



# AGRONOMY PROGRESS REPORT

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## CALIFORNIA RICE VARIETIES DESCRIPTION AND PERFORMANCE SUMMARY OF THE 1994 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 1994. 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.

1994 marked the second year following an extensive seven year drought in California. This year rice acreage increased to 504,000 acres, up 41,000 acres over 1993, 73,000 acres over 1992 and 147,000 acres over 1991 (Table 2). Medium-grain varieties M-202, M-201, M-204, M-401, and M-103 were produced on 90% of the acreage. As in recent years, most acreage was planted to M-202 (58.8%). M-204, released in 1993, was planted on more than 79,000 acres, 42,000 more than in 1993. Premium quality medium-grain, M-401 was produced on 37,590 acres about 14,000 more than in 1993. Acreage of short-grain types also increased from 1993 with S-201 produced on 25,100 acres. Long-grain acreage decreased from 4,600 acres to 1,100 acres. Calmochi-101, a sweet or waxy rice, was produced as a specialty variety on 14,280 acres.

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Strong north winds affected planting and stand establishment at some locations. Seed drift and bunching was observed in many fields, particularly on the west side of the Sacramento Valley. Consequently, weed infestations were severe in some cases and required additional post-emergence herbicide applications. However, most of the growing season was characterized by mild temperatures which provided excellent conditions for tillering, seed set and extended grain fill.

## 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) tests of advanced breeding lines and commercial varieties (Advanced Tests); and 2) tests consisting of lines to be newly evaluated on a statewide basis (Preliminary Tests). 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 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 only planted in two replications. Seed for the tests was provided by the RES or, in the case of proprietary lines, by their respective owners. Maturity groups, test locations and commercial standards in each test were as follows:

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

- Butte County (RES)
- San Joaquin County (Brumley)
- Sutter County (Lauppe)
- Yolo County (Geer)

Commercial varieties included Calmochi-101, Valencia 87, M-103, M-201, M-202, M-203, M-204, L-202, L-203, and S-201. Nineteen preliminary lines, with L-203 as a standard, were also 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.** Ten advanced lines and ten commercial varieties were evaluated in Advanced Tests at each of the following locations.

- Butte County (RES)
- Colusa County (Dennis)
- Yolo County (Geer)
- Yuba County (Quad-4)

Commercial varieties included Calmochi-101, Valencia 87, M-103, M-201, M-202, M-203, M-204, L-202, L-203 and S-201. Nineteen preliminary lines were also included in Preliminary Tests at each site with L-203 as a standard. All advanced and preliminary experimental lines were entries from the RES.

Table 15 compares the yield of all commercial entries common to both the Very Early and Early maturity tests.

**Late Maturity Group.** Seven advanced lines and seven commercial varieties were evaluated in Advanced Tests at the following locations.

- Butte County (RES)
- Glenn County (Wylie)
- Sutter County (Lemenager)

Commercial varieties included M-401, S-301, A-301, M-202, M-203, M-204, and L-202. Nineteen preliminary lines, with L-202 as a standard, were also included in separate tests at each site. Advanced and preliminary experimental 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).

Both RES and county tests were harvested with a SWECO 324 small plot combine. Plot area was 150 ft<sup>2</sup> (0.0034acre). Grain moisture was assessed at harvest and yield 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 summary is given in Table 8. Entries are ranked by grain yield with the highest yielding entry appearing first.

Grain yields in the advanced line tests averaged 9,900 lb/acre at the RES, 8,570 lb/acre at San Joaquin, 9,870 lb/acre at Sutter, and 10,900 lb/acre at Yolo. Over the four locations, the highest yielding entry was 91-y-171 at 10,770 lb/acre, a very early short-grain (Table 8), which ranked second in yield at each location. Entry 93-y-195, an advanced waxy short-grain, was the highest yielding entry at the RES, third in all the other tests, and second overall. Of the very early commercial varieties, M-202 and M-201 ranked fourth and seventh, respectively, over-locations. M-202 was the highest yielding variety in the Yolo and Sutter tests.

At the RES, 93-y-195 (waxy short-grain) exceeded M-202 and in the San Joaquin test 91-y-171 (short-grain), 93-y-195 and 93-y-198 (waxy short-grain) exceeded M-202 (Tables 4 & 5). Very early, premium quality variety, M-203 continued to perform very well in the San Joaquin test (fifth) and in other locations where severe early lodging was avoided.

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-202 has yielded 107%, Calmochi-101, 102%, M-204, 82%, and L-203, 100% of M-103 in the Very Early tests over the past five years.

## 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 summary is given in Table 14. Entries are ranked by grain yield with the highest yielding entry appearing first.

Yields in the advanced line tests averaged 10,160 lb/acre at the RES, 9,730 lb/acre at Colusa, 10,880 lb/acre at Yolo, and 7,270 lb/acre at Yuba. Medium-grain entry 91-y-381 exceeded 10,000 lb/acre at the RES, Colusa, and Yolo, and was the highest yielding entry over the four locations (Table 14). Other leading advanced entries were 92-y-521 and 92-y-93 (third and fifth, respectively). Commercial varieties M-202, M-201, and M-204 ranked second, fourth, and eleventh in over-location yield average. L-203, released in 1991, continued to out yield L-202 at each location. Of the preliminary lines, 93-y-240, 93-y-589, 93-y-218 and 93-y-421 (medium-grains) were ranked first, second, third and fourth, and all exceeded 10,000 lb/acre and showed improvement in other agronomic traits.

Table 15 shows the over-year and over-location yields for early commercial varieties. Common year-location entries are compared to give relative yield as a percentage of M-201, the early standard. M-202 has yielded 101%, M-203, 90%, M-204, 102%, L-202, 92%, L-203, 97%, and S-201 94% of M-201 in the Early tests over the past five year period.

**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 summary is given in Table 19. Entries are ranked by grain yield with the highest yielding entries appearing first.

Average yields in the advanced Intermediate-Late test were 10,540 lb/acre at the RES, 8,810 lb/acre at Glenn, and 9,040 lb/acre at Sutter. Advanced medium-grain cultivar, 90-y-686, was the highest yielding entry at Sutter and ranked first in the over-location results (Table 19). Premium quality commercial variety, M-401 ranked tenth, fourth and seventh in yield at the RES, Glenn and Sutter, respectively, and was ranked fifth overall. In the preliminary test, medium-grains 93-y-582, 93-y-738, 93-y-745, 93-y-420 and long-grain 9250840 exceeded 10,000 lb/acre over the three locations.

Table 20 compares Intermediate-Late maturing commercial cultivars in over-location and over-year tests. Using M-401 as the standard for comparison, A-301 and S-301 have yielded 96% and 105% of M-401, respectively, over the last five years.

### ACKNOWLEDGMENTS

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Grain type	Maturity	Seed widely available	Stem rot score <sup>1</sup>	Seedling vigor <sup>2</sup>	Comments
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**Short Grain**  
 S-201 Early 1981 5.9 4.4 High yield potential, excellent seedling vigor, similar to M-201 in maturity and in resistance to blanking. Good short-grain shape, larger seed size than other short grains. Maturity delayed by cool temperatures.

**Medium Grain**  
 M-103 Very Early<sup>3</sup> 1980 5.9 3.9 Earliest variety, vigor less than M-202. Excellent resistance to blanking. Good head and total milled rice yields. Moderate lodging. Good yield potential, about 7% less than M-202 at normal planting dates. Alternative variety for M-202 in coldest rice producing areas and for late planting in warmer areas.  
 M-201 Early 1984 5.4 3.8 Very high yield potential. Two inches shorter than M-202 with excellent resistance to lodging. Threshes very easily so reduce reel and cylinder speed to minimize shatter and enhance head rice. Best resistance to stem rot. Cool temperatures delay maturity and increase blanking. Not recommended for Escalen area.  
 M-202 Early 1987 5.9 4.3 Very high yield potential. Performs better than M-201 in cooler growing areas. Three days earlier, ripens more uniformly and more resistant to blanking than M-201. Moderate lodging. Threshes easily but does not shatter.  
 M-204 Early 1983 5.9 4.0 Very high yield potential. Seedling vigor lower than M-202, higher than M-201. Height and heading date like M-201; matures very close to M-202. Lodging resistance intermediate between M-201 and M-202. Improved total milling and head rice yields. Resistance to blanking is similar to M-202. Threshes easily like M-202. Not recommended for Escalen area.

**Long Grain**  
 L-202 Early 1988 6.2 3.7 Good yield potential in warmer areas. Not adapted to colder areas. Shortest of current varieties. Excellent resistance to lodging. Seedling vigor fair, may be affected by water depth. Threshes easily so reduce cylinder speed to enhance head rice. Harvest moisture for L-202 should be between 18% and 21%.  
 L-203 Early 1983 5.8 3.9 High yield potential. Five to 7 days earlier than L-202. Resistant to lodging. Seedling vigor fair, may be affected by water depth. Cooking and milling similar to L-202. Harvest moisture at 18-20%. Reduce cylinder speed for harvesting to enhance head rice.

**Premium Quality**  
 M-203 Early 1982 6.6 4.2 Premium quality rice with large kernels. An early maturing mutant of M-401 (needs 17 days earlier). Susceptible to blanking and has weak straw. Reduced N is necessary to prevent lodging. Not a substitute for M-201 or M-202. Yields 15% below M-202. Most susceptible to stem rot. Grain and milling yields lower than other medium grains.  
 M-401 Late 1983 5.8 4.3 Premium quality rice with large kernels. Good yield potential but susceptible to blanking, lodging and damage from premature drainages. Use somewhat less N than on other medium varieties. Best adapted to warmer areas. Milling yields lower than other medium grains.

**Specialty Rices**  
 Calmichi-101 Very Early<sup>3,4</sup> 1987 5.9 4.2 A sweet glutinous rice. Two weeks earlier than S-201. Excellent resistance to low temperature blanking. Has rough leaves and hulls; no awns. Grains dry down rapidly during ripening. Be careful not to contaminate with other varieties. ASCS non-program rice.  
 A-301 Intermediate<sup>4</sup> 1988 5.9 3.5 An aromatic ("popcorn" aroma) long grain. Moderately high yield in warmer areas. Not adapted to late seeding dates, deep water or cool areas. Seedling vigor fair to poor. Suggest harvest moisture of 20-22% and air drying without heat to retain maximum aroma. Has excellent straw strength.

<sup>1</sup>Average stem rot score of last six years: 0 = no disease and 10 = severe disease.  
<sup>2</sup>Subjective rating of 1-5 where 1 = poor and 5 = excellent seedling emergence.  
<sup>3</sup>Milling quality and yield may be reduced by early planting in warmer areas.  
<sup>4</sup>Specialty varieties should not be grown unless arrangements have first been made with marketing agency.

**Table 2. California Rice Acreage by Variety (1992-1994)**

Variety	1994		1993		1992	
	acres	(%)	acres	(%)	acres	(%)
<b>Medium Grains</b>	<b>453,410</b>	<b>90.0</b>	<b>432,442</b>	<b>93.4</b>	<b>341,730</b>	<b>87.6</b>
M-103	13,540	2.7	23,613	5.1	18,580	4.8
M-201	26,550	5.3	43,985	9.5	34,060	8.7
M-202	296,330	58.8	305,177	65.9	256,970	65.9
M-204	79,400	15.7	36,577	7.9	—	<1.0
M-401	37,590	7.5	23,150	5.0	32,120	8.2
<b>Short Grain</b>	<b>41,300</b>	<b>8.2</b>	<b>21,760</b>	<b>4.7</b>	<b>23,600</b>	<b>6.1</b>
S-201	25,160	5.0	8,797	1.9	11,610	3.0
Cal Pearl	1,860	0.4	3,241	0.7	3,480	0.9
Calmochi-101	14,280	2.8	9,723	2.1	8,510	2.2
<b>Long Grains</b>	<b>1,130</b>	<b>0.3</b>	<b>4,630</b>	<b>1.</b>	<b>17,810</b>	<b>4.6</b>
L-202	100	<0.1	463	0.1	6,970	1.8
L-203	1,030	0.2	4,167	0.9	10,840	2.8
<b>Others</b>	<b>8,160</b>	<b>1.6</b>	<b>4,170</b>	<b>0.9</b>	<b>6,630</b>	<b>1.7</b>
<b>Total</b>	<b>504,000</b>	<b>100.</b>	<b>463,000</b>	<b>100.</b>	<b>389,770</b>	<b>100.</b>

**Table 3. 1994 County Weather Data - Daily Maximums and Minimums (°F). Collected by UC IPM - IMPACT and CIMIS**

	GLENN, (Orland)		SAN JOAQUIN, (Lodi)		BUTTE, (Chico)		SUTTER, (Yuba City)		YOLO, (Zamora)		COLUSA, (Colusa)	
	min	max	min	max	min	max	min	max	min	max	min	max
Apr 01	48	76	43	80	43	76	46	75	40	77	39	78
Apr 02	44	76	46	76	41	75	49	78	41	74	42	77
Apr 03	47	74	49	73	46	76	49	76	43	74	46	76
Apr 04	48	74	44	78	42	75	46	76	42	75	44	76
Apr 05	48	70	39	76	39	72	48	73	41	72	38	74
Apr 06	43	70	44	67	47	68	50	64	42	66	49	69
Apr 07	36	63	46	69	35	65	42	66	36	66	34	66
Apr 08	49	57	50	59	49	57	48	56	50	56	48	58
Apr 09	45	65	44	64	43	65	45	65	41	65	41	66
Apr 10	42	71	42	74	42	72	46	74	42	72	38	72
Apr 11	48	75	41	78	43	77	47	77	38	78	38	78
Apr 12	41	79	45	82	42	81	44	81	41	80	40	81
Apr 13	45	79	48	79	42	80	49	80	42	78	42	81
Apr 14	50	82	47	85	46	83	51	84	46	83	45	85
Apr 15	50	84	48	86	53	84	53	85	50	84	55	86
Apr 16	52	78	52	70	53	80	53	79	48	78	52	80
Apr 17	50	82	49	80	50	82	51	83	46	82	46	83
Apr 18	50	83	52	81	50	84	52	88	45	84	49	86
Apr 19	49	79	47	76	52	79	53	82	48	79	53	81
Apr 20	46	80	44	78	46	81	58	84	43	81	45	82
Apr 21	45	78	48	74	--	--	50	80	49	77	51	85
Apr 22	48	71	46	70	52	72	51	75	45	69	51	74
Apr 23	42	59	45	61	46	59	48	60	45	58	48	60
Apr 24	45	61	47	60	41	62	45	65	43	62	47	63
Apr 25	44	60	47	60	45	60	45	62	45	59	45	61
Apr 26	40	71	46	69	38	71	39	74	44	70	41	71
Apr 27	45	74	45	68	46	74	49	75	45	73	42	76
Apr 28	53	77	46	77	44	78	48	81	47	77	44	79
Apr 29	48	71	46	70	47	71	51	73	42	74	50	74
Apr 30	46	73	46	72	46	75	49	77	45	73	49	75

	GLENN, (Orland)		SAN JOAQUIN, (Lodi)		BUTTE, (Chico)		SUTTER, (Yuba City)		YOLO, (Zamora)		COLUSA, (Colusa)	
	min	max	min	max	min	max	min	max	min	max	min	max
May 01	45	73	42	74	44	76	47	78	39	76	46	77
May 02	48	76	46	77	48	79	49	81	45	79	51	79
May 03	53	70	51	75	55	72	54	73	53	77	55	75
May 04	55	73	55	75	57	74	54	75	55	75	57	77
May 05	55	73	55	73	56	69	57	76	51	73	56	74
May 06	52	62	53	59	52	61	53	60	50	59	52	62
May 07	52	70	53	70	52	69	51	71	52	69	52	69
May 08	53	80	50	76	49	79	51	81	48	78	51	80
May 09	55	79	50	79	54	79	54	82	49	81	53	80
May 10	59	85	52	85	56	85	56	87	52	86	55	87
May 11	59	81	51	78	59	81	57	85	51	83	57	84
May 12	56	84	50	80	56	84	55	82	52	83	56	86
May 13	57	88	51	85	54	88	60	93	54	88	56	88
May 14	50	80	50	80	51	78	57	83	48	84	54	83
May 15	53	68	51	68	53	69	54	69	48	67	47	70
May 16	49	64	50	69	47	65	49	65	44	67	50	67
May 17	48	71	50	65	49	72	49	72	48	69	50	73
May 18	45	69	51	70	42	69	49	66	43	70	44	72
May 19	48	65	49	65	52	67	50	73	45	65	50	68
May 20	46	72	45	73	45	74	47	76	42	74	46	74
May 21	52	75	47	76	51	76	59	81	45	77	52	77
May 22	48	81	46	81	47	81	62	85	44	79	47	83
May 23	51	94	51	87	50	90	55	88	48	86	51	90
May 24	--	--	53	89	--	--	59	90	51	90	--	--
May 25	58	85	51	83	59	85	57	91	51	85	58	88
May 26	55	75	51	77	56	77	54	79	50	77	55	79
May 27	52	79	48	80	52	79	53	84	47	80	50	82
May 28	55	84	51	86	56	84	57	90	51	82	59	87
May 29	57	87	53	92	57	89	58	95	50	87	54	91
May 30	63	92	55	90	54	90	61	92	58	87	60	91
May 31	58	76	55	77	61	77	59	75	56	79	59	79

Jun 01	54	85	--	--	54	86	50	89	47	84	53	86
Jun 02	51	85	53	85	51	87	55	91	--	--	52	89
Jun 03	51	83	48	80	54	84	56	92	46	84	55	88
Jun 04	51	81	54	83	54	83	51	88	52	83	56	85
Jun 05	53	73	49	73	55	75	55	80	49	75	54	78
Jun 06	52	72	53	74	56	74	56	80	52	75	54	77
Jun 07	50	79	48	81	49	81	53	85	47	81	52	81
Jun 08	64	91	52	91	56	92	61	94	55	91	56	92
Jun 09	58	95	54	95	57	96	61	99	54	97	55	96
Jun 10	71	96	58	101	60	96	67	105	66	100	59	103
Jun 11	67	92	59	93	65	94	68	100	57	94	67	97
Jun 12	63	86	56	82	62	88	63	92	53	90	62	92
Jun 13	60	85	56	82	61	86	61	92	54	90	61	91
Jun 14	56	83	52	83	57	84	58	90	51	83	52	86
Jun 15	--	--	50	77	54	76	55	82	51	78	51	81
Jun 16	50	74	50	78	49	76	52	82	45	78	50	79
Jun 17	--	--	46	82	50	81	53	87	44	79	51	84
Jun 18	54	87	49	86	52	85	56	91	48	85	52	88
Jun 19	54	87	50	90	52	89	59	94	51	89	55	92
Jun 20	55	85	52	85	54	87	59	92	48	86	57	90
Jun 21	52	86	47	88	52	86	54	93	46	88	48	90
Jun 22	52	86	48	87	53	88	59	92	45	89	53	90
Jun 23	64	89	50	89	55	89	57	96	50	89	--	--
Jun 24	57	88	53	89	--	--	60	94	50	89	56	92
Jun 25	60	83	52	87	61	84	61	94	53	91	63	90
Jun 26	61	95	50	92	59	91	60	96	56	91	54	93
Jun 27	--	--	55	98	--	--	65	103	58	95	55	100
Jun 28	57	91	55	95	59	94	62	101	49	94	59	97
Jun 29	59	92	--	--	57	95	62	101	52	93	57	97
Jun 30	57	89	52	89	57	90	60	96	47	90	61	94

Jul 01	60	90	53	92	59	91	61	102	--	--	59	95
Jul 02	60	88	55	86	58	88	60	95	55	89	58	92
Jul 03	60	88	56	88	58	90	59	94	54	89	58	92
Jul 04	61	87	51	85	61	88	59	93	53	84	60	91
Jul 05	58	93	53	85	59	89	59	95	52	86	58	93
Jul 06	67	102	55	94	63	98	59	101	58	95	65	99
Jul 07	60	92	55	92	59	91	63	101	54	94	60	99
Jul 08	62	95	55	95	62	96	63	103	54	95	59	100
Jul 09	60	94	53	96	61	95	63	103	55	98	61	98
Jul 10	62	94	55	91	62	95	62	100	52	94	59	99
Jul 11	60	93	53	92	60	94	60	100	54	93	57	98
Jul 12	63	94	55	93	62	96	62	102	54	95	59	100
Jul 13	64	99	55	95	62	96	63	102	55	100	59	102
Jul 14	61	96	53	95	61	94	62	103	54	100	58	102
Jul 15	65	93	55	90	64	95	64	100	56	98	61	99
Jul 16	62	91	54	91	61	92	60	97	53	92	60	95
Jul 17	64	96	56	94	63	100	64	107	56	102	58	103
Jul 18	61	91	55	88	61	92	62	96	53	94	61	96
Jul 19	--	--	57	82	59	86	61	94	55	90	--	--
Jul 20	62	86	58	80	60	87	60	93	59	86	60	89
Jul 21	60	85	58	80	59	87	61	87	56	84	58	87
Jul 22	64	86	57	85	62	87	60	94	58	88	63	92
Jul 23	58	84	57	78	58	85	57	88	53	89	59	89
Jul 24	53	83	57	83	54	86	57	92	49	86	56	89
Jul 25	58	93	52	94	55	92	60	100	52	93	56	98
Jul 26	63	94	55	96	--	--	61	102	--	--	59	100
Jul 27	62	91	--	--	60	93	55	100	52	94	58	98
Jul 28	60	92	53	88	59	93	59	98	53	90	59	97
Jul 29	60	90	56	90	58	91	60	96</				



	GLENN, Orland		SAN JOAQUIN, Lodi		BUTTE, Chico		SUTTER, Yuba City		YOLO, Zamora		COLUSA, Colusa	
	min	max	min	max	min	max	min	max	min	max	min	max
g 01	55 86	52 83	55 87	56 91	50 87	53 89						
g 02	55 88	51 89	55 90	57 95	- -	53 93						
g 03	57 92	51 89	57 94	59 100	51 93	56 97						
g 04	61 91	55 89	62 93	62 99	56 95	59 96						
g 05	58 92	53 95	57 94	60 102	53 95	55 99						
g 06	63 96	55 100	57 98	63 105	57 98	59 102						
g 07	60 93	58 93	61 96	66 100	55 101	60 99						
g 08	58 87	52 88	57 90	60 95	53 89	61 91						
g 09	55 88	50 89	55 89	58 95	50 91	58 93						
g 10	53 88	50 90	52 91	57 96	48 93	54 94						
g 11	54 90	53 94	55 94	59 100	50 96	51 97						
g 12	56 93	54 95	54 95	59 102	50 95	52 99						
g 13	56 93	55 98	58 96	59 102	51 99	57 100						
g 14	57 94	55 99	56 97	60 104	51 99	53 101						
g 15	57 97	56 99	56 97	61 104	52 94	53 102						
g 16	59 97	54 98	56 97	61 105	53 98	55 104						
g 17	59 95	54 96	56 96	63 102	58 97	58 100						
g 18	58 89	54 91	58 91	62 93	56 93	57 95						
g 19	59 88	52 90	59 89	61 95	52 91	56 92						
g 20	56 91	53 91	53 92	58 100	53 94	54 95						
g 21	57 85	50 86	56 87	59 92	53 88	60 89						
g 22	56 84	48 86	53 85	57 92	52 83	53 89						
g 23	55 86	51 86	53 87	56 99	50 90	55 90						
g 24	54 88	52 89	54 88	57 96	48 89	53 92						
g 25	54 88	52 89	54 91	59 93	50 92	53 92						
g 26	52 83	53 89	51 83	58 93	49 88	54 88						
g 27	57 88	54 87	55 91	60 95	52 93	54 93						
g 28	50 83	51 84	53 84	57 91	52 88	56 89						
g 29	54 97	51 90	53 93	57 96	49 90	52 94						
g 30	55 88	52 91	55 89	59 95	53 94	54 92						
g 31	- -	49 88	- -	59 94	53 89	- -						

	GLENN, Orland		SAN JOAQUIN, Lodi		BUTTE, Chico		SUTTER, Yuba City		YOLO, Zamora		COLUSA, Colusa	
	min	max	min	max	min	max	min	max	min	max	min	max
Sep 01	55 82	50 85	- -	58 88	54 85	54 86						
Sep 02	55 81	48 81	54 83	57 86	51 84	58 84						
Sep 03	53 87	50 87	51 84	55 91	51 88	51 89						
Sep 04	57 92	52 93	53 90	58 95	54 92	55 94						
Sep 05	57 89	54 93	55 90	60 97	54 92	54 94						
Sep 06	57 93	53 94	54 94	60 99	53 96	54 97						
Sep 07	54 87	50 88	55 91	57 92	46 90	50 90						
Sep 08	50 84	47 84	53 86	56 90	- -	56 89						
Sep 09	53 78	- -	55 80	56 84	52 80	55 80						
Sep 10	51 78	48 81	48 75	53 85	49 82	48 82						
Sep 11	51 77	51 78	49 77	54 82	47 78	49 80						
Sep 12	51 81	47 79	49 79	53 84	48 80	47 82						
Sep 13	50 80	49 81	48 80	54 86	47 82	48 83						
Sep 14	53 89	47 87	52 88	55 93	48 88	50 90						
Sep 15	55 97	52 92	50 96	57 97	52 92	51 96						
Sep 16	61 94	54 98	57 95	60 99	55 95	53 98						
Sep 17	57 89	56 86	54 89	60 93	53 92	54 92						
Sep 18	56 99	52 90	55 96	51 97	49 91	50 99						
Sep 19	60 97	53 91	55 99	52 96	56 95	54 102						
Sep 20	60 102	54 90	54 101	64 103	54 100	56 102						
Sep 21	59 101	55 93	56 102	63 102	57 98	55 102						
Sep 22	56 90	53 88	56 91	59 93	53 95	55 94						
Sep 23	57 83	58 79	58 84	61 88	58 87	60 86						
Sep 24	63 90	56 87	57 89	62 94	57 89	59 92						
Sep 25	59 89	56 90	59 92	62 94	56 91	57 92						
Sep 26	60 97	54 95	57 99	62 99	58 96	53 98						
Sep 27	59 82	56 84	58 83	60 86	55 82	55 82						
Sep 28	59 74	57 79	62 78	61 77	58 80	59 78						
Sep 29	50 79	52 80	52 80	55 82	47 79	53 80						
Sep 30	56 85	50 85	54 87	54 89	50 86	48 87						

ct 01	54 85	51 83	53 83	56 85	47 83	52 87
ct 02	53 91	50 89	51 90	57 92	52 90	51 92
ct 03	62 77	55 80	59 79	61 82	58 79	59 79
ct 04	52 65	51 69	50 62	56 64	53 67	52 61
ct 05	49 69	50 72	46 70	49 74	49 70	45 71
ct 06	52 78	49 75	50 77	50 80	49 77	46 78
ct 07	45 83	49 81	43 84	50 85	45 80	44 84
ct 08	47 82	49 86	46 85	51 84	48 84	45 85
ct 09	47 81	49 89	49 85	55 87	48 83	46 83
ct 10	50 81	50 81	50 83	51 86	49 84	48 85
ct 11	46 77	44 77	46 76	50 80	47 78	44 77
ct 12	52 73	46 74	52 73	50 72	45 72	51 72
ct 13	58 78	45 79	50 78	51 81	50 80	46 79
ct 14	54 74	52 75	54 75	52 76	50 75	46 76
ct 15	51 69	49 71	52 70	51 73	50 71	51 70
ct 16	48 72	41 73	48 72	48 76	51 73	45 73
ct 17	41 73	39 73	41 73	45 75	41 71	40 72
ct 18	40 73	40 76	38 75	44 78	38 74	37 76
ct 19	42 73	42 75	42 75	45 78	40 75	40 75
ct 20	42 78	41 76	41 78	45 80	38 76	39 80
ct 21	41 78	42 78	40 79	45 81	40 79	38 80
ct 22	45 81	41 81	41 81	46 82	45 80	39 82
ct 23	43 78	43 80	40 80	47 82	43 79	41 81
ct 24	49 77	53 78	47 77	46 81	- -	44 81
ct 25	43 72	45 71	44 74	49 76	42 74	43 74
ct 26	49 69	45 76	48 71	50 75	42 73	49 72
ct 27	48 73	51 77	46 75	49 79	44 77	46 77
ct 28	50 72	- -	56 74	50 77	51 75	53 74
ct 29	47 72	41 74	44 73	46 76	42 73	39 73
ct 30	44 75	37 76	34 75	39 77	37 76	36 76
ct 31	40 77	39 78	38 79	43 80	40 79	36 78

Table 4. 1994 Butte County Very Early Rice Variety Trial Single Location Summary (RES)

ADVANCED LINES AND VARIETIES

Variety	Grain Type	Grain Yield @ 14% (lb/acre)	Grain Moisture (%)	Seedling Vigor (1-5)	Days to 50% Heading	Lodging (1-99)	Plant Height (cm)
93-y-195	SWX	10740(1)	18.1(8)	4.6(13)	79(4)	12(7)	92(10)
91-y-171	S	10630(2)	15.3(20)	4.8(9)	77(1)	22(11)	92(9)
93-y-43	L	10560(3)	15.4(19)	4.7(11)	79(5)	3(3)	92(11)
M-201	M	10550(4)	202(3)	4.7(10)	88(16)	1(1)	92(9)
93-y-504	L	10340(5)	16.8(13)	4.8(8)	86(13)	1(1)	86(3)
M-204	M	10320(6)	200(4)	4.8(6)	88(15)	2(2)	94(14)
L-203	L	10300(7)	16.7(14)	4.8(6)	84(10)	1(1)	85(2)
93-y-198	SWX	10210(8)	16.2(16)	4.9(1)	79(6)	28(12)	91(8)
93-y-23	MPQ	10060(9)	18.9(7)	4.8(8)	82(8)	15(8)	88(4)
92-y-483	L	9920(10)	16.0(18)	4.9(4)	81(7)	4(6)	93(12)
92-y-207	M	9860(11)	17.4(10)	4.8(9)	79(6)	16(9)	90(6)
92-y-260	M	9780(12)	16.4(15)	4.7(10)	78(2)	36(13)	92(11)
M-202	M	9760(13)	23.0(1)	4.9(1)	85(11)	39(14)	99(17)
L-202	L	9700(14)	18.0(9)	4.8(8)	87(14)	1(1)	82(1)
92-y-231	M	9670(15)	19.0(6)	4.8(7)	83(9)	4(6)	93(13)
CM-101	SWX	9670(16)	17.2(11)	4.7(11)	79(4)	36(13)	91(7)
S-201	S	9230(17)	21.8(2)	4.9(2)	96(17)	3(4)	95(15)
M-103	M	9170(18)	17.0(12)	4.7(12)	78(3)	21(10)	91(7)
VAL 87	S	8900(19)	16.1(17)	4.8(5)	82(8)	4(5)	88(5)
M-203	M	8530(20)	19.9(5)	4.9(3)	86(12)	92(15)	96(16)
GRAND MEAN		9900	18	4.8	83	17	91
% CV		6.4	1083.0	1.3	1.6	88.1	3.9
LSD (.05)		890	2.8	1	2	21	5

PRELIMINARY LINES AND VARIETIES

93-y-413	M	11020(1)	17.8(4)	4.8(9)	87(11)	6(5)	90(7)
93-y-510	L	10800(2)	16.8(7)	4.8(7)	85(14)	2(2)	94(14)
93-y-185	MPQ	10550(3)	18.0(3)	4.9(3)	81(10)	15(12)	94(14)
93-y-244	M	10490(4)	16.7(8)	4.9(2)	80(8)	24(15)	96(16)
L-203	L	10480(5)	17.1(6)	4.8(7)	84(12)	1(1)	84(1)
93-y-160	S	10470(6)	15.5(15)	4.8(5)	79(5)	18(13)	92(12)
9238329	L	10400(7)	15.6(14)	4.6(11)	85(15)	7(7)	93(13)
9244900	L	10260(8)	15.5(16)	4.6(10)	84(13)	6(4)	87(2)
93-y-353	M	10160(9)	17.2(5)	4.9(4)	81(9)	11(8)	92(11)
93-y-432	L	10130(10)	15.6(13)	4.9(4)	79(4)	3(3)	88(4)
9233069	L	9960(11)	15.9(12)	4.8(7)	82(11)	2(2)	88(3)
92-y-200	SWX	9960(12)	19.4(1)	4.6(12)	80(7)	42(17)	97(17)
93-y-268	M	9920(13)	16.3(10)	4.8(6)	79(6)	7(6)	91(8)
93-y-179	MPQ	9900(14)	17.8(4)	4.9(3)	81(9)	12(9)	93(13)
93-y-265	M	9780(15)	15.9(12)	4.8(6)	77(2)	13(10)	91(8)
9232037	L	9720(16)	14.6(18)	4.9(3)	79(5)	13(11)	91(9)
93-y-203	M	9640(17)	15.3(17)	4.9(1)	76(1)	22(14)	90(6)
94-y-22	SPQ	9500(18)	16.0(11)	4.8(8)	78(3)	28(16)	89(5)
93-y-256	M	9390(19)	18.8(2)	4.9(2)	81(10)	11(8)	95(15)
93-y-217	M	9380(20)	16.6(9)	4.8(7)	76(1)	24(15)	92(10)
GRAND MEAN		10100	16.6	4.8	80	13	91
% CV		6.5	6.6	1.9	1.7	93.2	3.4
LSD (.05)		920	1.5	0.1	2	17	4

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.

Table 5. 1994 San Joaquin County Very Early Rice Variety Trial Single Location Summary (Brumley)

ADVANCED LINES AND VARIETIES

Variety	Grain Type	Grain Yield (lb/acre)	Grain Moisture (%)	Seedling Vigor (1-3)	Days to 50% Heading	Lodging (1-99)	Plant Height (cm)
93-y-198	SWX	10230(1)	18.6(13)	4.5(2)	99(5)	1(1)	78(13)
91-y-171	S	9860(2)	15.9(19)	4.1(6)	95(1)	1(1)	77(12)
93-y-195	SWX	9630(3)	19.9(10)	4.4(4)	99(4)	1(1)	73(6)
92-y-207	M	9450(4)	207(8)	4.1(6)	99(4)	1(1)	79(14)
M-203	MPQ	9150(5)	22.9(4)	4.3(5)	106(12)	13(4)	82(16)
CM-101	SWX	9020(6)	16.2(18)	4.1(6)	95(2)	1(1)	74(7)
M-202	M	8660(7)	21.1(6)	4.5(3)	102(8)	1(1)	69(4)
92-y-260	M	8620(8)	19.6(11)	4.0(7)	102(8)	1(1)	76(9)
93-y-23	MPQ	8470(9)	22.7(5)	4.1(6)	106(12)	3(3)	76(11)
M-103	M	8460(10)	18.1(14)	3.5(10)	98(3)	1(1)	72(5)
93-y-43	L	8360(11)	15.4(20)	4.3(5)	100(6)	1(1)	79(15)
92-y-483	L	8330(12)	16.5(17)	3.6(9)	102(7)	2(2)	79(14)
M-204	M	8220(13)	24.0(2)	4.3(5)	109(15)	1(1)	76(10)
92-y-231	M	8190(14)	21.0(7)	4.0(7)	103(10)	1(1)	78(13)
VAL 87	S	8030(15)	17.6(15)	4.3(5)	102(9)	1(1)	76(9)
L-203	L	7950(16)	18.9(12)	3.9(8)	107(14)	1(1)	68(2)
M-201	M	7940(17)	22.9(3)	3.6(9)	106(13)	1(1)	74(8)
S-201	S	7760(18)	24.5(1)	4.6(1)	111(17)	1(1)	74(8)
93-y-504	L	7730(19)	17.0(16)	4.0(7)	106(11)	1(1)	68(1)
L-202	L	7260(20)	206(9)	3.9(8)	110(16)	1(1)	68(3)
GRAND MEAN		8570	19.7	4.1	103	2	75
% CV		7.3	5.3	9.1	2.3	76.8	7.8
LSD (.05)		880	1.5	5	3	2	8

PRELIMINARY LINES AND VARIETIES

93-y-160	S	8680(1)	15.4(15)	4.0(5)	98(6)	3(2)	81(13)
93-y-413	M	8520(2)	19.9(1)	3.8(6)	102(11)	3(2)	78(10)
93-y-432	L	8410(3)	14.7(18)	4.3(4)	93(2)	1(1)	72(4)
93-y-244	M	8310(4)	19.5(4)	4.8(2)	99(8)	1(1)	79(12)
93-y-353	M	8210(5)	19.2(6)	4.3(4)	104(13)	1(1)	78(11)
92-y-200	SWX	8160(6)	19.7(3)	3.8(6)	96(3)	3(2)	75(8)
93-y-203	M	8140(7)	15.2(17)	5.0(1)	98(7)	5(3)	78(10)
93-y-185	MPQ	8130(8)	18.1(8)	4.3(4)	101(9)	1(1)	73(5)
93-y-256	M	7970(9)	19.9(2)	5.0(1)	102(12)	3(2)	82(14)
93-y-265	M	7860(10)	18.1(8)	4.8(2)	97(5)	5(3)	77(9)
93-y-179	MPQ	7770(11)	17.6(10)	4.5(3)	101(9)	3(2)	78(10)
93-y-217	M	7750(12)	17.8(9)	4.5(3)	97(4)	1(1)	70(3)
93-y-268	M	7470(13)	18.9(7)	4.3(4)	101(9)	1(1)	78(10)
94-y-22	SPQ	7370(14)	16.0(14)	3.5(7)	90(1)	1(1)	68(2)
9232037	L	7370(15)	14.3(19)	4.3(4)	97(5)	3(2)	75(8)
9233069	L	7310(16)	16.2(13)	4.0(5)	101(10)	1(1)	74(6)
9244900	L	7050(17)	17.6(11)	3.8(6)	107(15)	1(1)	68(2)
93-y-510	L	6740(18)	16.9(12)	4.0(5)	105(14)	1(1)	75(8)
9238329	L	6650(19)	15.3(16)	3.5(7)	101(9)	1(1)	74(7)
L-203	L	6540(20)	19.4(5)	4.3(4)	109(16)	1(1)	67(1)
GRAND MEAN		7720	17.5	4.2	100	2	75
% CV		6.2	4.1	8.7	1.7	74.0	3.8
LSD (.05)		1000	1.5	0.8	4	3	6

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.

**Table 6. 1994 Sutter County Very Early Rice Variety Trial Single Location Summary (Lauppe)**

**ADVANCED LINES AND VARIETIES**

Variety	Grain Type	Grain Yield (lb/acre)	Grain Moisture (%)	Seedling Vigor (1-5)	Days to 50% Heading	Lodging (1-99)	Plant Height (cm)
M-202	M	11010(1)	19.0(5)	4.3(2)	91(12)	2(2)	90(13)
91-y-171	S	10640(2)	16.4(17)	3.8(6)	83(1)	2(2)	86(6)
93-y-195	SWX	10370(3)	18.4(10)	4.0(4)	84(4)	4(5)	85(3)
93-y-43	L	10290(4)	16.3(20)	3.9(5)	84(6)	1(1)	87(9)
92-y-483	L	10190(5)	17.7(15)	4.1(3)	85(8)	2(2)	85(5)
92-y-207	M	10170(6)	18.7(8)	4.3(2)	84(5)	3(3)	87(8)
93-y-198	SWX	10070(7)	16.7(16)	4.1(3)	85(7)	23(12)	83(1)
M-201	M	10060(8)	22.0(1)	4.1(3)	93(14)	23(13)	89(11)
M-203	MPQ	10040(9)	19.1(4)	4.3(2)	91(12)	49(15)	88(10)
VAL 87	S	9970(10)	16.3(19)	4.3(2)	90(11)	7(8)	85(5)
92-y-260	M	9760(11)	17.8(14)	3.8(6)	87(9)	5(6)	84(2)
S-201	S	9760(12)	19.5(2)	4.8(1)	97(17)	8(9)	89(11)
92-y-231	M	9740(13)	19.3(3)	4.0(4)	92(13)	21(11)	92(14)
93-y-23	MPQ	9710(14)	18.7(9)	3.9(5)	88(10)	59(16)	89(11)
M-204	M	9620(15)	18.9(6)	4.1(3)	93(14)	3(3)	86(6)
93-y-504	L	9600(16)	16.4(18)	3.6(7)	93(14)	7(7)	85(4)
CM-101	SWX	9510(17)	18.1(11)	3.8(6)	83(2)	26(14)	89(12)
M-103	M	9430(18)	18.8(7)	3.9(5)	84(3)	14(10)	86(7)
L-203	L	8890(19)	17.8(13)	3.9(5)	95(16)	1(1)	84(2)
L-202	L	8470(20)	18.0(12)	3.8(6)	95(15)	3(4)	84(2)
GRAND MEAN		9870	18.2	4	89	13	87
% CV		5.4	7.1	7.1	94.0	162.6	5.6
LSD (.05)		750	1.8	4	1	30	7

**PRELIMINARY LINES AND VARIETIES**

93-y-160	S	11220(1)	16.3(15)	4.0(3)	84(6)	1(1)	87(12)
93-y-185	MPQ	10740(2)	17.6(7)	4.3(2)	86(8)	1(1)	84(7)
93-y-353	M	10450(3)	17.5(9)	4.5(1)	88(10)	3(2)	87(11)
92-y-200	SWX	10420(4)	18.4(2)	4.0(3)	83(4)	15(5)	89(13)
93-y-413	M	10090(5)	17.5(9)	4.0(3)	88(11)	1(1)	85(8)
93-y-265	M	9970(6)	17.6(8)	4.0(3)	84(5)	1(1)	85(8)
9233069	L	9880(7)	16.1(16)	3.8(4)	91(14)	1(1)	79(2)
93-y-256	M	9840(8)	17.4(10)	4.3(2)	90(13)	3(2)	89(14)
93-y-268	M	9830(9)	18.2(3)	4.0(3)	89(12)	1(1)	86(10)
9244900	L	9790(10)	16.5(14)	4.0(3)	93(15)	1(1)	84(6)
94-y-22	SPQ	9750(11)	17.6(6)	3.8(4)	81(1)	25(6)	83(5)
93-y-244	M	9500(12)	19.6(1)	4.5(1)	87(9)	8(4)	90(15)
93-y-217	M	9420(13)	17.7(5)	4.0(3)	84(6)	3(2)	86(10)
93-y-179	MPQ	9340(14)	16.7(13)	4.3(2)	86(7)	1(1)	86(9)
9232037	L	9330(15)	15.8(18)	3.8(4)	84(6)	1(1)	86(10)
9238329	L	9320(16)	16.9(12)	3.5(5)	91(14)	1(1)	89(13)
93-y-203	M	9030(17)	15.1(19)	4.3(2)	83(3)	1(1)	82(4)
93-y-432	L	9020(18)	16.0(17)	3.5(5)	82(2)	8(3)	82(3)
93-y-510	L	8940(19)	17.3(11)	3.5(5)	90(13)	1(1)	85(8)
L-203	L	8240(20)	18.1(4)	4.0(3)	94(16)	1(1)	75(1)
GRAND MEAN		9710	17.2	4	87	4	85
% CV		5.0	2.8	7.9	1.0	62.2	2.2
LSD (.05)		1010	1	0.7	2	5	4

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.

Table 7. 1994 Yolo County Very Early Rice Variety Trial Single Location Summary (Geer)

ADVANCED LINES AND VARIETIES

Variety	Grain Type	Grain Yield (lb/acre)	Grain Moisture (%)	Seedling Vigor (1-5)	Days to 50% Heading	Lodging (1-99)	Plant Height (cm)
M-202	M	12040(1)	21.8(2)	4.3(2)	100(13)	9(4)	100(14)
91-y-171	M	11970(2)	16.6(17)	4.0(5)	87(1)	3(2)	97(9)
93-y-195	LWX	11860(3)	20.6(4)	4.0(5)	93(7)	10(5)	94(6)
93-y-43	MPQ	11770(4)	15.8(20)	4.2(3)	91(4)	1(1)	92(5)
92-y-260	L	11490(5)	19.1(8)	3.9(6)	95(9)	39(10)	97(10)
M-201	M	11380(6)	24.5(1)	3.9(6)	102(17)	1(1)	99(13)
92-y-483	L	11200(7)	16.6(16)	4.1(4)	92(6)	1(1)	85(2)
92-y-207	S	11020(8)	20.5(5)	4.0(5)	91(5)	34(9)	99(12)
93-y-198	M	11020(9)	17.5(15)	4.4(1)	93(8)	31(8)	100(15)
M-204	L	10870(10)	19.6(6)	4.1(4)	101(15)	18(7)	99(13)
M-103	M	10770(11)	19.3(7)	3.4(8)	90(3)	34(9)	95(8)
L-202	L	10670(12)	18.6(11)	3.6(7)	102(16)	1(1)	92(4)
93-y-23	MPQ	10630(13)	19.0(10)	4.0(5)	96(10)	56(11)	98(11)
93-y-504	MPQ	10530(14)	16.1(19)	4.0(5)	99(12)	1(1)	90(3)
M-203	MPQ	10390(15)	20.7(3)	4.1(4)	100(14)	78(14)	106(17)
L-203	L	10310(16)	18.0(12)	4.0(5)	101(15)	1(1)	82(1)
CM-101	SWX	10270(17)	17.7(14)	4.3(2)	89(2)	17(6)	94(7)
VAL 87	S	10260(18)	19.0(9)	4.4(1)	97(11)	7(3)	102(16)
S-201	S	9850(19)	17.8(13)	4.4(1)	104(19)	66(12)	109(18)
92-y-231	M	9800(20)	16.3(18)	4.0(5)	102(18)	68(13)	112(19)
GRAND MEAN		10900	18.7	4	96	24	97
% CV		6.3	5.7	6.6	1.2	56.5	3.5
LSD (.05)		970	1.5	0.4	2	19	5

PRELIMINARY LINES AND VARIETIES

93-y-160	M	12220(1)	18.5(13)	4.0(4)	90(4)	15(7)	97(7)
93-y-265	M	12120(2)	20.8(5)	4.0(4)	91(5)	10(4)	102(13)
94-y-22	M	11880(3)	17.8(14)	4.0(4)	88(1)	1(1)	91(3)
92-y-200	M	11690(4)	22.9(2)	3.5(6)	91(5)	13(5)	101(11)
93-y-185	M	11660(5)	23.2(1)	4.3(3)	93(7)	23(8)	98(9)
93-y-268	MPQ	11520(6)	22.3(3)	4.8(2)	98(15)	1(1)	102(12)
93-y-244	L	11520(7)	21.2(4)	5.0(1)	94(8)	40(10)	104(14)
93-y-432	M	11520(8)	17.4(16)	3.8(5)	88(2)	1(1)	90(2)
9233069	L	11410(9)	17.2(19)	4.0(4)	96(11)	1(1)	94(4)
9238329	MPQ	11270(10)	17.6(15)	3.8(5)	96(12)	1(1)	100(10)
9232037	L	11250(11)	16.7(20)	4.3(3)	92(6)	1(1)	104(15)
93-y-217	M	11060(12)	20.5(6)	4.3(3)	89(3)	10(4)	97(8)
93-y-510	S	11010(13)	18.7(11)	3.8(5)	97(14)	1(1)	97(7)
93-y-413	L	11000(14)	19.9(10)	4.3(3)	97(13)	38(9)	98(9)
93-y-179	M	10910(15)	20.0(9)	4.0(4)	94(9)	8(3)	104(14)
9244900	M	10700(16)	17.2(18)	4.0(4)	98(16)	1(1)	96(5)
93-y-203	S	10680(17)	17.4(17)	4.8(2)	91(5)	5(2)	96(6)
93-y-256	L	10330(18)	20.3(7)	4.0(4)	95(10)	13(6)	106(16)
93-y-353	L	10290(19)	20.3(8)	4.0(4)	96(12)	68(11)	104(15)
L-203	MPQ	10050(20)	18.7(12)	4.0(4)	102(17)	1(1)	85(1)
GRAND MEAN		11200	19.4	4.1	94	12	98
% CV		4.8	3.1	6.8	1.0	81.9	3.6
LSD (.05)		1110	1.3	0.6	2	21	7

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.

**Table 8. 1994 Four Location Very Early Lines and Varieties Summary Table**

**ADVANCED LINES AND VARIETIES**

RES, San Joaquin, Sutter, Yolo

Variety	Grain Type	Grain Yield @ 14% (lb/acre)	Grain Moisture (%)	Seedling Vigor (1-5)	Days to 50% Heading	Lodging (1-99)	Plant Height (cm)
91-y-171	S	10770(1)	16.0(19)	4.2(14)	86(1)	7(9)	88(10)
93-y-195	SWX	10650(2)	19.3(8)	4.3(8)	88(5)	7(8)	86(5)
93-y-198	SWX	10380(3)	17.3(15)	4.5(2)	89(6)	22(16)	88(12)
M-202	M	10370(4)	21.2(2)	4.5(3)	94(11)	13(11)	92(17)
93-y-43	L	10250(5)	15.7(20)	4.3(9)	88(5)	3(5)	87(9)
92-y-207	M	10120(6)	19.3(7)	4.3(7)	88(4)	13(12)	88(14)
M-201	M	9980(7)	22.4(1)	4.1(17)	97(16)	7(7)	88(13)
92-y-260	M	9910(8)	18.2(12)	4.1(17)	90(8)	22(17)	87(8)
92-y-483	L	9910(9)	16.7(17)	4.2(13)	90(7)	2(3)	85(4)
M-204	M	9760(10)	20.6(5)	4.3(6)	97(17)	10(10)	88(15)
93-y-23	MPQ	9720(11)	19.8(6)	4.2(12)	93(10)	31(19)	88(10)
CM-101	SWX	9620(12)	17.3(14)	4.2(10)	87(2)	19(14)	87(7)
93-y-504	L	9550(13)	16.6(18)	4.1(16)	96(14)	2(4)	82(3)
M-203	M	9530(14)	20.7(4)	4.4(5)	96(13)	52(20)	93(18)
M-103	M	9460(15)	18.3(11)	3.9(19)	87(3)	17(13)	86(6)
L-203	L	9360(16)	17.8(13)	4.1(15)	97(15)	1(1)	80(1)
92-y-231	M	9350(17)	18.9(9)	4.2(11)	95(12)	24(18)	94(19)
VAL 87	S	9290(18)	17.2(16)	4.4(4)	93(9)	5(6)	88(11)
S-201	S	9150(19)	20.9(3)	4.7(1)	102(19)	20(15)	92(16)
L-202	L	9030(20)	18.8(10)	4.0(18)	98(18)	2(2)	81(2)
MEAN		9810	18.7	4.2	93	14	87
% CV		6.3	7.4	6.4	1.7	114.7	4.7
LSD (.05)		430	1	2	1	11	3

**PRELIMINARY LINES AND VARIETIES**

93-y-160	S	10270(1)	16.0(14)	4.3(11)	88(6)	13(11)	89(13)
93-y-185	MPQ	10020(2)	18.5(3)	4.4(5)	91(10)	13(12)	87(7)
93-y-413	M	10000(3)	17.9(6)	4.2(13)	93(13)	13(11)	88(8)
93-y-265	M	9810(4)	17.3(9)	4.4(7)	88(5)	10(9)	88(10)
93-y-244	M	9720(5)	18.7(2)	4.8(1)	91(8)	23(16)	92(17)
92-y-200	SWX	9720(6)	19.2(1)	3.9(18)	88(6)	23(17)	90(16)
93-y-432	L	9620(7)	15.1(18)	4.1(16)	86(2)	4(4)	83(2)
93-y-353	M	9580(8)	17.7(7)	4.4(8)	93(12)	22(15)	90(14)
9233069	L	9560(9)	15.8(17)	4.2(14)	93(14)	1(2)	83(4)
93-y-268	M	9560(10)	18.3(4)	4.5(4)	92(11)	4(4)	89(11)
94-y-22	SPQ	9510(11)	16.2(13)	4.0(17)	84(1)	17(14)	83(3)
93-y-510	L	9430(12)	16.9(12)	4.0(17)	95(16)	1(2)	88(9)
9244900	L	9380(13)	15.9(15)	4.1(15)	96(17)	3(3)	84(5)
93-y-179	MPQ	9260(14)	17.1(11)	4.4(6)	91(9)	9(7)	90(15)
9238329	L	9260(15)	15.8(16)	3.9(19)	94(15)	4(5)	89(13)
93-y-256	M	9190(16)	18.0(5)	4.6(3)	92(11)	9(8)	93(18)
9232037	L	9170(17)	14.9(20)	4.3(10)	89(7)	8(6)	89(12)
93-y-203	M	9160(18)	15.1(19)	4.8(2)	88(4)	11(10)	86(6)
93-y-217	M	9110(19)	17.3(10)	4.4(9)	87(3)	15(13)	86(6)
L-203	L	8820(20)	17.5(8)	4.2(12)	98(18)	1(1)	78(1)
MEAN		9510	17	4.3	91	10	87
% CV		5.5	3.9	6.6	1.4	93.6	3.1
LSD (.05)		520	7	3	1	9	3

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.

**Table 9. Grain Yield (lb/acre) Summary Comparisons of Varieties by Location and Year in the Very Early Test (1990-1994)**

Location	Year	Calmochi				
		M-103	101	M-202	M-204	L-203
Butte (RES)	1990	8,080	7,790	9,120	—	10,370
	1991	8,050	7,280	7,860	9,000	7,760
	1992	9,150	8,670	9,380	9,580	9,520
	1993	7,990	8,420	8,630	8,520	8,100
	1994	9,170	9,670	9,760	10,320	10,300
<b>Location Mean</b>		<b>8,490</b>	<b>8,370</b>	<b>8,950</b>	<b>7,480</b>	<b>9,210</b>
Sutter	1990	9,770	10,380	11,920	—	11,220
	1991	11,370	11,430	12,650	12,250	11,980
	1992	9,320	9,660	10,360	10,130	9,430
	1993	8,680	9,090	9,300	8,550	8,070
	1994	9,430	9,510	11,010	9,620	8,890
<b>Location Mean</b>		<b>9,710</b>	<b>10,010</b>	<b>11,050</b>	<b>8,110</b>	<b>9,920</b>
San Joaquin	1990	9,380	9,520	9,260	—	9,420
	1991	9,630	10,120	10,380	10,010	8,520
	1992	10,120	10,360	10,340	8,550	8,520
	1993	9,590	9,780	9,190	8,300	8,010
	1994	8,460	9,020	8,660	8,220	7,950
<b>Location Mean</b>		<b>9,440</b>	<b>9,760</b>	<b>9,570</b>	<b>7,020</b>	<b>8,480</b>
<b>Loc/Years Mean</b>		<b>9,210</b>	<b>9,380</b>	<b>9,860</b>	<b>7,540</b>	<b>9,200</b>
<b>Yield % M-201</b>		—	<b>102%</b>	<b>107%</b>	<b>82%</b>	<b>100%</b>
<b>Number of tests</b>		<b>20</b>	<b>20</b>	<b>20</b>	<b>20</b>	<b>20</b>

Table 10. 1994 Butte County Early Rice Variety Trial Single Location Summary (RES)

ADVANCED LINES AND VARIETIES

Variety	Grain Type	Grain Yield @ 14% (lb/acre)	Grain Moisture (%)	Seedling Vigor (1-5)	Days to 50% Heading	Lodging (1-99)	Plant Height (cm)
92-y-91	L	11210(1)	17.3(12)	4.8(8)	84(4)	3(5)	97(11)
91-y-381	M	10750(2)	18.6(9)	4.9(6)	82(3)	6(9)	91(4)
92-y-521	LWX	10680(3)	17.4(11)	5.0(2)	85(6)	2(3)	92(5)
M-202	M	10650(4)	18.8(8)	5.0(1)	86(7)	10(11)	98(12)
M-204	M	10580(5)	19.6(5)	4.9(4)	88(11)	4(7)	95(10)
92-y-624	M	10570(6)	205(1)	4.9(4)	88(11)	13(13)	97(11)
93-y-312	S	10530(7)	19.3(6)	4.7(12)	89(13)	3(6)	97(11)
L-203	L	10520(8)	16.9(15)	4.8(8)	84(5)	1(1)	88(2)
M-201	M	10410(9)	202(3)	4.8(10)	88(12)	2(3)	93(8)
92-y-328	MPQ	10380(10)	18.4(10)	4.8(11)	88(12)	6(10)	99(13)
92-y-93	L	10350(11)	16.6(16)	4.8(9)	84(4)	1(1)	89(3)
93-y-308	MPQ	10310(12)	19.9(4)	4.9(5)	88(11)	12(12)	93(7)
L-202	L	10040(13)	17.2(13)	4.8(11)	87(9)	1(1)	82(1)
93-y-57	MPQ	9950(14)	19.0(7)	4.8(10)	89(13)	24(14)	102(15)
93-y-92	L	9940(15)	16.4(18)	4.8(8)	88(10)	1(2)	93(8)
VAL 87	S	9770(16)	15.3(19)	4.9(7)	82(2)	4(8)	89(3)
S-201	S	9390(17)	205(2)	4.9(3)	96(14)	3(4)	98(12)
CM-101	SWX	9150(18)	16.5(17)	4.8(11)	80(1)	56(16)	92(6)
M-103	M	9000(19)	17.0(14)	4.8(10)	80(1)	39(15)	94(9)
M-203	MPQ	8970(20)	18.8(8)	4.9(3)	86(8)	95(17)	102(14)
GRAND MEAN		10160	18.2	4.9	86	14	94
% CV		6.5	6.2	1.5	1.1	74.7	4.4
LSD (.05)		930	1.6	1	1	15	6

PRELIMINARY LINES AND VARIETIES

93-y-240	M	11990(1)	18.2(12)	4.8(6)	83(4)	4(8)	98(14)
93-y-589	M	11110(2)	19.5(6)	4.7(9)	87(8)	5(9)	96(12)
93-y-421	M	10860(3)	18.6(11)	4.8(3)	87(10)	6(10)	99(15)
93-y-294	S	10790(4)	21.1(1)	4.8(6)	91(17)	4(8)	93(7)
93-y-409	M	10730(5)	19.0(9)	4.7(7)	83(5)	6(11)	96(11)
93-y-299	S	10720(6)	17.6(16)	4.7(8)	81(3)	10(13)	88(3)
93-y-218	M	10550(7)	17.4(17)	4.8(2)	80(1)	6(11)	98(13)
93-y-587	M	10520(8)	205(3)	4.7(8)	88(11)	2(4)	95(10)
9234442	L	10490(9)	16.6(19)	4.7(8)	89(12)	1(2)	87(2)
93-y-491	L	10470(10)	17.6(15)	4.8(4)	85(7)	3(7)	88(4)
93-y-391	M	10460(11)	19.8(4)	4.7(7)	87(9)	6(10)	92(6)
93-y-323	MPQ	10370(12)	19.4(7)	4.8(4)	90(16)	3(7)	100(16)
93-y-548	SM	10340(13)	17.9(13)	4.8(2)	87(10)	2(3)	94(9)
L-203	L	10250(14)	17.1(18)	4.8(5)	84(6)	1(2)	86(1)
93-y-549	L	10220(15)	19.4(8)	4.8(6)	90(15)	1(2)	94(8)
93-y-306	MPQ	10000(16)	19.7(5)	4.8(5)	89(13)	2(5)	101(17)
93-y-705	M	10000(17)	18.9(10)	4.7(7)	87(10)	3(6)	91(5)
93-y-317	MPQ	9770(18)	205(2)	4.8(6)	88(11)	6(11)	101(18)
93-y-260	M	9750(19)	17.6(15)	4.9(1)	80(2)	10(12)	91(5)
9232012	L	9120(20)	17.8(14)	4.7(10)	89(14)	1(1)	93(7)
GRAND MEAN		10430	18.7	4.8	86	4	94
% CV		5.0	7.0	1.5	1.2	108.8	4.2
LSD (.05)		740	1.8	0.1	1	6	6

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.



Table 11. 1994 Colusa County Early Rice Variety Trial Single Location Summary (Dennis)

ADVANCED LINES AND VARIETIES

Variety	Grain Type	Grain Yield @ 14% (lb/acre)	Grain Moisture (%)	Seedling Vigor (1-5)	Days to 50% Heading	Lodging (1-99)	Plant Height (cm)
M-201	M	10800(1)	202(1)	3.5(6)	89(13)	1(1)	98(8)
92-y-91	L	10610(2)	16.5(14)	3.8(5)	86(6)	1(1)	94(3)
91-y-381	M	10580(3)	18.7(9)	4.0(4)	85(5)	1(1)	102(12)
92-y-521	LWX	10320(4)	15.4(20)	5.0(1)	87(8)	1(1)	100(9)
M-204	M	10280(5)	18.3(11)	4.0(4)	89(12)	1(1)	96(6)
VAL 87	S	10100(6)	15.6(19)	4.5(2)	81(3)	1(1)	98(8)
M-202	M	10080(7)	19.4(3)	4.0(4)	86(6)	20(2)	103(13)
92-y-93	L	10010(8)	16.6(13)	3.8(5)	87(7)	1(1)	97(7)
S-201	S	9930(9)	19.0(6)	4.3(3)	93(17)	34(4)	103(13)
92-y-624	M	9920(10)	19.6(2)	4.3(3)	90(15)	38(5)	106(16)
93-y-92	L	9870(11)	16.2(16)	4.0(4)	90(16)	1(1)	101(10)
L-203	L	9710(12)	15.7(18)	4.0(4)	88(9)	1(1)	83(1)
M-203	MPQ	9610(13)	18.8(8)	4.0(4)	84(4)	95(9)	105(14)
93-y-312	S	9490(14)	19.4(5)	3.5(6)	88(10)	1(1)	96(5)
93-y-308	MPQ	9300(15)	18.5(10)	4.0(4)	89(14)	20(2)	102(11)
93-y-328	MPQ	9110(16)	18.9(7)	3.5(6)	88(11)	25(3)	105(15)
L-202	L	9040(17)	15.9(17)	4.0(4)	90(15)	1(1)	88(2)
M-103	M	8700(18)	17.6(12)	4.0(4)	79(2)	75(8)	96(6)
93-y-75	MPQ	8630(19)	19.4(4)	3.8(5)	86(6)	58(6)	110(17)
CM-101	SWX	8550(20)	16.4(15)	4.0(4)	78(1)	70(7)	96(4)
GRAND MEAN		9730	17.8	4	86	22	99
% CV		5.7	4.7	8.4	1.1	508.0	4.2
LSD (.05)		790	1.2	5	1	16	6

PRELIMINARY LINES AND VARIETIES

93-y-240	M	11150(1)	17.8(14)	4.5(1)	86(5)	1(1)	107(17)
93-y-589	M	10530(2)	18.8(8)	3.5(3)	88(6)	1(1)	99(11)
93-y-421	M	10460(3)	18.5(12)	4.0(2)	88(7)	1(1)	98(9)
93-y-587	M	10460(4)	19.4(6)	4.0(2)	88(7)	1(1)	100(12)
93-y-317	MPQ	10350(5)	18.7(9)	4.0(2)	86(5)	3(2)	101(13)
93-y-549	L	10180(6)	17.1(15)	4.0(2)	92(11)	1(1)	101(14)
L-203	L	10140(7)	16.4(19)	4.0(2)	88(7)	1(1)	88(1)
93-y-306	MPQ	10060(8)	202(2)	3.5(3)	90(9)	1(1)	101(14)
93-y-548	L	10050(9)	15.9(20)	4.0(2)	89(8)	1(1)	100(12)
93-y-409	M	10030(10)	18.6(10)	3.0(4)	84(4)	1(1)	96(7)
93-y-218	M	9970(11)	18.0(13)	4.5(1)	80(1)	1(1)	92(4)
93-y-491	L	9950(12)	16.7(17)	3.5(3)	88(7)	1(1)	92(3)
93-y-323	MPQ	9760(13)	19.5(5)	4.0(2)	91(10)	1(1)	103(16)
93-y-391	M	9710(14)	19.9(3)	4.0(2)	88(7)	1(1)	98(10)
9234442	L	9570(15)	16.4(18)	4.0(2)	92(11)	1(1)	96(7)
93-y-294	S	9530(16)	19.3(7)	4.0(2)	92(11)	3(2)	95(6)
93-y-299	S	9370(17)	203(1)	3.5(3)	81(2)	11(3)	90(2)
93-y-260	M	9350(18)	18.6(11)	4.0(2)	82(3)	1(1)	97(8)
93-y-705	M	8980(19)	19.6(4)	3.5(3)	88(6)	1(1)	103(15)
9232012	L	8030(20)	16.8(16)	3.0(4)	92(11)	1(1)	93(5)
GRAND MEAN		9880	18.3	3.8	87	2	97
% CV		4.0	1.9	9.1	1.2	182.9	3.6
LSD (.05)		820	0.7	0.7	2	6	7

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.

Table 12. 1994 Yolo County Early Rice Variety Trial Single Location Summary (Geer)

ADVANCED LINES AND VARIETIES

Variety	Grain Type	Grain Yield (lb/acre)	Grain Moisture (%)	Seedling Vigor (1-5)	Days to 50% Heading	Lodging (1-99)	Plant Height (cm)
91-y-381	M	12270(1)	23.5(3)	4.5(2)	99(8)	1(1)	100(10)
M-202	M	12040(2)	21.8(6)	4.3(4)	100(9)	9(4)	100(9)
92-y-521	LWX	11690(3)	17.7(17)	4.1(6)	99(7)	4(2)	103(12)
92-y-328	MPQ	11570(4)	23.3(4)	3.9(9)	101(13)	13(5)	104(13)
92-y-93	L	11420(5)	17.9(15)	4.0(8)	97(5)	1(1)	94(4)
M-201	M	11380(6)	24.5(1)	3.9(9)	102(15)	1(1)	99(8)
93-y-92	L	11310(7)	17.2(19)	4.1(7)	97(4)	1(1)	93(3)
93-y-312	S	10950(8)	24.2(2)	3.9(9)	102(15)	1(1)	104(14)
M-204	M	10870(9)	19.6(9)	4.1(5)	101(11)	18(7)	99(8)
92-y-91	L	10870(10)	18.0(14)	3.8(10)	96(3)	1(1)	97(7)
M-103	M	10770(11)	19.3(10)	3.4(12)	90(2)	34(8)	95(6)
L-202	L	10670(12)	18.6(12)	3.6(11)	102(14)	1(1)	92(2)
93-y-308	MPQ	10600(13)	20.5(8)	4.8(1)	101(12)	56(9)	105(15)
M-203	MPQ	10390(14)	20.7(7)	4.1(5)	100(10)	78(11)	106(16)
93-y-57	MPQ	10320(15)	22.0(5)	4.0(8)	99(8)	66(10)	108(17)
L-203	L	10310(16)	18.0(13)	4.0(8)	101(11)	1(1)	82(1)
CM-101	SWX	10270(17)	17.7(18)	4.3(4)	89(1)	17(6)	94(5)
VAL 87	S	10260(18)	19.0(11)	4.4(3)	97(6)	7(3)	102(11)
S-201	S	9850(19)	17.8(16)	4.4(3)	104(17)	66(10)	109(18)
92-y-624	M	9850(20)	16.6(20)	4.3(4)	102(16)	83(12)	109(18)
GRAND MEAN		10880	19.9	4.1	99	23	100
% CV		5.5	6.0	8.1	1.0	53.8	3.5
LSD (.05)		850	1.7	5	1	17	5

PRELIMINARY LINES AND VARIETIES

93-y-260	M	12070(1)	22.4(5)	4.5(2)	91(2)	3(2)	98(6)
93-y-589	M	12050(2)	22.3(6)	4.0(4)	101(10)	3(2)	103(11)
93-y-421	M	11890(3)	21.7(7)	4.0(4)	100(7)	3(2)	100(9)
93-y-218	M	11890(4)	20.9(11)	4.8(1)	91(2)	1(1)	95(5)
93-y-409	M	11620(5)	22.7(4)	4.0(4)	93(3)	1(1)	107(14)
93-y-306	MPQ	11510(6)	24.3(2)	4.0(4)	101(9)	1(1)	103(12)
93-y-548	L	11460(7)	17.6(17)	4.3(3)	99(5)	1(1)	99(7)
93-y-240	M	11280(8)	21.6(8)	4.5(2)	100(8)	15(5)	108(15)
93-y-549	L	11090(9)	18.7(14)	3.8(5)	100(7)	1(1)	103(12)
93-y-323	MPQ	11060(10)	23.1(3)	4.3(3)	103(11)	1(1)	105(13)
L-203	L	11050(11)	18.7(14)	4.0(4)	100(8)	1(1)	81(1)
93-y-705	M	10930(12)	21.4(9)	3.5(6)	100(8)	1(1)	108(16)
93-y-299	S	10840(13)	21.0(10)	3.8(5)	89(1)	31(6)	95(4)
93-y-491	L	10800(14)	17.5(18)	3.5(6)	97(4)	1(1)	93(3)
93-y-391	M	10800(15)	19.8(13)	4.0(4)	101(9)	13(4)	101(10)
93-y-587	M	10710(16)	24.5(1)	4.0(4)	101(9)	1(1)	101(10)
93-y-294	S	10580(17)	20.1(12)	4.3(3)	105(12)	35(7)	99(7)
9232012	L	10240(18)	18.6(15)	4.0(4)	101(10)	1(1)	99(7)
9234442	L	10070(19)	18.6(16)	3.5(6)	105(12)	1(1)	90(2)
93-y-317	MPQ	9240(20)	22.7(4)	4.0(4)	99(6)	6(3)	100(8)
GRAND MEAN		11060	20.9	4	99	6	99
% CV		8.4	3.5	6.6	0.8	173.5	3.5
LSD (.05)		1940	1.5	0.6	2	22	7

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.

Table 13. 1994 Yuba County Early Rice Variety Trial Single Location Summary (Quad-4)

ADVANCED LINES AND VARIETIES

Variety	Grain Type	Grain Yield @ 14%	Grain Moisture	Seedling Vigor	Days to 50% Heading	Lodging	Plant Height
		(lb/acre)	(%)	(1-5)		(1-99)	(cm)
92-y-624	M	8420(1)	21.0(8)	4.0(2)	100(11)	1(1)	94(14)
91-y-381	M	8230(2)	19.6(11)	3.3(5)	98(8)	1(1)	89(8)
CM-101	SWX	8030(3)	16.9(12)	3.5(4)	91(1)	19(4)	93(13)
93-y-328	MPQ	8000(4)	19.9(10)	3.3(5)	102(14)	7(3)	100(18)
M-202	M	7980(5)	20.6(9)	4.3(1)	100(9)	1(1)	94(14)
M-103	M	7980(6)	16.3(16)	3.0(6)	91(2)	6(2)	92(12)
92-y-521	LWX	7740(7)	16.0(18)	4.3(1)	100(10)	1(1)	88(6)
92-y-93	L	7550(8)	16.2(17)	3.8(3)	98(7)	1(1)	83(3)
93-y-312	S	7460(9)	22.5(5)	3.0(6)	104(17)	1(1)	94(15)
93-y-92	L	7360(10)	14.0(20)	4.0(2)	95(3)	1(1)	88(7)
M-201	M	7190(11)	21.9(6)	4.0(2)	102(13)	1(1)	90(9)
93-y-308	MPQ	7140(12)	22.6(4)	3.0(6)	103(16)	1(1)	91(11)
VAL 87	S	7030(13)	16.7(14)	4.3(1)	96(5)	1(1)	86(5)
L-203	L	7020(14)	16.6(15)	3.5(4)	98(6)	1(1)	81(2)
M-203	MPQ	6880(15)	26.2(1)	3.5(4)	101(12)	90(6)	97(16)
S-201	S	6480(16)	23.9(3)	4.0(2)	111(19)	1(1)	91(10)
M-204	M	6380(17)	21.6(7)	3.3(5)	104(18)	1(1)	86(4)
92-y-91	L	6360(18)	15.5(19)	3.5(4)	96(4)	1(1)	90(9)
93-y-75	MPQ	6340(19)	25.1(2)	3.8(3)	101(12)	45(5)	99(17)
L-202	L	5860(20)	16.8(13)	3.0(6)	102(15)	1(1)	80(1)
GRAND MEAN		7270	19.5	3.6	100	9	90
% CV		5.0	6.3	11.3	1.5	103.6	2.6
LSD (.05)		510	1.7	0.6	2	13	3

PRELIMINARY LINES AND VARIETIES

93-y-199	S	9330(1)	20.3(8)	2.5(5)	91(2)	1(1)	91(11)
93-y-240	M	8810(2)	20.8(5)	4.5(1)	98(8)	1(1)	92(12)
93-y-218	M	8770(3)	19.0(12)	3.5(3)	90(1)	1(1)	87(5)
93-y-260	M	8460(4)	16.7(15)	4.5(1)	93(3)	1(1)	88(7)
93-y-317	MPQ	8430(5)	20.8(5)	3.5(3)	100(11)	1(1)	93(13)
93-y-391	M	7990(6)	20.7(7)	3.0(4)	99(10)	1(1)	90(9)
93-y-589	M	7830(7)	19.5(11)	3.5(3)	99(9)	1(1)	85(3)
L-203	L	7800(8)	16.0(18)	3.5(3)	97(5)	1(1)	78(1)
93-y-705	M	7800(9)	19.9(10)	2.5(5)	99(10)	1(1)	95(14)
93-y-323	MPQ	7750(10)	21.4(4)	4.0(2)	103(15)	1(1)	95(15)
93-y-409	M	7700(11)	21.6(3)	4.0(2)	97(6)	1(1)	92(12)
93-y-306	MPQ	7680(12)	20.0(9)	4.0(2)	102(14)	1(1)	92(12)
93-y-491	L	7570(13)	16.2(17)	3.0(4)	95(4)	1(1)	87(5)
93-y-421	M	7370(14)	20.7(6)	3.5(3)	101(13)	1(1)	86(4)
93-y-294	S	7290(15)	23.7(1)	3.5(3)	109(17)	1(1)	90(10)
9234442	L	7090(16)	16.7(16)	4.0(2)	102(14)	1(1)	88(6)
93-y-549	L	7070(17)	17.7(14)	4.5(1)	101(12)	1(1)	89(8)
93-y-548	L	6960(18)	15.6(19)	4.5(1)	98(7)	1(1)	90(10)
9232012	L	6520(19)	18.3(13)	3.5(3)	101(13)	1(1)	85(2)
93-y-587	M	6470(20)	22.3(2)	4.5(1)	104(16)	1(1)	86(4)
MEAN		7720	19.4	3.7	99	1	89
% CV		5.4	4.6	11.4	1.4	0.0	2.5
LSD (.05)		870	1.8	0.9	3	0	5

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.

Table 14. 1994 Four Location Early Lines and Varieties Summary Table

ADVANCED LINES AND VARIETIES		RES, Colusa, Yolo, Yuba					
Variety	Grain Type	Grain Yield @ 14%	Grain Moisture	Seedling Vigor	Days to 50% Heading	Lodging	Plant Height
		(lb/acre)	(%)	(1-5)		(1-99)	(cm)
91-y-381	M	10460( 1)	201(9)	4.2( 8)	91( 5)	2( 7)	95(10)
M-202	M	10190( 2)	202( 7)	4.4( 4)	93(10)	10(10)	99(13)
92-y-521	LWX	10110( 3)	16.6(19)	4.6( 1)	93( 9)	2( 6)	95(10)
M-201	M	9950( 4)	21.7( 1)	4.0(13)	95(16)	1( 3)	95( 9)
92-y-93	L	9830( 5)	16.8(16)	4.1(11)	91( 6)	1( 1)	90( 3)
92-y-328	MPQ	9770( 6)	201( 8)	3.8(15)	95(13)	13(11)	102(16)
92-y-91	L	9760( 7)	16.8(15)	4.0(14)	90( 4)	2( 4)	95( 8)
92-y-624	M	9690( 8)	19.5(11)	4.4( 5)	95(15)	34(14)	101(15)
93-y-92	L	9620( 9)	16.0(20)	4.2( 6)	92( 7)	1( 2)	94( 6)
93-y-312	S	9610(10)	21.3( 3)	3.8(17)	96(18)	2( 5)	98(12)
M-204	M	9530(11)	19.8(10)	4.1(12)	95(17)	6( 9)	94( 6)
L-203	L	9390(12)	16.8(17)	4.1(11)	92( 8)	1( 1)	84( 1)
93-y-308	MPQ	9340(13)	204( 5)	4.2( 7)	95(16)	22(12)	98(11)
VAL 87	S	9290(14)	16.6(18)	4.5( 2)	89( 3)	3( 8)	94( 4)
M-103	M	9110(15)	17.6(12)	3.8(16)	85( 2)	38(15)	94( 7)
CM-101	SWX	9000(16)	16.9(14)	4.1(10)	85( 1)	40(16)	94( 5)
M-203	MPQ	8960(17)	21.1( 4)	4.1( 9)	93(11)	89(18)	102(17)
S-201	S	8910(18)	203( 6)	4.4( 3)	101(19)	26(13)	100(14)
L-202	L	8900(19)	17.1(13)	3.8(15)	95(14)	1( 1)	85( 2)
93-y-57	MPQ	8810(20)	21.4( 2)	4.1(12)	94(12)	48(17)	105(18)
MEAN		9510	18.9	4.1	93	17	96
% CV		5.9	5.9	7.6	1.2	64.1	3.8
LSD (.05)		390	8	2	1	8	3

PRELIMINARY LINES AND VARIETIES

93-y-240	M	10720( 1)	19.0(12)	4.6( 1)	92( 6)	6(13)	101(18)
93-y-589	M	10320( 2)	19.3( 8)	3.9(11)	94(10)	3( 8)	95(11)
93-y-218	M	10090( 3)	18.4(13)	4.4( 3)	85( 1)	3( 7)	93( 6)
93-y-421	M	10010( 4)	19.1( 9)	4.1( 8)	95(13)	4(10)	95(10)
93-y-299	S	9880( 5)	19.1(11)	3.6(14)	86( 2)	14(15)	91( 4)
93-y-409	M	9750( 6)	19.5( 6)	3.9(11)	90( 4)	4( 9)	98(14)
93-y-260	M	9750( 7)	18.2(14)	4.5( 2)	87( 3)	6(12)	94( 7)
L-203	L	9730( 8)	16.6(17)	4.1( 9)	93( 7)	1( 2)	84( 1)
93-y-306	MPQ	9680( 9)	203( 2)	4.1( 9)	96(15)	2( 5)	99(16)
93-y-391	M	9630(10)	19.1(10)	3.9(11)	94(12)	6(13)	95(11)
93-y-491	L	9620(11)	16.2(19)	3.7(13)	92( 5)	2( 6)	90( 2)
93-y-323	MPQ	9550(12)	202( 3)	4.3( 5)	97(19)	2( 6)	101(19)
93-y-549	L	9520(13)	17.6(15)	4.3( 6)	96(16)	1( 2)	97(13)
93-y-294	S	9480(14)	201( 4)	4.1( 7)	100(20)	12(14)	94( 8)
93-y-587	M	9460(15)	206( 1)	4.3( 4)	96(14)	2( 4)	95( 9)
93-y-548	L	9430(16)	16.1(20)	4.4( 3)	94( 8)	1( 3)	96(12)
93-y-705	M	9420(17)	19.4( 7)	3.6(15)	94(11)	2( 5)	99(17)
93-y-317	MPQ	9310(18)	19.9( 5)	4.1( 9)	94( 9)	5(11)	98(15)
9234442	L	9210(19)	16.5(18)	4.1(10)	97(18)	1( 2)	90( 3)
9232012	L	8310(20)	17.5(16)	3.8(12)	97(17)	1( 1)	91( 5)
MEAN		9640	18.6	4.1	93	4	95
% CV		6.3	3.9	7.5	1.1	163.3	3.3
LSD (.05)		610	0.7	0.3	1	6	3

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.

**Table 15. Grain Yield (lb/acre) Summary of Early Rice Varieties by Location and Year (1990-1994)**

Location	Year	M-201	M-202	M-203	M-204	L-202	L-203	S-201
Butte (RES)	1990	9,920	8,790	7,000	10,200	10,230	10,700	8,900
	1991	10,280	9,490	8,570	9,940	9,330	8,830	9,030
	1992	10,080	10,250	9,040	9,780	8,930	8,990	9,810
	1993	10,430	9,760	9,460	10,410	9,450	9,930	10,720
	1994	10,410	10,650	10,520	10,580	10,040	10,520	9,390
<b>Loc. Mean</b>		<b>10,220</b>	<b>9,790</b>	<b>8,920</b>	<b>10,180</b>	<b>9,600</b>	<b>9,790</b>	<b>9,570</b>
Colusa	1990	8,530	7,430	6,050	8,760	8,780	9,220	7,810
	1991	9,850	9,130	7,790	10,390	8,490	9,680	9,020
	1992	9,630	10,270	8,970	10,070	7,980	8,830	10,160
	1993	8,520	8,210	8,530	8,840	8,630	8,960	8,730
	1994	10,800	10,080	9,610	10,280	9,040	9,710	9,930
<b>Loc. Mean</b>		<b>9,470</b>	<b>9,020</b>	<b>8,190</b>	<b>9,670</b>	<b>8,580</b>	<b>9,290</b>	<b>9,130</b>
Yolo	1990	9,300	9,640	6,830	9,500	9,210	9,750	7,970
	1991	11,020	11,500	10,480	11,300	10,570	10,780	11,240
	1992	10,660	11,920	9,460	11,020	10,720	10,750	9,290
	1993	10,140	10,660	10,060	10,150	9,460	9,330	9,770
	1994	11,380	12,040	10,390	10,870	10,670	10,310	9,850
<b>Loc. Mean</b>		<b>10,500</b>	<b>11,150</b>	<b>9,440</b>	<b>10,570</b>	<b>10,130</b>	<b>10,180</b>	<b>9,620</b>
Yuba (Dist 10)	1990	9,500	8,940	7,620	10,160	8,770	9,740	8,630
	1991	10,700	11,070	10,530	11,170	9,130	9,350	10,540
	1992	9,860	11,340	10,460	11,020	8,440	9,280	9,080
	1993	8,920	10,160	10,160	9,270	8,600	8,870	8,160
	1994	7,190	7,980	6,880	6,380	5,860	7,020	6,480
<b>Loc. Mean</b>		<b>9,230</b>	<b>9,900</b>	<b>9,130</b>	<b>9,600</b>	<b>8,160</b>	<b>8,850</b>	<b>8,580</b>
<b>Loc/Years Mean</b>		<b>9,860</b>	<b>9,970</b>	<b>8,920</b>	<b>10,010</b>	<b>9,120</b>	<b>9,530</b>	<b>9,230</b>
<b>Yield % M-201</b>		—	<b>101%</b>	<b>90%</b>	<b>102%</b>	<b>92%</b>	<b>97%</b>	<b>94%</b>
<b>Number of tests</b>		<b>20</b>	<b>20</b>	<b>20</b>	<b>20</b>	<b>20</b>	<b>20</b>	<b>20</b>

Table 16. 1994 Butte County Intermediate/Late Rice Variety Trial Single Location Summary (RES)

ADVANCED LINES AND VARIETIES

Variety	Grain Type	Grain Yield @ 14% (lb/acre)	Grain Moisture (%)	Seedling Vigor (1-5)	Days to 50% Heading	Lodging (1-99)	Plant Height (cm)
92-y-612	M	11530(1)	18.5(5)	4.8(6)	90(5)	2(3)	97(6)
S-301	S	11500(2)	19.2(4)	4.9(2)	100(8)	3(6)	105(12)
90-y-686	MPQ	11270(3)	205(3)	4.9(1)	101(10)	2(4)	99(9)
93-y-567	MPQ	10960(4)	18.0(8)	4.9(4)	92(6)	3(7)	103(11)
M-204	M	10770(5)	16.8(11)	4.8(5)	89(4)	7(9)	97(7)
91-y-581	S	10640(6)	18.3(7)	4.9(4)	93(7)	1(1)	95(5)
93-y-569	MPQ	10600(7)	21.9(2)	4.9(3)	105(11)	3(5)	95(5)
M-202	M	10580(8)	18.0(9)	4.9(1)	88(3)	54(10)	99(8)
L-202	L	10370(9)	15.8(12)	4.8(7)	89(4)	1(2)	85(1)
M-401	MPQ	10320(10)	24.4(1)	4.9(1)	108(12)	4(8)	105(12)
923441	L	10290(11)	14.9(14)	4.7(8)	88(2)	1(1)	91(3)
91-y-631	L	10190(12)	15.5(13)	4.9(4)	88(3)	1(1)	94(4)
A-301	L	10120(13)	18.4(6)	4.7(9)	100(9)	1(1)	85(2)
M-203	MPQ	8440(14)	17.2(10)	4.9(1)	85(1)	99(11)	99(10)
GRAND MEAN		10540	18.4	4.9	94	13	96
% CV		4.9	5.6	1.2	2.6	95.9	3.2
LSD (.05)		740	1.5	1	4	18	4

PRELIMINARY LINES AND VARIETIES

93-y-582	M	11670(1)	16.8(9)	4.9(2)	88(10)	2(4)	97(10)
93-y-738	M	11610(2)	16.8(8)	4.8(9)	89(11)	5(7)	98(11)
93-y-745	M	11520(3)	17.7(4)	4.8(8)	90(13)	11(9)	96(9)
94-y-118	MPQ	11190(4)	19.0(2)	5.0(1)	100(17)	3(6)	99(13)
93-y-420	M	11190(5)	17.3(7)	4.7(11)	84(3)	13(10)	95(7)
93-y-305	MPQ	10840(6)	16.7(10)	4.9(3)	88(9)	7(8)	96(9)
93-y-410	M	10800(7)	16.2(12)	4.9(5)	85(4)	20(14)	99(13)
93-y-584	M	10800(8)	17.8(3)	4.8(8)	91(14)	2(3)	98(12)
93-y-585	M	10740(9)	17.6(5)	4.9(4)	88(9)	15(12)	101(14)
93-y-325	MPQ	10690(10)	17.7(4)	4.9(3)	89(11)	14(11)	98(11)
9250840	L	10680(11)	16.0(14)	4.8(10)	92(16)	1(1)	93(5)
93-y-422	M	10630(12)	17.5(6)	4.9(2)	83(2)	17(13)	95(7)
92-y-656	L	10520(13)	16.2(13)	4.7(12)	92(15)	2(2)	96(8)
93-y-246	M	10420(14)	16.3(11)	5.0(1)	82(1)	86(16)	95(6)
93-y-568	MPQ	10400(15)	203(1)	5.0(1)	101(18)	3(5)	95(7)
93-y-614	L	10290(16)	15.4(16)	4.9(5)	87(7)	1(1)	91(4)
L-202	L	10160(17)	15.0(17)	4.8(6)	87(8)	1(1)	83(1)
93-y-609	L	10110(18)	15.8(15)	4.8(6)	90(12)	2(2)	90(2)
93-y-539	L	9880(19)	14.2(18)	4.8(7)	85(5)	2(2)	90(3)
9231508	L	9280(20)	13.9(19)	4.8(8)	86(6)	26(15)	103(15)
GRAND MEAN		10670	16.7	4.9	89	11	95
% CV		5.8	5.0	1.1	1.5	103.8	3.7
LSD (.05)		870	1.2	0.1	2	17	5

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.

Table 17. 1994 Glenn County Intermediate/Late Rice Variety Trial Single Location Summary (Wylie)

ADVANCED LINES AND VARIETIES

Variety	Grain Type	Grain Yield @ 14%	Grain Moisture	Seedling Vigor	Days to 50% Heading	Lodging	Plant Height
		(lb/acre)	(%)	(1-5)		(1-99)	(cm)
M-204	M	9420( 1)	14.7(11)	3.5( 4)	95( 3)	1( 1)	95( 4)
91-y-581	S	9380( 2)	16.0( 5)	4.5( 1)	96( 4)	1( 1)	93( 2)
M-202	M	9350( 3)	14.9(10)	3.5( 4)	92( 2)	15( 4)	101(11)
M-401	MPQ	9320( 4)	19.9( 1)	4.0( 2)	110(14)	3( 3)	109(12)
90-y-686	MPQ	9240( 5)	16.5( 3)	4.0( 2)	104(11)	1( 1)	97( 7)
92-y-612	M	9130( 6)	16.2( 4)	3.0( 6)	99( 6)	1( 1)	100( 8)
93-y-567	MPQ	9010( 7)	15.7( 7)	3.3( 5)	100(10)	1( 1)	101(11)
93-y-569	MPQ	8790( 8)	15.8( 6)	3.8( 3)	109(13)	1( 1)	100( 8)
9234441	L	8720( 9)	14.1(14)	3.0( 6)	97( 5)	1( 1)	94( 3)
A-301	L	8710(10)	15.5( 8)	2.5( 7)	104(12)	1( 1)	97( 6)
S-301	S	8650(11)	16.5( 2)	3.5( 4)	99( 9)	2( 2)	97( 5)
L-202	L	8100(12)	14.4(13)	3.3( 5)	99( 7)	1( 1)	89( 1)
91-y-631	L	8030(13)	14.5(12)	3.5( 4)	99( 8)	1( 1)	100( 9)
M-203	MPQ	7450(14)	15.3( 9)	3.3( 5)	91( 1)	70( 5)	101(10)
GRAND MEAN		8810	15.7	3.5	99	7	98
% CV		5.4	3.2	13.6	1.1	66.6	3.4
LSD (.05)		670	7	7	2	7	5

PRELIMINARY LINES AND VARIETIES

93-y-420	M	10400( 1)	16.1( 2)	3.0( 4)	94( 2)	1( 1)	95( 5)
93-y-738	M	10190( 2)	15.2( 7)	2.0( 6)	98( 8)	5( 3)	106(13)
93-y-582	M	9880( 3)	14.4(15)	3.5( 3)	95( 5)	1( 1)	98( 9)
9250840	L	9720( 4)	14.6(12)	2.5( 5)	101(10)	1( 1)	108(14)
93-y-410	M	9370( 5)	15.2( 6)	2.5( 5)	94( 2)	3( 2)	99(10)
93-y-745	M	9360( 6)	15.5( 4)	3.0( 4)	98( 8)	1( 1)	102(12)
93-y-584	M	9350( 7)	15.1( 8)	3.0( 4)	98( 8)	1( 1)	99(10)
93-y-614	L	9150( 8)	14.0(16)	3.5( 3)	97( 7)	1( 1)	90( 3)
93-y-305	MPQ	9120( 9)	15.3( 5)	3.0( 4)	94( 3)	10( 6)	110(15)
94-y-118	MPQ	8810(10)	14.5(13)	4.0( 2)	101(11)	6( 4)	101(11)
92-y-656	L	8770(11)	14.9(10)	3.0( 4)	101(10)	1( 1)	101(11)
93-y-325	MPQ	8610(12)	15.6( 3)	3.0( 4)	95( 4)	1( 1)	96( 7)
93-y-568	MPQ	8530(13)	16.4( 1)	3.5( 3)	104(12)	1( 1)	106(13)
93-y-422	M	8470(14)	14.9( 9)	3.0( 4)	94( 3)	8( 5)	97( 8)
93-y-585	M	8450(15)	14.7(11)	3.5( 3)	96( 6)	6( 4)	96( 6)
93-y-609	L	8110(16)	13.6(19)	4.0( 2)	99( 9)	1( 1)	98( 9)
9231508	L	7960(17)	13.9(17)	2.5( 5)	99( 9)	40( 7)	106(13)
L-202	L	7890(18)	14.5(14)	3.0( 4)	98( 8)	1( 1)	84( 1)
93-y-246	M	7870(19)	13.6(20)	4.5( 1)	90( 1)	10( 6)	89( 2)
93-y-539	L	7570(20)	13.8(18)	3.0( 4)	98( 8)	1( 1)	91( 4)
GRAND MEAN		8880	14.8	3.2	97	5	98
% CV		5.1	3.3	14.6	0.9	136.8	4.7
LSD (.05)		950	1	1	2	14	10

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.

**Table 18. 1994 Sutter County Intermediate/Late Rice Variety Trial Single Location Summary (Lemenager)**

*ADVANCED LINES AND VARIETIES*

Variety	Grain Type	Grain Yield @ 14% (lb/acre)	Grain Moisture (%)	Seedling Vigor (1-5)	Days to 50% Heading	Lodging (1-99)	Plant Height (cm)
90-y-686	MPQ	10820(1)	19.7(5)	4.4(2)	96(10)	4(3)	95(7)
92-y-612	M	9630(2)	19.4(7)	3.8(6)	89(5)	4(4)	93(5)
9234441	L	9490(3)	16.9(12)	4.1(4)	90(6)	20(6)	90(3)
S-301	S	9470(4)	202(2)	4.5(1)	94(9)	31(7)	97(9)
91-y-581	S	9370(5)	19.6(6)	4.3(3)	92(7)	4(3)	96(8)
A-301	L	9310(6)	17.9(10)	3.4(7)	96(11)	1(1)	86(2)
M-401	MPQ	9140(7)	19.8(4)	4.0(5)	101(13)	91(10)	103(12)
91-y-631	L	9120(8)	16.5(14)	4.1(4)	88(4)	3(2)	94(6)
93-y-569	MPQ	9080(9)	17.7(11)	4.0(5)	100(12)	3(2)	93(4)
93-y-567	MPQ	8640(10)	21.4(1)	4.1(4)	92(8)	64(8)	103(13)
L-202	L	8450(11)	16.8(13)	4.0(5)	87(3)	1(1)	85(1)
M-204	M	8340(12)	18.7(8)	4.1(4)	87(2)	19(5)	93(5)
M-202	M	8110(13)	19.8(3)	4.4(2)	88(4)	90(9)	101(10)
M-203	MPQ	7550(14)	18.1(9)	4.3(3)	85(1)	99(11)	102(11)
GRAND MEAN		9040	18.7	4.1	92	31	95
% CV		5.6	6.0	8.5	1.0	3016.0	2.6
LSD (.05)		720	1.6	5	1	13	3

*PRELIMINARY LINES AND VARIETIES*

93-y-582	M	10470(1)	17.5(6)	4.3(3)	91(9)	5(2)	92(9)
9250840	L	10270(2)	15.5(16)	4.0(4)	91(10)	1(1)	95(12)
93-y-738	M	10050(3)	17.6(5)	3.8(5)	92(12)	15(5)	94(11)
93-y-745	M	9720(4)	18.7(2)	3.8(5)	93(13)	11(3)	97(15)
93-y-568	MPQ	9670(5)	17.4(7)	4.3(3)	98(15)	18(6)	94(11)
92-y-656	L	9580(6)	16.8(10)	3.5(6)	92(11)	43(10)	98(16)
93-y-584	M	9410(7)	18.3(3)	4.0(4)	92(12)	15(5)	95(13)
94-y-118	MPQ	9220(8)	15.8(14)	4.5(2)	95(14)	5(2)	92(8)
93-y-585	M	8990(9)	17.6(5)	4.5(2)	87(5)	30(8)	91(7)
93-y-410	M	8770(10)	16.5(11)	4.3(3)	85(3)	18(6)	90(5)
93-y-325	MPQ	8680(11)	18.1(4)	4.0(4)	88(7)	35(9)	94(11)
93-y-420	M	8530(12)	16.9(9)	4.0(4)	85(3)	30(8)	91(6)
93-y-609	L	8530(13)	15.2(18)	4.5(2)	91(9)	1(1)	89(4)
93-y-246	M	8500(14)	16.4(12)	4.8(1)	80(1)	73(11)	94(10)
93-y-614	L	8310(15)	15.7(15)	4.3(3)	87(5)	1(1)	87(3)
93-y-422	M	8060(16)	17.1(8)	4.5(2)	84(2)	13(4)	95(12)
L-202	L	8000(17)	15.4(17)	4.0(4)	88(6)	1(1)	84(1)
93-y-539	L	7710(18)	15.1(19)	4.0(4)	85(3)	23(7)	85(2)
93-y-305	MPQ	7470(19)	18.9(1)	3.8(5)	89(8)	80(12)	99(17)
9231508	L	7010(20)	16.0(13)	3.5(6)	86(4)	97(13)	96(14)
GRAND MEAN		8850	16.8	4.1	89	26	92
% CV		4.5	3.2	6.6	1.3	47.8	4.2
LSD (.05)		830	1.1	0.6	2	26	8

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.



Table 19. 1994 Three Location Intermediate/Late Lines and Varieties Summary

ADVANCED LINES AND VARIETIES

RES, Glenn, Sutter

Variety	Grain Type	Grain Yield @ 14% (lb/acre)	Grain Moisture (%)	Seedling Vigor (1-5)	Days to 50% Heading	Lodging (1-99)	Plant Height (cm)
90-y-686	MPQ	10440(1)	18.9(2)	4.4(2)	100(11)	2(6)	97(9)
92-y-612	M	10090(2)	18.0(6)	3.8(13)	92(6)	2(6)	96(8)
S-301	S	9870(3)	18.6(3)	4.3(4)	97(9)	12(9)	100(10)
91-y-581	S	9800(4)	18.0(7)	4.5(1)	93(7)	2(4)	94(4)
M-401	M	9590(5)	21.4(1)	4.3(3)	106(13)	33(11)	106(14)
93-y-567	MPQ	9540(6)	18.3(5)	4.1(10)	95(8)	23(10)	102(13)
M-204	M	9510(7)	16.7(11)	4.2(8)	90(3)	9(8)	95(5)
9234441	L	9500(8)	15.3(14)	4.0(12)	92(4)	7(7)	91(3)
93-y-569	MPQ	9490(9)	18.5(4)	4.2(6)	104(12)	2(5)	96(6)
A-301	L	9380(10)	17.3(9)	3.5(14)	100(10)	1(1)	89(2)
M-202	M	9350(11)	17.6(8)	4.3(5)	89(2)	53(12)	100(11)
91-y-631	L	9110(12)	15.5(13)	4.2(7)	92(5)	2(3)	96(7)
L-202	L	8970(13)	15.7(12)	4.0(11)	92(4)	1(2)	86(1)
M-203	M	7810(14)	16.8(10)	4.2(9)	87(1)	89(13)	101(12)
MEAN		9460	17.6	4.1	95	17	96
% CV		5.3	5.3	8.2	1.7	55.1	3.1
LSD (.05)		400	7	3	1	8	2

PRELIMINARY LINES AND VARIETIES

93-y-582	M	10590(1)	15.9(11)	4.2(6)	93(10)	3(2)	95(8)
93-y-738	M	10420(2)	16.3(8)	3.5(18)	94(12)	8(7)	99(13)
93-y-745	M	10270(3)	17.0(4)	3.9(14)	95(14)	5(4)	98(11)
9250840	L	10040(4)	15.1(15)	3.8(15)	96(16)	1(1)	98(11)
93-y-420	M	10000(5)	16.7(6)	3.9(12)	89(3)	18(12)	94(6)
93-y-584	M	9830(6)	16.8(5)	3.9(10)	95(13)	6(5)	98(11)
93-y-410	M	9800(7)	15.5(13)	3.9(14)	89(4)	8(8)	96(10)
94-y-118	MPQ	9690(8)	16.3(9)	4.5(2)	100(17)	4(3)	98(12)
92-y-656	L	9560(9)	15.6(12)	3.7(16)	96(15)	15(11)	99(14)
93-y-568	MPQ	9470(10)	17.6(1)	4.3(5)	101(18)	7(6)	98(12)
93-y-325	MPQ	9400(11)	17.0(2)	4.0(9)	92(9)	13(10)	96(9)
93-y-585	M	9210(12)	16.4(7)	4.3(4)	91(6)	18(13)	95(7)
93-y-614	L	9180(13)	14.9(16)	4.2(7)	91(7)	1(1)	91(3)
93-y-305	MPQ	9120(14)	17.0(3)	3.9(13)	92(8)	31(14)	102(15)
93-y-422	M	8950(15)	16.2(10)	4.2(8)	88(2)	8(7)	95(8)
93-y-246	M	8830(16)	15.2(14)	4.8(1)	84(1)	53(16)	92(4)
93-y-609	L	8700(17)	14.7(18)	4.4(3)	94(11)	1(1)	92(5)
L-202	L	8670(18)	14.8(17)	3.9(10)	92(9)	1(1)	84(1)
93-y-539	L	8340(19)	14.1(20)	3.9(11)	90(5)	9(9)	89(2)
9231508	L	8110(20)	14.3(19)	3.6(17)	91(7)	52(15)	102(15)
MEAN		9410	15.9	4	93	13	95
% CV		4.4	4.3	7.7	1.2	70.1	4.1
LSD (.05)		480	0.8	0.4	1	10	5

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.

**Table 20. Grain Yield (lb/acre) Summary of Intermediate and Late Rice Varieties by Location and Year (1990-1994)**

Location	Year	M-401	A-301	S-301
Butte (RES)	1990	7,800	10,370	10,840
	1991	9,950	8,910	10,110
	1992	10,320	9,100	10,490
	1993	10,310	8,840	9,740
	1994	10,320	10,120	11,500
<b>Location Mean</b>		<b>9,740</b>	<b>9,470</b>	<b>10,540</b>
Glenn	1990	8,600	10,700	9,990
	1991	11,750	9,810	11,700
	1992	11,710	10,120	11,580
	1993	9,500	8,970	9,940
	1994	9,320	8,710	8,650
<b>Location Mean</b>		<b>10,180</b>	<b>9,660</b>	<b>10,370</b>
Sutter	1990	7,990	8,520	9,350
	1991	8,760	8,040	8,640
	1992	10,800	9,680	11,730
	1993	9,970	9,430	10,390
	1994	9,140	9,310	9,470
<b>Location Mean</b>		<b>9,330</b>	<b>9,000</b>	<b>9,920</b>
<b>Loc/Years Mean</b>		<b>9,750</b>	<b>9,380</b>	<b>10,280</b>
<b>Yield % M-401</b>		—	<b>96%</b>	<b>105%</b>
<b>Number of tests</b>		<b>18</b>	<b>18</b>	<b>18</b>