 (13)	10380 (5)	9130 (15)	17.8 (8)	4.9 (26)	89 (27)	2 (13)	38 (10)
11Y2230	SPQ	9260 (10)	9710 (3)	10020 (2)	7940 (28)	9370 (9)	18.8 (3)	5.0 (5)	90 (29)	54 (33)	39 (20)
11Y3441	M	9210 (11)	8620 (8)	9440 (11)	10020 (11)	8770 (19)	16.2 (19)	4.9 (12)	88 (22)	12 (21)	39 (18)
M105	M	9130 (12)	7820 (23)	9640 (8)	9750 (16)	9330 (10)	17.1 (11)	4.9 (14)	81 (2)	15 (23)	39 (21)
12Y81	L	9090 (13)	8050 (19)	9110 (18)	9910 (14)	9290 (12)	14.7 (26)	4.9 (14)	85 (12)	1 (1)	40 (34)
11Y3636	M	9090 (14)	8310 (14)	8650 (23)	10690 (2)	8710 (21)	15.9 (21)	4.9 (17)	85 (10)	5 (19)	36 (5)
11Y1049	LA	9060 (15)	8150 (18)	9140 (15)	10160 (7)	8780 (18)	15.4 (23)	4.9 (22)	88 (24)	4 (17)	39 (17)
12Y3097	MB	9040 (16)	8850 (5)	9180 (14)	8710 (25)	9410 (7)	16.8 (14)	4.9 (26)	84 (7)	23 (27)	38 (12)
12Y2167	SPQ	9020 (17)	10170 (1)	8610 (24)	9030 (23)	8250 (27)	19.2 (2)	5.0 (5)	88 (24)	16 (24)	39 (19)
M208	M	8880 (18)	8270 (16)	9300 (12)	9290 (21)	8650 (22)	16.2 (17)	5.0 (3)	87 (19)	24 (28)	39 (22)
11Y3344	M	8870 (19)	7970 (21)	9130 (16)	9350 (20)	9020 (17)	16.2 (18)	4.9 (26)	85 (11)	39 (31)	40 (31)
12Y2085	MPQ	8860 (20)	7740 (25)	8830 (20)	9750 (17)	9130 (14)	16.5 (16)	4.9 (14)	86 (18)	20 (26)	40 (30)
10Y3332	M	8860 (21)	7980 (20)	8120 (27)	10160 (8)	9180 (13)	17.6 (9)	4.9 (30)	89 (26)	1 (1)	38 (13)
12Y1022	LA	8810 (22)	7730 (26)	9130 (17)	10010 (12)	8370 (26)	14.6 (30)	5.0 (10)	86 (15)	1 (1)	39 (26)
10Y3512	M	8760 (23)	7550 (27)	8170 (26)	10020 (10)	9310 (11)	17.3 (10)	4.9 (32)	87 (21)	1 (1)	39 (24)
11Y3334	M	8720 (24)	7850 (22)	8990 (19)	9480 (19)	8550 (23)	17.0 (12)	4.9 (30)	84 (6)	13 (22)	38 (11)
11Y1096	LA	8630 (25)	7480 (28)	8680 (22)	9590 (18)	8770 (20)	14.6 (27)	4.9 (17)	86 (17)	1 (1)	40 (33)
11Y2111	SBG	8080 (26)	6950 (32)	7870 (29)	9010 (24)	8490 (24)	16.9 (13)	4.9 (26)	87 (19)	19 (25)	40 (29)
89Y235	SBG	7930 (27)	7750 (24)	7960 (28)	7630 (29)	8390 (25)	16.1 (20)	4.8 (33)	84 (8)	59 (34)	39 (28)
12Y87	LJ	7810 (28)	8160 (17)	7710 (30)	8650 (26)	6720 (31)	14.3 (32)	5.0 (5)	94 (34)	1 (1)	36 (6)
11Y106	LJ	7630 (29)	8410 (13)	8710 (21)	6170 (32)	7240 (29)	18.5 (4)	4.7 (35)	92 (33)	39 (30)	42 (36)
A201	LA	7600 (30)	7020 (31)	7510 (31)	8610 (27)	7270 (28)	15.3 (24)	5.0 (1)	91 (32)	3 (15)	37 (8)
M402	MPQ	7460 (31)	8680 (6)	7060 (32)	7320 (30)	6780 (30)	24.5 (1)	5.0 (1)	104 (36)	1 (1)	39 (25)
A301	LA	7310 (32)	7290 (29)	8210 (25)	7100 (31)	6630 (32)	16.7 (15)	4.6 (36)	96 (35)	1 (1)	35 (3)
CA201	SLA	6380 (33)	6590 (33)	6450 (33)	6130 (34)	6340 (33)	12.9 (35)	5.0 (5)	85 (12)	64 (35)	38 (16)
CT202	LB	5970 (34)	5700 (34)	6450 (34)	5970 (35)	5750 (34)	12.7 (36)	5.0 (3)	88 (23)	7 (20)	34 (2)
12Y1054	LB	5810 (35)	5440 (35)	5920 (35)	6160 (33)	5710 (35)	13.1 (34)	5.0 (5)	78 (1)	2 (10)	35 (4)
11Y158	LB	4600 (36)	3790 (36)	4680 (36)	5580 (36)	4330 (36)	14.3 (31)	4.9 (17)	91 (31)	2 (13)	32 (1)
MEAN		8490	7930	8620	8990	8400	16.2	4.9	87	16	38
CV		4.8	4.7	4.5	5.9	3.9	3.8	1.3	1.1	93.6	3
LSD (.05)		410	760	780	1080	660	0.6	0.1	1	15	1

S = short; M = medium; L = long; PQ = premium quality; A=aromatic; BG=bold grain; J=Jasmine; LA = Low Amalose; sr= stem rot resistant; WX= waxy.

Subjective rating of 1-5 where 1 = poor and 5 = excellent seedling emergence.

Subjective rating of 1-99 where 1 = none and 99 = completely lodged.

Numbers in parentheses indicate relative rank in column.

Table 10. 2013 Biggs Early Rice Variety Tests

Advanced Lines and Varieties

Variety	Grain Type	Grain Yield	Grain	Seedling Vigor (1-5)	Days to 50% Heading	Lodging (1-99)	Plant Height (in)
		at 14% Moisture lbs/acre	Moisture at Harvest (%)				
09Y2179	S	9960 (1)	9.2 (13)	4.8 (3)	87 (13)	1 (1)	40 (16)
10Y3703	M	9890 (2)	14.4 (5)	4.6 (13)	86 (12)	13 (10)	38 (13)
11Y2183	MPQ	9470 (3)	14.4 (5)	4.6 (14)	90 (17)	1 (1)	37 (8)
09Y1122	L	9400 (4)	12.4 (9)	4.8 (3)	83 (6)	1 (1)	36 (3)
M205	M	9230 (5)	14.3 (7)	4.7 (8)	88 (15)	1 (1)	36 (2)
11Y1008	L	9180 (6)	12.3 (11)	4.7 (10)	82 (5)	1 (1)	38 (11)
08Y3269	M	9070 (7)	14.6 (2)	4.8 (6)	87 (13)	1 (1)	37 (8)
12Y83	L	8990 (8)	12.2 (12)	4.5 (16)	83 (6)	1 (1)	40 (16)
09Y2159	SLA	8660 (9)	8.1 (16)	4.4 (18)	93 (18)	1 (1)	37 (4)
S102	S	8640 (10)	7.4 (17)	4.8 (6)	80 (1)	45 (12)	38 (12)
08Y3126	M	8610 (11)	15.0 (1)	4.5 (17)	83 (6)	68 (14)	40 (18)
CH201	SPQ	8490 (12)	8.9 (14)	5.0 (1)	86 (11)	86 (18)	37 (7)
CH202	SPQ	8480 (13)	8.4 (15)	4.7 (10)	84 (9)	83 (17)	37 (4)
L206	L	8420 (14)	12.3 (10)	4.6 (12)	81 (3)	39 (11)	34 (1)
10Y3690	M	8360 (15)	14.5 (3)	4.6 (14)	88 (15)	1 (1)	37 (4)
M206	M	8160 (16)	14.5 (4)	4.8 (3)	82 (4)	53 (13)	39 (15)
CM101	SWX	7950 (17)	6.8 (18)	4.7 (9)	80 (2)	69 (15)	37 (8)
M202	M	7640 (18)	14.2 (8)	4.9 (2)	85 (10)	79 (16)	39 (14)
MEAN		8810	11.9	4.7	85	30	37
CV		7	4	2.8	1	42.3	2.6
LSD (.05)		870	0.7	0.2	1	18	1

Preliminary Lines and Varieties

12Y2167	SPQ	10170 (1)	10.7 (33)	4.9 (5)	84 (17)	31 (24)	38 (15)
12Y2175	MPQ	9890 (2)	14.2 (8)	4.6 (23)	89 (29)	1 (1)	38 (19)
11Y2230	SPQ	9710 (3)	10.3 (34)	4.9 (5)	85 (24)	85 (35)	38 (15)
09Y2141	SWX	9170 (4)	9.1 (35)	4.7 (18)	81 (3)	75 (34)	41 (36)
12Y3097	MB	8850 (5)	14.6 (2)	4.6 (27)	83 (9)	36 (25)	39 (29)
M402	MPQ	8680 (6)	16.1 (1)	5.0 (1)	109 (36)	1 (1)	40 (33)
12Y82	L	8660 (7)	12.5 (20)	4.8 (12)	89 (29)	1 (1)	36 (7)
11Y3441	M	8620 (8)	14.2 (8)	4.8 (12)	84 (17)	26 (23)	38 (19)
10Y3394	M	8590 (9)	14.5 (3)	4.6 (23)	82 (7)	65 (30)	39 (23)
10Y1008	Lsr	8570 (10)	12.5 (20)	4.6 (23)	83 (9)	3 (16)	37 (10)
12Y113	M	8500 (11)	14.4 (4)	4.7 (18)	82 (4)	88 (36)	39 (23)
10Y3737	M	8440 (12)	14.1 (12)	4.6 (27)	88 (28)	1 (1)	37 (10)
11Y106	LJ	8410 (13)	14.2 (7)	3.8 (35)	94 (34)	68 (32)	41 (34)
11Y3636	M	8310 (14)	13.9 (16)	4.7 (18)	82 (7)	16 (22)	36 (5)
12Y1010	L	8290 (15)	12.3 (25)	4.8 (10)	83 (11)	3 (16)	37 (8)
M208	M	8270 (16)	14.0 (14)	4.9 (3)	84 (15)	36 (25)	38 (15)
12Y87	LJ	8160 (17)	12.4 (23)	4.9 (5)	93 (32)	1 (1)	36 (5)
11Y1049	LA	8150 (18)	12.5 (19)	4.6 (23)	85 (22)	13 (21)	38 (19)
12Y81	L	8050 (19)	12.3 (27)	4.7 (14)	84 (15)	1 (1)	41 (34)
10Y3332	M	7980 (20)	14.4 (4)	4.5 (30)	86 (27)	1 (1)	39 (23)
11Y3344	M	7970 (21)	14.2 (8)	4.6 (27)	82 (4)	65 (30)	39 (23)
11Y3334	M	7850 (22)	14.3 (6)	4.5 (30)	82 (4)	45 (28)	37 (10)
M105	M	7820 (23)	14.2 (8)	4.7 (14)	79 (2)	8 (20)	38 (19)
89Y235	SBG	7750 (24)	13.7 (18)	4.4 (33)	83 (11)	70 (33)	39 (23)
12Y2085	MPQ	7740 (25)	14.1 (12)	4.7 (14)	83 (11)	38 (27)	39 (29)
12Y1022	LA	7730 (26)	12.1 (29)	4.8 (10)	84 (17)	1 (1)	38 (15)
10Y3512	M	7550 (27)	14.0 (15)	4.4 (32)	85 (24)	1 (1)	37 (10)
11Y1096	LA	7480 (28)	12.0 (30)	4.7 (18)	85 (24)	1 (1)	39 (29)
A301	LA	7290 (29)	12.5 (20)	3.7 (36)	94 (35)	1 (1)	32 (2)
12Y84	L	7280 (30)	12.3 (25)	4.3 (34)	85 (22)	1 (1)	40 (32)
A201	LA	7020 (31)	12.4 (23)	5.0 (1)	89 (31)	1 (1)	35 (4)
11Y2111	SBG	6950 (32)	13.7 (17)	4.7 (14)	84 (17)	1 (1)	39 (23)
CA201	SLA	6590 (33)	6.6 (36)	4.9 (5)	83 (11)	45 (28)	37 (10)
CT202	LB	5700 (34)	12.2 (28)	4.9 (3)	84 (17)	1 (1)	37 (8)
12Y1054	LB	5440 (35)	11.9 (32)	4.9 (5)	77 (1)	3 (16)	35 (3)
11Y158	LB	3790 (36)	12.0 (31)	4.7 (18)	93 (33)	6 (19)	30 (1)
MEAN		7930	12.9	4.6	85	23	37
CV		4.7	1.5	2.6	1.1	75.8	2.6
LSD (.05)		760	0.4	0.2	2	36	2

S = short; M = medium; L = long; PQ = premium quality; A=aromatic; BG=bold grain; J=Jasmine; LA = Low Amalose; sr = stem rot resistant; WX= waxy.

Subjective rating of 1-5 where 1 = poor and 5 = excellent seedling emergence.

Subjective rating of 1-99 where 1 = none and 99 = completely lodged.

Numbers in parentheses indicate relative rank in column.

Table 11. 2013 Butte Early Variety Tests

Advanced Lines and Varieties

Variety	Grain Type	Grain Yield		Seedling Vigor	Days to 50% Heading	Lodging (1-99)	Plant Height (in)
		at 14% Moisture lbs/acre	Grain Moisture at Harvest (%)				
11Y1008	L	10570 (1)	13.7 (17)	5.0 (1)	81 (3)	1 (1)	38 (8)
09Y1122	L	9770 (2)	14.0 (13)	5.0 (1)	85 (9)	1 (1)	36 (2)
12Y83	L	9710 (3)	13.8 (15)	5.0 (1)	82 (4)	1 (1)	42 (18)
10Y3703	M	9450 (4)	20.0 (3)	5.0 (1)	88 (10)	1 (1)	40 (15)
L206	L	9390 (5)	13.5 (18)	5.0 (1)	81 (2)	3 (10)	35 (1)
08Y3126	M	9330 (6)	19.3 (7)	5.0 (1)	83 (8)	3 (10)	41 (17)
11Y2183	MPQ	9250 (7)	20.9 (1)	5.0 (1)	91 (16)	3 (10)	37 (5)
09Y2179	S	9070 (8)	19.1 (8)	5.0 (1)	92 (17)	1 (1)	39 (13)
M206	M	9020 (9)	20.5 (2)	5.0 (1)	83 (5)	13 (13)	37 (6)
M205	M	8960 (10)	19.9 (5)	5.0 (1)	91 (15)	1 (1)	38 (8)
09Y2159	SLA	8930 (11)	19.3 (6)	5.0 (1)	100 (18)	43 (15)	39 (12)
CH202	SPQ	8870 (12)	16.2 (11)	5.0 (1)	83 (6)	97 (18)	37 (4)
S102	S	8650 (13)	13.7 (16)	5.0 (1)	81 (1)	13 (14)	39 (11)
08Y3269	M	8570 (14)	20.0 (4)	5.0 (1)	88 (10)	1 (1)	38 (10)
10Y3690	M	8210 (15)	18.7 (9)	5.0 (1)	89 (13)	1 (1)	37 (6)
M202	M	7870 (16)	18.7 (10)	5.0 (1)	89 (13)	1 (1)	40 (14)
CH201	SPQ	7840 (17)	14.9 (12)	5.0 (1)	88 (10)	65 (17)	36 (3)
CM101	SWX	7540 (18)	14.0 (14)	5.0 (1)	83 (6)	53 (16)	40 (16)
MEAN		8950	17.2	5.0	86	17	38
CV		3.2	4.5		1.6	66.3	3.3
LSD (.05)		400	1.1		2	16	2

Preliminary Lines and Varieties

09Y2141	SWX	10360 (1)	16.7 (20)	5.0 (1)	81 (3)	31 (31)	41 (32)
11Y2230	SPQ	10020 (2)	19.2 (8)	5.0 (1)	88 (24)	30 (30)	39 (17)
12Y84	L	10010 (3)	13.7 (32)	5.0 (1)	85 (12)	6 (20)	43 (35)
12Y2175	MPQ	9800 (4)	19.8 (6)	5.0 (1)	91 (32)	6 (20)	41 (30)
12Y1010	L	9800 (5)	14.6 (29)	5.0 (1)	81 (3)	1 (1)	39 (20)
10Y3394	M	9710 (6)	20.3 (4)	5.0 (1)	82 (5)	90 (35)	38 (10)
10Y1008	Lsr	9710 (7)	14.8 (27)	5.0 (1)	84 (8)	1 (1)	41 (34)
M105	M	9640 (8)	18.1 (12)	5.0 (1)	80 (2)	6 (20)	38 (12)
12Y113	M	9530 (9)	19.9 (5)	5.0 (1)	87 (19)	41 (32)	39 (21)
12Y82	L	9520 (10)	14.9 (26)	5.0 (1)	87 (19)	1 (1)	37 (8)
11Y3441	M	9440 (11)	16.9 (18)	5.0 (1)	86 (15)	1 (1)	39 (17)
M208	M	9300 (12)	16.9 (18)	5.0 (1)	86 (17)	21 (28)	40 (26)
10Y3737	M	9250 (13)	18.9 (9)	5.0 (1)	89 (29)	6 (20)	37 (7)
12Y3097	MB	9180 (14)	18.8 (10)	5.0 (1)	83 (7)	6 (20)	38 (12)
11Y1049	LA	9140 (15)	15.0 (25)	5.0 (1)	88 (24)	1 (1)	39 (21)
11Y3344	M	9130 (16)	17.1 (16)	5.0 (1)	85 (10)	26 (29)	41 (31)
12Y1022	LA	9130 (17)	15.3 (23)	5.0 (1)	87 (19)	1 (1)	40 (26)
12Y81	L	9110 (18)	15.3 (23)	5.0 (1)	85 (12)	1 (1)	41 (29)
11Y3334	M	8990 (19)	19.2 (7)	5.0 (1)	83 (6)	1 (1)	38 (16)
12Y2085	MPQ	8830 (20)	17.3 (15)	5.0 (1)	85 (10)	11 (26)	41 (32)
11Y106	LJ	8710 (21)	20.5 (3)	5.0 (1)	92 (33)	15 (27)	45 (36)
11Y1096	LA	8680 (22)	14.7 (28)	5.0 (1)	86 (15)	1 (1)	40 (24)
11Y3636	M	8650 (23)	16.4 (21)	5.0 (1)	84 (8)	1 (1)	36 (6)
12Y2167	SPQ	8610 (24)	21.7 (2)	5.0 (1)	88 (24)	1 (1)	38 (12)
A301	LA	8210 (25)	16.9 (17)	5.0 (1)	97 (35)	1 (1)	34 (2)
10Y3512	M	8170 (26)	17.6 (14)	5.0 (1)	87 (19)	1 (1)	37 (8)
10Y3332	M	8120 (27)	18.6 (11)	5.0 (1)	88 (24)	1 (1)	38 (10)
89Y235	SBG	7960 (28)	15.9 (22)	5.0 (1)	86 (17)	48 (33)	40 (24)
11Y2111	SBG	7870 (29)	17.8 (13)	5.0 (1)	88 (24)	58 (34)	39 (17)
12Y87	LJ	7710 (30)	13.6 (33)	5.0 (1)	94 (34)	1 (1)	35 (4)
A201	LA	7510 (31)	14.4 (30)	5.0 (1)	91 (31)	6 (20)	38 (12)
M402	MPQ	7060 (32)	29.8 (1)	5.0 (1)	108 (36)	1 (1)	40 (26)
CA201	SLA	6450 (33)	14.0 (31)	5.0 (1)	85 (12)	97 (36)	39 (21)
CT202	LB	6450 (34)	12.3 (35)	5.0 (1)	87 (23)	1 (1)	34 (2)
12Y1054	LB	5920 (35)	11.8 (36)	5.0 (1)	79 (1)	1 (1)	35 (4)
11Y158	LB	4680 (36)	12.7 (34)	5.0 (1)	89 (29)	1 (1)	32 (1)
MEAN		8620	17.0	5.0	87	14	39
CV		4.5	3.8		1.5	128.6	3.4
LSD (.05)		780	1.3		3	38	3

S = short; M = medium; L = long; PQ = premium quality; A=aromatic; BG=bold grain; J=Jasmine; LA = Low Amalose; sr= stem rot resistant; WX= waxy.

Subjective rating of 1-5 where 1 = poor and 5 = excellent seedling emergence.

Subjective rating of 1-99 where 1 = none and 99 = completely lodged.

Numbers in parentheses indicate relative rank in column.

Table 12. 2013 Colusa Early Rice Variety Tests

<i>Advanced Lines and Varieties</i>							
Variety	Grain Type	Grain Yield	Grain	Seedling Vigor (1-5)	Days to 50% Heading	Lodging (1-99)	Plant Height (in)
		at 14% Moisture lbs/acre	Moisture at Harvest (%)				
09Y1122	L	10620 (1)	15.3 (14)	5.0 (1)	86 (10)	1 (1)	36 (2)
11Y1008	L	10570 (2)	14.6 (16)	5.0 (1)	82 (4)	3 (5)	37 (4)
L206	L	10250 (3)	13.8 (18)	5.0 (1)	84 (6)	1 (1)	35 (1)
09Y2179	S	10020 (4)	19.0 (6)	5.0 (1)	90 (13)	1 (1)	42 (18)
12Y83	L	9860 (5)	13.9 (17)	5.0 (1)	82 (3)	1 (1)	38 (5)
08Y3269	M	9730 (6)	18.4 (9)	5.0 (1)	90 (13)	26 (8)	40 (16)
10Y3690	M	9710 (7)	18.8 (7)	5.0 (1)	91 (15)	13 (6)	38 (5)
M206	M	9660 (8)	17.9 (10)	5.0 (1)	86 (7)	20 (7)	40 (13)
11Y2183	MPQ	9330 (9)	20.5 (1)	5.0 (1)	92 (16)	43 (10)	40 (14)
08Y3126	M	9200 (10)	17.5 (11)	5.0 (1)	86 (7)	45 (11)	40 (14)
M202	M	9140 (11)	19.9 (3)	5.0 (1)	90 (12)	84 (13)	39 (9)
10Y3703	M	9010 (12)	20.2 (2)	5.0 (1)	89 (11)	50 (12)	41 (17)
M205	M	8930 (13)	19.1 (5)	5.0 (1)	93 (17)	29 (9)	39 (10)
09Y2159	SLA	7890 (14)	19.8 (4)	4.8 (18)	86 (9)	91 (15)	39 (11)
CH201	SPQ	7840 (15)	17.4 (12)	5.0 (1)	94 (18)	87 (14)	38 (7)
S102	S	7220 (16)	15.2 (15)	5.0 (1)	76 (1)	96 (17)	40 (12)
CH202	SPQ	7060 (17)	18.6 (8)	4.9 (16)	82 (4)	99 (18)	37 (3)
CM101	SWX	6850 (18)	16.0 (13)	4.9 (16)	78 (2)	95 (16)	38 (8)
MEAN		9050	17.6	5.0	86	44	39
CV		6.9	4.8	1.2	1.7	53	3.1
LSD (.05)		890	1.2	0.1	2	33	2
<i>Preliminary Lines and Varieties</i>							
12Y84	L	10690 (1)	14.1 (35)	5.0 (1)	81 (5)	10 (21)	38 (10)
11Y3636	M	10690 (2)	16.7 (23)	5.0 (1)	85 (11)	1 (1)	38 (10)
12Y2175	MPQ	10580 (3)	18.0 (11)	5.0 (1)	92 (31)	6 (17)	41 (33)
12Y82	L	10470 (4)	15.5 (27)	5.0 (1)	93 (32)	1 (1)	38 (8)
10Y3737	M	10380 (5)	19.2 (4)	5.0 (1)	89 (22)	1 (1)	39 (14)
10Y1008	Lsr	10270 (6)	14.8 (34)	5.0 (1)	86 (16)	1 (1)	38 (7)
11Y1049	LA	10160 (7)	17.0 (20)	5.0 (1)	91 (28)	1 (1)	42 (34)
10Y3332	M	10160 (8)	18.2 (9)	5.0 (1)	89 (22)	1 (1)	38 (12)
12Y1010	L	10100 (9)	15.3 (28)	5.0 (1)	81 (5)	1 (1)	37 (6)
10Y3512	M	10020 (10)	19.0 (5)	5.0 (1)	87 (17)	1 (1)	41 (30)
11Y3441	M	10020 (11)	17.1 (18)	5.0 (1)	90 (26)	20 (23)	40 (24)
12Y1022	LA	10010 (12)	15.1 (30)	5.0 (1)	84 (8)	1 (1)	39 (15)
09Y2141	SWX	9930 (13)	17.9 (13)	5.0 (1)	80 (3)	75 (32)	41 (30)
12Y81	L	9910 (14)	14.8 (32)	5.0 (1)	85 (14)	1 (1)	40 (26)
12Y113	M	9890 (15)	18.5 (8)	5.0 (1)	87 (17)	6 (17)	40 (22)
M105	M	9750 (16)	18.1 (10)	5.0 (1)	80 (3)	45 (28)	40 (27)
12Y2085	MPQ	9750 (17)	17.8 (14)	5.0 (1)	87 (20)	30 (25)	41 (32)
11Y1096	LA	9590 (18)	15.0 (31)	5.0 (1)	85 (11)	1 (1)	41 (29)
11Y3334	M	9480 (19)	17.2 (17)	5.0 (1)	84 (8)	6 (17)	39 (18)
11Y3344	M	9350 (20)	16.9 (21)	5.0 (1)	87 (17)	65 (30)	42 (35)
M208	M	9290 (21)	17.3 (16)	5.0 (1)	88 (21)	40 (27)	40 (27)
10Y3394	M	9240 (22)	18.7 (6)	5.0 (1)	85 (11)	75 (32)	39 (16)
12Y2167	SPQ	9030 (23)	22.8 (3)	5.0 (1)	91 (28)	31 (26)	39 (18)
11Y2111	SBG	9010 (24)	16.8 (22)	4.9 (35)	85 (14)	15 (22)	43 (36)
12Y3097	MB	8710 (25)	16.6 (24)	5.0 (1)	84 (10)	50 (29)	38 (12)
12Y87	LJ	8650 (26)	14.8 (33)	5.0 (1)	91 (28)	1 (1)	37 (5)
A201	LA	8610 (27)	17.1 (19)	5.0 (1)	93 (32)	6 (17)	38 (9)
11Y2230	SPQ	7940 (28)	23.2 (2)	5.0 (1)	93 (34)	95 (36)	40 (23)
89Y235	SBG	7630 (29)	17.9 (12)	5.0 (1)	79 (2)	95 (34)	39 (16)
M402	MPQ	7320 (30)	24.6 (1)	5.0 (1)	102 (36)	1 (1)	39 (18)
A301	LA	7100 (31)	17.7 (15)	4.9 (35)	96 (35)	1 (1)	36 (4)
11Y106	LJ	6170 (32)	18.5 (7)	5.0 (1)	89 (22)	70 (31)	39 (18)
12Y1054	LB	6160 (33)	15.2 (29)	5.0 (1)	74 (1)	1 (1)	33 (3)
CA201	SLA	6130 (34)	15.9 (26)	5.0 (1)	83 (7)	95 (34)	40 (24)
CT202	LB	5970 (35)	14.0 (36)	5.0 (1)	90 (25)	26 (24)	33 (1)
11Y158	LB	5580 (36)	16.4 (25)	5.0 (1)	90 (26)	1 (1)	33 (1)
MEAN		8990	17.3	5.0	87	24	39
CV		5.9	4.1	1	0.8	65.5	2.9
LSD (.05)		1080	1.4		1	32	2

S = short; M = medium; L = long; PQ = premium quality; A=aromatic; BG=bold grain; J=Jasmine; LA = Low Amalose;

sr= stem rot resistant; WX= waxy.

Subjective rating of 1-5 where 1 = poor and 5 = excellent seedling emergence.

Subjective rating of 1-99 where 1 = none and 99 = completely lodged.

Numbers in parentheses indicate relative rank in column.

Table 13. 2013 Yuba Early Rice Variety Tests

Advanced Lines and Varieties

Variety	Grain Type	Grain Yield	Grain	Seedling Vigor (1-5)	Days to 50% Heading	Lodging (1-99)	Plant Height (in)
		at 14% Moisture lbs/acre	Moisture at Harvest (%)				
11Y1008	L	10060 (1)	15.7 (14)	5.0 (1)	89 (7)	1 (1)	38 (6)
08Y3126	M	9970 (2)	18.6 (10)	5.0 (1)	86 (3)	1 (1)	39 (11)
09Y1122	L	9870 (3)	15.4 (15)	5.0 (1)	89 (8)	1 (1)	34 (1)
11Y2183	MPQ	9780 (4)	23.9 (1)	5.0 (1)	97 (17)	1 (1)	41 (17)
M206	M	9750 (5)	18.8 (9)	5.0 (1)	87 (5)	1 (1)	39 (10)
08Y3269	M	9690 (6)	20.1 (7)	5.0 (1)	91 (11)	1 (1)	39 (12)
M205	M	9650 (7)	21.8 (3)	5.0 (1)	96 (16)	1 (1)	38 (7)
L206	L	9590 (8)	13.5 (17)	5.0 (1)	87 (4)	1 (1)	36 (2)
10Y3703	M	9570 (9)	20.9 (5)	5.0 (1)	90 (9)	1 (1)	40 (13)
S102	S	9280 (10)	13.4 (18)	5.0 (1)	84 (1)	23 (17)	39 (9)
10Y3690	M	9150 (11)	20.4 (6)	5.0 (1)	92 (12)	1 (1)	37 (5)
M202	M	8950 (12)	19.4 (8)	5.0 (1)	92 (12)	1 (1)	40 (14)
12Y83	L	8930 (13)	15.9 (13)	5.0 (1)	91 (10)	1 (1)	41 (15)
CH202	SPQ	8920 (14)	16.2 (12)	5.0 (1)	88 (6)	97 (18)	36 (3)
09Y2179	S	8680 (15)	21.6 (4)	5.0 (1)	97 (17)	1 (1)	42 (18)
09Y2159	SLA	8610 (16)	22.7 (2)	5.0 (1)	93 (14)	6 (14)	41 (16)
CM101	SWX	8290 (17)	15.2 (16)	5.0 (1)	85 (2)	6 (14)	39 (8)
CH201	SPQ	8040 (18)	16.3 (11)	5.0 (1)	95 (15)	6 (14)	37 (4)
MEAN		9270	18.3	5.0	90	8	39
CV		3.4	4.2		0.9	112.2	3.6
LSD (.05)		450	1.1		1	13	2

Preliminary Lines and Varieties

09Y2141	SWX	10170 (1)	18.3 (13)	5.0 (1)	85 (4)	1 (1)	41 (34)
10Y3394	M	9770 (2)	20.0 (5)	5.0 (1)	84 (2)	40 (36)	38 (22)
12Y2175	MPQ	9700 (3)	19.8 (7)	5.0 (1)	92 (26)	1 (1)	40 (31)
12Y113	M	9640 (4)	20.0 (6)	5.0 (1)	89 (11)	1 (1)	38 (22)
12Y84	L	9580 (5)	15.0 (34)	5.0 (1)	89 (11)	1 (1)	37 (6)
12Y82	L	9510 (6)	16.1 (31)	5.0 (1)	92 (28)	1 (1)	35 (3)
12Y3097	MB	9410 (7)	17.4 (15)	5.0 (1)	86 (5)	1 (1)	37 (10)
10Y1008	Lsr	9390 (8)	16.4 (28)	5.0 (1)	90 (16)	1 (1)	37 (6)
11Y2230	SPQ	9370 (9)	22.5 (2)	5.0 (1)	95 (33)	6 (33)	38 (22)
M105	M	9330 (10)	18.0 (14)	5.0 (1)	84 (2)	1 (1)	39 (27)
10Y3512	M	9310 (11)	18.7 (12)	5.0 (1)	90 (18)	1 (1)	41 (33)
12Y81	L	9290 (12)	16.4 (27)	5.0 (1)	87 (6)	1 (1)	40 (28)
10Y3332	M	9180 (13)	19.1 (10)	5.0 (1)	92 (26)	1 (1)	38 (26)
12Y2085	MPQ	9130 (14)	16.9 (20)	5.0 (1)	91 (21)	1 (1)	38 (18)
10Y3737	M	9130 (15)	19.0 (11)	5.0 (1)	90 (16)	1 (1)	38 (18)
12Y1010	L	9030 (16)	16.1 (30)	5.0 (1)	89 (11)	1 (1)	37 (6)
11Y3344	M	9020 (17)	16.6 (23)	5.0 (1)	88 (8)	1 (1)	38 (22)
11Y1049	LA	8780 (18)	17.0 (18)	5.0 (1)	91 (21)	1 (1)	35 (3)
11Y3441	M	8770 (19)	16.4 (26)	5.0 (1)	91 (21)	1 (1)	37 (15)
11Y1096	LA	8770 (20)	16.8 (21)	5.0 (1)	89 (14)	1 (1)	41 (34)
11Y3636	M	8710 (21)	16.7 (22)	5.0 (1)	89 (14)	1 (1)	35 (5)
M208	M	8650 (22)	16.5 (24)	5.0 (1)	90 (18)	1 (1)	37 (15)
11Y3334	M	8550 (23)	17.3 (17)	5.0 (1)	87 (6)	1 (1)	37 (15)
11Y2111	SBG	8490 (24)	19.2 (9)	5.0 (1)	91 (21)	1 (1)	38 (18)
89Y235	SBG	8390 (25)	17.0 (19)	5.0 (1)	88 (9)	25 (35)	40 (31)
12Y1022	LA	8370 (26)	15.8 (32)	5.0 (1)	88 (9)	1 (1)	40 (30)
12Y2167	SPQ	8250 (27)	21.9 (3)	5.0 (1)	91 (25)	1 (1)	40 (28)
A201	LA	7270 (28)	17.4 (16)	5.0 (1)	93 (32)	1 (1)	37 (10)
11Y106	LJ	7240 (29)	20.7 (4)	5.0 (1)	92 (28)	1 (1)	44 (36)
M402	MPQ	6780 (30)	27.3 (1)	5.0 (1)	95 (33)	1 (1)	37 (10)
12Y87	LJ	6720 (31)	16.5 (25)	5.0 (1)	100 (36)	1 (1)	38 (18)
A301	LA	6630 (32)	19.5 (8)	5.0 (1)	97 (35)	1 (1)	37 (10)
CA201	SLA	6340 (33)	15.1 (33)	5.0 (1)	90 (18)	20 (34)	37 (10)
CT202	LB	5750 (34)	12.4 (36)	5.0 (1)	92 (28)	1 (1)	33 (1)
12Y1054	LB	5710 (35)	13.6 (35)	5.0 (1)	81 (1)	1 (1)	37 (6)
11Y158	LB	4330 (36)	16.2 (29)	5.0 (1)	93 (31)	1 (1)	33 (2)
MEAN		8400	17.8	5.0	90	3	38
CV		3.9	4.1		1	157.4	3.1
LSD (.05)		660	1.5		2	11	2

S = short; M = medium; L = long; PQ = premium quality; A=aromatic; BG=bold grain; J=Jasmine; LA = Low Amalose.

sr= stem rot resistant; WX= waxy.

Subjective rating of 1-5 where 1 = poor and 5 = excellent seedling emergence.

Subjective rating of 1-99 where 1 = none and 99 = completely lodged.

Numbers in parentheses indicate relative rank in column.

Table 14. Grain Yield (lb/acre @14% moisture) Summary of Early Rice Varieties by Location and Year (2009-2013)

Location	Year	Calhikari					Calmati		
		201	S-102	M-202	M-105	M-205	M-206	202	L-206
Biggs (RES)	2009	9090	9700	8940	8690	9430	9080	7650	10840
	2010	9390	9400	10210	11530	10790	10990	8730	11090
	2011	9210	10230	9660	9490	10610	10050	5410	10020
	2012	8680	9500	9770	10250	10530	9980	7990	10510
	2013	8490	8640	7640	7820	9230	8160	5700	8420
Location Mean		8972	9494	9244	9556	10118	9652	7096	10176
Butte	2009	8690	7800	9690	8530	9830	8170	7780	9610
	2010	7900	7330	8190	8530	7950	8440	6770	8400
	2011	8060	8280	8180	9270	8860	8520	8020	9330
	2012	8080	8220	8650	9490	9600	9240	7910	9380
	2013	7840	8650	7870	9640	8960	9020	6450	9390
Location Mean		8114	8056	8516	9092	9040	8678	7386	9222
Colusa	2009	7350	8130	8560	8880	9680	8800	5510	8600
	2010	9510	10190	10910	10930	11190	10560	4690	10440
	2011	6040	7420	9350	7580	9760	9960	5210	9660
	2012	7430	7460	8630	8620	9130	9680	5340	9400
	2013	7840	7220	9140	9750	8930	9660	5970	10250
Location Mean		7634	8084	9318	9152	9738	9732	5344	9670
Yuba	2009	6880	7950	7940	8160	8790	8530	5960	9150
	2010	8350	10010	10220	10040	9370	10330	5470	9070
	2011	7800	8740	9300	9800	10000	10190	6030	10160
	2012	6080	7970	9220	8510	8840	9240	5570	9100
	2013	8040	9280	8950	9330	9650	9750	5750	9590
Location Mean		7430	8790	9126	9168	9330	9608	5756	9414
Loc/Years Mean		8038	8606	9051	9242	9557	9418	6396	9621
Yield % M-202		88.8	95.1	100	102.1	105.6	104.0	70.7	106.3
Number of Tests		20	20	20	16	20	20	20	20

Table 15. 2013 Intermediate/Late Rice Variety Tests - Three Location Summary

Advanced Lines and Varieties

Variety	Grain Type	Ave Grain	Single Location Yields			Ave Grain	Seedling Vigor (1-5)	Days to 50% Heading	Lodging (1-99)	Plant Height (in)
		Yield at 14% Moisture lbs/acre	Biggs	Glenn	Sutter	Moisture at Harvest (%)				
11Y2183	MPQ	9470 (1)	9970 (2)	8800 (4)	9620 (1)	17.9 (2)	4.9 (8)	95 (9)	13 (6)	39 (7)
M206	M	9260 (2)	9570 (7)	9390 (1)	8820 (3)	17.3 (5)	4.9 (5)	84 (3)	24 (8)	39 (5)
12Y1176	L	9050 (3)	9600 (6)	8070 (10)	9490 (2)	15.4 (7)	4.9 (10)	90 (5)	12 (5)	41 (10)
L206	L	9020 (4)	9460 (8)	8870 (3)	8720 (4)	14.6 (8)	4.9 (6)	84 (2)	5 (3)	34 (1)
08Y3269	M	8910 (5)	10100 (1)	8490 (6)	8150 (7)	17.3 (4)	4.9 (3)	91 (7)	1 (1)	39 (6)
M205	M	8890 (6)	9730 (4)	8400 (7)	8540 (5)	17.5 (3)	4.9 (8)	93 (8)	1 (1)	38 (4)
CH202	SPQ	8700 (7)	9700 (5)	8590 (5)	7810 (9)	14.3 (9)	4.9 (7)	84 (1)	55 (9)	36 (2)
M402	MPQ	8560 (8)	9830 (3)	8970 (2)	6900 (10)	21.3 (1)	5.0 (2)	110 (10)	17 (7)	40 (9)
CH201	SPQ	8520 (9)	8950 (9)	8330 (8)	8270 (6)	14.1 (10)	5.0 (1)	90 (4)	58 (10)	37 (3)
M202	M	8290 (10)	8700 (10)	8270 (9)	7890 (8)	16.8 (6)	4.9 (4)	90 (6)	11 (4)	40 (8)
MEAN		8870	9560	8620	8420	16.6	4.9	91	20	38
CV		5.2	4.5	3.7	7.0	4.6	0.5	1.6	113.7	4.2
LSD (.05)		370	620	470	850	0.6	0	1	18	1

Preliminary Lines and Varieties

12Y1155	LA	10010 (1)	10890 (1)	9590 (1)	9550 (2)	14.3 (24)	5.0 (8)	88 (7)	4 (15)	39 (12)
12Y1168	L	9620 (2)	9850 (4)	9230 (4)	9780 (1)	14.4 (23)	4.9 (16)	85 (2)	8 (17)	39 (15)
11Y3448	M	9340 (3)	9900 (2)	8590 (9)	9530 (3)	16.2 (15)	4.9 (16)	89 (9)	12 (19)	40 (18)
M401ES2a	M401 MUT	9090 (4)	9040 (14)	9370 (2)	8870 (7)	17.4 (8)	4.9 (16)	91 (13)	62 (23)	41 (23)
11Y2182	MPQ	9090 (5)	9890 (3)	8530 (10)	8850 (9)	17.5 (7)	4.9 (27)	95 (23)	11 (18)	39 (14)
12Y2178	SPQ	9070 (6)	9840 (5)	9140 (5)	8220 (16)	14.3 (24)	5.0 (8)	99 (25)	16 (20)	37 (10)
M401ES2b	M401 MUT	9050 (7)	9010 (15)	9050 (7)	9100 (5)	17.5 (6)	4.9 (16)	90 (10)	81 (27)	41 (24)
12Y1128	LA	8950 (8)	9420 (8)	9050 (6)	8370 (15)	14.5 (21)	4.9 (23)	87 (5)	1 (1)	37 (5)
09Y2173	MPQ	8910 (9)	9130 (13)	8370 (12)	9240 (4)	17.2 (9)	5.0 (3)	94 (20)	24 (21)	40 (20)
M401ES1	M401 MUT	8760 (10)	8240 (20)	8970 (8)	9060 (6)	17.6 (5)	4.9 (16)	91 (15)	67 (25)	40 (22)
11Y3433	M	8750 (11)	9380 (9)	8140 (17)	8730 (10)	17.7 (4)	4.9 (16)	94 (19)	3 (12)	40 (19)
M105	M	8730 (12)	9820 (6)	8370 (11)	7990 (20)	17.0 (10)	4.9 (23)	86 (4)	1 (1)	39 (16)
10Y3433	M	8700 (13)	9330 (10)	8200 (15)	8570 (12)	16.7 (13)	5.0 (8)	91 (16)	1 (1)	39 (13)
M401	MPQ	8670 (14)	9780 (7)	9280 (3)	6950 (23)	23.2 (1)	5.0 (8)	110 (28)	32 (22)	44 (26)
M203	M	8590 (15)	9200 (11)	7730 (21)	8860 (8)	16.8 (12)	5.0 (1)	86 (3)	76 (26)	44 (27)
12Y135	LJ	8530 (16)	8650 (19)	8280 (14)	8660 (11)	15.2 (18)	5.0 (8)	95 (24)	1 (1)	37 (8)
09Y2176	MPQ	8530 (17)	8850 (17)	8280 (13)	8450 (14)	17.8 (3)	5.0 (3)	92 (17)	6 (16)	40 (17)
12Y1037	LA	8470 (18)	8900 (16)	7980 (19)	8540 (13)	14.9 (20)	5.0 (8)	87 (6)	1 (1)	36 (3)
11Y3667	M	8330 (19)	8730 (18)	8160 (16)	8110 (17)	16.8 (11)	4.9 (23)	90 (10)	1 (1)	40 (21)
11Y106	LJ	8290 (20)	9170 (12)	7890 (20)	7790 (21)	16.3 (14)	4.9 (27)	94 (21)	64 (24)	42 (25)
12Y133	LJ	8100 (21)	8160 (21)	8130 (18)	8020 (19)	15.3 (17)	5.0 (8)	99 (26)	1 (1)	37 (6)
A201	LA	7750 (22)	7680 (22)	7490 (23)	8080 (18)	15.7 (16)	5.0 (8)	94 (18)	1 (1)	37 (7)
12Y1178	LJ	7210 (23)	6970 (23)	7560 (22)	7100 (22)	15.0 (19)	4.9 (16)	91 (14)	1 (1)	38 (11)
13Y135	LB	6270 (24)	6960 (24)	5860 (26)	5990 (25)	13.2 (28)	5.0 (3)	95 (22)	1 (1)	37 (4)
CT202	LB	6160 (25)	6080 (25)	6040 (25)	6340 (24)	14.2 (26)	5.0 (1)	88 (8)	3 (12)	35 (2)
KOSH	SPQ	5700 (26)	5650 (26)	6410 (24)	5030 (27)	18.2 (2)	4.9 (23)	106 (27)	96 (28)	48 (28)
12Y1052	LB	5150 (27)	5020 (28)	5080 (27)	5360 (26)	13.4 (27)	5.0 (3)	80 (1)	1 (1)	37 (9)
11Y158	LB	5000 (28)	5500 (27)	4670 (28)	4820 (28)	14.4 (22)	5.0 (3)	90 (10)	3 (12)	34 (1)
MEAN		8170	8540	7980	8000	16.2	4.9	92	21	39
CV		5.5	6.1	5.1	5.0	3.6	0.6	4	79.8	3.7
LSD (.05)		510	1070	830	820	0.7	0	4	19	2

S=short; M=medium; L=long; PQ=premium quality; A=aromatic; B=Basmati; J=Jasmine.

Subjective rating of 1-5 where 1 = poor and 5 = excellent seedling emergence.

Subjective rating of 1-99 where 1 = none and 99 = completely lodged.

Numbers in parentheses indicate relative rank in column.

Table 16. 2013 Biggs Intermediate/Late Rice Variety Tests

<i>Advanced Lines and Varieties</i>							
Variety	Grain Type	Grain Yield at 14% Moisture lbs/acre	Grain Moisture at Harvest (%)	Seedling Vigor (1-5)	Days to 50% Heading	Lodging (1-99)	Plant Height (in)
08Y3269	M	10100 (1)	14.4 (4)	4.8 (3)	86 (7)	1 (1)	40 (8)
11Y2183	MPQ	9970 (2)	14.4 (4)	4.7 (8)	90 (9)	1 (1)	40 (5)
M402	MPQ	9830 (3)	15.9 (1)	4.9 (2)	109 (10)	1 (1)	38 (4)
M205	M	9730 (4)	14.5 (3)	4.7 (8)	88 (8)	1 (1)	40 (5)
CH202	SPQ	9700 (5)	9.6 (9)	4.7 (7)	80 (1)	55 (9)	34 (1)
12Y1176	L	9600 (6)	12.7 (8)	4.6 (10)	85 (5)	1 (1)	41 (10)
M206	M	9570 (7)	14.7 (2)	4.8 (5)	81 (3)	41 (8)	40 (7)
L206	L	9460 (8)	12.8 (7)	4.7 (6)	80 (2)	13 (7)	35 (2)
CH201	SPQ	8950 (9)	8.6 (10)	4.9 (1)	84 (4)	60 (10)	36 (3)
M202	M	8700 (10)	14.2 (6)	4.8 (4)	85 (6)	1 (1)	40 (8)
MEAN		9560	13.2	4.7	87	18	38
CV		4.5	4.6	0.9	1.8	150.7	5.3
LSD (.05)		620	0.9	0.1	2	38	3
<i>Preliminary Lines and Varieties</i>							
12Y1155	LA	10890 (1)	12.4 (22)	4.9 (8)	81 (6)	1 (1)	39 (14)
11Y3448	M	9900 (2)	14.0 (13)	4.8 (16)	82 (8)	26 (22)	39 (14)
11Y2182	MPQ	9890 (3)	14.4 (3)	4.7 (27)	88 (22)	1 (1)	38 (9)
12Y1168	L	9850 (4)	12.5 (20)	4.8 (16)	80 (4)	1 (1)	40 (17)
12Y2178	SPQ	9840 (5)	8.4 (28)	4.9 (8)	92 (25)	1 (1)	38 (9)
M105	M	9820 (6)	14.3 (5)	4.8 (23)	76 (2)	1 (1)	40 (17)
M401	MPQ	9780 (7)	17.4 (1)	4.9 (8)	115 (28)	1 (1)	45 (27)
12Y1128	LA	9420 (8)	12.7 (17)	4.8 (23)	79 (3)	1 (1)	37 (8)
11Y3433	M	9380 (9)	14.5 (2)	4.8 (16)	86 (14)	1 (1)	38 (9)
10Y3433	M	9330 (10)	14.2 (8)	4.9 (8)	86 (18)	1 (1)	41 (21)
M203	M	9200 (11)	14.2 (8)	5.0 (1)	82 (7)	93 (26)	43 (25)
11Y106	LJ	9170 (12)	13.0 (14)	4.7 (27)	94 (26)	1 (1)	40 (19)
09Y2173	MPQ	9130 (13)	14.4 (3)	4.9 (3)	89 (23)	26 (22)	40 (19)
M401ES2a	M401 MUT	9040 (14)	14.2 (10)	4.8 (16)	87 (20)	73 (25)	44 (26)
M401ES2b	M401 MUT	9010 (15)	14.3 (7)	4.8 (16)	86 (14)	93 (26)	42 (24)
12Y1037	LA	8900 (16)	12.8 (15)	4.9 (8)	80 (5)	1 (1)	38 (9)
09Y2176	MPQ	8850 (17)	14.3 (5)	4.9 (3)	86 (14)	1 (1)	39 (14)
11Y3667	M	8730 (18)	14.2 (10)	4.8 (23)	86 (18)	1 (1)	41 (21)
12Y135	LJ	8650 (19)	12.5 (20)	4.9 (8)	87 (20)	1 (1)	37 (6)
M401ES1	M401 MUT	8240 (20)	14.0 (12)	4.8 (16)	86 (14)	65 (24)	41 (21)
12Y133	LJ	8160 (21)	12.6 (18)	4.9 (8)	91 (24)	1 (1)	36 (4)
A201	LA	7680 (22)	12.7 (16)	4.9 (8)	85 (12)	1 (1)	36 (4)
12Y1178	LJ	6970 (23)	12.6 (19)	4.8 (16)	85 (11)	1 (1)	39 (13)
13Y135	LB	6960 (24)	11.1 (27)	4.9 (3)	84 (10)	1 (1)	35 (2)
CT202	LB	6080 (25)	12.4 (23)	5.0 (1)	82 (8)	1 (1)	37 (6)
KOSH	SPQ	5650 (26)	11.6 (24)	4.8 (23)	103 (27)	93 (26)	48 (28)
11Y158	LB	5500 (27)	11.3 (25)	4.9 (3)	85 (12)	1 (1)	33 (1)
12Y1052	LB	5020 (28)	11.3 (26)	4.9 (3)	75 (1)	1 (1)	36 (3)
MEAN		8540	13.1	4.8	86	17	39
CV		6.1	3.7	1.1	1.2	75.8	3.5
LSD (.05)		1070	1	0.1	2	27	3

S=short; M=medium; L=long; PQ=premium quality; A=aromatic; B=Basmati; J=Jasmine.

Subjective rating of 1-5 where 1 = poor and 5 = excellent seedling emergence.

Subjective rating of 1-99 where 1 = none and 99 = completely lodged.

Numbers in parentheses indicate relative rank in column.

Table 17. 2013 Glenn Intermediate/Late Rice Variety Tests

Advanced Lines and Varieties

Variety	Grain Type	Grain Yield	Grain	Seedling	Days to	Lodging	Plant
		at 14% Moisture lbs/acre	Moisture at Harvest (%)	Vigor (1-5)	50% Heading	(1-99)	Height (in)
M206	M	9390 (1)	14.3 (6)	5.0 (1)	86 (3)	13 (6)	39 (7)
M402	MPQ	8970 (2)	14.7 (5)	5.0 (1)	111 (10)	50 (8)	41 (9)
L206	L	8870 (3)	12.3 (10)	5.0 (1)	83 (1)	1 (1)	35 (1)
11Y2183	MPQ	8800 (4)	15.5 (1)	5.0 (1)	101 (9)	1 (1)	39 (6)
CH202	SPQ	8590 (5)	13.2 (8)	5.0 (1)	85 (2)	77 (10)	37 (2)
08Y3269	M	8490 (6)	15.1 (3)	5.0 (1)	97 (6)	1 (1)	39 (4)
M205	M	8400 (7)	15.2 (2)	5.0 (1)	99 (8)	1 (1)	39 (5)
CH201	SPQ	8330 (8)	13.6 (7)	5.0 (1)	93 (5)	58 (9)	37 (3)
M202	M	8270 (9)	15.0 (4)	5.0 (1)	97 (6)	25 (7)	40 (8)
12Y1176	L	8070 (10)	12.4 (9)	5.0 (1)	92 (4)	11 (5)	42 (10)
MEAN		8620	14.1	5.0	94	24	39
CV		3.7	3.3		1.7	75.1	3.6
LSD (.05)		470	0.7		2	26	2

Preliminary Lines and Varieties

12Y1155	LA	9590 (1)	11.4 (24)	5.0 (1)	90 (6)	11 (19)	41 (19)
M401ES2a	M401 MUT	9370 (2)	15.0 (7)	5.0 (1)	97 (16)	65 (22)	41 (21)
M401	MPQ	9280 (3)	14.7 (11)	5.0 (1)	104 (27)	90 (24)	43 (26)
12Y1168	L	9230 (4)	11.6 (23)	5.0 (1)	86 (3)	1 (1)	40 (12)
12Y2178	SPQ	9140 (5)	12.5 (17)	5.0 (1)	103 (25)	46 (21)	38 (10)
12Y1128	LA	9050 (6)	11.2 (25)	5.0 (1)	89 (4)	1 (1)	35 (1)
M401ES2b	M401 MUT	9050 (7)	14.9 (9)	5.0 (1)	99 (20)	70 (23)	41 (21)
M401ES1	M401 MUT	8970 (8)	15.5 (3)	5.0 (1)	97 (14)	95 (25)	41 (21)
11Y3448	M	8590 (9)	14.3 (13)	5.0 (1)	95 (10)	10 (17)	40 (15)
11Y2182	MPQ	8530 (10)	15.1 (5)	5.0 (1)	102 (23)	1 (1)	40 (12)
M105	M	8370 (11)	14.2 (14)	5.0 (1)	83 (2)	1 (1)	40 (14)
09Y2173	MPQ	8370 (12)	14.8 (10)	5.0 (1)	100 (21)	10 (17)	40 (17)
09Y2176	MPQ	8280 (13)	15.0 (7)	5.0 (1)	100 (22)	11 (19)	41 (19)
12Y135	LJ	8280 (14)	12.0 (20)	5.0 (1)	97 (16)	1 (1)	38 (6)
10Y3433	M	8200 (15)	14.4 (12)	5.0 (1)	96 (12)	1 (1)	38 (9)
11Y3667	M	8160 (16)	15.1 (5)	5.0 (1)	98 (19)	1 (1)	40 (18)
11Y3433	M	8140 (17)	15.3 (4)	5.0 (1)	103 (25)	6 (14)	42 (24)
12Y133	LJ	8130 (18)	11.8 (22)	5.0 (1)	102 (24)	1 (1)	36 (3)
12Y1037	LA	7980 (19)	12.0 (21)	5.0 (1)	89 (4)	1 (1)	38 (6)
11Y106	LJ	7890 (20)	13.4 (15)	5.0 (1)	97 (14)	99 (26)	42 (25)
M203	M	7730 (21)	15.7 (2)	5.0 (1)	91 (7)	99 (26)	46 (27)
12Y1178	LJ	7560 (22)	11.1 (26)	5.0 (1)	91 (7)	1 (1)	40 (15)
A201	LA	7490 (23)	12.4 (18)	5.0 (1)	96 (12)	1 (1)	38 (8)
KOSH	SPQ	6410 (24)	16.1 (1)	5.0 (1)	106 (28)	99 (26)	47 (28)
CT202	LB	6040 (25)	12.2 (19)	5.0 (1)	91 (7)	6 (14)	36 (4)
13Y135	LB	5860 (26)	10.2 (28)	5.0 (1)	97 (16)	1 (1)	38 (11)
12Y1052	LB	5080 (27)	10.7 (27)	5.0 (1)	81 (1)	1 (1)	37 (5)
11Y158	LB	4670 (28)	12.6 (16)	5.0 (1)	95 (11)	6 (14)	35 (2)
MEAN		7980	13.4	5.0	95	26	40
CV		5.1	2.6		4.4	58.2	4.5
LSD (.05)		830	0.7		9	31	4

S=short; M=medium; L=long; PQ=premium quality; A=aromatic; B=Basmati; J=Jasmine.

Subjective rating of 1-5 where 1 = poor and 5 = excellent seedling emergence.

Subjective rating of 1-99 where 1 = none and 99 = completely lodged.

Numbers in parentheses indicate relative rank in column.

Table 18. 2013 Sutter Intermediate/Late Rice Variety Tests

Advanced Lines and Varieties

Variety	Grain Type	Grain Yield	Grain	Seedling	Days to	Lodging	Plant
		at 14% Moisture lbs/acre	Moisture at Harvest (%)	Vigor (1-5)	50% Heading	(1-99)	Height (in)
11Y2183	MPQ	9620 (1)	23.8 (2)	5.0 (1)	94 (8)	37 (9)	39 (8)
12Y1176	L	9490 (2)	21.1 (7)	5.0 (1)	94 (9)	23 (7)	39 (8)
M206	M	8820 (3)	23.0 (3)	5.0 (1)	86 (1)	18 (6)	38 (5)
L206	L	8720 (4)	18.6 (10)	5.0 (1)	89 (3)	1 (1)	32 (1)
M205	M	8540 (5)	22.9 (4)	5.0 (1)	93 (7)	1 (1)	37 (3)
CH201	SPQ	8270 (6)	20.0 (9)	5.0 (1)	92 (6)	56 (10)	37 (4)
08Y3269	M	8150 (7)	22.5 (5)	5.0 (1)	91 (5)	1 (1)	38 (6)
M202	M	7890 (8)	21.2 (6)	5.0 (1)	89 (4)	6 (5)	39 (7)
CH202	SPQ	7810 (9)	20.1 (8)	5.0 (1)	86 (2)	33 (8)	36 (2)
M402	MPQ	6900 (10)	33.3 (1)	5.0 (1)	111 (10)	1 (1)	40 (10)
MEAN		8420	22.6	5.0	92	18	38
CV		7	4.8		1	124	3.5
LSD (.05)		850	1.6		1	32	2

Preliminary Lines and Varieties

12Y1168	L	9780 (1)	19.1 (25)	5.0 (1)	91 (6)	21 (20)	38 (12)
12Y1155	LA	9550 (2)	19.2 (24)	5.0 (1)	93 (13)	1 (1)	36 (4)
11Y3448	M	9530 (3)	20.4 (20)	5.0 (1)	91 (6)	1 (1)	40 (22)
09Y2173	MPQ	9240 (4)	22.5 (10)	5.0 (1)	94 (18)	36 (23)	40 (21)
M401ES2b	M401 MUT	9100 (5)	23.3 (5)	5.0 (1)	87 (3)	80 (26)	41 (24)
M401ES1	M401 MUT	9060 (6)	23.4 (4)	5.0 (1)	91 (6)	41 (24)	39 (19)
M401ES2a	M401 MUT	8870 (7)	23.0 (7)	5.0 (1)	88 (5)	48 (25)	39 (16)
M203	M	8860 (8)	20.5 (19)	5.0 (1)	84 (2)	35 (22)	44 (26)
11Y2182	MPQ	8850 (9)	22.9 (8)	5.0 (1)	96 (19)	31 (21)	39 (14)
11Y3433	M	8730 (10)	23.2 (6)	5.0 (1)	93 (16)	1 (1)	39 (16)
12Y135	LJ	8660 (11)	21.1 (18)	5.0 (1)	103 (24)	1 (1)	37 (7)
10Y3433	M	8570 (12)	21.5 (14)	5.0 (1)	91 (9)	1 (1)	37 (7)
12Y1037	LA	8540 (13)	20.1 (21)	5.0 (1)	93 (13)	1 (1)	32 (1)
09Y2176	MPQ	8450 (14)	24.2 (3)	5.0 (1)	92 (11)	6 (18)	39 (16)
12Y1128	LA	8370 (15)	19.6 (22)	5.0 (1)	93 (13)	1 (1)	38 (11)
12Y2178	SPQ	8220 (16)	22.0 (12)	5.0 (1)	102 (23)	1 (1)	36 (5)
11Y3667	M	8110 (17)	21.1 (17)	5.0 (1)	87 (3)	1 (1)	40 (22)
A201	LA	8080 (18)	21.9 (13)	5.0 (1)	100 (22)	1 (1)	37 (9)
12Y133	LJ	8020 (19)	21.5 (15)	5.0 (1)	106 (26)	1 (1)	38 (12)
M105	M	7990 (20)	22.5 (9)	5.0 (1)	99 (21)	1 (1)	39 (14)
11Y106	LJ	7790 (21)	22.4 (11)	5.0 (1)	93 (16)	93 (27)	43 (25)
12Y1178	LJ	7100 (22)	21.2 (16)	5.0 (1)	97 (20)	1 (1)	37 (9)
M401	MPQ	6950 (23)	37.7 (1)	5.0 (1)	113 (28)	6 (18)	44 (27)
CT202	LB	6340 (24)	18.1 (28)	5.0 (1)	92 (12)	1 (1)	33 (2)
13Y135	LB	5990 (25)	18.4 (26)	5.0 (1)	103 (24)	1 (1)	36 (5)
12Y1052	LB	5360 (26)	18.3 (27)	5.0 (1)	84 (1)	1 (1)	39 (19)
KOSH	SPQ	5030 (27)	27.0 (2)	5.0 (1)	108 (27)	97 (28)	49 (28)
11Y158	LB	4820 (28)	19.4 (23)	5.0 (1)	91 (9)	1 (1)	34 (3)
MEAN		8000	22	5.0	95	18	39
CV		5	3.7		4.9	110.4	2.8
LSD (.05)		820	1.7		10	41	2

S=short; M=medium; L=long; PQ=premium quality; A=aromatic; B=Basmati; J=Jasmine.

Subjective rating of 1-5 where 1 = poor and 5 = excellent seedling emergence.

Subjective rating of 1-99 where 1 = none and 99 = completely lodged.

Numbers in parentheses indicate relative rank in column.

Table 19. Grain Yield (lb/acre @14% moisture) Summary of Intermediate/
Late Rice Varieties by Location and Year (2009-2013)

Location	Year	M-205	M-402	M-202	L-206
Biggs (RES)	2009	9290	9110	8300	9950
	2010	11030	8240	10430	11610
	2011	10270	9200	9160	9990
	2012	11210	10260	11090	11180
	2013	9730	9830	8700	9460
Location Mean		10306	9328	9536	10438
Glenn	2009	10120	10610	9230	10440
	2010	9210	9360	7970	8340
	2011	9550	9820	9030	8900
	2012	8220	8260	7660	7680
	2013	8400	8970	8270	8870
Location Mean		9100	9404	8432	8846
Sutter	2009	8180	8010	7080	7470
	2010	9190	9300	10500	9390
	2011	9310	8000	9010	9780
	2012	9630	9040	9690	9890
	2013	8540	6900	7890	8720
Location Mean		8970	8250	8834	9050
Loc/Years Mean		9459	8994	8934	9445
Yield % M-202		105.9	100.7	100	105.0
Number of Tests		15	15	15	15

Table 20. 2013 Twitchell Island Cold Tolerance Rice Variety Test

Variety	Grain Type	Grain Yield at 14% Moisture lbs/acre	Grain Moisture at Harvest (%)	Seedling Vigor (1-5)	Days to 50% Heading	Lodging (1-99)	Plant Height (in)
CM101	SWX	8090 (1)	17.1 (17)	5.0 (1)	98 (4)	1 (1)	28 (3)
M206-Pi-ta2	MB	7940 (2)	22.2 (7)	5.0 (1)	104 (13)	1 (1)	30 (8)
M206	M	7930 (3)	22.2 (8)	5.0 (1)	101 (7)	1 (1)	30 (9)
12Y113	MB	7910 (4)	22.6 (6)	5.0 (1)	103 (11)	13 (18)	31 (13)
10Y3286	M	7870 (5)	20.9 (11)	5.0 (1)	101 (6)	1 (1)	31 (10)
M202	M	7840 (6)	24.7 (3)	5.0 (1)	107 (15)	1 (1)	30 (6)
M104	M	7750 (7)	19.5 (14)	5.0 (1)	95 (1)	1 (1)	28 (2)
09Y2141	SWX	7660 (8)	20.9 (12)	5.0 (1)	99 (5)	1 (1)	33 (18)
M105	M	7630 (9)	21.8 (9)	5.0 (1)	96 (3)	1 (1)	31 (14)
L206	L	7500 (10)	18.1 (16)	5.0 (1)	101 (7)	1 (1)	24 (1)
09Y2036	S	7440 (11)	19.3 (15)	5.0 (1)	102 (9)	1 (1)	33 (17)
08Y3126	M	7340 (12)	23.3 (5)	5.0 (1)	104 (14)	3 (17)	32 (16)
12Y3097	MB	7060 (13)	21.3 (10)	5.0 (1)	102 (10)	1 (1)	32 (15)
S102	S	6850 (14)	16.9 (18)	5.0 (1)	96 (2)	1 (1)	29 (5)
10Y3703	M	6830 (15)	24.3 (4)	5.0 (1)	109 (16)	1 (1)	31 (11)
11Y2183	MPQ	6770 (16)	27.7 (2)	5.0 (1)	115 (18)	1 (1)	29 (4)
09Y2179	S	6440 (17)	19.6 (13)	5.0 (1)	104 (12)	1 (1)	31 (12)
10Y3690	M	6360 (18)	29.1 (1)	5.0 (1)	111 (17)	1 (1)	30 (7)
MEAN		7400	21.8	5.0	103	2	30
CV		11.7	6.8		1.8	326.3	4.8
LSD (.05)			2.1		3		2

S = short; M = medium; L = long; PQ = premium quality; WX = waxy.

Subjective rating of 1-5 where 1 = poor and 5 = excellent seedling emergence.

Subjective rating of 1-99 where 1 = none and 99 = completely lodged.

Numbers in parentheses indicate relative rank in column.