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CALIFORNIA RICE VARIETIES

DESCRIPTION AND PERFORMANCE SUMMARY OF THE 2002 AND MULTIYEAR STATEWIDE RICE VARIETY TESTS IN CALIFORNIA

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University of California Cooperative Extension rice variety evaluation tests were conducted in the Sacramento and San Joaquin Valleys in 2002. 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.

Improving prices and reduced carryover caused growers to increase plantings to 540,100 acres in 2002, up 69,305 acres (13%) compared to 2001 (Table 2). Medium-grain varieties M-103, M-104, M-201, M-202, M-204, M-205, M-401, and M-402 were produced on 88% of the acreage. As in recent years, M-202 was planted on the most acreage (46%), a 14% decrease compared to the 2001 season. M-204 acreage decreased 10% to 56,630 acres in 2002. M-104, a replacement for M-103 in the cooler rice areas, increased from 29,200 acres in 2001 to 41,860 acres in 2002. Premium quality medium-grains M-401 and M-402 were produced on 38,111 acres, a 9.3% increase compared to 2001. Acreage of short-grain types increased 1,520 acres above 2001 levels with S-102 produced on 8,940 acres. Long-grain acreage continued to decrease in 2002 to 6,300 acres, a 46% decrease from 2001 levels. Leading short- and long-grain varieties were Calmochi-101 and L-205, 2.6% and 0.4% of the total acreage respectively.

2002 weather was nearly ideal with timely planting, good stands, and few problems with cool temperatures at heading. Cool temperature blanking did occur at the San Joaquin location where only the cold tolerant material had good seed set. Lodging was a severe problem at six of the test sites. Bakanae caused significant yield losses in some grower's fields. Treatment of the seed used for the Statewide tests eliminated the potential of Bakanae infection in all of our trials. Due to ideal weather conditions, the 2002 harvest was completed two weeks ahead of schedule.

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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 lines to be newly evaluated on a statewide basis. Advanced and preliminary tests were conducted in three maturity groups, Very Early, Early, and Intermediate to 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. Ten advanced breeding lines and eight commercial varieties were evaluated in Advanced Tests at each of the following locations.

	Date Planted
• Butte County (RES)	5/6, 5/22 (Reps 1&2, 3&4 respectively)
• San Joaquin County (Brumley)	5/3
• Sutter County (Lauppe)	5/13
• Yolo County (Geer)	5/6

Commercial varieties included Calmochi-101, M-103, M-104, M-202, M-205, L-204, L-205, and S-102. Thirty-two experimental lines were evaluated in the Preliminary Tests at each location. Advanced and preliminary experimental lines at each location were entries from the RES breeding program.

Early Maturity Group. Eleven advanced lines and ten commercial varieties were evaluated in Advanced Tests at each of the following locations.

	Date Planted
• Butte County (RES)	5/6, 5/22 (Reps 1&2, 3&4 respectively)
• Butte County (Harris)	5/22
• Colusa County (Dennis)	4/23
• Yuba County (Quad-4)	5/10

Commercial varieties included Calmochi-101, Calhkari-201, Calmati-201, M-104, M-202, M-204, M-205, L-204, L-205, and S-102. Thirty preliminary lines were included in separate tests at each site. All advanced and preliminary experimental lines were entries from the RES breeding program.

Late Maturity Group. Eight advanced lines and six commercial varieties were evaluated in Advanced Tests at the following locations.

	Date Planted
• Butte County (RES)	5/6, 5/22 (Reps 1&2, 3&4 respectively)
• Glenn County (Wiley)	4/22
• Sutter County (Akin)	5/9

Commercial varieties included Calhkari-201, Calmati-201, M-202, M-205, M-402, and L-205. Twenty experimental lines were also included in separate tests at each site. Advanced and preliminary non-commercial lines were entries from the RES breeding program.

Planting and Harvesting

Individual plots were water-seeded by hand at a planting rate of 144 lb/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 on a scale of 1 (no lodging) to 99 (all plants completely lodged).

County tests were harvested with a SWECO 324 small plot combine and plots at the RES were harvested with a modified Allis-Chalmers combine. The harvest area for all plots was 150 ft² (0.0034acre). Grain moisture was assessed at harvest and yields adjusted to 14% moisture.

SUMMARY OF THE VERY EARLY RICE VARIETY TESTS

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

Agronomic performance data for individual entries at each Very Early location are presented in Tables 4 through 7. A four-location combined yield summary is given in Table 8. Entries are ranked by grain yield with the highest yielding entry appearing first. A yield summary of Very Early rice varieties by location and year (1998-2002) is found in Table 9.

Grain yields in the advanced tests averaged 10040 lbs/acre at the RES, 8540 at Yolo, 9170 at Sutter, and 8510 at San Joaquin. Over the four locations, the highest yielding entry was the commercial variety M-104 at 9690 lbs/acre (Table 8). Entry 00Y170, an advanced short grain, was the second highest yielding entry at Yolo and Sutter and ranked first in the four location summary.

No entry produced yields significantly higher than M-104 at any of the trial locations. M-104, an advanced very early medium grain cultivar, 00Y175, and 98Y174, yielded highest (first, second and third, respectively) in the cooler San Joaquin trial location. M-104 produced higher yields than M-103 at all locations.

Table 9 shows over-year and over-location yields for the very early commercial varieties compared with leading early varieties in the same tests. Common year-location entries are compared to give relative yield as a percentage of M-103, the very early standard. M-104 has yielded 104%, M-202, 101%, Calmochi-101, 101%, S-102, 109%, L-204, 98%, and L-205, 97% of M-103 in the Very Early tests over the last five year period.

SUMMARY OF THE EARLY RICE VARIETY TESTS

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

Agronomic performance data for individual entries at each Early location are presented in Tables 10 through 13. A four location combined yield summary is given in Table 14. Entries are ranked by grain yield with the highest yielding entry appearing first.

Yields in the advanced tests averaged 9790 lb/acre at the RES, 8450 lb/acre at Butte, 8410 lb/acre at Colusa and 8310 lb/acre at Yuba. The medium-grain variety, M-205, averaged 11230 lb/acre at the RES, 9690 lb/acre at Colusa, and was the highest yielding entry, 9550 lb/acre, over the four locations (Table 14). Other leading advanced cultivars were 98Y242 (M-206) and 99Y529 (second and third, respectively). Commercial varieties M-202, S-102, and L-204 ranked fifth, seventh, and eighth in over-location yield average. Of the preliminary lines, short-grain premium quality 01Y327 and medium-grains 01Y401, and 01Y502 were ranked first, second, and third, respectively.

Table 15 shows the over-year and over-location yields for the commercial varieties. Common year-location entries are compared to give relative yield as a percentage of M-202, the early standard. Cahikari-201 has yielded 88%, M-204, 101%, M-205, 103%, and Calmati-201, 76% of M-202 in the Early tests over the past five years.

SUMMARY OF THE INTERMEDIATE-LATE RICE VARIETY TESTS

(intermediate= 98-105 days and late= > 105 days to 50% heading at Biggs, CA)

Agronomic performance data for individual entries at each Intermediate-Late location are presented in Tables 16 through 18. A three location combined yield summary is given in Table 19. Entries are ranked by grain yield with the highest yielding entry appearing first.

Average yields in the advanced Intermediate-Late tests were 10830 lb/acre at the RES, 8180 lb/acre at Glenn, and 8840 lb/acre at Sutter. The medium-grain cultivar M-205 was the highest yielding entry over all locations, ranking third at Sutter and fifth at RES and Glenn (Table 19). Premium quality M-402 ranked third in yield at Glenn, eighth at the RES, twelfth at Sutter, and was ranked eighth overall. In the preliminary tests, stem rot resistant medium-grain 99Y158 yielded highest overall (10250 lb/acre), with yields of 11900, 8510, and 10360 lb/acre at the RES, Glenn, and Sutter respectively.

Table 20 compares Intermediate-Late maturing commercial cultivars in over-location and over-years tests. Using M-202 as the standard for comparison, M-205 and M-402 have yielded 105% and 102%, respectively, over the last five years.

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Table 1. Characteristics Of Public California Rice Varieties - 2002

CHARACTERISTICS OF PUBLIC CALIFORNIA RICE VARIETIES - 2002					
Grain Type	Maturity	Year Seed Widely Available	Stem Rot Score ¹ (0-10)	Seedling Vigor ² (1-5)	Comments
Short Grain					
S-102	Very Early ³	1998	5.9	4.3	Very high yield potential. Good resistance to blanking with larger and less chalky grain. Rough leaves and hulls, grain dries down rapidly during ripening. Susceptible to stem rot.
Medium Grains					
M-103	Very Early ³	1990	5.5	3.9	Earliest medium grain, vigor less than M-202. Excellent resistance to blanking. Very good head and total milled rice yields. Moderate lodging and good yield potential.
M-104	Very Early ³	2002	5.6	4.4	Potential 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-202	Early	1987	5.8	4.4	Very high yield potential. Moderate lodging potential. Long time favorite variety that threshes easily.
M-204	Early	1993	5.7	4.2	Very high yield potential. Seedling vigor slightly less than M-202. Height 3 inches shorter and heading 3 days later than M-202. Better lodging resistance and improved total and head rice yields than M-202. Resistance to blanking similar to M-202. Threshes easily. Not recommended for Escalon, Natomas or other cool areas.
M-205	Early	2002	5.5	4.1	Very high yield potential. Primary adaptation area west of Highway 70 and north of Highway 20. Height, seedling vigor, and blanking resistance similar to M-204. Matures 4-7 days later than M-202. Improved milling yields relative to M-202. Not recommended for Escalon, Natomas or other cool areas.
Long Grains					
L-204	Early	1998	5.6	4.1	High yield potential. Resistant to lodging. Seedling vigor fair, may be affected by deep water. Improved head rice and cooking characteristics. Avoid early draining (requires 40-45 days after 50% heading to mature) and harvest at 18-19% moisture to maximize milling yield.
L-205	Early	2001	5.7	3.9	Newrex type, dry cooking long grain. High yield potential. Two days later than L-204. Resistant to lodging. More resistant to blanking than L-204. Seedling vigor fair. Seed size slightly smaller than L-204. Similar milling yield to L-204. Avoid early draining (requires 40-45 days after 50% heading to mature) and harvest at 16-18% grain moisture to maximize milling yield.
Premium Quality					
M-401	Late	1983	5.4	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	Late	2001	5.4	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	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 Rices					
Calmochi-101	Very Early ^{3,4}	1987	5.6	4.2	Glutinous (sweet, waxy) rice. Excellent blanking resistance. Has rough leaves and hulls, no awns. Grain dries down rapidly during ripening.
A-201	Early ⁴	1998	6.2	4.2	Aromatic (popcorn aroma) long grain. Moderate yield potential. Becomes leafy under excessive nitrogen. Poor milling yield, use slower cylinder speed and harvest at 18-20% grain moisture. Air dry without heat to retain aroma.
Calmati-201	Early ⁴	2001	5.4	3.9	A basmati type aromatic long grain. Moderate yield potential. Five days later than L-204. Pubescent leaves and hull. Milling yield is considerably higher than A-201. Very susceptible to blanking and should not be grown in cool areas. Excessive nitrogen and late planting will delay maturity and increase blanking. Harvest at 17-18% grain moisture.

1 Average stem rot score over last four years; 0 = no disease and 10 = severe disease.

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

3 Milling quality and yield may be reduced by early planting in warmer areas.

4 Specialty varieties should not be grown unless arrangements have first been made with a marketing agency.

Table 2. California Rice Acreage by Variety (1999-2002)¹

Variety	1999		2000		2001		2002	
	(acres)	(%)	(acres)	(%)	(acres)	(%)	(acres)	(%)
Short Grains								
S-102	9,800	1.70	10,464	1.85	7,424	1.58	8,943	1.66
S-201	1,150	0.20	-	-	-	-	-	-
Akitakomachi	25,350	4.40	10,175	1.80	8,438	1.79	5,618	1.04
Calhikari-201	160	0.03	3,822	0.68	-	-	-	-
Calmochi-101	28,230	4.90	11,077	1.96	11,230	2.39	13,869	2.57
Koshihikari	12,100	2.10	6,205	1.10	6,136	1.30	6,320	1.17
Surpass	1300	0.23	1,453	0.26	-	-	-	-
Subtotal	76,630	13.35	41,743	7.65	33,228	7.06	34,750	6.43
Medium Grains								
M-103	12,100	2.10	11,720	2.07	8,055	1.71	2,048	0.38
M-104	-	-	493	0.09	29,199	6.20	41,862	7.75
M-201	14,980	2.60	6,917	1.22	2,440	0.52	1,475	0.27
M-202	335,330	58.20	353,879	62.63	232,765	49.43	247,200	45.77
M-204	55,890	9.70	76,320	13.51	62,999	13.38	56,629	10.48
M-205	-	-	849	0.15	37,594	7.98	88,497	16.39
M-401	54,740	9.50	33,662	5.96	29,898	6.35	32,204	5.96
M-402	500	0.09	9,194	1.63	5,319	1.13	6,607	1.22
Kokuhorose	11,520	2.00	12,527	2.22	12,176	2.59	14,842	2.75
NFD 181	5,190	0.90	4,620	0.82	3,061	0.65	3,527	0.65
Subtotal	490,250	85.09	510,181	90.30	423,506	89.94	494,890	91.63
Long Grains								
L-204	3,460	0.60	2,093	0.37	1,235	0.26	1,200	0.22
L-205	259	0.04	2,647	0.47	6,472	1.37	2,099	0.39
A-201	1,076	0.19	1,025	0.18	799	0.17	1,203	0.22
A-301	1,260	0.22	1,449	0.26	1,700	0.36	1,469	0.27
Calmati-201	131	0.02	1,202	0.21	1,507	0.32	336	0.06
Subtotal	6,186	1.07	8,416	1.49	11,713	2.48	6,306	1.17
Other ²	3,114	0.49	4,660	0.56	2,348	0.50	4,153	0.77
Total	576,180	100	565,000	100	470,795	100	540,100	100

¹ Acreage estimates based on surveys conducted by Rice Experiment Station of rice millers and seed production.² Other varieties reported include: Short Grains S-201, Calhikari-201, Hitomebore, Surpass, H-4, and 89-Y-235; Medium Grain SP 411; Long Grains L-202 and L-203; and speciality varieties.

Table 3. (Continued)

	Glenn (Willows)		Colusa (colusa)		Yolo (zamora)		Butte (Durham)		Yuba (Yuba City)		Sutter (Nicolas)		San Joaquin (Escalon)	
	max	min	max	min	max	min	max	min	max	min	max	min	max	min
Aug 01	92	59	91	60	92	55	88	60	91	53	90	58	90	59
Aug 02	91	61	92	61	89	56	88	62	90	53	87	59	88	60
Aug 03	85	58	85	57	82	55	83	59	83	53	79	56	86	57
Aug 04	79	53	79	54	79	51	74	54	81	47	79	52	84	53
Aug 05	85	52	87	53	86	54	84	55	88	52	85	56	86	53
Aug 06	84	49	86	49	82	48	80	52	85	48	83	51	85	54
Aug 07	94	54	93	51	88	52	93	51	92	50	88	52	90	51
Aug 08	101	56	100	49	96	56	97	55	98	54	95	54	96	51
Aug 09	106	58	103	55	96	57	99	54	102	54	99	57	100	55
Aug 10	100	60	102	58	100	57	96	60	102	59	98	63	101	56
Aug 11	101	59	103	56	99	55	95	60	102	57	98	58	99	60
Aug 12	101	58	103	56	102	59	93	59	101	55	97	56	99	55
Aug 13	100	63	101	60	96	58	95	63	100	60	94	61	97	58
Aug 14	98	62	99	60	93	56	94	63	99	55	93	58	95	59
Aug 15	97	61	97	61	93	58	92	63	97	56	90	59	96	58
Aug 16	95	59	95	67	94	57	90	73	93	55	90	58	91	58
Aug 17	90	59	89	59	89	54	87	61	89	52	85	57	91	58
Aug 18	92	59	92	58	91	52	88	57	92	50	88	53	90	54
Aug 19	83	50	85	56	82	52	81	56	83	50	77	54	82	55
Aug 20	86	51	87	51	85	50	85	52	88	46	86	52	89	54
Aug 21	88	54	92	53	89	54	86	54	91	50	86	53	88	51
Aug 22	87	53	87	55	84	49	83	54	85	47	79	52	83	53
Aug 23	86	53	84	51	83	49	82	50	89	44	80	51	81	52
Aug 24	87	51	89	52	88	50	84	51	89	45	84	50	85	51
Aug 25	89	52	92	52	90	48	87	54	92	47	87	51	88	51
Aug 26	101	54	97	56	97	55	95	59	97	52	91	55	94	53
Aug 27	101	70	98	68	97	69	97	67	98	63	94	55	95	55
Aug 28	101	80	102	64	99	62	96	66	100	60	95	56	96	57
Aug 29	87	56	89	60	89	55	85	59	88	52	84	57	86	56
Aug 30	91	56	91	54	91	52	87	56	92	50	89	54	89	56
Aug 31	95	57	100	55	95	53	92	59	98	52	95	54	97	56
Sep 01	99	58	104	56	99	56	95	59	102	56	99	56	100	56
Sep 02	99	58	103	59	101	59	97	62	103	58	99	59	101	57
Sep 03	94	53	96	56	95	57	93	59	94	60	90	60	98	56
Sep 04	93	51	94	60	90	56	89	62	89	55	86	56	91	61
Sep 05	80	51	81	55	78	54	78	55	82	50	81	53	83	51
Sep 06	78	45	80	54	79	45	77	54	80	48	77	53	78	52
Sep 07	81	47	81	45	79	45	79	48	82	44	80	47	79	48
Sep 08	89	47	88	45	85	44	88	47	89	44	86	45	85	45
Sep 09	96	45	93	47	90	50	94	49	92	45	90	49	90	48
Sep 10	95	53	96	50	95	51	91	53	95	50	95	50	95	51
Sep 11	97	56	99	66	96	53	93	68	97	51	98	53	96	52
Sep 12	95	54	96	53	94	52	91	57	95	52	92	53	92	55
Sep 13	92	55	94	51	85	50	91	54	94	46	89	50	91	54
Sep 14	88	50	93	49	92	49	90	53	93	48	92	51	92	52
Sep 15	81	55	85	60	86	54	81	59	83	53	81	58	83	56
Sep 16	84	49	84	49	83	50	81	52	85	47	82	50	82	54
Sep 17	87	50	87	53	86	54	85	55	89	50	86	55	86	54
Sep 18	95	57	92	55	91	61	92	60	91	58	91	55	92	54
Sep 19	98	70	98	60	94	55	97	60	96	57	95	51	93	54
Sep 20	97	57	98	51	96	54	94	53	98	52	95	55	96	55
Sep 21	99	60	99	53	96	54	96	54	97	51	94	54	95	57
Sep 22	98	60	100	52	99	55	98	54	98	51	97	54	97	55
Sep 23	99	58	100	53	100	55	96	54	100	51	98	55	98	56
Sep 24	97	57	97	52	96	53	95	55	96	52	92	54	96	53
Sep 25	99	59	98	50	95	54	98	56	96	51	93	53	94	56
Sep 26	93	58	92	50	92	50	91	50	87	49	87	49	87	54
Sep 27	76	51	75	52	74	52	74	56	73	50	71	53	75	53
Sep 28	80	49	78	47	73	47	77	50	72	44	72	49	69	53
Sep 29	80	48	80	48	78	49	78	51	76	48	76	52	77	52
Sep 30	79	48	78	49	67	48	78	50	78	44	75	48	75	50
Oct 01	76	49	75	53	74	54	74	55	76	48	73	46	74	49
Oct 02	78	44	77	47	76	49	76	50	76	46	75	43	76	46
Oct 03	83	49	82	41	80	43	79	45	80	39	78	38	81	39
Oct 04	86	52	86	46	85	51	85	51	82	44	84	45	83	46
Oct 05	91	54	89	49	87	53	88	50	88	52	86	49	85	48
Oct 06	97	54	95	53	92	56	94	56	92	48	91	48	90	49
Oct 07	98	57	96	50	94	51	95	52	96	48	92	50	90	51
Oct 08	92	54	93	47	91	48	90	49	93	48	93	51	93	51
Oct 09	87	54	88	49	88	51	87	53	88	48	86	50	90	50
Oct 10	78	55	76	54	78	49	75	53	73	52	71	52	74	55
Oct 11	84	48	82	42	81	48	80	46	80	40	79	43	75	49
Oct 12	87	52	87	38	85	42	86	40	84	39	84	42	83	45
Oct 13	89	46	89	39	86	42	89	47	88	41	83	43	84	44
Oct 14	91	46	89	40	91	46	88	45	87	45	89	45	80	45
Oct 15	88	50	84	43	81	44	81	44	80	42	78	42	76	47
Oct 16	78	42	76	54	77	46	73	50	72	41	72	47	71	49
Oct 17	75	40	74	42	73	41	72	44	64	39	71	44	73	45
Oct 18	72	40	73	43	69	45	72	46	72	42	71	44	71	47
Oct 19	77	44	77	42	77	42	76	43	76	39	76	42	75	45
Oct 20	81	43	79	43	79	43	79	44	79	39	78	43	77	45
Oct 21	81	46	79	43	77	47	79	43	78	39	76	44	77	45
Oct 22	80	45	77	42	77	41	75	43	75	41	74	44	73	45
Oct 23	66	44	67	48	64	40	66	47	66	43	63	44	67	43
Oct 24	61	38	59	41	58	39	59	42	60	36	59	40	64	39
Oct 25	72	45	72	45	69	45	73	50	70	38	68	44	69	43
Oct 26	70	39	74	38	73	38	70	41	71	36	71	41	72	39
Oct 27	78	40	79	40	77	41	77	43	77	36	77	39	73	43
Oct 28	78	41	77	38	75	39	75	42	76	37	78	41	75	40
Oct 29	76	39	74	38	73	38	73	37	75	35	76	37	75	38
Oct 30	69	43	67	36	67	44	68	35	67	39	67	36	69	39
Oct 31	74	42	68	32	68	42	69	32	71	47	68	30	69	32

Table 4. 2002 Very Early Rice Variety Test - Butte County (Biggs,RES)

Advanced Lines and Varieties

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 (cm)
L-205	REX	10910 (1)	17.4 (15)	4.8 (8)	89 (16)	19 (5)	99 (6)
00Y481	L	10800 (2)	17.9 (12)	4.5 (11)	88 (15)	1 (1)	96 (5)
01Y439	REX	10800 (3)	17.7 (13)	4.4 (13)	83 (6)	14 (4)	99 (7)
99Y469	L	10670 (4)	16.9 (16)	4.8 (4)	83 (6)	22 (6)	91 (1)
98Y242	M	10670 (5)	23.9 (2)	4.3 (14)	85 (10)	48 (11)	105 (18)
M-205	M	10470 (6)	26.7 (1)	4.7 (10)	91 (18)	11 (3)	101 (9)
00Y805	M	10320 (7)	21.2 (5)	3.2 (18)	88 (14)	34 (8)	104 (14)
M-104	M	10170 (8)	19.3 (10)	4.1 (17)	81 (3)	76 (14)	100 (8)
01Y177	SPQ	10130 (9)	18.6 (11)	4.4 (12)	82 (4)	45 (9)	95 (4)
L-204	L	10120 (10)	17.7 (14)	4.9 (1)	85 (13)	1 (1)	91 (2)
S-102	S	9910 (11)	15.1 (18)	4.8 (4)	80 (1)	64 (13)	103 (12)
00Y228	M	9890 (12)	19.5 (9)	4.2 (16)	84 (8)	63 (12)	105 (16)
00Y151	SPQ	9870 (13)	20.9 (6)	4.7 (9)	84 (8)	23 (7)	92 (3)
M-202	M	9710 (14)	22.8 (3)	4.8 (4)	89 (17)	46 (10)	105 (16)
00Y175	W	9410 (15)	20.1 (7)	4.9 (2)	85 (11)	96 (18)	104 (15)
98Y174	MPQ	9160 (16)	21.9 (4)	4.8 (4)	85 (11)	93 (17)	103 (13)
CM-101	WX	8890 (17)	16.5 (17)	4.9 (3)	81 (2)	86 (15)	102 (11)
M-103	M	8740 (18)	19.8 (8)	4.3 (14)	82 (5)	92 (16)	101 (9)
MEAN		10040	19.7	4.5	85	46	100
CV		6.9	8.9	13	3.3	45.4	3.2
LSD (.05)		990	2.5	0.8	4	30	5

Preliminary Lines and Varieties

01Y536	REX	11030 (1)	16.4 (32)	4.9 (4)	88 (23)	1 (5)	95 (4)
01Y466	L	10740 (2)	19.4 (17)	4.7 (8)	88 (23)	1 (1)	100 (12)
01Y179	SPQ	10670 (3)	21.1 (7)	4.4 (16)	90 (31)	3 (8)	101 (15)
01Y185	SPQ	10600 (4)	19.6 (15)	4.7 (8)	83 (8)	67 (30)	103 (24)
01Y455	REX	10550 (5)	17.6 (24)	4.5 (14)	87 (20)	1 (1)	99 (10)
01Y266	M	10520 (6)	20.1 (12)	4.2 (20)	86 (17)	33 (23)	102 (20)
01Y441	L	10490 (7)	19.4 (17)	4.7 (11)	88 (25)	1 (1)	100 (12)
00Y478	L	10480 (8)	16.6 (29)	4.7 (8)	87 (20)	1 (5)	96 (5)
01Y413	M	10460 (9)	21.8 (3)	3.4 (30)	89 (30)	18 (17)	103 (24)
01Y288	M	10430 (10)	21.4 (5)	3.7 (25)	91 (32)	4 (10)	96 (5)
01Y218	W	10300 (11)	20.1 (13)	3.7 (25)	86 (16)	58 (28)	103 (24)
00Y170	S	10290 (12)	19.6 (15)	5.0 (1)	80 (1)	97 (32)	94 (3)
01P2448	SR	10270 (13)	16.6 (30)	5.0 (1)	82 (3)	1 (1)	105 (29)
01Y383	M	10250 (14)	22.6 (1)	3.5 (27)	89 (28)	3 (8)	96 (5)
01P2646	L	10230 (15)	17.9 (23)	5.0 (1)	83 (8)	10 (13)	101 (18)
01Y237	M	10210 (16)	21.8 (3)	3.1 (32)	89 (28)	61 (29)	104 (28)
97Y469	TQ	10070 (17)	17.6 (25)	4.8 (6)	87 (19)	5 (11)	103 (27)
01Y747	M	9740 (18)	17.2 (26)	4.4 (16)	83 (7)	10 (14)	99 (10)
01Y230	M	9690 (19)	20.0 (14)	4.1 (22)	83 (8)	57 (27)	101 (15)
01Y728	M	9660 (20)	18.5 (21)	4.2 (21)	86 (17)	25 (21)	102 (19)
01Y220	W	9630 (21)	20.9 (9)	4.4 (18)	85 (12)	67 (30)	102 (20)
01Y451	REX	9610 (22)	16.8 (27)	4.9 (5)	80 (1)	23 (20)	102 (20)
01Y482	B	9550 (23)	18.3 (22)	4.7 (11)	85 (14)	11 (15)	106 (30)
01Y295	MPQ	9550 (24)	21.3 (6)	4.6 (13)	85 (14)	55 (26)	108 (31)
01Y231	M	9510 (25)	19.1 (20)	4.1 (22)	82 (4)	54 (25)	108 (32)
99Y324	SPQ	9380 (26)	16.5 (31)	4.8 (6)	84 (11)	14 (16)	83 (1)
01Y780	M	9320 (27)	21.9 (2)	3.5 (27)	85 (12)	19 (18)	100 (12)
01Y192	MPQ	9290 (28)	20.9 (8)	4.3 (19)	87 (20)	35 (24)	101 (15)
01Y267	M	9250 (29)	20.8 (10)	3.3 (31)	88 (25)	21 (19)	99 (9)
01Y797	M	9200 (30)	20.3 (11)	4.5 (14)	82 (4)	27 (22)	102 (20)
01Y176	SPQ	9170 (31)	19.1 (19)	4.0 (24)	82 (4)	9 (12)	91 (2)
01Y478	B	8610 (32)	16.8 (28)	3.5 (27)	88 (25)	2 (7)	98 (8)
MEAN		9960	19.3	4.3	85	25	100
CV		4.6	6.4	17	2.3	80.6	3.3
LSD (.05)		930	2.5		4	40	7

Planting dates: 5/16, 5/22 (reps 1&2, 3&4 respectively).

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

SR = stem rot resistant; B = Basmati; REX = Newrex; TQ = Te Qing .

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 parenthesis indicate relative rank in column.

Table 5. 2002 Very Early Rice Variety Test - San Joaquin County

Advanced Lines and Varieties

Variety	Grain Type	Grain Yield at 14% Moisture lbs/acre	Grain Moisture at Harvest (%)	Seedling Vigor (1-5)	Days to 50% Heading	Plant Height (cm)
M-104	M	9400 (1)	19.8 (6)	4.7 (7)	96 (13)	79 (9)
00Y175	W	9320 (2)	18.9 (8)	4.6 (9)	92 (7)	82 (14)
98Y174	MPQ	9130 (3)	17.9 (11)	4.7 (7)	90 (5)	78 (7)
00Y805	M	8990 (4)	20.7 (5)	4.4 (16)	100 (16)	86 (16)
S-102	S	8910 (5)	15.3 (17)	4.7 (5)	87 (1)	86 (16)
98Y242	M	8900 (6)	21.3 (3)	4.8 (3)	100 (16)	87 (18)
00Y228	M	8880 (7)	18.6 (9)	4.6 (10)	95 (11)	81 (12)
M-202	M	8750 (8)	21.1 (4)	4.7 (4)	97 (14)	84 (15)
M-103	M	8630 (9)	18.3 (10)	4.5 (13)	90 (4)	81 (13)
M-205	M	8580 (10)	24.4 (1)	4.9 (1)	103 (18)	77 (5)
CM-101	WX	8550 (11)	15.7 (16)	4.7 (6)	89 (3)	79 (9)
99Y469	L	8400 (12)	16.8 (12)	4.6 (10)	98 (15)	67 (1)
00Y481	L	8370 (13)	14.7 (18)	4.9 (2)	94 (10)	77 (5)
01Y177	SPQ	7950 (14)	19.7 (7)	4.2 (18)	91 (6)	73 (2)
00Y151	SPQ	7930 (15)	21.4 (2)	4.5 (13)	93 (8)	73 (2)
L-204	L	7800 (16)	15.8 (15)	4.6 (10)	93 (8)	74 (4)
01Y439	REX	7380 (17)	15.9 (14)	4.3 (17)	89 (2)	79 (11)
L-205	REX	7280 (18)	16.0 (13)	4.5 (13)	95 (11)	78 (7)
MEAN		8510	18.5	4.6	94	79
CV		4.5	3.6	4	1.2	4.4
LSD (.05)		550	0.9	0.3	2	5

Preliminary Lines and Varieties

01Y383	M	8880 (1)	21.3 (3)	4.2 (26)	100 (30)	76 (10)
01Y218	W	8830 (2)	18.9 (12)	4.5 (9)	90 (7)	85 (32)
01Y220	W	8820 (3)	18.8 (14)	5.0 (3)	93 (13)	80 (23)
01Y797	M	8790 (4)	18.9 (13)	4.7 (6)	89 (3)	77 (16)
01Y267	M	8740 (5)	19.4 (9)	4.4 (14)	99 (28)	80 (23)
01Y231	M	8680 (6)	16.8 (22)	4.2 (26)	90 (5)	80 (23)
01Y266	M	8640 (7)	19.8 (7)	4.3 (21)	99 (28)	80 (23)
00Y170	S	8530 (8)	17.1 (21)	4.9 (5)	86 (1)	71 (3)
01Y413	M	8430 (9)	21.0 (4)	4.2 (26)	99 (27)	80 (23)
01P2646	L	8250 (10)	17.2 (20)	5.0 (1)	95 (20)	80 (23)
00Y478	L	8230 (11)	14.6 (28)	5.0 (3)	95 (20)	76 (10)
01Y192	MPQ	8190 (12)	22.0 (2)	4.2 (26)	103 (31)	81 (30)
01Y185	SPQ	8120 (13)	18.0 (16)	4.4 (14)	94 (15)	79 (20)
01Y451	REX	8060 (14)	14.5 (30)	4.5 (9)	88 (2)	75 (8)
01Y295	MPQ	8060 (15)	18.5 (15)	4.3 (21)	92 (9)	77 (16)
01Y780	M	8030 (16)	19.3 (10)	4.4 (14)	96 (24)	76 (10)
01Y237	M	7980 (17)	18.9 (11)	4.3 (24)	96 (22)	76 (10)
01Y176	SPQ	7930 (18)	20.1 (6)	4.3 (21)	93 (11)	71 (3)
01Y466	L	7890 (19)	16.0 (24)	4.2 (26)	92 (9)	81 (30)
01Y747	M	7850 (20)	18.0 (17)	4.7 (6)	95 (18)	80 (23)
97Y469	TQ	7760 (21)	15.0 (25)	4.7 (6)	91 (8)	79 (20)
01Y288	M	7690 (22)	23.0 (1)	4.5 (9)	105 (32)	72 (5)
01Y230	M	7670 (23)	19.7 (8)	4.5 (9)	98 (25)	76 (10)
01Y179	SPQ	7590 (24)	20.3 (5)	4.4 (14)	93 (13)	77 (16)
01Y441	L	7480 (25)	16.4 (23)	4.4 (14)	94 (16)	75 (8)
01Y455	REX	7380 (26)	14.6 (29)	4.3 (24)	94 (16)	74 (7)
99Y324	SPQ	7340 (27)	17.3 (19)	4.0 (32)	95 (18)	56 (1)
01Y728	M	7170 (28)	17.6 (18)	4.5 (9)	98 (26)	77 (16)
01P2448	SR	7120 (29)	14.4 (31)	5.0 (1)	93 (11)	76 (10)
01Y478	B	7030 (30)	14.0 (32)	4.2 (26)	89 (3)	72 (5)
01Y536	REX	6840 (31)	14.8 (26)	4.4 (14)	96 (22)	66 (2)
01Y482	B	6650 (32)	14.7 (27)	4.4 (14)	90 (5)	79 (20)
MEAN		7960	17.8	4.5	94	76
CV		5.7	5.1	3.5	1.1	4.1
LSD (.05)		930	1.8	0.3	2	6

Planting date: May 3 Harvest date: September 27.

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

SR = stem rot resistant; B = Basmati; REX = Newrex; TQ = Te Qing .

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

Numbers in parenthesis indicate relative rank in column.

Table 6. 2002 Very Early Rice Variety Test - Sutter County

Advanced Lines and Varieties

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 (cm)
S-102	S	9950 (1)	12.9 (11)	4.5 (10)	78 (1)	6 (5)	86 (14)
00Y228	M	9870 (2)	14.2 (2)	4.2 (17)	85 (9)	20 (13)	85 (12)
98Y242	M	9870 (3)	13.8 (6)	4.6 (9)	87 (13)	74 (17)	87 (17)
M-104	M	9620 (4)	14.2 (3)	4.7 (6)	81 (6)	58 (15)	84 (9)
M-103	M	9320 (5)	14.3 (1)	4.5 (11)	79 (2)	13 (9)	84 (10)
00Y175	W	9290 (6)	13.9 (5)	4.8 (2)	80 (5)	9 (7)	85 (11)
99Y469	L	9100 (7)	11.5 (18)	4.3 (15)	85 (11)	16 (11)	78 (2)
00Y481	L	9090 (8)	11.6 (17)	4.7 (6)	87 (14)	1 (1)	85 (13)
01Y439	REX	9070 (9)	12.7 (12)	4.3 (16)	80 (4)	1 (1)	86 (15)
L-205	REX	9050 (10)	11.9 (16)	4.5 (11)	88 (15)	1 (1)	82 (5)
CM-101	WX	9010 (11)	12.5 (14)	4.9 (1)	79 (2)	13 (8)	83 (8)
98Y174	MPQ	8990 (12)	13.4 (9)	4.6 (8)	85 (9)	86 (18)	82 (6)
M-202	M	8940 (13)	13.6 (7)	4.7 (3)	90 (17)	31 (14)	89 (18)
00Y805	M	8940 (14)	12.7 (13)	4.7 (3)	90 (16)	64 (16)	87 (16)
L-204	L	8860 (15)	12.1 (15)	4.5 (11)	86 (12)	1 (1)	74 (1)
01Y177	SPQ	8760 (16)	13.6 (8)	4.2 (18)	83 (7)	7 (6)	83 (7)
00Y151	SPQ	8760 (17)	14.0 (4)	4.4 (14)	84 (8)	13 (9)	79 (3)
M-205	M	8620 (18)	13.0 (10)	4.7 (3)	94 (18)	18 (12)	81 (4)
MEAN		9170	13.1	4.5	84	24	83
CV		3.9	2.5	4.1	0.6	46.6	3.6
LSD (.05)		510	0.5	0.3	1	16	4

Preliminary Lines and Varieties

01Y220	W	10140 (1)	13.2 (6)	4.6 (11)	83 (6)	8 (16)	91 (27)
00Y170	S	9850 (2)	13.6 (2)	4.7 (8)	79 (1)	55 (27)	79 (2)
01Y451	REX	9330 (3)	10.7 (30)	4.8 (5)	80 (2)	15 (18)	86 (13)
01P2646	L	9190 (4)	11.3 (26)	4.9 (3)	86 (13)	3 (4)	86 (15)
01Y218	W	9140 (5)	13.4 (5)	4.4 (25)	85 (9)	3 (4)	90 (26)
01Y179	SPQ	9030 (6)	12.6 (16)	4.8 (5)	85 (9)	43 (23)	84 (9)
01Y267	M	8920 (7)	12.8 (12)	4.3 (26)	90 (27)	65 (29)	85 (12)
01Y231	M	8870 (8)	13.6 (3)	4.5 (14)	80 (2)	43 (23)	94 (30)
01Y176	SPQ	8720 (9)	13.0 (7)	4.0 (32)	87 (16)	6 (15)	82 (5)
01Y237	M	8640 (10)	12.6 (18)	4.2 (29)	89 (25)	80 (32)	86 (13)
01Y295	MPQ	8620 (11)	13.5 (4)	4.4 (19)	86 (13)	60 (28)	95 (31)
01Y266	M	8600 (12)	12.6 (17)	4.3 (26)	88 (23)	78 (31)	86 (15)
01Y413	M	8590 (13)	12.7 (15)	4.4 (19)	90 (27)	50 (26)	89 (22)
01Y455	REX	8500 (14)	11.5 (24)	4.3 (26)	88 (21)	1 (1)	83 (6)
00Y478	L	8490 (15)	10.7 (29)	5.0 (1)	88 (21)	5 (10)	83 (6)
97Y469	TQ	8470 (16)	10.9 (28)	4.5 (14)	87 (16)	3 (4)	95 (31)
01Y230	M	8460 (17)	13.9 (1)	4.5 (14)	86 (13)	6 (11)	89 (22)
01Y185	SPQ	8420 (18)	12.3 (20)	4.4 (19)	87 (19)	70 (30)	89 (22)
01Y288	M	8340 (19)	13.0 (8)	4.8 (5)	91 (30)	1 (1)	84 (9)
01Y797	M	8220 (20)	12.9 (10)	4.7 (8)	83 (4)	45 (25)	87 (17)
01Y466	L	8190 (21)	11.7 (23)	4.1 (31)	89 (24)	3 (4)	93 (29)
01Y536	REX	8150 (22)	10.0 (32)	4.6 (11)	91 (30)	3 (4)	79 (2)
01Y780	M	8100 (23)	12.8 (13)	4.9 (3)	87 (19)	23 (19)	87 (19)
99Y324	SPQ	8070 (24)	12.0 (21)	4.5 (14)	86 (12)	6 (11)	74 (1)
01Y747	M	8010 (25)	12.9 (9)	4.5 (14)	85 (11)	6 (11)	89 (22)
01P2448	SR	7850 (26)	11.4 (25)	5.0 (1)	83 (4)	1 (1)	87 (17)
01Y478	B	7810 (27)	10.6 (31)	4.7 (10)	84 (7)	6 (11)	84 (8)
01Y728	M	7810 (28)	12.7 (14)	4.4 (19)	87 (16)	25 (20)	87 (19)
01Y383	M	7740 (29)	12.5 (19)	4.4 (19)	91 (30)	25 (20)	82 (4)
01Y441	L	7600 (30)	11.1 (27)	4.6 (11)	89 (25)	3 (4)	89 (21)
01Y192	MPQ	7490 (31)	12.8 (11)	4.2 (29)	90 (27)	35 (22)	84 (9)
01Y482	B	7170 (32)	11.8 (22)	4.4 (19)	84 (7)	8 (17)	91 (27)
MEAN		8450	12.3	4.5	86	24	86
CV		5.1	3.4	5.3	0.7	52.4	3.2
LSD (.05)		870	0.9	0.5	1	26	6

Planting date: May 13 Harvest date: October 8.

S = short; M = medium; L = long; W, WX = waxy; PQ = premium quality; SR = stem rot resistant;

B = Basmati; REX = Newrex; TQ = Te Qing .

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 parenthesis indicate relative rank in column.

Table 7. 2002 Very Early Rice Variety Test - Yolo County

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 (cm)
S-102	S	9830 (1)	20.3 (18)	4.6 (7)	85 (1)	2 (12)	105 (12)
00Y228	M	9740 (2)	23.5 (12)	4.4 (12)	91 (9)	2 (12)	105 (12)
M-104	M	9580 (3)	22.7 (15)	4.6 (6)	86 (4)	2 (11)	105 (11)
00Y175	W	9240 (4)	27.7 (5)	4.3 (14)	89 (8)	1 (1)	104 (9)
98Y174	MPQ	9190 (5)	25.2 (9)	4.7 (4)	91 (10)	11 (17)	99 (3)
98Y242	M	9180 (6)	29.7 (2)	4.7 (1)	93 (11)	1 (1)	108 (16)
00Y481	L	9090 (7)	23.6 (11)	4.7 (2)	96 (14)	1 (1)	101 (7)
00Y805	M	8950 (8)	28.5 (3)	4.4 (13)	95 (13)	24 (18)	108 (16)
CM-101	WX	8890 (9)	25.7 (8)	4.7 (4)	86 (3)	4 (16)	104 (9)
M-103	M	8770 (10)	22.8 (13)	4.4 (10)	86 (2)	1 (1)	106 (15)
M-202	M	8680 (11)	28.3 (4)	4.7 (2)	96 (15)	1 (1)	110 (18)
L-205	REX	8180 (12)	22.4 (17)	4.4 (10)	96 (15)	1 (1)	102 (8)
99Y469	L	8030 (13)	22.8 (14)	4 (17)	93 (12)	1 (1)	91 (1)
01Y439	REX	7970 (14)	22.5 (16)	4.1 (16)	88 (5)	3 (15)	105 (12)
L-204	L	7570 (15)	26.8 (7)	4.6 (7)	96 (17)	1 (1)	100 (5)
00Y151	SPQ	7450 (16)	26.9 (6)	4.1 (15)	89 (7)	1 (1)	99 (3)
01Y177	SPQ	7420 (17)	25.2 (10)	3.9 (18)	88 (5)	2 (12)	99 (2)
M-205	M	5950 (18)	34.7 (1)	4.6 (7)	103 (18)	1 (1)	100 (6)
MEAN		8540	25.5	4.4	91	3	103
CV		5.1	4.6	5	1.1	316.4	3.2
LSD (.05)		620	1.6	0.3	1		5

Preliminary Lines and Varieties

01Y451	REX	9740 (1)	17.2 (31)	4.8 (4)	82 (1)	1 (1)	94 (8)
00Y170	S	9510 (2)	21.8 (23)	4.3 (19)	84 (3)	1 (1)	96 (10)
01Y266	M	9510 (3)	30.3 (2)	4.0 (29)	95 (24)	41 (30)	108 (30)
01Y231	M	9500 (4)	20.5 (25)	4.3 (17)	87 (4)	1 (1)	106 (24)
01P2646	L	9350 (5)	20.1 (26)	5.0 (1)	88 (9)	1 (1)	101 (17)
01Y237	M	9220 (6)	25.0 (11)	4.2 (22)	91 (19)	1 (1)	102 (19)
97Y469	TQ	9130 (7)	22.2 (21)	4.5 (7)	91 (18)	3 (25)	107 (28)
00Y478	L	9060 (8)	21.0 (24)	4.5 (12)	96 (27)	1 (1)	97 (11)
01Y295	MPQ	9010 (9)	26.2 (7)	4.2 (22)	90 (15)	46 (31)	110 (31)
01Y185	SPQ	8990 (10)	27.3 (5)	4.5 (7)	89 (12)	16 (29)	106 (24)
01Y220	W	8880 (11)	26.9 (6)	4.1 (27)	89 (12)	3 (25)	105 (23)
01Y797	M	8850 (12)	22.2 (20)	4.5 (7)	84 (2)	1 (1)	102 (19)
01Y218	W	8770 (13)	22.3 (19)	4.5 (7)	87 (4)	1 (1)	103 (21)
01Y413	M	8720 (14)	24.1 (14)	4.2 (22)	95 (26)	6 (27)	93 (5)
01Y267	M	8670 (15)	23.2 (16)	4.0 (29)	93 (21)	1 (1)	97 (11)
01Y383	M	8620 (16)	28.4 (3)	4.4 (14)	97 (32)	1 (1)	94 (8)
01Y728	M	8500 (17)	24.9 (12)	4.4 (14)	92 (20)	8 (28)	107 (27)
01Y747	M	8460 (18)	19.5 (28)	4.5 (7)	89 (14)	1 (1)	102 (18)
01Y780	M	8440 (19)	25.9 (8)	4.8 (4)	90 (15)	1 (1)	97 (13)
01Y230	M	8390 (20)	19.3 (29)	4.5 (12)	88 (10)	1 (1)	92 (4)
01P2448	SR	8330 (21)	19.7 (27)	5.0 (2)	87 (8)	1 (1)	104 (22)
01Y288	M	8330 (22)	24.1 (13)	4.3 (17)	96 (29)	1 (1)	91 (3)
01Y536	REX	8280 (23)	18.2 (30)	4.4 (14)	96 (27)	1 (1)	89 (2)
01Y455	REX	8220 (24)	21.9 (22)	4.3 (19)	93 (22)	1 (1)	100 (15)
01Y441	L	7910 (25)	23.3 (15)	4.2 (22)	95 (24)	1 (1)	98 (14)
01Y176	SPQ	7850 (26)	22.8 (17)	4.0 (29)	87 (4)	1 (1)	93 (7)
01Y179	SPQ	7770 (27)	25.3 (10)	4.3 (19)	88 (10)	1 (1)	100 (15)
01Y478	B	7580 (28)	16.6 (32)	4.2 (22)	87 (4)	1 (1)	93 (5)
01Y466	L	7540 (29)	27.7 (4)	4.6 (6)	96 (29)	1 (1)	106 (24)
99Y324	SPQ	7360 (30)	25.5 (9)	4.9 (3)	94 (23)	1 (1)	83 (1)
01Y192	MPQ	7150 (31)	31.4 (1)	4.1 (27)	96 (29)	50 (32)	107 (28)
01Y482	B	7010 (32)	22.4 (18)	4.0 (32)	90 (15)	1 (1)	110 (31)
MEAN		8520	23.3	4.4	90	6	99
CV		5.9	15	5.3	2	279.2	5
LSD (.05)		1020	7.1	0.5	4		10

Planting date: May 6 Harvest date: September 20.

S = short; M = medium; L = long; W, WX = waxy; PQ = premium quality; SR = stem rot resistant; B = Basmati; REX = Newrex; TQ = Te Qing .

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 parenthesis indicate relative rank in column.

Table 8. 2002 Very Early Rice Variety Tests Four Location Yield (lb/acre @ 14% moisture) Summary

Advanced Lines and Varieties

Variety	Grain		Biggs	Yolo	Sutter	San Joaquin
	Type	Average	Biggs (RES)	Geer Ranch	Lauppe Ranch	Brumley
M-104	M	9690 (1)	10170 (8)	9580 (3)	9620 (4)	9400 (1)
98Y242	M	9660 (2)	10670 (5)	9180 (6)	9870 (3)	8900 (6)
S-102	S	9650 (3)	9910 (11)	9830 (1)	9950 (1)	8910 (5)
00Y228	M	9600 (4)	9890 (12)	9740 (2)	9870 (2)	8880 (7)
00Y481	L	9340 (5)	10800 (2)	9090 (7)	9090 (8)	8370 (13)
00Y175	W	9320 (6)	9410 (15)	9240 (4)	9290 (6)	9320 (2)
00Y805	M	9300 (7)	10320 (7)	8950 (8)	8940 (14)	8990 (4)
98Y174	MPQ	9120 (8)	9160 (16)	9190 (5)	8990 (12)	9130 (3)
99Y469	L	9050 (9)	10670 (4)	8030 (13)	9100 (7)	8400 (12)
M-202	M	9020 (10)	9710 (14)	8680 (11)	8940 (13)	8750 (8)
M-103	M	8860 (11)	8740 (18)	8770 (10)	9320 (5)	8630 (9)
L-205	REX	8860 (12)	10910 (1)	8180 (12)	9050 (10)	7280 (18)
CM-101	WX	8830 (13)	8890 (17)	8890 (9)	9010 (11)	8550 (11)
01Y439	REX	8810 (14)	10800 (3)	7970 (14)	9070 (9)	7380 (17)
L-204	L	8590 (15)	10120 (10)	7570 (15)	8860 (15)	7800 (16)
01Y177	SPQ	8570 (16)	10130 (9)	7420 (17)	8760 (16)	7950 (14)
00Y151	SPQ	8500 (17)	9870 (13)	7450 (16)	8760 (17)	7930 (15)
M-205	M	8400 (18)	10470 (6)	5950 (18)	8620 (18)	8580 (10)
MEAN		9060	10040	8540	9170	8510
CV		5.4	6.9	5.1	3.9	4.5
LSD (.05)		340	990	620	510	550

Preliminary Lines and Varieties

00Y170	S	9550 (1)	10290 (12)	9510 (2)	9850 (2)	8530 (8)
01Y220	W	9370 (2)	9630 (21)	8880 (11)	10140 (1)	8820 (3)
01Y266	M	9320 (3)	10520 (6)	9510 (3)	8600 (12)	8640 (7)
01Y218	W	9260 (4)	10300 (11)	8770 (13)	9140 (5)	8830 (2)
01P2646	L	9260 (5)	10230 (15)	9350 (5)	9190 (4)	8250 (10)
01Y451	REX	9190 (6)	9610 (22)	9740 (1)	9330 (3)	8060 (14)
01Y231	M	9140 (7)	9510 (25)	9500 (4)	8870 (8)	8680 (6)
00Y478	L	9060 (8)	10480 (8)	9060 (8)	8490 (15)	8230 (11)
01Y413	M	9050 (9)	10460 (9)	8720 (14)	8590 (13)	8430 (9)
01Y185	SPQ	9030 (10)	10600 (4)	8990 (10)	8420 (18)	8120 (13)
01Y237	M	9010 (11)	10210 (16)	9220 (6)	8640 (10)	7980 (17)
01Y267	M	8900 (12)	9250 (29)	8670 (15)	8920 (7)	8740 (5)
01Y383	M	8870 (13)	10250 (14)	8620 (16)	7740 (29)	8880 (1)
97Y469	TQ	8860 (14)	10070 (17)	9130 (7)	8470 (16)	7760 (21)
01Y295	MPQ	8810 (15)	9550 (24)	9010 (9)	8620 (11)	8060 (15)
01Y797	M	8770 (16)	9200 (30)	8850 (12)	8220 (20)	8790 (4)
01Y179	SPQ	8760 (17)	10670 (3)	7770 (27)	9030 (6)	7590 (24)
01Y288	M	8700 (18)	10430 (10)	8330 (22)	8340 (19)	7690 (22)
01Y455	REX	8660 (19)	10550 (5)	8220 (24)	8500 (14)	7380 (26)
01Y466	L	8590 (20)	10740 (2)	7540 (29)	8190 (21)	7890 (19)
01Y536	REX	8570 (21)	11030 (1)	8280 (23)	8150 (22)	6840 (31)
01Y230	M	8550 (22)	9690 (19)	8390 (20)	8460 (17)	7670 (23)
01Y747	M	8520 (23)	9740 (18)	8460 (18)	8010 (25)	7850 (20)
01Y780	M	8470 (24)	9320 (27)	8440 (19)	8100 (23)	8030 (16)
01Y176	SPQ	8420 (25)	9170 (31)	7850 (26)	8720 (9)	7930 (18)
01P2448	SR	8400 (26)	10270 (13)	8330 (21)	7850 (26)	7120 (29)
01Y441	L	8370 (27)	10490 (7)	7910 (25)	7600 (30)	7480 (25)
01Y728	M	8290 (28)	9660 (20)	8500 (17)	7810 (28)	7170 (28)
99Y324	SPQ	8040 (29)	9380 (26)	7360 (30)	8070 (24)	7340 (27)
01Y192	MPQ	8030 (30)	9290 (28)	7150 (31)	7490 (31)	8190 (12)
01Y478	B	7760 (31)	8610 (32)	7580 (28)	7810 (27)	7030 (30)
01Y482	B	7600 (32)	9550 (23)	7010 (32)	7170 (32)	6650 (32)
MEAN		8720	9960	8520	8450	7960
CV		5.3	4.6	5.9	5.1	5.7
LSD (.05)		460	930	1020	870	930

S = short; M = medium; L = long; W, WX = waxy; PQ = premium quality; SR = stem rot resistant; B = Basmati; REX = Newrex; TQ = Te Qing.

Numbers in parenthesis indicate relative rank in column.

Table 9. Grain Yield (lb/acre @ 14% moisture) Summary of Very Early Rice Varieties by Location and Year (1998-2002)

Location	Year	M-103	M-104	M-202	Calmochi			
					101	S-102	L-204	L-205
Biggs (RES)	1998	8480	9610	8810	8320	9030	10180	10160
	1999	10330	10550	10480	10200	11140	10310	10610
	2000	9160	9720	9380	8590	9390	9330	10500
	2001	9040	9760	9950	8930	10260	10300	10220
	2002	8740	10170	9710	8890	9910	10120	10910
Location Mean		9150	9962	9666	8986	9946	10048	10480
San Joaquin	1998	8120	8340	7110	8270	9070	7350	7650
	1999	7980	5620	-	8860	8260	2460	2490
	2000	7710	8260	6670	6750	8180	7370	6720
	2001	8080	8400	7010	9070	9680	7750	7300
	2002	8630	9400	8750	8550	8910	7800	7280
Location Mean		8104	8004	7385	8300	8820	6546	6288
Sutter	1998	6430	7240	7090	6520	7240	7520	7700
	1999	9670	9260	9990	9670	10150	9410	9170
	2000	9230	9220	9940	9300	9750	8980	9370
	2001	8310	8780	8590	8530	9260	8530	8250
	2002	9320	9620	8940	9010	9950	8860	9050
Location Mean		8592	8824	8910	8606	9270	8660	8708
Yolo	1998	7780	8820	9510	8540	9350	8870	8180
	1999	9960	9020	7420	9960	10290	9250	7750
	2000	9290	9340	9820	9800	9870	9170	8970
	2001	8710	9300	8880	9550	9880	8230	7680
	2002	8770	9580	8680	8890	9830	7570	8180
Location Mean		8902	9212	8862	9348	9844	8618	8152
Loc/Years Mean		8687	9001	8775	8810	9470	8468	8407
Yield % M-103		100.0	103.6	101.0	101.4	109.0	97.5	96.8
Number of Tests		20	20	19	20	20	20	20

Table 10. 2002 Early Rice Variety Test - Butte County (Biggs,RES)

Advanced Lines and Varieties

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 (cm)
M-205	M	11230 (1)	18.2 (6)	4.4 (19)	92 (21)	19 (7)	99 (8)
99Y529	L	11180 (2)	15.9 (13)	4.6 (17)	88 (13)	1 (1)	99 (8)
L-205	L	10890 (3)	15.7 (15)	4.8 (8)	88 (13)	11 (5)	102 (15)
98Y511	L	10700 (4)	17.5 (8)	4.6 (16)	91 (20)	21 (8)	96 (5)
L-204	L	10690 (5)	14.8 (19)	4.9 (4)	85 (6)	9 (4)	92 (1)
M-202	M	10620 (6)	19.5 (2)	4.8 (11)	88 (13)	54 (15)	108 (20)
99Y041	L	10550 (7)	16.5 (11)	4.9 (5)	87 (12)	48 (14)	108 (19)
00Y711	M	10500 (8)	16.5 (11)	4.8 (10)	87 (10)	16 (6)	99 (10)
S-102	S	10470 (9)	14.3 (20)	4.8 (11)	81 (3)	60 (16)	107 (18)
98Y242	M	10210 (10)	19.0 (3)	4.9 (3)	82 (4)	43 (13)	103 (16)
M-204	M	10180 (11)	18.9 (4)	4.3 (20)	89 (17)	26 (9)	101 (12)
00Y247	M	9870 (12)	18.7 (5)	4.7 (14)	86 (7)	60 (16)	99 (10)
99Y278	MPQ	9520 (13)	17.8 (7)	4.4 (18)	90 (19)	38 (12)	101 (12)
01Y326	SPQ	9430 (14)	17.1 (10)	3.9 (21)	89 (16)	9 (3)	99 (6)
00Y570	MPQ	9330 (15)	19.6 (1)	4.9 (7)	87 (10)	84 (21)	110 (21)
M-104	M	9280 (16)	17.5 (9)	4.7 (14)	79 (1)	65 (19)	101 (12)
CT-201	B	9040 (17)	15.5 (16)	5.0 (2)	90 (18)	1 (1)	104 (17)
CH-201	SPQ	8910 (18)	14.8 (18)	5.0 (1)	84 (5)	64 (18)	94 (2)
CM-101	W	7810 (19)	14.0 (21)	4.9 (5)	81 (2)	66 (20)	99 (7)
02Y064	SPQ	7760 (20)	15.9 (14)	4.8 (8)	86 (7)	38 (11)	96 (4)
02Y065	SPQ	7440 (21)	15.3 (17)	4.7 (13)	86 (9)	33 (10)	96 (3)
MEAN		9790	16.8	4.7	86	36	101
CV		9.8	8.0	8.5	3.1	46.6	3.1
LSD (.05)		1350	1.9	0.6	4	24	4

Preliminary Lines and Varieties

01Y502	SR	11310 (1)	18.8 (10)	4.8 (10)	89 (22)	1 (1)	102 (10)
01Y401	M	11200 (2)	16.2 (28)	4.4 (24)	87 (10)	4 (10)	104 (14)
01Y378	M	10970 (3)	21.1 (2)	4.6 (16)	90 (24)	4 (10)	109 (28)
01Y110	REX	10850 (4)	17.2 (22)	4.9 (2)	84 (2)	7 (16)	100 (6)
01Y327	SPQ	10780 (5)	17.6 (18)	4.4 (24)	86 (9)	8 (17)	102 (11)
01Y414	M	10710 (6)	18.6 (12)	4.4 (26)	90 (24)	26 (24)	100 (5)
00Y558	L	10710 (7)	16.6 (26)	4.7 (13)	87 (10)	5 (12)	100 (6)
00Y562	L	10700 (8)	16.9 (24)	4.6 (16)	90 (24)	5 (12)	101 (8)
01Y314	MPQ	10690 (9)	18.9 (9)	4.8 (10)	84 (3)	23 (22)	105 (16)
01Y636	M	10680 (10)	19.3 (7)	4.5 (23)	90 (28)	41 (26)	106 (23)
01Y612	M	10630 (11)	17.5 (19)	4.7 (15)	89 (17)	23 (23)	104 (12)
01Y520	L	10580 (12)	17.4 (21)	4.9 (2)	87 (10)	1 (1)	97 (3)
01Y655	REX	10540 (13)	17.4 (20)	4.9 (5)	89 (17)	19 (20)	104 (12)
01P2517	SR	10510 (14)	18.0 (16)	4.8 (8)	89 (17)	1 (1)	95 (1)
01Y400	M	10400 (15)	21.0 (3)	4.2 (29)	89 (17)	2 (9)	105 (16)
01Y706	M	10270 (16)	18.6 (12)	4.7 (13)	83 (1)	6 (15)	108 (26)
00Y506	BL	10270 (17)	15.3 (30)	4.5 (20)	91 (29)	1 (1)	96 (2)
01Y376	M	10240 (18)	20.9 (4)	4.3 (27)	89 (22)	20 (21)	104 (14)
00Y344	BG	10160 (19)	16.6 (25)	4.8 (10)	86 (6)	2 (8)	99 (4)
00Y280	MPQ	10080 (20)	18.2 (14)	4.5 (20)	89 (17)	27 (25)	105 (16)
01Y720	M	10030 (21)	19.7 (6)	4.6 (16)	91 (30)	5 (12)	106 (23)
01Y749	M	9850 (22)	18.2 (15)	4.3 (28)	85 (5)	18 (19)	105 (22)
01Y272	M	9450 (23)	19.3 (8)	4.5 (20)	88 (14)	17 (18)	105 (16)
01Y080	MPQ	9230 (24)	18.8 (11)	4.6 (19)	86 (6)	72 (30)	105 (16)
00Y342	BG	9120 (25)	17.7 (17)	4.8 (8)	86 (6)	51 (28)	107 (25)
01Y770	M	9090 (26)	22.8 (1)	4.1 (30)	88 (14)	56 (29)	111 (30)
01Y303	MPQ	8740 (27)	20.6 (5)	4.9 (5)	88 (14)	42 (27)	105 (16)
01Y489	B	8550 (28)	16.3 (27)	4.9 (2)	84 (3)	1 (1)	110 (29)
9844473	B	8330 (29)	16.2 (28)	5.0 (1)	90 (24)	1 (1)	101 (9)
9843561	B	8090 (30)	17.1 (23)	4.9 (5)	87 (10)	1 (1)	108 (26)
MEAN		10090	18.3	4.6	87	16	103
CV		6	6.6	6.3	3.2	106.3	2.7
LSD (.05)		1240	2.5			35	6

Planting dates: May 16, May 22 (reps 1&2, 3&4 respectively).

S = short; M = Medium; L = long; PQ = Premium Quality; BL = blast resistant; BG = bold grain; B = Basmati;

SR = stem rot resistant; REX = Newrex; W = 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 parenthesis indicate relative rank in column.

Table 11. 2002 Early Rice Variety Test - Butte County

Advanced Lines and Varieties

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 (cm)
99Y529	L	9260 (1)	15.2 (14)	3.7 (21)	83 (13)	7 (2)	98 (17)
00Y247	M	9170 (2)	18.3 (8)	4.6 (16)	82 (9)	99 (17)	91 (1)
L-205	L	9160 (3)	15.9 (13)	4.4 (20)	86 (16)	73 (7)	93 (9)
00Y711	M	9070 (4)	17.2 (10)	4.8 (9)	84 (14)	45 (5)	94 (13)
M-205	M	9060 (5)	19.0 (6)	4.9 (2)	88 (21)	38 (4)	92 (4)
98Y242	M	9010 (6)	19.5 (3)	4.9 (5)	79 (4)	98 (15)	96 (15)
98Y511	L	8980 (7)	16.4 (12)	4.7 (14)	86 (18)	95 (11)	92 (4)
M-204	M	8850 (8)	19.0 (5)	4.7 (14)	86 (16)	89 (8)	93 (6)
M-104	M	8660 (9)	17.3 (9)	4.8 (8)	73 (1)	99 (17)	94 (13)
99Y278	MPQ	8590 (10)	19.2 (4)	4.5 (19)	87 (20)	92 (10)	96 (15)
99Y041	L	8590 (11)	15.0 (15)	4.7 (11)	82 (10)	97 (12)	103 (21)
M-202	M	8530 (12)	20.0 (2)	4.9 (2)	85 (15)	98 (15)	98 (18)
S-102	S	8460 (13)	14.9 (17)	4.5 (18)	74 (2)	97 (13)	93 (6)
L-204	L	8400 (14)	14.2 (20)	4.9 (5)	81 (7)	16 (3)	91 (1)
01Y326	SPQ	8400 (15)	18.4 (7)	4.7 (11)	82 (11)	67 (6)	93 (6)
00Y570	MPQ	8380 (16)	20.0 (1)	4.9 (2)	83 (12)	99 (17)	100 (20)
CH-201	SPQ	7930 (17)	14.5 (19)	5.0 (1)	80 (5)	99 (17)	93 (9)
CM-101	W	7400 (18)	16.5 (11)	4.9 (5)	76 (3)	99 (17)	93 (9)
CT-201	B	7390 (19)	14.2 (21)	4.6 (17)	86 (18)	1 (1)	98 (18)
02Y064	SPQ	7270 (20)	14.6 (18)	4.8 (9)	80 (6)	97 (13)	91 (1)
02Y065	SPQ	6870 (21)	15.0 (16)	4.7 (13)	81 (7)	90 (9)	93 (9)
MEAN		8450	16.9	4.7	82	76	95
CV		5.2	6	3.7	1	19.5	2.7
LSD (.05)		620	1.4	0.2	1	21	4

Preliminary Lines and Varieties

01Y502	SR	9350 (1)	15.3 (19)	4.0 (25)	84 (13)	3 (6)	91 (6)
00Y558	L	9320 (2)	14.0 (25)	4.4 (13)	84 (15)	43 (14)	100 (25)
01Y770	M	9230 (3)	18.9 (4)	4.9 (3)	80 (3)	99 (27)	97 (19)
01Y376	M	9210 (4)	16.6 (18)	4.4 (13)	88 (27)	60 (18)	91 (6)
01Y327	SPQ	9180 (5)	16.8 (16)	4.7 (4)	86 (21)	35 (12)	93 (13)
01Y401	M	9150 (6)	17.7 (8)	4.5 (11)	87 (24)	50 (16)	97 (19)
01Y314	MPQ	9010 (7)	19.1 (2)	4.7 (4)	84 (13)	25 (10)	91 (6)
01Y612	M	8980 (8)	17.7 (11)	3.7 (30)	88 (29)	90 (23)	90 (5)
01Y636	M	8950 (9)	17.3 (13)	3.8 (28)	86 (19)	97 (24)	97 (19)
01Y655	REX	8940 (10)	13.9 (27)	4.7 (8)	84 (15)	73 (21)	98 (22)
01Y378	M	8890 (11)	18.9 (5)	3.9 (27)	87 (24)	23 (9)	93 (13)
01Y080	MPQ	8830 (12)	19.1 (3)	4.6 (9)	80 (6)	99 (27)	94 (17)
00Y562	L	8710 (13)	14.1 (23)	4.0 (25)	86 (19)	88 (22)	100 (25)
01Y414	M	8700 (14)	17.3 (12)	4.7 (4)	83 (12)	97 (24)	89 (2)
00Y344	BG	8700 (15)	16.8 (17)	4.3 (19)	83 (11)	18 (8)	88 (1)
01Y749	M	8690 (16)	17.7 (10)	4.3 (19)	82 (8)	60 (18)	98 (22)
00Y506	BL	8540 (17)	13.5 (30)	4.2 (21)	88 (27)	1 (1)	93 (13)
01Y520	L	8510 (18)	14.0 (24)	4.7 (4)	84 (15)	1 (1)	89 (2)
01Y303	MPQ	8390 (19)	17.7 (9)	4.5 (11)	86 (21)	40 (13)	91 (6)
01Y720	M	8380 (20)	17.3 (14)	4.6 (9)	90 (30)	3 (6)	91 (6)
01Y272	M	8340 (21)	17.1 (15)	4.3 (17)	82 (8)	99 (27)	98 (22)
01Y400	M	8280 (22)	18.7 (6)	4.1 (23)	87 (23)	30 (11)	93 (13)
01P2517	SR	8240 (23)	15.3 (20)	3.8 (28)	87 (24)	1 (1)	91 (6)
00Y280	MPQ	8150 (24)	19.8 (1)	4.3 (17)	85 (18)	99 (27)	91 (6)
00Y342	BG	8130 (25)	15.2 (21)	5.0 (1)	80 (3)	97 (24)	105 (29)
01Y706	M	8120 (26)	17.8 (7)	4.1 (23)	79 (1)	53 (17)	100 (25)
01Y110	REX	7990 (27)	13.8 (28)	4.4 (13)	80 (3)	63 (20)	89 (2)
9843561	B	7210 (28)	13.6 (29)	4.2 (21)	80 (6)	1 (1)	100 (25)
9844473	B	7080 (29)	13.9 (26)	5.0 (1)	82 (8)	1 (1)	94 (17)
01Y489	B	6600 (30)	15.0 (22)	4.4 (13)	79 (2)	45 (15)	105 (29)
MEAN		8530	16.5	4.4	84	50	95
CV		4.8	4.2	6.2	1.3	29.8	3.8
LSD (.05)		830	1.4	0.6	2	30	7

Planting date: May 22 Harvest date: October 16.

S = short; M = Medium; L = long; PQ = Premium Quality; BL = blast resistant; BG = bold grain; B = Basmati; SR = stem rot resistant; REX = Newrex; W = 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 parenthesis indicate relative rank in column.

Table 12. 2002 Early Rice Variety Test - Colusa County

Advanced Lines and Varieties

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 (cm)
M-205	M	9690 (1)	17.0 (7)	4.7 (4)	100 (17)	54 (5)	94 (4)
00Y247	M	9520 (2)	18.7 (1)	4.1 (15)	97 (9)	97 (12)	93 (1)
L-204	L	9270 (3)	12.8 (21)	4.6 (8)	98 (10)	45 (2)	93 (1)
99Y529	L	9270 (4)	12.8 (20)	4.4 (10)	98 (10)	46 (3)	98 (16)
98Y242	M	9170 (5)	17.9 (2)	4.8 (3)	94 (4)	83 (10)	100 (18)
M-204	M	8950 (6)	16.9 (8)	4.7 (5)	100 (17)	81 (9)	94 (4)
M-202	M	8840 (7)	17.6 (3)	4.6 (7)	94 (5)	97 (12)	100 (18)
L-205	L	8750 (8)	13.6 (18)	4.4 (11)	99 (16)	50 (4)	97 (15)
00Y570	MPQ	8540 (9)	17.3 (5)	4.0 (16)	95 (7)	99 (16)	104 (21)
S-102	S	8380 (10)	15.2 (15)	4.3 (13)	89 (1)	99 (16)	97 (11)
99Y041	L	8350 (11)	15.3 (14)	3.9 (17)	103 (19)	74 (7)	100 (20)
00Y711	M	8330 (12)	15.9 (13)	4.3 (13)	99 (14)	99 (16)	95 (7)
98Y511	L	8290 (13)	13.3 (19)	4.3 (12)	103 (19)	61 (6)	95 (7)
CH-201	SPQ	8080 (14)	14.8 (17)	5.0 (1)	98 (12)	99 (16)	95 (7)
M-104	M	8040 (15)	16.5 (10)	4.6 (8)	90 (2)	99 (16)	94 (4)
01Y326	SPQ	8010 (16)	16.2 (12)	4.8 (2)	94 (5)	97 (12)	97 (11)
CM-101	W	7790 (17)	16.2 (11)	3.6 (18)	93 (3)	98 (15)	97 (11)
CT-201	B	7710 (18)	15.2 (16)	4.7 (6)	105 (21)	3 (1)	98 (16)
99Y278	MPQ	7540 (19)	17.5 (4)	3.6 (18)	99 (14)	99 (16)	96 (10)
02Y065	SPQ	7490 (20)	16.5 (9)	3.4 (20)	99 (13)	93 (11)	97 (11)
02Y064	SPQ	6560 (21)	17.2 (6)	2.5 (21)	97 (8)	74 (7)	93 (1)
MEAN		8410	15.9	4.2	97	78	96
CV		9.6	6.7	9.9	1.3	27.1	3.1
LSD (.05)		1150	1.5	0.6	2	30	4

Preliminary Lines and Varieties

01Y376	M	9440 (1)	16.4 (12)	3.9 (28)	99 (18)	88 (23)	99 (13)
01Y612	M	9290 (2)	16.3 (14)	4.2 (25)	101 (27)	23 (4)	99 (13)
00Y344	BG	8940 (3)	16.6 (9)	4.6 (3)	99 (15)	80 (20)	94 (2)
01Y400	M	8810 (4)	16.8 (5)	3.8 (29)	99 (15)	25 (6)	99 (13)
01Y720	M	8790 (5)	16.8 (6)	4.5 (6)	102 (29)	23 (4)	102 (27)
01Y327	SPQ	8780 (6)	15.2 (19)	4.4 (10)	94 (1)	95 (27)	95 (4)
01Y706	M	8760 (7)	16.4 (13)	4.4 (10)	95 (2)	60 (14)	100 (23)
01Y401	M	8740 (8)	16 (15)	4.3 (18)	97 (7)	75 (17)	100 (23)
01Y110	REX	8550 (9)	12.4 (30)	4.6 (3)	97 (11)	73 (16)	98 (9)
01Y502	SR	8490 (10)	13.1 (25)	4.3 (18)	98 (13)	26 (7)	94 (2)
00Y342	SBG	8270 (11)	16.7 (8)	4.8 (1)	96 (5)	88 (23)	103 (29)
01Y636	M	8220 (12)	15.4 (16)	4.3 (18)	98 (13)	60 (14)	98 (9)
01Y655	REX	8210 (13)	12.8 (26)	4.5 (6)	100 (22)	90 (25)	100 (23)
01Y749	M	8160 (14)	15 (20)	4.7 (2)	95 (2)	78 (18)	100 (23)
00Y506	BL	8100 (15)	12.5 (29)	4.3 (18)	102 (30)	16 (2)	99 (13)
01Y272	M	8020 (16)	15.4 (17)	4.4 (10)	97 (7)	78 (18)	99 (13)
01Y303	MPQ	7940 (17)	16.7 (7)	4.3 (14)	100 (22)	95 (27)	99 (13)
01Y520	L	7930 (18)	13.3 (24)	4.5 (6)	99 (18)	31 (8)	97 (7)
01P2517	SR	7930 (19)	14.5 (21)	4 (26)	98 (12)	48 (11)	95 (4)
01Y414	M	7790 (20)	16.5 (10)	4.3 (14)	99 (18)	85 (22)	97 (7)
00Y280	MPQ	7740 (21)	16.5 (11)	3.8 (29)	100 (22)	85 (21)	99 (13)
00Y562	L	7650 (22)	12.6 (28)	4.3 (18)	101 (28)	55 (13)	99 (13)
01Y378	M	7640 (23)	17.4 (4)	4.3 (14)	99 (15)	40 (9)	98 (9)
01Y314	MPQ	7600 (24)	18.1 (2)	4.3 (14)	96 (6)	90 (26)	99 (13)
01Y080	MPQ	7590 (25)	17.9 (3)	4.4 (10)	95 (2)	99 (30)	95 (4)
01Y770	M	7490 (26)	18.4 (1)	4.3 (18)	97 (7)	95 (29)	99 (13)
00Y558	L	7450 (27)	12.8 (27)	4.5 (9)	100 (22)	53 (12)	98 (9)
9844473	B	6920 (28)	14.1 (23)	4.6 (3)	99 (18)	41 (10)	93 (1)
9843561	B	6610 (29)	15.2 (18)	4 (26)	100 (22)	18 (3)	102 (27)
01Y489	B	6040 (30)	14.2 (22)	4.3 (18)	97 (7)	16 (1)	104 (30)
MEAN		8060	15.4	4.3	98	61	98
CV		9.7	5.6	8.6	0.7	38.7	3.1
LSD (.05)		1610	1.8	0.8	1	48	6

Planting date: April 23 Harvest date: September 24.

S = short; M = Medium; L = long; PQ = Premium Quality; BL = blast resistant; BG = bold grain; B = Basmati; SR = stem rot resistant; REX = Newrex; W = 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 parenthesis indicate relative rank in column.

Table 13. 2002 Early Rice Variety Test - Yuba County

Advanced Lines and Varieties

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 (cm)
98Y242	M	9510 (1)	22.0 (6)	4.9 (8)	84 (4)	1 (1)	93 (15)
S-102	S	9470 (2)	17.6 (20)	4.6 (18)	80 (1)	1 (1)	96 (18)
M-104	M	9310 (3)	19.4 (14)	5.0 (1)	80 (2)	2 (17)	92 (10)
CM-101	W	9200 (4)	19.1 (15)	4.9 (7)	81 (3)	6 (21)	93 (14)
M-202	M	9040 (5)	22.5 (5)	5.0 (5)	90 (16)	1 (1)	96 (19)
00Y247	M	9010 (6)	22.8 (4)	4.8 (11)	86 (8)	1 (1)	92 (11)
98Y511	L	8890 (7)	20.1 (12)	4.7 (15)	90 (17)	1 (1)	90 (7)
00Y570	MPQ	8750 (8)	23.8 (2)	4.7 (15)	89 (15)	5 (20)	99 (21)
99Y041	L	8550 (9)	17.9 (18)	4.8 (11)	87 (9)	1 (1)	91 (9)
00Y711	M	8310 (10)	21.8 (8)	4.9 (8)	91 (18)	1 (1)	89 (6)
CH-201	SPQ	8230 (11)	19.5 (13)	5.0 (1)	89 (12)	2 (17)	91 (8)
M-205	M	8220 (12)	23.6 (3)	5.0 (5)	93 (21)	1 (1)	89 (5)
01Y326	SPQ	8190 (13)	21.4 (10)	4.8 (11)	87 (11)	1 (1)	97 (20)
L-204	L	8060 (14)	18.3 (17)	4.8 (10)	85 (5)	1 (1)	81 (1)
99Y278	MPQ	7930 (15)	24.3 (1)	4.7 (15)	91 (18)	1 (1)	92 (11)
99Y529	L	7910 (16)	17.6 (19)	4.6 (19)	87 (10)	1 (1)	87 (3)
L-205	L	7550 (17)	16.8 (21)	4.8 (14)	85 (6)	1 (1)	86 (2)
M-204	M	7520 (18)	21.8 (7)	5.0 (1)	89 (12)	1 (1)	88 (4)
02Y065	SPQ	7040 (19)	20.7 (11)	4.6 (19)	89 (12)	1 (1)	92 (11)
02Y064	SPQ	6990 (20)	21.6 (9)	4.6 (19)	86 (7)	2 (17)	94 (16)
CT-201	B	6790 (21)	18.5 (16)	5.0 (1)	91 (20)	1 (1)	95 (17)
MEAN		8310	20.5	4.8	87	2	92
CV		3.7	4.8	2.4	1.2	117.9	3.3
LSD (.05)		440	1.4	0.2	1	3	4

Preliminary Lines and Varieties

00Y562	L	9230 (1)	19.3 (23)	4.5 (25)	88 (10)	1 (1)	89 (11)
01Y770	M	9210 (2)	23.4 (10)	4.6 (19)	85 (4)	3 (29)	104 (30)
01Y327	SPQ	8850 (3)	22.9 (12)	4.8 (9)	89 (18)	1 (1)	94 (17)
01Y706	M	8760 (4)	20.6 (19)	4.7 (13)	84 (1)	1 (1)	99 (28)
00Y344	BG	8730 (5)	22.4 (16)	4.9 (5)	89 (13)	1 (1)	96 (24)
01Y655	REX	8710 (6)	18.1 (28)	4.6 (19)	89 (13)	1 (1)	96 (24)
01Y080	MPQ	8680 (7)	22.6 (14)	4.8 (9)	87 (6)	3 (29)	89 (9)
00Y558	L	8600 (8)	16.5 (30)	4.8 (9)	87 (6)	1 (1)	89 (9)
01Y272	M	8560 (9)	25.2 (1)	4.6 (19)	90 (21)	1 (1)	93 (15)
01Y414	M	8550 (10)	23.5 (9)	4.7 (13)	90 (26)	1 (1)	86 (4)
01Y314	MPQ	8530 (11)	22.5 (15)	4.9 (5)	85 (4)	1 (1)	94 (17)
01Y401	M	8470 (12)	22.8 (13)	4.7 (17)	90 (21)	1 (1)	95 (22)
00Y506	BL	8300 (13)	17.2 (29)	5.0 (1)	90 (21)	1 (1)	83 (1)
00Y342	BG	8290 (14)	21.8 (18)	5.0 (1)	84 (1)	1 (1)	94 (17)
01Y376	M	8250 (15)	24.4 (2)	4.4 (30)	90 (21)	1 (1)	96 (24)
01Y303	MPQ	8230 (16)	23.8 (4)	4.5 (25)	89 (18)	1 (1)	95 (22)
01Y612	M	8180 (17)	24.1 (3)	4.9 (5)	92 (28)	1 (1)	92 (14)
01Y636	M	8150 (18)	23.7 (6)	4.5 (25)	92 (29)	1 (1)	95 (20)
01P2517	SR	8100 (19)	18.4 (26)	4.6 (19)	88 (10)	1 (1)	87 (6)
01Y502	SR	8040 (20)	19.0 (25)	4.5 (25)	90 (21)	1 (1)	84 (2)
01Y378	M	7870 (21)	23.1 (11)	4.7 (13)	89 (18)	1 (1)	90 (12)
01Y110	REX	7730 (22)	19.1 (24)	4.8 (9)	87 (6)	1 (1)	86 (5)
01Y520	L	7670 (23)	18.3 (27)	4.9 (5)	89 (13)	1 (1)	84 (3)
00Y280	MPQ	7610 (24)	23.6 (8)	4.5 (25)	90 (26)	1 (1)	95 (20)
01Y400	M	7580 (25)	23.6 (7)	4.6 (19)	88 (9)	1 (1)	88 (8)
01Y749	M	7270 (26)	22.3 (17)	5.0 (1)	88 (10)	1 (1)	94 (16)
9844473	B	6370 (27)	20.0 (22)	4.7 (13)	89 (13)	1 (1)	87 (6)
01Y720	M	6210 (28)	23.7 (5)	5.0 (1)	93 (30)	1 (1)	91 (13)
9843561	B	5860 (29)	20.4 (21)	4.7 (17)	89 (13)	1 (1)	96 (27)
01Y489	B	5720 (30)	20.5 (20)	4.6 (19)	85 (3)	1 (1)	99 (29)
MEAN		8010	21.6	4.7	88	1	92
CV		3.6	2.8	3.8	1.4	65.5	3.2
LSD (.05)		590	1.2		2		6

Planting date: May 10 Harvest date: September 28.

S = short; M = Medium; L = long; PQ = Premium Quality; BL = blast resistant; BG = bold grain; B = Basmati; SR = stem rot resistant; REX = Newrex; W = 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 parenthesis indicate relative rank in column.

Table 14. 2002 Four Location Early Rice Variety Tests Yield (lb/acre @ 14% moisture) Summary

Advanced Lines and Varieties

Variety	Grain	Average	Biggs	Butte	Colusa	Yuba
	Type		Biggs (RES)	Harris	Canal Ranch	Quad 4 Ranch
M-205	M	9550 (1)	11230 (1)	9060 (5)	9690 (1)	8220 (12)
98Y242	M	9480 (2)	10210 (10)	9010 (6)	9170 (5)	9510 (1)
99Y529	L	9410 (3)	11180 (2)	9260 (1)	9270 (4)	7910 (16)
00Y247	M	9390 (4)	9870 (12)	9170 (2)	9520 (2)	9010 (6)
M-202	M	9260 (5)	10620 (6)	8530 (12)	8840 (7)	9040 (5)
98Y511	L	9210 (6)	10700 (4)	8980 (7)	8290 (13)	8890 (7)
S-102	S	9200 (7)	10470 (9)	8460 (13)	8380 (10)	9470 (2)
L-204	L	9110 (8)	10690 (5)	8400 (14)	9270 (3)	8060 (14)
L-205	L	9090 (9)	10890 (3)	9160 (3)	8750 (8)	7550 (17)
00Y711	M	9050 (10)	10500 (8)	9070 (4)	8330 (12)	8310 (10)
99Y041	L	9010 (11)	10550 (7)	8590 (11)	8350 (11)	8550 (9)
M-204	M	8880 (12)	10180 (11)	8850 (8)	8950 (6)	7520 (18)
M-104	M	8820 (13)	9280 (16)	8660 (9)	8040 (15)	9310 (3)
00Y570	MPQ	8750 (14)	9330 (15)	8380 (16)	8540 (9)	8750 (8)
01Y326	SPQ	8500 (15)	9430 (14)	8400 (15)	8010 (16)	8190 (13)
99Y278	MPQ	8400 (16)	9520 (13)	8590 (10)	7540 (19)	7930 (15)
CH-201	SPQ	8290 (17)	8910 (18)	7930 (17)	8080 (14)	8230 (11)
CM-101	W	8050 (18)	7810 (19)	7400 (18)	7790 (17)	9200 (4)
CT-201	B	7730 (19)	9040 (17)	7390 (19)	7710 (18)	6790 (21)
02Y065	SPQ	7210 (20)	7440 (21)	6870 (21)	7490 (20)	7040 (19)
02Y064	SPQ	7150 (21)	7760 (20)	7270 (20)	6560 (21)	6990 (20)
MEAN		8740	9790	8450	8410	8310
CV		7.8	9.8	5.2	9.6	3.7
LSD (.05)		480	1350	620	1150	440

Preliminary Lines and Varieties

01Y327	SPQ	9400 (1)	10780 (5)	9180 (5)	8780 (6)	8850 (3)
01Y401	M	9390 (2)	11200 (2)	9150 (6)	8740 (8)	8470 (12)
01Y502	SR	9300 (3)	11310 (1)	9350 (1)	8490 (10)	8040 (20)
01Y376	M	9280 (4)	10240 (18)	9210 (4)	9440 (1)	8250 (15)
01Y612	M	9270 (5)	10630 (11)	8980 (8)	9290 (2)	8180 (17)
00Y344	BG	9130 (6)	10160 (19)	8700 (15)	8940 (3)	8730 (5)
01Y655	REX	9100 (7)	10540 (13)	8940 (10)	8210 (13)	8710 (6)
00Y562	L	9070 (8)	10700 (8)	8710 (13)	7650 (22)	9230 (1)
00Y558	L	9020 (9)	10710 (7)	9320 (2)	7450 (27)	8600 (8)
01Y636	M	9000 (10)	10680 (10)	8950 (9)	8220 (12)	8150 (18)
01Y706	M	8980 (11)	10270 (16)	8120 (26)	8760 (7)	8760 (4)
01Y314	MPQ	8960 (12)	10690 (9)	9010 (7)	7600 (24)	8530 (11)
01Y414	M	8940 (13)	10710 (6)	8700 (14)	7790 (20)	8550 (10)
01Y378	M	8840 (14)	10970 (3)	8890 (11)	7640 (23)	7870 (21)
00Y506	BL	8800 (15)	10270 (17)	8540 (17)	8100 (15)	8300 (13)
01Y110	REX	8780 (16)	10850 (4)	7990 (27)	8550 (9)	7730 (22)
01Y400	M	8770 (17)	10400 (15)	8280 (22)	8810 (4)	7580 (25)
01Y770	M	8750 (18)	9090 (26)	9230 (3)	7490 (26)	9210 (2)
01P2517	SR	8690 (19)	10510 (14)	8240 (23)	7930 (19)	8100 (19)
01Y520	L	8670 (20)	10580 (12)	8510 (18)	7930 (18)	7670 (23)
01Y272	M	8590 (21)	9450 (23)	8340 (21)	8020 (16)	8560 (9)
01Y080	MPQ	8580 (22)	9230 (24)	8830 (12)	7590 (25)	8680 (7)
01Y749	M	8490 (23)	9850 (22)	8690 (16)	8160 (14)	7270 (26)
00Y342	BG	8450 (24)	9120 (25)	8130 (25)	8270 (11)	8290 (14)
00Y280	MPQ	8390 (25)	10080 (20)	8150 (24)	7740 (21)	7610 (24)
01Y720	M	8350 (26)	10030 (21)	8380 (20)	8790 (5)	6210 (28)
01Y303	MPQ	8320 (27)	8740 (27)	8390 (19)	7940 (17)	8230 (16)
9844473	B	7180 (28)	8330 (29)	7080 (29)	6920 (28)	6370 (27)
9843561	B	6940 (29)	8090 (30)	7210 (28)	6610 (29)	5860 (29)
01Y489	B	6730 (30)	8550 (28)	6600 (30)	6040 (30)	5720 (30)
MEAN		8670	10090	8530	8060	8010
CV		6.4	6	4.8	9.7	3.6
LSD (.05)		550	1240	830	1610	590

S = short; M = Medium; L = long; PQ = Premium Quality; BL = blast resistant; BG = bold grain; B = Basmati; SR = stem rot resistant; REX = Newrex; W = waxy.

Numbers in parenthesis indicate relative rank in column.

Table 15. Grain Yield (lb/acre @14% moisture) Summary of Early Rice Varieties by Location and Year (1998-2002)

Location	Year	Calhikari			Calmati	
		201	M-202	M-204	M-205	201
Biggs (RES)	1998	7670	8260	8910	9940	8360
	1999	9460	10540	11130	11200	6620
	2000	9020	10140	11200	10870	8490
	2001	9290	9300	9880	10180	8280
	2002	8910	10620	10180	11230	9040
Location Mean		8870	9772	10260	10684	8158
Butte	1998	5930	7320	7950	7720	5870
	1999	3930	6780	6070	4740	-
	2000	7540	7710	8250	9270	6650
	2001	7760	8170	8150	8410	6800
	2002	7930	8530	8850	9060	7390
Location Mean		6618	7702	7854	7840	6678
Colusa	1998	7150	7590	7060	7350	5670
	1999	8220	10550	9780	8260	2680
	2000	7540	9350	10170	10570	6840
	2001	8670	9370	9810	9960	6740
	2002	8080	8840	8950	9690	7710
Location Mean		7932	9140	9154	9166	5928
Yuba	1998	5320	6070	6190	6550	5980
	1999	6310	7920	7100	7130	2420
	2000	8390	9210	9400	9520	6840
	2001	7330	7810	7960	7770	5630
	2002	8230	9040	7520	8220	6790
Location Mean		7116	8010	7634	7838	5532
Loc/Years Mean		7634	8656	8726	8882	6568
Yield % M-202		88.2	100	100.8	102.6	75.9
Number of Tests		20	20	20	20	19

Table 16. 2002 Intermediate/Late Rice Variety Test - Butte County (Biggs - RES)

Advanced Lines and Varieties

Variety	Grain Type	Grain Yield		Seedling Vigor (1-5)	Days to 50% Heading	Lodging% (1-99)	Plant Height (cm)
		at 14% Moisture lbs/acre	Grain Moisture at Harvest (%)				
94Y663	L	12870 (1)	17.5 (11)	4.8 (9)	89 (11)	7 (3)	97 (2)
01Y501	SR	12330 (2)	17.8 (10)	4.6 (14)	83 (1)	1 (1)	101 (7)
01Y567	SPQ	11940 (3)	18.5 (7)	4.7 (12)	94 (14)	44 (9)	97 (3)
98Y511	L	11700 (4)	17.9 (9)	4.9 (6)	86 (6)	23 (6)	96 (1)
M-205	M	11600 (5)	20.2 (4)	4.9 (5)	91 (13)	39 (8)	102 (9)
00-073	S	11420 (6)	18.0 (8)	4.7 (12)	88 (8)	16 (4)	106 (13)
L-205	REX	11330 (7)	16.1 (12)	4.8 (10)	85 (4)	34 (7)	98 (4)
M-402	MPQ	10800 (8)	21.8 (1)	4.9 (4)	91 (12)	22 (5)	103 (10)
00Y410	M	10490 (9)	19.4 (6)	4.8 (8)	86 (5)	88 (10)	101 (6)
M-202	M	9970 (10)	21.8 (2)	5.0 (2)	89 (10)	94 (13)	105 (12)
CT-201	B	9910 (11)	16.0 (13)	4.9 (3)	87 (7)	3 (2)	105 (11)
01Y320	MPQ	9570 (12)	20.0 (5)	4.7 (11)	84 (3)	92 (11)	101 (8)
CH-201	SPQ	9130 (13)	15.7 (14)	5.0 (1)	83 (1)	94 (12)	98 (4)
01Y321	MPQ	8520 (14)	21.7 (3)	4.8 (7)	88 (9)	97 (14)	109 (14)
MEAN		10830	18.7	4.8	87	47	101
CV		8.1	9.8	2.3	6.8	42.4	3.6
LSD (.05)		1250	2.6	0.2		28	5

Preliminary Lines and Varieties

99Y529	L	12620 (1)	16.5 (16)	4.8 (8)	85 (6)	12 (5)	103 (10)
99Y494	W	12290 (2)	16.7 (15)	5.0 (1)	88 (10)	22 (10)	100 (7)
99Y158	SR	11900 (3)	18.9 (12)	4.8 (13)	84 (3)	38 (14)	100 (5)
01Y616	M	11870 (4)	22.1 (4)	4.8 (8)	92 (17)	26 (11)	104 (14)
01Y340	SR	11730 (5)	20.5 (7)	5.0 (2)	91 (16)	16 (6)	105 (15)
01Y617	M	11680 (6)	20.5 (7)	4.7 (18)	88 (10)	21 (9)	102 (8)
01Y608	M	11580 (7)	21.3 (5)	4.9 (4)	90 (15)	41 (15)	111 (19)
01Y271	M	11410 (8)	19.6 (11)	4.8 (13)	86 (8)	18 (7)	97 (2)
01P2842	L	11370 (9)	17.3 (14)	4.8 (11)	89 (12)	5 (3)	97 (2)
01Y733	M	11250 (10)	19.8 (10)	4.8 (11)	86 (7)	32 (12)	103 (10)
00Y578	SR	11210 (11)	23.2 (2)	4.7 (18)	96 (20)	1 (1)	93 (1)
01Y742	M	11080 (12)	20.2 (9)	4.8 (8)	87 (9)	65 (16)	103 (13)
01P2722	L	11030 (13)	16.4 (17)	4.8 (16)	84 (3)	1 (2)	97 (2)
01Y387	M	10540 (14)	20.8 (6)	4.9 (7)	89 (14)	72 (18)	107 (16)
01Y716	M	9680 (15)	17.5 (13)	4.6 (20)	84 (3)	38 (13)	100 (5)
01Y634	M	9680 (16)	24.9 (1)	4.9 (5)	92 (18)	70 (17)	107 (16)
01Y771	M	9200 (17)	22.9 (3)	4.9 (5)	89 (12)	96 (20)	108 (18)
01-262	SPQ	9170 (18)	16.2 (18)	5.0 (2)	84 (2)	89 (19)	103 (10)
9843475	B	8890 (19)	16.2 (19)	4.8 (13)	82 (1)	18 (7)	112 (20)
01Y153	B	7600 (20)	15.6 (20)	4.8 (16)	92 (18)	5 (3)	102 (8)
MEAN		10790	19.3	4.8	88	34	102
CV		5.6	9.2	1.5	2.1	41.7	2.9
LSD (.05)		1260	3.7	0.1	4	30	6

Planting dates: May 16, May 22 (reps 1&2, 3&4 respectively).

S = short; M = medium; L = long; B = Basmati; PQ = premium quality; REX = Newrex; 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 parenthesis indicate relative rank in column.

Table 17. 2002 Intermediate/Late Rice Variety Test - Glenn County

Advanced Lines and Varieties

Variety	Grain Type	Grain Yield	Grain	Seedling	Days to	Lodging% (1-99)	Plant Height (cm)
		at 14% Moisture lbs/acre	Moisture at Harvest (%)	Vigor (1-5)	50% Heading		
00Y410	M	9270 (1)	16.2 (5)	4.5 (8)	96 (8)	7 (13)	94 (6)
98Y511	L	8950 (2)	12.8 (13)	4.9 (3)	96 (9)	6 (12)	93 (5)
M-402	MPQ	8850 (3)	17.1 (2)	4.8 (4)	108 (14)	5 (11)	98 (10)
01Y567	SPQ	8850 (4)	14.7 (8)	4.5 (7)	97 (11)	1 (1)	91 (1)
M-205	M	8840 (5)	16.5 (3)	4.7 (5)	100 (13)	1 (1)	94 (6)
01Y501	SR	8550 (6)	13.3 (10)	4.3 (10)	93 (3)	1 (1)	96 (9)
94Y663	L	8040 (7)	12.6 (14)	4.2 (12)	97 (10)	1 (1)	91 (1)
M-202	M	8000 (8)	16.4 (4)	4.6 (6)	92 (2)	2 (9)	105 (14)
01Y321	MPQ	7940 (9)	16.2 (6)	4.2 (12)	95 (7)	1 (8)	100 (12)
CH-201	SPQ	7830 (10)	14.0 (9)	5.0 (2)	94 (5)	8 (14)	91 (1)
01Y320	MPQ	7690 (11)	17.4 (1)	4.2 (11)	93 (4)	2 (9)	94 (6)
00-073	S	7500 (12)	15.0 (7)	4.0 (14)	90 (1)	1 (1)	100 (12)
L-205	REX	7440 (13)	13.1 (11)	4.5 (8)	94 (5)	1 (1)	91 (1)
CT-201	B	6790 (14)	13.0 (12)	5.0 (1)	99 (12)	1 (1)	98 (11)
MEAN		8180	14.9	4.5	96	3	96
CV		4.2	2.1	5.6	0.8	180.1	2.9
LSD (.05)		500	0.5	0.4	1		4

Preliminary Lines and Varieties

01Y617	M	9000 (1)	16.6 (5)	3.5 (20)	98 (16)	1 (1)	99 (11)
01Y616	M	8860 (2)	16.5 (6)	4.3 (13)	97 (14)	1 (1)	97 (9)
01Y742	M	8760 (3)	15.4 (9)	4.4 (7)	97 (15)	3 (13)	100 (15)
01Y733	M	8740 (4)	15.2 (10)	4.6 (4)	95 (8)	3 (13)	97 (9)
01Y608	M	8700 (5)	16.2 (7)	4.6 (4)	98 (16)	1 (1)	104 (18)
99Y158	SR	8510 (6)	15.5 (8)	4.4 (7)	91 (1)	1 (1)	94 (6)
01Y771	M	8470 (7)	17.3 (2)	4.0 (17)	96 (12)	21 (20)	105 (19)
01Y634	M	8260 (8)	16.9 (3)	4.2 (15)	100 (19)	1 (1)	103 (17)
99Y494	W	8170 (9)	12.6 (19)	4.9 (1)	96 (12)	1 (1)	93 (5)
00Y578	SR	8120 (10)	17.7 (1)	4.8 (2)	100 (18)	1 (1)	88 (1)
01P2722	L	8080 (11)	12.7 (18)	3.8 (19)	93 (4)	3 (13)	94 (6)
01Y340	SR	8060 (12)	15.1 (11)	4.8 (2)	95 (5)	1 (1)	99 (11)
01Y387	M	7990 (13)	16.6 (4)	4.2 (14)	96 (10)	8 (18)	102 (16)
01Y271	M	7980 (14)	15.0 (12)	4.0 (18)	96 (10)	6 (17)	89 (2)
01Y716	M	7810 (15)	15.0 (13)	4.1 (16)	95 (5)	1 (1)	99 (11)
99Y529	L	7770 (16)	12.4 (20)	4.3 (11)	95 (5)	1 (1)	99 (11)
01-262	SPQ	7600 (17)	14.2 (14)	4.3 (11)	92 (2)	8 (18)	91 (3)
01P2842	L	7570 (18)	13.4 (15)	4.4 (10)	95 (8)	1 (1)	95 (8)
9843475	B	7080 (19)	13.0 (17)	4.6 (4)	92 (3)	3 (13)	105 (19)
01Y153	B	6790 (20)	13.3 (16)	4.4 (7)	103 (20)	1 (1)	91 (3)
MEAN		8120	15	4.3	96	3	97
CV		7.7	4.7	6.7	0.9	204.4	3.8
LSD (.05)		1320	1.5	0.6	2	13.9	8

Planting date: April 20 Harvest date: October 3.

S = short; M = medium; L = long; B = Basmati; PQ = premium quality; REX = Newrex; 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 parenthesis indicate relative rank in column.

Table 18. 2002 Intermediate/Late Rice Variety Test - Sutter County

Advanced Lines and Varieties

Variety	Grain Type	Grain Yield	Grain	Seedling Vigor (1-5)	Days to 50% Heading	Lodging% (1-99)	Plant Height (cm)
		at 14% Moisture lbs/acre	Moisture at Harvest (%)				
M-202	M	10270 (1)	18.0 (8)	4.8 (5)	88 (2)	1 (1)	97 (13)
00Y410	M	9730 (2)	19.4 (5)	4.8 (6)	93 (7)	2 (11)	93 (9)
M-205	M	9670 (3)	20.2 (2)	4.7 (7)	96 (11)	1 (1)	92 (7)
01Y320	MPQ	9380 (4)	18.5 (7)	4.7 (8)	88 (3)	2 (11)	95 (12)
98Y511	L	9200 (5)	18.0 (9)	5.0 (2)	95 (9)	1 (1)	87 (3)
01Y501	SR	9200 (6)	17.3 (12)	4.3 (14)	92 (6)	1 (1)	87 (2)
01Y321	MPQ	9200 (7)	19.9 (3)	4.4 (12)	89 (4)	2 (11)	93 (10)
CH-201	SPQ	9090 (8)	17.5 (11)	5.0 (1)	93 (8)	2 (11)	95 (11)
01Y567	SPQ	8660 (9)	19.5 (4)	4.6 (10)	95 (10)	1 (1)	91 (6)
L-205	REX	8540 (10)	15.4 (14)	4.7 (9)	92 (5)	1 (1)	89 (4)
00-073	S	8320 (11)	18.6 (6)	4.4 (13)	86 (1)	1 (1)	99 (14)
M-402	MPQ	8310 (12)	22.3 (1)	4.9 (4)	105 (14)	1 (1)	92 (7)
94Y663	L	7700 (13)	17.9 (10)	4.5 (11)	96 (12)	1 (1)	84 (1)
CT-201	B	6450 (14)	16.4 (13)	5.0 (2)	97 (13)	1 (1)	90 (5)
MEAN		8840	18.5	4.7	93	1	92
CV		8.7	3.1	3.3	0.8	84.2	3.8
LSD (.05)		1100	0.8	0.2	1		5

Preliminary Lines and Varieties

99Y158	SR	10360 (1)	19.2 (12)	4.2 (19)	91 (4)	None	88 (7)
01Y617	M	10070 (2)	20.4 (5)	4.6 (6)	94 (12)		89 (9)
01Y387	M	9710 (3)	19.5 (11)	4.3 (16)	91 (4)		91 (11)
01Y616	M	9550 (4)	20.2 (8)	4.3 (16)	93 (8)		87 (3)
99Y494	W	9510 (5)	15.8 (20)	5.0 (1)	95 (15)		88 (4)
01Y340	SR	9490 (6)	18.1 (14)	4.9 (2)	89 (2)		93 (13)
01Y742	M	9390 (7)	21.1 (3)	4.6 (6)	95 (15)		86 (2)
01Y634	M	9280 (8)	21.9 (1)	4.6 (6)	95 (18)		96 (18)
01Y608	M	9190 (9)	21.0 (4)	4.5 (14)	93 (8)		98 (19)
01Y733	M	9080 (10)	20.0 (9)	4.7 (5)	95 (18)		94 (16)
01-262	SPQ	8930 (11)	17.0 (16)	4.8 (3)	88 (1)		92 (12)
01Y271	M	8760 (12)	20.3 (7)	4.3 (16)	93 (8)		93 (15)
99Y529	L	8710 (13)	16.1 (18)	4.6 (6)	94 (12)		88 (4)
01P2722	L	8660 (14)	16.0 (19)	4.6 (6)	90 (3)		90 (10)
01Y771	M	8380 (15)	20.4 (5)	4.6 (6)	95 (15)		94 (17)
01P2842	L	8250 (16)	16.7 (17)	4.2 (19)	92 (7)		89 (8)
00Y578	SR	7860 (17)	21.6 (2)	4.8 (3)	93 (11)		88 (4)
01Y716	M	6760 (18)	19.8 (10)	4.4 (15)	94 (14)		93 (13)
9843475	B	5990 (19)	17.3 (15)	4.6 (6)	91 (4)		98 (20)
01Y153	B	4580 (20)	18.6 (13)	4.6 (6)	98 (20)		83 (1)
MEAN		8630	19	4.5	93		91
CV		8.7	4.7	4.7	0.9		4.2
LSD (.05)		1570	1.9	0.4	2		8

Planting date: May 9 Harvest date: October 1.

S = short; M = medium; L = long; B = Basmati; PQ = premium quality; REX = Newrex; SR = stem rot resistant; SR = stem rot resistant; B = Basmati.

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 parenthesis indicate relative rank in column.

Table 19. 2002 Three Location Intermediate/Late Rice Variety Tests
Yield (lb/acre @ 14% moisture) Summary

Advanced Lines and Varieties

Variety	Grain Type	Average	Biggs	Glenn	Sutter
			Biggs (RES)	Wylie	Akin Ranch
M-205	M	10040 (1)	11600 (5)	8840 (5)	9670 (3)
01Y501	SR	10030 (2)	12330 (2)	8550 (6)	9200 (6)
98Y511	L	9950 (3)	11700 (4)	8950 (2)	9200 (5)
00Y410	M	9830 (4)	10490 (9)	9270 (1)	9730 (2)
01Y567	SPQ	9820 (5)	11940 (3)	8850 (4)	8660 (9)
94Y663	L	9530 (6)	12870 (1)	8040 (7)	7700 (13)
M-202	M	9410 (7)	9970 (10)	8000 (8)	10270 (1)
M-402	MPQ	9320 (8)	10800 (8)	8850 (3)	8310 (12)
L-205	REX	9100 (9)	11330 (7)	7440 (13)	8540 (10)
00-073	S	9080 (10)	11420 (6)	7500 (12)	8320 (11)
01Y320	MPQ	8880 (11)	9570 (12)	7690 (11)	9380 (4)
CH-201	SPQ	8680 (12)	9130 (13)	7830 (10)	9090 (8)
01Y321	MPQ	8550 (13)	8520 (14)	7940 (9)	9200 (7)
CT-201	B	7720 (14)	9910 (11)	6790 (14)	6450 (14)
MEAN		9280	10830	8180	8840
CV		7.6	8.1	4.2	8.7
LSD (.05)		570	1250	500	1100

Preliminary Lines and Varieties

99Y158	SR	10250 (1)	11900 (3)	8510 (6)	10360 (1)
01Y617	M	10250 (2)	11680 (6)	9000 (1)	10070 (2)
01Y616	M	10090 (3)	11870 (4)	8860 (2)	9550 (4)
99Y494	W	9990 (4)	12290 (2)	8170 (9)	9510 (5)
01Y608	M	9820 (5)	11580 (7)	8700 (5)	9190 (9)
01Y340	SR	9760 (6)	11730 (5)	8060 (12)	9490 (6)
01Y742	M	9750 (7)	11080 (12)	8760 (3)	9390 (7)
99Y529	L	9700 (8)	12620 (1)	7770 (16)	8710 (13)
01Y733	M	9690 (9)	11250 (10)	8740 (4)	9080 (10)
01Y387	M	9410 (10)	10540 (14)	7990 (13)	9710 (3)
01Y271	M	9380 (11)	11410 (8)	7980 (14)	8760 (12)
01P2722	L	9260 (12)	11030 (13)	8080 (11)	8660 (14)
01Y634	M	9070 (13)	9680 (16)	8260 (8)	9280 (8)
01P2842	L	9070 (14)	11370 (9)	7570 (18)	8250 (16)
00Y578	SR	9060 (15)	11210 (11)	8120 (10)	7860 (17)
01Y771	M	8690 (16)	9200 (17)	8470 (7)	8380 (15)
01-262	SPQ	8570 (17)	9170 (18)	7600 (17)	8930 (11)
01Y716	M	8080 (18)	9680 (15)	7810 (15)	6760 (18)
9843475	B	7320 (19)	8890 (19)	7080 (19)	5990 (19)
01Y153	B	6320 (20)	7600 (20)	6790 (20)	4580 (20)
MEAN		9180	10790	8120	8630
CV		7.2	5.6	7.7	8.7
LSD (.05)		770	1260	1320	1570

S = short; M = medium; L = long; B = Basmati; PQ = premium quality; REX = Newrex;
SR = stem rot resistant.

Numbers in parenthesis indicate relative rank in column.

Table 20. Grain Yield (lb/acre @14% moisture) Summary of Intermediate/Late Rice Varieties by Location and Year (1998-2002)

Location	Year	M-205	M-402	M-202
Biggs (RES)	1998*	7890	9620	8270
	1999*	7830	9270	9170
	2000	11110	9810	10480
	2001	9430	8710	8580
	2002	11600	10800	9970
Location Mean		9572	9642	9294
Glenn	1998	-	7920	6230
	1999	-	8230	7420
	2000	9630	7800	8490
	2001	9020	8100	7690
	2002	8840	8850	8000
Location Mean		9163	8180	7566
Yuba	1998	6553	7280	6260
Yuba	1999	7130	7820	8720
Sutter	2000	9840	9620	9840
Sutter	2001	9870	9390	10240
Sutter	2002	9670	8310	10270
Location Mean		8613	8484	9066
Loc/Years Mean		9109	8769	8642
Yield % M-202		105.4	101.5	100
Number of Tests		13	15	15

* 1998 and 1999 M205 yields are an average of the Biggs Early and Very Early tests.