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CALIFORNIA RICE VARIETIES

DESCRIPTION AND PERFORMANCE SUMMARY OF THE 1997 AND MULTIYEAR STATEWIDE RICE VARIETY TESTS IN CALIFORNIA

*J.E. Hill, J.F. Williams, S.C. Scardaci, W.M. Canevari, R.G. Mutters**

University of California Cooperative Extension rice variety evaluation tests were conducted in the Sacramento and San Joaquin Valleys in 1997. This program, a cooperative effort involving the California Cooperative Rice Research Foundation, Inc. (CCRRI) 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 CCRRI 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.

1997 was marked by cool early-season temperatures, significant rainfall at planting, strong winds, and extremely high mid-season temperatures. Rice acreage increased to 528,480 acres in 1997, up almost 16,000 acres (3%) compared to 1996 (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 (59.7%). M-204 continued to be planted, on about 67,000 acres. M-401, a premium quality medium-grain, was produced on 43,000 acres, 5,000 acres more than in 1996. Acreage of short-grain types increased from 1996 levels with S-201 produced on 7,690 acres, and S-102 on 7,960 acres. Long grain acreage decreased from 2,670 acres to 2,480 acres. Calmochi-101, a sweet or waxy rice, was produced as a specialty variety on 12,500 acres.

Above-normal winter and spring rains delayed tillage and prolonged the planting season into late May and early June. Cool early-season temperatures adversely affected seedling emergence. Strong winds dislodged young plants leading to poor stand establishment and significant weed pressure in many areas. In addition to this poor start, the growing season was marked by extremely high temperatures in July and August (Table 3), adversely affecting seed set and grain fill. Yields were significantly higher with estimates of 8,245 lb/acre as compared to statewide yields of 7,400 lb/acre in 1996.

* Extension Agronomist (Department of Agronomy and Range Science, UC Davis), Cooperative Extension Farm Advisors for Sutter-Yuba, Colusa-Glenn-Yolo, San Joaquin, and Butte counties, respectively.

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 23 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. Eleven advanced breeding lines and nine 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, M-103, M-201, M-202, M-204, L-203, L-204, S-102 and S-201. Eighteen experimental lines with L-204 and Akitakomachi as standards, 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. Eleven advanced lines and nine commercial varieties were evaluated in Advanced Tests at each of the following locations. One additional test (twenty entries, four replications) was conducted at a site in Glenn county known to be affected by blast in order to screen for blast resistance and severity.

- Butte County (RES)
- Butte County (Skinner)
- Colusa County (Dennis)
- Yuba County (Quad-4)
- Glenn County (Extra Blast)

Commercial varieties included Calmochi-101, M-103, M-201, M-202, M-204, L-203, L-204, S-102 and S-201. Nineteen preliminary lines were also included in Preliminary

Tests at each site with L-204 as a standard. All advanced and preliminary experimental lines were entries from the RES

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

- Butte County (RES)
- Glenn County (Wiley)
- Sutter County (Brugman)

Commercial varieties included M-401, A-201, A-301, M-202, M-204, and L-202. Twenty experimental lines were also included in Preliminary 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).

Both RES and county tests were harvested with a SWECO 324 small plot combine. Plot area was 150 ft² (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 test averaged 10,890 lb/acre at the RES, 8,900 lb/acre at San Joaquin, 8,860 lb/acre at Sutter, and 11,200 lb/acre at Yolo. Over the four locations, the highest yielding entry was advanced line 95-y-271, followed by M-202 (Table 9). Entry 92-y-624, an advanced medium-grain, highly ranked in previous years, was the overall fourth highest entry and the second of the advanced lines, ranking first at the Sutter County site. Of the remaining very early commercial varieties ranking in the top ten, M-201, S-102, M-204, L-204, and Calmochi-101 ranked third, fifth, sixth, seventh, and tenth respectively when summarized over locations.

S-102, Calmochi-101, and the medium-grain cultivar, 95-y-265, yielded highest (first, second and third, respectively) in the cooler San Joaquin trial. M-103, a very early, medium-grain, commercial variety was fifth in the San Joaquin trial.

Table 10 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, 106%, S-102, 109%, L-203, 105%, and L-204, 103% of M-103 in the Very Early tests over the past ten 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 11 through 15. A five location advanced, and four location preliminary, combined summary is given in Table 16. Entries are ranked by grain yield with the highest yielding entry appearing first.

Yields in the advanced test averaged 10,460 lb/acre at the RES, 8,050 lb/acre at Butte (Durham), 8,110 lb/acre at Colusa, 7,540 lb/acre at Yuba, and 9,190 lb/acre at the additional 'Extra Blast' trial (Table 17). The medium-grain cultivar 94-y-615, which was the average highest yielding advanced entry in 1996, yielded nearly 12,000 lb/acre at the RES in 1997, and was again the highest yielding entry over the five locations (Table 16). Other leading advanced cultivars were 92-y-624 and 96-y-203, a waxy, short grain (second and third, respectively). Leading commercial varieties were S-201, M-204, M-201, and M-202 ranking fifth, sixth, seventh, and ninth over all tests. L-204, released in 1995, yielded 8,300 lb/acre and was ranked tenth. Of the preliminary lines, 96-y-420 ranked

first overall yielding 11,520 lb/acre at the RES, and 9,750 lb/acre at the Butte County site near Durham.

Table 18 shows the over-year and over-location yields for the 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 103%, M-204, 100%, L-203, 96%, L-204, 92%, S-102, 91% and S-201 94% of M-201 in the Early tests over the past ten 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 19 through 21. A three-location combined summary is given in Table 22. Entries are ranked by grain yield with the highest yielding entries appearing first.

Average yields in the advanced Intermediate-Late test were 10,630 lb/acre at the RES, 7,320 lb/acre at Glenn, and 8,040 lb/acre at Sutter (Table 23). An advanced medium-grain cultivar, 95-y-60, was the highest yielding entry at the RES and at Glenn, and the second highest yielding at Sutter. Premium quality M-401 ranked second overall with an average of 9,520 lb/acre, and first at both the Sutter and Glenn sites. M-401 was closely followed by the early standard M-204 at an average yield of 9,310 lb/acre. A-301, an aromatic long grain which ranked third in 1996, ranked twelfth in 1997, but with respectable yields of 8,010 lb/acre.

Table 24 compares Intermediate-Late maturing commercial cultivars in over-location and over-year tests. Using M-401 as the standard for comparison, A-201 and A-301 have yielded 88% and 96% of M-401, respectively, over the last ten years.

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Table 1. Characteristics Of Public California Rice Varieties - 1997

CHARACTERISTICS OF PUBLIC CALIFORNIA RICE VARIETIES - 1997					
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	7.1	4.3	Very high yield potential, two weeks earlier than S-201. Good resistance to low temperature blanking. Grain is 8% larger than S-201 with less chalkiness. Rough leaves and hulls. Grain dries down rapidly during ripening. Susceptible to stem rot.
S-201	Early	1981	6.2	4.6	High Yield potential, excellent seedling vigor, similar to M-201 in maturity and in resistance to blanking. Good short-grain shape. Maturity delayed by cool temperatures.
Medium Grain					
M-103	Very Early ³	1990	6.0	3.9	Earliest medium grain, vigor less than M-202. Excellent resistance to blanking. Very good head and total milled rice yields. Moderate lodging. Good yield potential. Alternative variety for M-202 in coldest rice areas and for late planting in warmer areas.
M-201	Early	1984	5.8	4.1	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 yield. Best resistance to stem rot. Cool temperatures delay maturity and increase blanking. Not recommended for the Escalon area.
M-202	Early	1987	6.4	4.4	Very high yield potential. Performs better than M-201 in cooler growing areas. Moderate lodging. Threshes easily but does not shatter.
M-204	Early	1993	6.3	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.
Long Grain					
L-203	Early	1993	6.1	4.1	High yield potential. Early maturing. Heading delayed by cool temperatures. Resistance to lodging. Seedling vigor fair, may be affected by water depth. Cooking and milling similar to L-202. Harvest at moisture of 18-20%. Reduce cylinder speed for harvest to enhance head rice.
L-204	Early	1998	6.5	4.1	High yield potential. Two days earlier than L-203. Resistant to lodging. Seedling vigor fair, may be affected by deep water. Improved head rice and cooking characteristics, better than L-202 and L-203. Avoid early draining (requires 40-45 days after 50% heading to mature) and harvest at 18-19% moisture to maximize milling yield.
Premium Quality					
M-401	Late	1983	5.6	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.
Specialty Rice					
Calmochi-101	Very Early ^{3,4}	1987	6.3	4.2	A sweet glutinous rice. Two weeks earlier than S-201. Excellent resistance blanking. Has rough leaves and hulls, no awns. Grain dries down rapidly during ripening.
A-201	Early ⁴	1998	6.1	4.2	Aromatic (popcorn aroma) long grain, eight days earlier than A-301. Moderate yield potential similar to L-202 and A-301. 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.
A-301	Intermediate ⁴	1988	5.9	3.5	Aromatic long grain. Moderately high yield in warmer areas. Not adapted to late seeding date, 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
<p>¹ Average stem rot score over last four years: 0 = no disease and 10 = severe disease.</p> <p>² Subjective rating of 1-5 where 1 = poor and 5 = excellent seedling vigor.</p> <p>³ Milling quality and yield may be reduced by early planting in warmer areas.</p> <p>⁴ Specialty varieties should not be grown unless arrangements have first been made with a marketing agency.</p>					

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Table 2. California Rice Acreage by Variety (1993-1997)

Variety	<u>1997</u>		<u>1996</u>		<u>1995</u>		<u>1994</u>		<u>1993</u>	
	acres	(%)	acres	(%)	acres	(%)	acres	(%)	acres	(%)
Medium Grain	475,500	90.0	484,690	94.6	442,990	93.2	453,410	90.0	432,502	93.4
M-103	16,860	3.2	15,790	3.1	16,060	3.4	13,540	2.7	23,613	5.1
M-201	33,410	6.3	47,150	9.2	31,530	6.6	26,550	5.3	43,985	9.5
M-202	315,410	59.7	323,950	63.2	303,740	63.9	296,330	58.8	305,177	65.9
M-204	67,190	12.7	59,800	11.7	58,890	12.4	79,400	15.7	36,577	7.9
M-401	42,630	8.1	38,000	7.4	32,770	6.9	37,590	7.5	23,150	5.0
Short Grain	27,000	4.8	14,025	2.8	13,370	2.7	27,020	5.4	12,038	2.6
S-102	7,960	1.5	-	-	-	-	-	-	-	-
S-201	7,690	1.4	4,920	1.0	9,860	2.0	25,160	5.0	8,797	1.9
Akitakomachi	5,270	1.0	4,430	0.9	-	-	-	-	*	-
Koshihikari	4,740	0.9	1,995	0.4	-	-	-	-	*	-
Cal Pearl	1,340	0.3	2,680	0.5	3,510	0.7	1,860	0.4	3,241	0.7
Long Grain	2,480	0.5	2,675	0.5	3,390	0.8	1,130	0.2	4,630	1.0
L-202	80	<0.1	700	0.1	1,200	0.3	100	<0.1	463	0.1
L-203	190	<0.1	1,975	0.4	2,190	0.5	1,030	0.2	4,167	0.9
L-204	2,210	0.4	-	-	-	-	-	-	-	-
Specialty Rices	14,360	2.7	5,130	1.0	6,240	1.3	14,280	2.8	9,723	2.1
Calmochi-101	12,500	2.4	5,130	1.0	6,240	1.3	14,280	2.8	9,723	2.1
A-201	470	<0.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A-301	1,390	0.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Others*	9,140	1.7	6,190	1.0	9,320	2.0	8,160	1.6	4,167	0.9
Total	528,480	100	512,710	100	475,310	100	504,000	100	463,060	100

* Other varieties: Valencia, Surpass, NFD 108, Kokuho Rose, NFD 181, SP-211, SP-311, and SP-411

Table 3. 1997 County Weather Data - Daily Maximums and Minimums (°F). Collected by UC IPM - IMPACT and CIMIS

	Wylie, Blast (Orland)		Dennis (colusa)		Geer (Zamora)		Butte, RES (Durham)		Quad 4 (Yuba City)		Lauppe (Nicolas)		Brumley (Lodi)		Wylie, Blast (Orland)		Dennis (colusa)		Geer (Zamora)		Butte, RES (Durham)		Quad 4 (Yuba City)		Lauppe (Nicolas)		Brumley (Lodi)		
	max	min	max	min	max	min	max	min	max	min	max	min	max	min	max	min	max	min	max	min	max	min	max	min	max	min	max	min	
Apr 01	61	41	62	39	62	42	64	36	64	40	63	40	65	39	May 01	71	43	74	38	74	40	72	46	73	48	72	47	74	45
Apr 02	69	46	71	44	70	42	74	44	72	41	71	42	73	43	May 02	76	43	79	44	79	43	75	44	75	46	75	49	76	46
Apr 03	78	46	79	47	77	43	79	45	79	48	77	39	77	40	May 03	79	51	81	54	81	47	81	52	80	50	80	51	81	51
Apr 04	69	49	71	44	72	54	71	42	72	44	71	35	76	41	May 04	78	46	82	48	82	40	80	48	82	46	83	47	80	47
Apr 05	68	37	69	39	69	42	69	39	70	42	69	34	71	37	May 05	80	48	84	53	84	44	82	50	84	46	83	53	81	52
Apr 06	67	34	69	39	68	32	68	33	68	39	69	39	69	42	May 06	83	55	83	53	83	51	84	54	84	53	81	54	84	55
Apr 07	68	40	71	36	70	37	69	39	72	41	70	37	70	42	May 07	92	58	90	50	88	51	91	53	90	55	90	49	87	52
Apr 08	71	40	72	38	72	42	73	40	75	46	72	38	71	43	May 08	84	54	87	52	87	46	85	55	88	52	87	54	86	48
Apr 09	68	44	69	32	67	37	70	46	69	44	69	38	69	41	May 09	86	54	91	52	88	48	88	54	90	52	93	53	89	51
Apr 10	70	51	72	41	70	43	71	43	72	45	72	36	71	43	May 10	88	55	92	53	90	49	90	53	92	55	93	55	89	50
Apr 11	72	50	73	43	71	46	72	44	75	40	73	37	72	42	May 11	89	58	94	55	91	49	91	56	94	57	93	55	88	53
Apr 12	74	47	74	40	73	41	76	39	75	47	74	35	74	43	May 12	90	59	94	55	92	50	90	58	95	57	93	57	90	56
Apr 13	74	43	75	44	75	40	74	46	72	50	75	48	75	45	May 13	86	56	90	58	91	50	84	56	89	55	89	55	89	55
Apr 14	77	47	79	43	77	48	78	50	80	44	78	41	78	45	May 14	86	54	91	61	87	53	86	60	90	59	88	60	87	57
Apr 15	85	52	87	44	85	44	87	45	85	48	86	44	85	49	May 15	85	57	90	61	89	62	86	63	90	58	89	60	88	58
Apr 16	81	49	84	56	82	48	83	52	84	51	83	52	86	50	May 16	93	63	96	58	93	56	96	57	96	61	98	56	94	58
Apr 17	81	58	83	56	81	55	83	58	75	55	82	54	84	54	May 17	95	62	99	61	93	61	98	62	98	64	95	61	97	62
Apr 18	63	55	64	55	67	48	66	57	68	55	68	52	82	52	May 18	96	62	99	62	95	60	99	62	99	56	97	59	98	65
Apr 19	66	55	69	56	70	54	67	57	67	52	69	55	73	56	May 19	92	56	97	56	91	55	93	57	98	60	93	59	96	62
Apr 20	72	56	78	58	77	56	75	59	77	56	76	57	77	55	May 20	80	55	83	59	84	50	82	59	83	58	80	59	96	56
Apr 21	78	55	78	58	74	52	76	57	78	59	75	58	76	59	May 21	81	52	84	56	85	46	84	56	85	53	83	54	85	52
Apr 22	67	50	71	55	71	46	70	52	71	53	71	51	77	53	May 22	75	53	80	58	80	53	77	57	82	56	80	56	81	56
Apr 23	71	43	73	46	73	42	71	47	72	52	73	49	72	49	May 23	69	55	70	56	70	55	70	56	71	54	71	56	80	58
Apr 24	73	46	75	43	73	46	74	49	75	44	73	41	74	44	May 24	74	52	78	53	77	50	77	52	79	53	75	56	79	55
Apr 25	84	57	85	53	82	55	84	52	86	44	84	48	85	49	May 25	78	55	81	56	78	47	78	51	82	50	80	49	79	49
Apr 26	82	50	87	50	86	46	83	49	87	52	86	50	89	48	May 26	76	53	79	55	79	48	77	55	82	53	79	54	80	52
Apr 27	77	56	78	52	76	53	77	55	78	56	77	55	86	56	May 27	87	60	88	61	84	58	86	59	84	61	84	59	86	60
Apr 28	67	51	70	48	70	49	67	51	78	51	69	51	72	50	May 28	86	63	90	65	88	61	90	61	90	63	88	64	86	62
Apr 29	73	44	77	49	74	45	73	44	75	47	74	47	74	51	May 29	88	65	92	65	89	66	88	65	92	64	91	65	92	63
Apr 30	75	48	76	50	77	46	77	49	78	50	76	49	76	50	May 30	89	63	96	64	92	56	90	64	93	61	92	64	92	64
															May 31	83	60	87	61	81	60	84	65	90	65	86	63	89	63
Jun 01	82	63	86	60	81	58	82	62	86	57	83	61	89	62	Jul 01	83	55	85	51	82	52	83	54	87	52	83	49	84	54
Jun 02	83	55	88	56	84	53	83	58	87	57	84	58	85	57	Jul 02	88	54	90	53	83	53	89	55	89	57	86	51	88	54
Jun 03	68	60	72	59	71	61	72	61	68	63	68	62	83	59	Jul 03	91	62	97	55	94	57	93	57	97	61	99	59	95	61
Jun 04	77	57	79	55	77	57	77	58	78	58	77	60	77	60	Jul 04	91	59	96	62	89	54	92	61	96	62	91	59	96	58
Jun 05	82	54	85	56	83	50	84	54	84	54	82	54	80	54	Jul 05	85	56	91	59	89	51	87	57	89	56	88	58	88	55
Jun 06	88	62	91	62	89	65	90	61	90	64	89	57	89	56	Jul 06	94	62	98	59	93	56	95	60	98	60	95	60	93	59
Jun 07	89	67	92	56	91	60	89	62	92	61	90	60	90	59	Jul 07	100	61	104	59	100	57	102	60	100	62	98	58	96	61
Jun 08	87	67	90	59	88	56	86	60	89	59	86	60	86	57	Jul 08	102	67	103	63	100	64	99	63	103	65	100	61	98	64
Jun 09	81	61	86	58	86	58	83	61	86	58	85	58	85	56	Jul 09	93	65	98	63	96	63	93	65	98	62	93	65	97	65
Jun 10	85	62	88	61	86	58	86	63	88	61	84	60	84	57	Jul 10	87	63	91	60	89	58	87	63	90	62	90	59	92	59
Jun 11	82	57	87	58	88	53	81	58	86	55	84	56	84	55	Jul 11	88	63	92	59	89	55	89	60	92	61	89	58	92	58
Jun 12	78	56	81	59	81	52	80	59	83	56	80	57	85	55	Jul 12	98	56	97	54	94	53	96	57	97	57	95	54	90	60
Jun 13	85	62	88	61	76	56	87	61	89	56	84	57	83	56	Jul 13	90	59	95	62	92	54	90	60	94	61	92	59	91	59
Jun 14	91	66	91	64	89	57	88	61	87	59	86	59	90	60	Jul 14	91	60	96	60	91	54	92	61	95	60	92	59	90	58
Jun 15	87	59	92	60	90	57	86	60	90	62	87	59	87	58	Jul 15	92	59	97	63	94	56	93	62	100	62	95	60	95	57
Jun 16	89	63	94	62	91	57	91	63	83	59	94	60	96	58	Jul 16	88	62	90	60	85	55	87	62	88	62	82	59	95	57
Jun 17	90	68	93	66	91	58	89	67	97	70	91	63	94	61	Jul 17	85	58	91	58	92	55	85	58	90	58	90	58	89	60
Jun 18	91	63	94	63	91	57	89	64	95	65	91	62	94	60	Jul 18	95	60	96	55	92	53	95	60	95	58	94	55	90	55
Jun 19	93	63	97	64	93	60	94	62	91	62	95	61	94	60	Jul 19	97	63	99	62	98	58	93	61	96	63	96	58	94	55
Jun 20	86	61	92	57	86	57	86	61	91	62	88	59	93	58	Jul 20	91	61	95	61	92	57	92	63	95	59	90	59	94	57
Jun 21	83	57	87	57	82	52	84	59	86	55	86	56	86	53	Jul 21	94	64	96	60	96	56	94	64	98	61	93	59	94	58
Jun 22	80	55	84	56	81	49	81	55	85	53	83	54	82	52	Jul 22	90	59	93	59	91	53	90	59	95	63	90	61	92	62
Jun 23	86	55	89	51	83	55	88	59	87	53	83	54	85	54	Jul 23	85	58	87	56	81	56	86	59	85	69	79	62	89	60
Jun 24	95	63	95	55	95	55																							

Table 4. 1997 Butte County Very Early Rice Variety Trial Single Location Summary (RES)

Advanced Lines and Varieties

Variety	Grain Type	Grain Yield	Grain	Seedling	Days to	Plant	
		at 14% Moisture	Moisture at Harvest		50% Heading		Lodging
		lbs/acre	(%)	(1-5)	(1-99)	(cm)	
S-201	S	12200 (1)	19.3 (2)	5.0 (1)	99 (20)	7 (7)	95 (16)
M-201	M	12200 (2)	19.1 (4)	5.0 (7)	90 (19)	9 (8)	98 (19)
92-y-624	M	11810 (3)	19.3 (3)	5.0 (7)	88 (17)	16 (10)	97 (18)
95-y-271	M	11810 (4)	16.8 (6)	5.0 (7)	86 (14)	15 (9)	94 (12)
M-204	M	11630 (5)	17.7 (5)	5.0 (7)	88 (15)	5 (6)	93 (10)
L-204	L	11570 (6)	13.8 (19)	5.0 (7)	83 (12)	2 (2)	84 (5)
L-203	L	11530 (7)	15.3 (14)	4.9 (14)	85 (13)	1 (1)	82 (1)
S-102	S	11490 (8)	14.2 (18)	5.0 (1)	78 (1)	16 (11)	94 (13)
94-y-39	L	11420 (9)	13.6 (20)	4.8 (16)	79 (5)	2 (3)	85 (6)
96-y-521	L	11180 (10)	14.4 (17)	4.9 (12)	81 (8)	3 (5)	95 (14)
96-y-142	S	10900 (11)	15.7 (11)	4.7 (18)	83 (10)	18 (12)	83 (3)
96-y-40	L	10860 (12)	14.7 (15)	4.6 (20)	80 (7)	2 (3)	85 (7)
M-202	M	10620 (13)	19.4 (1)	5.0 (1)	88 (16)	31 (14)	101 (20)
95-y-214	M	10540 (14)	16.3 (7)	5.0 (1)	79 (5)	33 (16)	93 (11)
96-y-153	S	10100 (15)	14.5 (16)	5.0 (1)	83 (11)	33 (16)	83 (2)
95-y-265	M	10090 (16)	15.8 (10)	4.8 (16)	81 (8)	24 (13)	95 (16)
CM-101	SWX	9800 (17)	15.6 (13)	4.9 (12)	79 (4)	52 (20)	92 (9)
96-y-4	S	9560 (18)	15.6 (12)	4.7 (18)	79 (2)	31 (14)	84 (4)
96-y-55	S	9450 (19)	16.0 (9)	5.0 (1)	88 (17)	34 (18)	87 (8)
M-103	M	9130 (20)	16.3 (7)	4.9 (14)	79 (2)	48 (19)	95 (14)
MEAN		10890	16.2	4.9	84	19	91
CV		5.9	5.5	1.6	1.6	78	3.5
LSD (.05)		910	1.3	0.1	2	21	4

Preliminary Lines and Varieties

97-y-40	L	12490 (1)	13.4 (8)	4.7 (17)	86 (18)	2 (1)	86 (7)
96-y-507	L	11800 (2)	12.2 (15)	4.8 (13)	84 (15)	7 (9)	84 (4)
96-y-201	SWX	11710 (3)	14.6 (1)	4.8 (13)	86 (18)	7 (9)	91 (17)
L-204	L	11590 (4)	12.7 (12)	5.0 (1)	83 (13)	3 (4)	80 (2)
96-y-447	L	11280 (5)	12.8 (11)	4.8 (10)	85 (16)	2 (1)	93 (18)
96-y-378	M	11230 (6)	14.5 (3)	5.0 (1)	86 (20)	7 (9)	95 (20)
96-y-495	L	11160 (7)	11.5 (19)	5.0 (8)	78 (4)	2 (1)	90 (14)
96-y-503	L	11160 (8)	11.6 (17)	4.7 (17)	82 (10)	6 (8)	88 (11)
96-y-505	L	11140 (9)	11.5 (20)	4.8 (13)	83 (13)	15 (17)	85 (6)
96-y-196	SWX	10920 (10)	14.3 (4)	4.8 (13)	78 (4)	10 (13)	84 (4)
96-y-207	M	10910 (11)	12.8 (10)	5.0 (1)	78 (3)	4 (6)	86 (7)
96-y-24	S	10900 (12)	11.6 (17)	4.7 (19)	79 (6)	13 (15)	79 (1)
96-y-268	M	10540 (13)	13.6 (7)	5.0 (1)	79 (6)	10 (13)	87 (10)
96-y-164	S	10430 (14)	12.3 (14)	5.0 (1)	82 (10)	13 (15)	89 (12)
96-y-457	L	10070 (15)	11.8 (16)	4.8 (10)	85 (17)	5 (7)	90 (14)
96-y-213	M	9760 (16)	14.3 (5)	4.8 (10)	77 (2)	25 (19)	89 (12)
96-y-243	M	9750 (17)	13.0 (9)	5.0 (1)	76 (1)	4 (5)	91 (16)
96-y-25	S	9610 (18)	12.7 (13)	5.0 (1)	82 (10)	15 (17)	83 (3)
96-y-245	M	9590 (19)	14.6 (2)	5.0 (8)	81 (9)	8 (12)	86 (9)
AKITA	S	8180 (20)	14.0 (6)	4.5 (20)	81 (8)	99 (20)	94 (19)
MEAN		10710	13	4.8	81	13	87
CV		5.2	4	1.3	0.8	29.6	4.1
LSD (.05)		1160	1.1	0.1	1	8	7

Planting date= April 28 and May 22

S = short; M = Medium; L = long; WX = waxy; SWX = sweet 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. 1997 San Joaquin Very Early Rice Variety Trial Single Location Summary (Brumley)

Advanced Lines and Varieties

Variety	Grain Type	Grain Yield	Grain	Seedling	Days to	Lodging	Plant Height
		at 14% Moisture	Moisture at Harvest	Vigor	50% Heading		
		lbs/acre	(%)	(1-5)	(1-99)		
S-102	S	10130 (1)	15.6 (20)	3.8 (5)	91 (1)	7 (11)	81 (15)
CM-101	SWX	9870 (2)	17.1 (18)	3.3 (12)	93 (4)	16 (14)	77 (8)
95-y-265	M	9820 (3)	19.0 (12)	3.3 (12)	98 (10)	36 (19)	82 (17)
95-y-271	M	9730 (4)	23.3 (5)	3.3 (12)	105 (13)	1 (1)	79 (10)
M-103	M	9630 (5)	18.8 (13)	3.5 (8)	92 (2)	20 (16)	79 (13)
95-y-214	M	9590 (6)	21.3 (6)	4.3 (2)	95 (8)	1 (1)	77 (9)
96-y-4	S	9480 (7)	17.2 (17)	2.5 (18)	94 (6)	30 (17)	74 (3)
M-202	M	9370 (8)	23.8 (4)	3.5 (8)	107 (15)	9 (12)	84 (18)
96-y-142	S	9250 (9)	19.1 (10)	3.3 (12)	94 (7)	19 (15)	75 (4)
92-y-624	M	9030 (10)	19.0 (11)	3.8 (5)	108 (16)	89 (20)	90 (20)
M-204	M	9000 (11)	21.0 (7)	3.5 (8)	108 (17)	11 (13)	79 (10)
M-201	M	8840 (12)	25.9 (1)	4.8 (1)	109 (18)	1 (1)	79 (10)
L-204	L	8680 (13)	18.3 (14)	4.3 (2)	98 (11)	1 (1)	76 (6)
94-y-39	L	8560 (14)	17.0 (19)	2.5 (18)	93 (4)	1 (1)	74 (2)
96-y-153	S	8530 (15)	20.1 (9)	2.8 (17)	105 (14)	33 (18)	80 (14)
96-y-521	L	8290 (16)	17.5 (15)	3.3 (12)	95 (9)	1 (1)	75 (4)
L-203	L	8010 (17)	20.3 (8)	2.3 (20)	101 (12)	1 (1)	65 (1)
96-y-40	L	7650 (18)	17.4 (16)	4.3 (2)	92 (2)	1 (1)	76 (6)
S-201	S	7530 (19)	24.9 (2)	3.8 (5)	113 (19)	6 (10)	85 (19)
96-y-55	S	7030 (20)	24.9 (2)	3.5 (8)	113 (20)	4 (9)	81 (16)
MEAN		8900	20.1	3.5	100	14	78
CV		5.6	6.8	17.5	1.2	125.1	4.3
LSD (.05)		700	1.9	0.9	2	25	5

Preliminary Lines and Varieties

96-y-196	SWX	10570 (1)	19.7 (6)	2.5 (18)	97 (7)	33 (16)	79 (14)
96-y-207	M	9810 (2)	17.5 (9)	3.5 (7)	100 (13)	15 (13)	79 (12)
96-y-243	M	9740 (3)	17.3 (11)	4.5 (2)	96 (4)	13 (12)	79 (12)
96-y-201	SWX	9720 (4)	17.1 (13)	3.0 (13)	106 (19)	95 (19)	82 (18)
96-y-213	M	9630 (5)	17.8 (8)	2.5 (18)	105 (17)	55 (17)	81 (17)
96-y-268	M	9470 (6)	20.8 (3)	4.0 (4)	96 (4)	1 (1)	78 (9)
96-y-24	S	9220 (7)	14.9 (20)	3.0 (13)	102 (14)	55 (17)	77 (5)
96-y-457	L	8940 (8)	16.5 (14)	3.5 (7)	97 (7)	2 (9)	77 (5)
96-y-503	L	8770 (9)	16.3 (16)	3.5 (7)	98 (10)	11 (11)	77 (5)
96-y-245	M	8670 (10)	19.9 (5)	3.0 (13)	102 (15)	21 (15)	80 (16)
96-y-164	S	8540 (11)	20.4 (4)	3.5 (7)	104 (16)	18 (14)	78 (9)
96-y-378	M	8440 (12)	22.4 (2)	4.0 (4)	105 (17)	1 (1)	80 (15)
L-204	L	8300 (13)	17.4 (10)	4.5 (2)	100 (12)	1 (1)	72 (2)
96-y-495	L	8160 (14)	15.2 (19)	5.0 (1)	91 (1)	1 (1)	78 (9)
96-y-505	L	7850 (15)	16.4 (15)	4.0 (4)	94 (3)	1 (1)	73 (3)
96-y-447	L	7700 (16)	16.2 (17)	3.5 (7)	99 (11)	1 (1)	77 (8)
97-y-40	L	7600 (17)	17.3 (12)	3.5 (7)	98 (9)	1 (1)	68 (1)
AKITA	S	7280 (18)	19.2 (7)	2.5 (18)	96 (4)	95 (19)	88 (20)
96-y-507	L	6770 (19)	15.4 (18)	3.0 (13)	93 (2)	1 (1)	76 (4)
96-y-25	S	6590 (20)	24.1 (1)	3.0 (13)	112 (20)	8 (10)	84 (19)
MEAN		8590	18.1	3.5	99	21	78
CV		5.7	7.1	18	3.8	61.7	3.5
LSD (.05)		1020	2.7	1.3	8	28	6

Planting date=April 25, 1997

S = short; M = Medium; L = long; WX = waxy; SWX = sweet 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. 1997 Yolo County Very Early Rice Variety Trial Single Location Summary (Geer)

Advanced Lines and Varieties

Variety	Grain Type	Grain Yield	Grain	Seedling	Days to	Lodging	Plant Height
		at 14% Moisture	Moisture at Harvest	Vigor	50% Heading		
		lbs/acre	(%)	(1-5)	(1-99)	(cm)	
M-202	M	12450 (1)	23.5 (3)	4.3 (3)	91 (15)	9 (9)	102 (18)
95-y-271	M	12300 (2)	22.4 (5)	3.8 (11)	87 (14)	7 (8)	98 (12)
L-204	L	11910 (3)	17.6 (15)	3.5 (14)	81 (9)	3 (7)	93 (5)
L-203	L	11850 (4)	17.8 (14)	3.0 (17)	83 (12)	1 (1)	88 (1)
M-201	M	11770 (5)	23.4 (4)	4.0 (6)	92 (16)	1 (1)	100 (16)
M-204	M	11750 (6)	22.2 (6)	3.8 (11)	92 (16)	2 (5)	99 (14)
94-y-39	L	11580 (7)	16.1 (19)	3.0 (17)	80 (6)	1 (1)	93 (4)
95-y-214	M	11530 (8)	20.4 (10)	3.8 (11)	79 (1)	73 (16)	97 (8)
96-y-521	L	11430 (9)	16.5 (17)	2.8 (19)	82 (10)	2 (4)	97 (10)
CM-101	SWX	11430 (10)	18.5 (13)	4.0 (6)	79 (3)	90 (18)	100 (16)
96-y-142	S	11340 (11)	21.9 (7)	4.0 (6)	84 (13)	16 (12)	94 (7)
92-y-624	M	11140 (12)	25.4 (1)	4.0 (6)	92 (18)	75 (17)	103 (20)
S-102	S	11090 (13)	16.1 (18)	4.3 (3)	79 (3)	13 (10)	98 (12)
96-y-4	S	10690 (14)	17.4 (16)	3.5 (14)	80 (7)	18 (13)	89 (2)
96-y-40	L	10580 (15)	15.8 (20)	2.8 (19)	79 (3)	2 (5)	92 (3)
S-201	S	10510 (16)	25.3 (2)	4.5 (1)	106 (20)	15 (11)	103 (19)
95-y-265	M	10480 (17)	19.7 (12)	4.0 (6)	80 (8)	36 (14)	100 (15)
96-y-55	S	10270 (18)	21.7 (9)	4.3 (3)	93 (19)	40 (15)	98 (11)
96-y-153	S	10180 (19)	20.0 (11)	4.5 (1)	82 (10)	96 (19)	94 (6)
M-103	M	9700 (20)	21.9 (8)	3.5 (14)	79 (2)	97 (20)	97 (9)
MEAN		11200	20.2	3.8	85	30	97
CV		5.1	5.1	12.6	0.9	47.1	2.8
LSD (.05)		810	1.5	0.7	1	20	4

Preliminary Lines and Varieties

96-y-201	SWX	12890 (1)	22.3 (2)	4.5 (2)	85 (19)	40 (15)	97 (5)
96-y-196	SWX	12420 (2)	20.4 (6)	3.5 (8)	84 (17)	25 (13)	98 (13)
96-y-207	M	12370 (3)	19.3 (8)	4.0 (5)	81 (5)	1 (1)	98 (10)
97-y-40	L	12240 (4)	16.3 (17)	3.0 (13)	82 (9)	1 (1)	89 (1)
L-204	L	12050 (5)	17.4 (13)	3.5 (8)	82 (9)	1 (1)	95 (4)
96-y-243	M	11970 (6)	19.1 (9)	4.5 (2)	80 (2)	25 (13)	98 (13)
96-y-495	L	11800 (7)	15.2 (20)	3.0 (13)	80 (2)	8 (9)	98 (10)
96-y-457	L	11540 (8)	16.2 (19)	4.0 (5)	83 (13)	1 (1)	105 (18)
96-y-447	L	11540 (9)	17.7 (11)	3.0 (13)	85 (18)	1 (1)	105 (18)
96-y-268	M	11450 (10)	20.0 (7)	4.0 (5)	80 (2)	3 (6)	99 (16)
96-y-24	S	11390 (11)	18.0 (10)	2.0 (20)	82 (9)	8 (8)	95 (2)
96-y-378	M	11350 (12)	22.0 (3)	3.5 (8)	90 (20)	10 (10)	97 (5)
96-y-25	S	11170 (13)	17.3 (14)	5.0 (1)	82 (9)	78 (17)	98 (10)
96-y-507	L	10920 (14)	16.7 (16)	3.0 (13)	83 (14)	15 (11)	97 (5)
96-y-503	L	10880 (15)	16.3 (17)	3.0 (13)	83 (14)	3 (6)	99 (15)
96-y-245	M	10800 (16)	21.2 (5)	3.0 (13)	83 (14)	23 (12)	97 (5)
96-y-164	S	10340 (17)	17.7 (12)	4.5 (2)	82 (8)	93 (18)	95 (2)
96-y-505	L	10290 (18)	17.0 (15)	3.5 (8)	81 (6)	53 (16)	97 (5)
96-y-213	M	9890 (19)	21.5 (4)	3.0 (13)	80 (1)	97 (19)	100 (17)
AKITA	S	6430 (20)	25.9 (1)	3.5 (8)	81 (6)	99 (20)	106 (20)
MEAN		11190	18.9	3.6	82	29	98
CV		5.3	4	17.8	1.4	44.4	4.1
LSD (.05)		1230	1.6	1.3	2	27	

Planting date=May 7, 1997

S = short; M = Medium; L = long; WX = waxy; SWX = sweet 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. 1997 Sutter County Very Early Rice Variety Trial Single Location Summary (Lauppe)

Advanced Lines and Varieties

Variety	Grain Type	Grain Yield	Grain	Seedling	Days to	Plant	
		at 14% Moisture	Moisture at Harvest	Vigor	50% Heading		Lodging
		lbs/acre	(%)	(1-5)	(1-99)	(cm)	
92-y-624	M	10010 (1)	17.2 (3)	3.3 (9)	90 (17)	46 (18)	90 (19)
M-202	M	9720 (2)	17.6 (2)	4.0 (4)	89 (14)	4 (13)	93 (20)
M-201	M	9290 (3)	19.8 (1)	3.3 (9)	89 (16)	1 (1)	90 (18)
S-102	S	9270 (4)	14.5 (20)	3.8 (5)	78 (1)	1 (1)	87 (15)
96-y-142	S	9190 (5)	16.0 (7)	3.5 (8)	85 (8)	7 (14)	78 (2)
96-y-55	S	9080 (6)	15.4 (13)	4.5 (1)	95 (19)	64 (19)	89 (17)
CM-101	SWX	9060 (7)	14.7 (19)	4.3 (2)	82 (5)	9 (15)	83 (11)
96-y-521	L	9050 (8)	15.0 (17)	3.0 (15)	86 (9)	10 (16)	85 (12)
96-y-153	S	8920 (9)	15.7 (11)	3.8 (5)	86 (12)	21 (17)	82 (9)
S-201	S	8860 (10)	15.2 (15)	4.3 (2)	95 (20)	73 (20)	86 (13)
M-204	M	8860 (11)	17.1 (4)	3.0 (15)	90 (17)	1 (1)	86 (14)
L-204	L	8780 (12)	15.5 (12)	3.8 (5)	86 (9)	1 (1)	80 (6)
95-y-214	M	8760 (13)	16.6 (5)	3.3 (9)	82 (6)	2 (12)	80 (7)
95-y-271	M	8690 (14)	15.9 (9)	3.3 (9)	87 (13)	1 (1)	81 (8)
L-203	L	8660 (15)	16.1 (6)	3.3 (9)	89 (14)	1 (1)	77 (1)
95-y-265	M	8600 (16)	15.8 (10)	2.5 (19)	86 (11)	1 (1)	88 (16)
94-y-39	L	8530 (17)	14.8 (18)	2.8 (18)	84 (7)	1 (1)	79 (3)
M-103	M	8510 (18)	16.0 (8)	3.3 (9)	82 (4)	1 (1)	83 (10)
96-y-4	S	7860 (19)	15.1 (16)	3.0 (15)	80 (3)	1 (1)	79 (3)
96-y-40	L	7420 (20)	15.3 (14)	2.5 (19)	79 (2)	1 (1)	79 (3)
MEAN		8860	16	3.4	86	12	84
CV		4.3	2.1	15.5	1.2	74.6	3.7
LSD (.05)		540	0.5	0.7	1	13	4

Preliminary Lines and Varieties

96-y-201	SWX	12890 (1)	22.3 (2)	4.5 (2)	85 (19)	40 (15)	97 (5)
96-y-196	SWX	12420 (2)	20.4 (6)	3.5 (8)	84 (17)	25 (13)	98 (13)
96-y-207	M	12370 (3)	19.3 (8)	4.0 (5)	81 (5)	1 (1)	98 (10)
97-y-40	L	12240 (4)	16.3 (17)	3.0 (13)	82 (9)	1 (1)	89 (1)
L-204	L	12050 (5)	17.4 (13)	3.5 (8)	82 (9)	1 (1)	95 (4)
96-y-243	M	11970 (6)	19.1 (9)	4.5 (2)	80 (2)	25 (13)	98 (13)
96-y-495	L	11800 (7)	15.2 (20)	3.0 (13)	80 (2)	8 (9)	98 (10)
96-y-457	L	11540 (8)	16.2 (19)	4.0 (5)	83 (13)	1 (1)	105 (18)
96-y-447	L	11540 (9)	17.7 (11)	3.0 (13)	85 (18)	1 (1)	105 (18)
96-y-268	M	11450 (10)	20.0 (7)	4.0 (5)	80 (2)	3 (6)	99 (16)
96-y-24	S	11390 (11)	18.0 (10)	2.0 (20)	82 (9)	8 (8)	95 (2)
96-y-378	M	11350 (12)	22.0 (3)	3.5 (8)	90 (20)	10 (10)	97 (5)
96-y-25	S	11170 (13)	17.3 (14)	5.0 (1)	82 (9)	78 (17)	98 (10)
96-y-507	L	10920 (14)	16.7 (16)	3.0 (13)	83 (14)	15 (11)	97 (5)
96-y-503	L	10880 (15)	16.3 (17)	3.0 (13)	83 (14)	3 (6)	99 (15)
96-y-245	M	10800 (16)	21.2 (5)	3.0 (13)	83 (14)	23 (12)	97 (5)
96-y-164	S	10340 (17)	17.7 (12)	4.5 (2)	82 (8)	93 (18)	95 (2)
96-y-505	L	10290 (18)	17.0 (15)	3.5 (8)	81 (6)	53 (16)	97 (5)
96-y-213	M	9890 (19)	21.5 (4)	3.0 (13)	80 (1)	97 (19)	100 (17)
AKITA	S	6430 (20)	25.9 (1)	3.5 (8)	81 (6)	99 (20)	106 (20)
MEAN		11190	18.9	3.6	82	29	98
CV		5.3	4	17.8	1.4	44.4	4.1
LSD (.05)		1230	1.6	1.3	2	27	

Planting date=May 12, 1997

S = short; M = Medium; L = long; WX = waxy; SWX = sweet 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. 1997 Four Location Very Early Rice Lines and Varieties Summary Table

Advanced Lines and Varieties

(RES, San Joaquin, Yolo, Sutter)

Variety	Grain Type	Grain Yield	Grain	Seedling	Days to	Lodging	Plant
		at 14% Moisture	Moisture at Harvest		50% Heading		
		lbs/acre	(%)	(1-5)	(1-99)	(cm)	
95-y-271	M	10630 (1)	19.6 (5)	3.8 (12)	91 (14)	6 (8)	88 (9)
M-202	M	10540 (2)	21.1 (3)	4.2 (4)	94 (15)	13 (10)	95 (19)
M-201	M	10530 (3)	22.1 (1)	4.2 (3)	95 (18)	3 (5)	92 (17)
92-y-624	M	10500 (4)	20.2 (4)	4 (10)	95 (17)	56 (20)	95 (19)
S-102	S	10490 (5)	15.1 (20)	4.2 (4)	82 (1)	9 (9)	90 (15)
M-204	M	10310 (6)	19.5 (7)	3.8 (12)	94 (16)	5 (7)	89 (14)
L-204	L	10230 (7)	16.3 (16)	4.1 (6)	87 (11)	2 (4)	83 (6)
96-y-142	S	10170 (8)	18.2 (10)	3.9 (11)	87 (10)	15 (11)	83 (4)
95-y-214	M	10110 (9)	18.6 (8)	4.1 (8)	84 (6)	27 (15)	87 (8)
CM-101	SWX	10040 (10)	16.5 (14)	4.1 (7)	83 (4)	42 (18)	88 (10)
94-y-39	L	10020 (11)	15.4 (19)	3.3 (20)	84 (7)	1 (2)	82 (3)
L-203	L	10010 (12)	17.4 (13)	3.3 (19)	89 (13)	1 (1)	78 (1)
96-y-521	L	9990 (13)	15.9 (17)	3.5 (17)	86 (8)	4 (6)	88 (11)
S-201	S	9780 (14)	21.2 (2)	4.4 (1)	103 (20)	25 (14)	92 (18)
95-y-265	M	9750 (15)	17.6 (11)	3.6 (15)	86 (9)	24 (13)	91 (16)
96-y-153	S	9430 (16)	17.6 (12)	4 (9)	89 (12)	46 (19)	85 (7)
96-y-4	S	9400 (17)	16.3 (15)	3.4 (18)	83 (4)	20 (12)	82 (2)
M-103	M	9240 (18)	18.2 (9)	3.8 (14)	83 (3)	41 (17)	88 (12)
96-y-40	L	9130 (19)	15.8 (18)	3.5 (16)	82 (2)	1 (3)	83 (5)
96-y-55	S	8960 (20)	19.5 (6)	4.3 (2)	97 (19)	35 (16)	89 (13)
MEAN		9960	18.1	3.9	89	19	87
CV		5.3	5.4	12.1	1.2	75.9	3.5
LSD (.05)		370	0.7	0.3	1	10	2

Preliminary Lines and Varieties

96-y-201	Swx	11200 (1)	17.8 (6)	3.8 (10)	91 (19)	39 (16)	90 (16)
96-y-196	SWX	11040 (2)	17.8 (4)	3.4 (15)	86 (8)	19 (14)	86 (6)
96-y-207	M	10620 (3)	16.4 (10)	3.9 (8)	85 (7)	5 (9)	86 (6)
96-y-24	S	10370 (4)	14.7 (18)	3.3 (18)	87 (11)	29 (15)	84 (3)
97-y-40	L	10290 (5)	15.4 (13)	3.6 (14)	88 (15)	1 (1)	81 (1)
96-y-243	M	10240 (6)	16.3 (11)	4.3 (4)	83 (2)	11 (11)	88 (11)
96-y-495	L	10170 (7)	14 (20)	4.5 (2)	81 (1)	3 (5)	88 (12)
L-204	L	10130 (8)	15.8 (12)	4.1 (5)	88 (12)	1 (3)	81 (2)
96-y-268	M	10110 (9)	17.8 (5)	4.4 (3)	84 (3)	4 (6)	87 (10)
96-y-378	M	9970 (10)	19.2 (2)	3.9 (8)	93 (20)	5 (7)	89 (15)
96-y-457	L	9880 (11)	14.8 (17)	4.1 (7)	88 (12)	2 (4)	90 (18)
96-y-503	L	9840 (12)	14.8 (15)	3.4 (16)	87 (10)	5 (8)	88 (12)
96-y-447	L	9640 (13)	15.4 (14)	3.6 (12)	89 (17)	1 (1)	91 (19)
96-y-507	L	9620 (14)	14.6 (19)	3.6 (13)	86 (9)	6 (10)	85 (5)
96-y-505	L	9580 (15)	14.8 (16)	3.8 (10)	85 (5)	19 (13)	85 (4)
96-y-164	S	9450 (16)	16.7 (9)	4.5 (1)	88 (12)	48 (18)	87 (8)
96-y-213	M	9430 (17)	17.6 (7)	3.2 (20)	85 (6)	56 (19)	90 (17)
96-y-245	M	9330 (18)	18.3 (3)	3.2 (19)	88 (16)	13 (12)	87 (9)
96-y-25	S	9270 (19)	17.2 (8)	4.1 (5)	91 (18)	44 (17)	88 (14)
AKITA	S	7370 (20)	19.2 (1)	3.4 (17)	85 (4)	96 (20)	97 (20)
MEAN		9880	16.4	3.8	87	20	87
CV		5.2	5	13	2.3	53.7	3.8
LSD (.05)		510	0.8	0.5	2	11	3

S = short; M = Medium; L = long; WX = waxy; SWX = sweet 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. 1997 Four Location Very Early Rice Lines and Varieties Yield (lb/acre at 14% moisture) Summary Table

Advanced Lines and Varieties

Variety	Grain	Average	Butte Biggs RES	San Joaquin Brumley Rch	Sutter Lauppe Rch	Yolo Geer Ranch
	Type					
95-y-271	M	10630 (1)	11810 (4)	9730 (4)	8690 (14)	12300 (2)
M-202	M	10540 (2)	10620 (13)	9370 (8)	9720 (2)	12450 (1)
M-201	M	10530 (3)	12200 (2)	8840 (12)	9290 (3)	11770 (5)
92-y-624	M	10500 (4)	11810 (3)	9030 (10)	10010 (1)	11140 (12)
S-102	S	10490 (5)	11490 (8)	10130 (1)	9270 (4)	11090 (13)
M-204	M	10310 (6)	11630 (5)	9000 (11)	8860 (11)	11750 (6)
L-204	L	10230 (7)	11570 (6)	8680 (13)	8780 (12)	11910 (3)
96-y-142	S	10170 (8)	10900 (11)	9250 (9)	9190 (5)	11340 (11)
95-y-214	M	10110 (9)	10540 (14)	9590 (6)	8760 (13)	11530 (8)
CM-101	SWX	10040 (10)	9800 (17)	9870 (2)	9060 (7)	11430 (10)
94-y-39	L	10020 (11)	11420 (9)	8560 (14)	8530 (17)	11580 (7)
L-203	L	10010 (12)	11530 (7)	8010 (17)	8660 (15)	11850 (4)
96-y-521	L	9990 (13)	11180 (10)	8290 (16)	9050 (8)	11430 (9)
S-201	S	9780 (14)	12200 (1)	7530 (19)	8860 (10)	10510 (16)
95-y-265	M	9750 (15)	10090 (16)	9820 (3)	8600 (16)	10480 (17)
96-y-153	S	9430 (16)	10100 (15)	8530 (15)	8920 (9)	10180 (19)
96-y-4	S	9400 (17)	9560 (18)	9480 (7)	7860 (19)	10690 (14)
M-103	M	9240 (18)	9130 (20)	9630 (5)	8510 (18)	9700 (20)
96-y-40	L	9130 (19)	10860 (12)	7650 (18)	7420 (20)	10580 (15)
96-y-55	S	8960 (20)	9450 (19)	7030 (20)	9080 (6)	10270 (18)
MEAN		9960	10890	8900	8860	11200
CV		5.3	5.9	5.6	4.3	5.1
LSD (.05)		370	910	700	540	810

Preliminary Lines and Varieties

96-y-201	Swx	11200 (1)	11710 (3)	9720 (4)	10480 (1)	12890 (1)
96-y-196	SWX	11040 (2)	10920 (10)	10570 (1)	10260 (2)	12420 (2)
96-y-207	M	10620 (3)	10910 (11)	9810 (2)	9380 (7)	12370 (3)
96-y-24	S	10370 (4)	10900 (12)	9220 (7)	9990 (3)	11390 (11)
97-y-40	L	10290 (5)	12490 (1)	7600 (17)	8840 (13)	12240 (4)
96-y-243	M	10240 (6)	9750 (17)	9740 (3)	9510 (6)	11970 (6)
96-y-495	L	10170 (7)	11160 (7)	8160 (14)	9560 (5)	11800 (7)
L-204	L	10130 (8)	11590 (4)	8300 (13)	8570 (14)	12050 (5)
96-y-268	M	10110 (9)	10540 (13)	9470 (6)	9000 (9)	11450 (10)
96-y-378	M	9970 (10)	11230 (6)	8440 (12)	8850 (12)	11350 (12)
96-y-457	L	9880 (11)	10070 (15)	8940 (8)	8950 (11)	11540 (8)
96-y-503	L	9840 (12)	11160 (8)	8770 (9)	8550 (15)	10880 (15)
96-y-447	L	9640 (13)	11280 (5)	7700 (16)	8050 (19)	11540 (9)
96-y-507	L	9620 (14)	11800 (2)	6770 (19)	8980 (10)	10920 (14)
96-y-505	L	9580 (15)	11140 (9)	7850 (15)	9040 (8)	10290 (18)
96-y-164	S	9450 (16)	10430 (14)	8540 (11)	8470 (16)	10340 (17)
96-y-213	M	9430 (17)	9760 (16)	9630 (5)	8440 (17)	9890 (19)
96-y-245	M	9330 (18)	9590 (19)	8670 (10)	8240 (18)	10800 (16)
96-y-25	S	9270 (19)	9610 (18)	6590 (20)	9710 (4)	11170 (13)
AKITA	S	7370 (20)	8180 (20)	7280 (18)	7570 (20)	6430 (20)
MEAN		9880	10710	8590	9020	11190
CV		5.2	5.2	5.7	4.3	5.3
LSD (.05)		510	1160	1020	820	1230

S = short; M = Medium; L = long; WX = waxy; SWX = sweet waxy

Numbers in parentheses indicate relative rank in column.

Table 10. Grain Yield (lb/acre @ 14% moisture) Summary Comparisons of Varieties by Location and Year in the Very Early Test (1987-1997)

Location	Year	M-103	CM-101	M-202	M-204	S-102	L-203	L-204
Butte (RES)	1987	-	10,350	9,510	-	-	-	-
	1988	8,890	9,160	9,430	-	-	10,650	-
	1989	9,250	8,220	9,980	-	-	11,400	-
	1990	8,750	8,200	9,140	-	-	10,690	-
	1991	8,700	8,180	10,260	10,090		9,970	-
	1992	9,720	9,280	10,460	10,470	10,120	10,140	-
	1993	9,120	8,940	9,940	10,760	10,640	10,400	-
	1994	9,170	9,670	9,760	10,320	10,630	10,300	-
	1995	9,270	9,430	10,560	10,500	10,520	10,300	10,450
	1996	8,570	8,150	8,570	10,090	9,410	9,890	10,060
	1997	9,130	9,800	10,620	11,630	11,490	11,530	11,570
Location Mean Over Years		9,057	9,035	9,839	10,551	10,468	10,527	10,693
1997 Yield as a % of Decade Mean		101%	108%	108%			110%	
Sutter	1987	-	8,940	9,270	-	-	-	-
	1988	6,820	7,660	8,320	-	-	-	-
	1989	10,930	11,060	12,300	-	-	12,050	-
	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	10,490	9,430	-
	1993	8,680	9,090	9,300	8,550	9,630	8,070	-
	1994	9,430	9,510	11,010	9,620	10,640	8,890	-
	1995	7,910	7,460	9,810	9,540	8,560	9,210	9,280
	1996	8,360	7,370	9,680	8,730	7,800	7,960	8,650
	1997	8,510	9,060	9,720	8,860	9,270	8,660	8,780
Location Mean Over Years		9,110	9,238	10,395	9,669	9,398	9,719	8,903
1997 Yield as a % of Decade Mean		93%	98%	94%				
San Joaquin (Valley Home)	1987	-	10,240	8,100	-	-	-	-
	1988	6,820	7,300	7,560	-	-	-	-
	1989	9,370	9,290	6,880	-	-	7,900	-
	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	10,000	8,520	-
	1993	9,590	9,780	9,190	8,300	10,040	8,010	-
	1994	8,460	9,020	8,660	8,220	9,860	7,950	-
	1995	8,450	9,050	8,730	8,250	8,770	7,850	8,140
	1996	8,650	9,690	9,170	8,440	9,590	7,870	8,150
	1997	9,630	9,870	9,370	9,000	10,130	8,010	8,680
Location Mean Over Years		9,010	9,476	8,876	8,681	9,732	8,228	8,323
1997 Yield as a % of Decade Mean		107%	104%	106%				
All Location/Years Mean		9,059	9,250	9,703	9,634	9,866	9,491	9,307
Yield as % of All Years M-103		----	102%	107%	106%	109%	105%	103%

Table 11. 1997 Butte County Early Rice Variety Trial Single Location Summary (RES)

Advanced Lines and Varieties

Variety	Grain Type	Grain Yield	Grain	Seedling	Days to	Lodging	Plant Height
		at 14% Moisture	Moisture at Harvest	Vigor	50% Heading		
		lbs/acre	(%)	(1-5)		(1-99)	(cm)
94-y-615	M	11940 (1)	17.3 (3)	4.9 (6)	88 (18)	2 (3)	91 (11)
96-y-203	SWX	11200 (2)	15.6 (7)	4.7 (17)	84 (9)	14 (16)	90 (9)
96-y-341	S	11170 (3)	13.9 (13)	4.9 (8)	85 (10)	4 (11)	93 (17)
M-201	M	11160 (4)	17.9 (1)	4.9 (10)	88 (18)	3 (6)	92 (15)
92-y-624	M	11030 (5)	17.5 (2)	5.0 (5)	87 (16)	11 (14)	99 (20)
L-203	L	10940 (6)	13.5 (16)	4.8 (16)	82 (7)	1 (1)	79 (1)
96-y-480	L	10920 (7)	13.4 (18)	4.7 (17)	81 (5)	1 (1)	91 (10)
94-y-40	L	10840 (8)	13.3 (19)	4.7 (17)	82 (6)	4 (12)	88 (5)
95-y-356	M	10830 (9)	15.5 (8)	4.8 (12)	85 (12)	2 (3)	88 (7)
L-204	L	10700 (10)	13.5 (17)	4.8 (15)	82 (8)	2 (5)	81 (2)
M-204	M	10580 (11)	15.7 (6)	4.9 (8)	85 (13)	3 (6)	92 (13)
S-102	S	10520 (12)	13.9 (14)	5.0 (4)	77 (1)	10 (13)	89 (8)
M-202	M	10510 (13)	16.8 (5)	5.0 (1)	85 (10)	16 (17)	96 (19)
S-201	S	10490 (14)	17.2 (4)	5.0 (1)	99 (20)	3 (6)	93 (17)
95-y-629	L	10190 (15)	14.7 (10)	4.7 (20)	86 (14)	4 (9)	84 (3)
96-y-55	S	9690 (16)	14.5 (11)	5.0 (1)	87 (17)	12 (15)	88 (5)
96-y-5	S	9400 (17)	12.8 (20)	4.9 (6)	80 (4)	74 (20)	87 (4)
CM-101	SWX	9350 (18)	14.0 (12)	4.8 (12)	80 (3)	53 (19)	92 (14)
M-103	M	9100 (19)	14.8 (9)	4.8 (12)	78 (2)	44 (18)	91 (12)
96-y-90	L	8660 (20)	13.6 (15)	4.9 (11)	86 (14)	4 (10)	92 (16)
MEAN		10460	15	4.9	84	13	90
CV		7.4	5	1.7	1.4	112.6	4.1
LSD (.05)		1090	1.1	0.1	2	21	5

Preliminary Lines and Varieties

96-y-386	M	11610 (1)	15.7 (7)	4.9 (6)	84 (13)	5 (15)	93 (14)
95-y-316	S	11580 (2)	15.8 (6)	4.9 (10)	90 (20)	2 (5)	90 (9)
96-y-253	M	11580 (3)	16.4 (3)	4.9 (6)	84 (12)	7 (18)	97 (19)
96-y-420	M	11520 (4)	16.4 (4)	5.0 (4)	85 (15)	2 (5)	86 (4)
96-y-403	M	11300 (5)	16.8 (2)	5.0 (4)	87 (17)	4 (11)	92 (12)
96-y-543	L	11230 (6)	13.8 (16)	4.6 (20)	82 (8)	5 (14)	89 (8)
96-y-398	M	11150 (7)	15.7 (7)	4.9 (6)	84 (14)	3 (8)	99 (20)
96-y-507	L	11130 (8)	13.1 (18)	4.7 (19)	82 (5)	4 (9)	85 (2)
96-y-277	M	11130 (9)	16.4 (4)	5.0 (2)	89 (19)	2 (3)	90 (9)
96-y-355	S	10990 (10)	14.1 (14)	5.0 (2)	81 (4)	4 (13)	89 (6)
L-204	L	10960 (11)	13.6 (17)	4.8 (11)	83 (9)	2 (3)	84 (1)
96-y-249	M	10620 (12)	15.1 (10)	4.8 (11)	83 (11)	4 (11)	96 (18)
96-y-231	M	10600 (13)	15.0 (12)	4.8 (15)	81 (3)	4 (9)	94 (15)
96-y-323	MBS	10490 (14)	15.0 (11)	4.8 (13)	82 (5)	24 (20)	95 (16)
96-y-177	M	10440 (15)	14.4 (13)	5.0 (1)	83 (9)	5 (15)	93 (13)
96-y-578	M	10430 (16)	17.3 (1)	4.9 (9)	87 (18)	16 (19)	95 (17)
96-y-385	M	10410 (17)	15.5 (9)	4.8 (13)	85 (16)	2 (2)	90 (9)
96-y-503	L	10360 (18)	12.5 (20)	4.7 (16)	80 (2)	2 (5)	88 (5)
96-y-505	L	10350 (19)	13.1 (18)	4.7 (16)	82 (5)	6 (17)	85 (3)
96-y-87	L	8280 (20)	14.0 (15)	4.7 (16)	80 (1)	1 (1)	89 (6)
MEAN		10810	15	4.8	84	5	91
CV		3.7	5.2	1.6	1.8	62.1	3.5
LSD (.05)		570	1.1	0.1	2	4	4

Planting dates=April 30 and May 21

S = short; M = medium; L = long; WX = waxy; SWX = sweet waxy; MBS = medium 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 parentheses indicate relative rank in column.

Table 12. 1997 Butte County Early Rice Variety Trial Single Location Summary (Skinner)

Advanced Lines and Varieties

Variety	Grain Type	Grain Yield	Grain	Seedling	Days to	Lodging	Plant Height
		at 14% Moisture	Moisture at Harvest	Vigor	50% Heading		
		lbs/acre	(%)	(1-5)		(1-99)	(cm)
L-203	L	8980 (1)	16.3 (14)	2.3 (19)	84 (1)	45 (6)	90 (1)
96-y-203	SWX	8830 (2)	19.5 (5)	3.3 (8)	87 (7)	99 (18)	100 (16)
95-y-629	L	8820 (3)	15.6 (19)	2.3 (19)	92 (19)	92 (13)	91 (2)
L-204	L	8790 (4)	15.8 (18)	3.3 (8)	90 (16)	1 (1)	92 (3)
94-y-615	M	8760 (5)	20.2 (4)	4.3 (1)	84 (2)	45 (6)	96 (10)
95-y-356	M	8750 (6)	18.1 (9)	3.0 (13)	87 (8)	1 (1)	96 (8)
96-y-480	L	8560 (7)	16.1 (17)	2.8 (16)	87 (8)	75 (10)	100 (17)
M-204	M	8480 (8)	19.3 (6)	3.3 (8)	89 (13)	85 (11)	93 (4)
M-202	M	8240 (9)	19.3 (6)	3.5 (3)	88 (10)	97 (17)	100 (17)
94-y-40	L	8200 (10)	16.3 (13)	2.5 (17)	89 (13)	67 (9)	97 (11)
M-201	M	8170 (11)	23.8 (1)	3.0 (13)	89 (13)	1 (1)	98 (14)
92-y-624	M	8150 (12)	21.6 (3)	3.5 (3)	89 (11)	97 (15)	103 (19)
CM-101	SWX	7900 (13)	16.6 (12)	3.5 (3)	90 (18)	99 (18)	93 (6)
S-102	S	7770 (14)	15.4 (20)	3.5 (3)	86 (6)	90 (12)	97 (11)
96-y-341	S	7680 (15)	16.9 (11)	3.3 (8)	90 (17)	7 (4)	95 (7)
S-201	S	7420 (16)	21.7 (2)	3.8 (2)	89 (11)	63 (8)	105 (20)
96-y-90	L	7350 (17)	16.2 (16)	3.0 (13)	85 (4)	45 (5)	99 (15)
96-y-5	S	6960 (18)	16.2 (15)	2.5 (17)	84 (2)	99 (18)	93 (5)
M-103	M	6830 (19)	18.7 (8)	3.5 (3)	86 (5)	97 (15)	96 (8)
96-y-55	S	6460 (20)	17.0 (10)	3.3 (8)	92 (20)	95 (14)	97 (11)
MEAN		8050	18	3.2	88	65	96
CV		7.7	8.6	16	5.2	31.3	3.6
LSD (.05)		880	2.2	0.7	n.s.	29	5

Preliminary Lines and Varieties

96-y-420	M	9750 (1)	19.3 (4)	3.0 (10)	82 (16)	36 (9)	93 (5)
L-204	L	9260 (2)	16.4 (17)	3.0 (10)	78 (5)	1 (1)	91 (2)
96-y-385	M	9200 (3)	18.4 (9)	3.5 (3)	80 (13)	1 (1)	92 (4)
96-y-543	L	9030 (4)	17.2 (15)	2.5 (17)	80 (10)	95 (16)	97 (14)
96-y-507	L	9000 (5)	16.2 (20)	3.0 (10)	79 (6)	90 (14)	96 (10)
96-y-231	M	8800 (6)	18.5 (8)	3.0 (10)	77 (3)	1 (1)	96 (10)
96-y-403	M	8760 (7)	18.9 (5)	3.5 (3)	82 (16)	6 (7)	89 (1)
95-y-316	S	8750 (8)	20.0 (2)	2.5 (17)	83 (19)	90 (14)	95 (7)
96-y-355	S	8710 (9)	19.7 (3)	3.0 (10)	79 (6)	90 (13)	95 (9)
96-y-177	M	8660 (10)	18.1 (11)	4.0 (1)	80 (10)	99 (19)	102 (20)
96-y-249	M	8640 (11)	18.7 (7)	3.5 (3)	79 (6)	1 (1)	98 (17)
96-y-505	L	8460 (12)	16.2 (18)	3.5 (3)	77 (1)	95 (16)	92 (3)
96-y-277	M	8430 (13)	18.9 (6)	4.0 (1)	82 (16)	6 (7)	95 (7)
96-y-398	M	8330 (14)	18.0 (12)	3.5 (3)	80 (13)	1 (1)	97 (12)
96-y-323	MBS	8290 (15)	17.4 (14)	3.5 (3)	78 (4)	95 (16)	97 (14)
96-y-253	M	8270 (16)	18.4 (10)	3.5 (3)	79 (6)	41 (10)	97 (12)
96-y-386	M	8150 (17)	17.6 (13)	3.0 (10)	80 (13)	85 (12)	97 (14)
96-y-578	M	8140 (18)	20.7 (1)	3.0 (10)	84 (20)	99 (19)	98 (17)
96-y-503	L	8120 (19)	16.2 (18)	2.5 (17)	77 (1)	80 (11)	94 (6)
96-y-87	L	7440 (20)	16.9 (16)	2.5 (17)	80 (10)	1 (1)	100 (19)
MEAN		8610	18.1	3.2	80	50	95
CV		7	3.2	19.8	1	36.2	4.2
LSD (.05)		n.s.	1.2	n.s.	2	38	n.s.

Planting date=May 2, 1997

S = short; M = medium; L = long; WX = waxy; SWX = sweet waxy; MBS = medium 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 parentheses indicate relative rank in column.

Table 13. 1997 Colusa County Early Rice Variety Trial Single Location Summary (Dennis)

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)
94-y-615	M	9440 (1)	15.3 (10)	3.0 (10)	90 (12)	48 (10)	97 (8)
S-201	S	9410 (2)	15.8 (8)	4.5 (1)	88 (9)	98 (16)	105 (19)
95-y-356	M	9200 (3)	14.8 (14)	3.5 (7)	87 (8)	3 (2)	94 (4)
M-202	M	9130 (4)	16.6 (4)	3.5 (7)	87 (5)	85 (13)	101 (15)
92-y-624	M	9120 (5)	15.1 (12)	3.8 (4)	90 (13)	90 (14)	101 (14)
96-y-203	SWX	8850 (6)	17.2 (2)	3.0 (10)	88 (10)	98 (16)	102 (18)
M-204	M	8840 (7)	16.2 (6)	2.5 (15)	87 (6)	65 (12)	99 (11)
96-y-341	S	8830 (8)	16.6 (5)	3.8 (4)	87 (7)	55 (11)	99 (9)
M-201	M	8700 (9)	14.7 (15)	3.8 (4)	89 (11)	18 (7)	96 (6)
L-204	L	8080 (10)	15.8 (7)	1.8 (20)	90 (15)	15 (5)	91 (3)
96-y-480	L	7780 (11)	13.9 (18)	2.3 (17)	90 (13)	9 (4)	99 (9)
94-y-40	L	7730 (12)	15.1 (13)	2.0 (18)	90 (15)	16 (6)	95 (5)
S-102	S	7540 (13)	15.3 (11)	4.5 (1)	77 (1)	99 (20)	102 (17)
L-203	L	7530 (14)	14.4 (16)	2.5 (15)	91 (18)	6 (3)	88 (1)
CM-101	SWX	7510 (15)	16.7 (3)	4.0 (3)	81 (3)	98 (16)	105 (19)
95-y-629	L	7340 (16)	14.0 (17)	2.8 (12)	91 (18)	29 (9)	90 (2)
96-y-55	S	7270 (17)	13.5 (20)	3.3 (9)	90 (15)	24 (8)	96 (7)
M-103	M	6960 (18)	18.0 (1)	2.8 (12)	80 (2)	95 (15)	99 (11)
96-y-90	L	6700 (19)	15.4 (9)	2.0 (18)	97 (20)	2 (1)	101 (16)
96-y-5	S	6160 (20)	13.7 (19)	2.8 (12)	86 (4)	98 (16)	100 (13)
MEAN		8110	15.4	3.1	88	52	98
CV		10.6	4.5	24.4	2.2	20	3
LSD (.05)		1220	1	1.1	3	15	4

Preliminary Lines and Varieties

96-y-177	M	10000 (1)	16.6 (2)	5.0 (1)	82 (3)	95 (19)	100 (15)
96-y-386	M	9430 (2)	14.3 (15)	3.5 (10)	87 (12)	38 (13)	90 (1)
96-y-249	M	9360 (3)	16.3 (3)	4.0 (5)	84 (6)	10 (5)	96 (12)
96-y-403	M	9280 (4)	15.9 (6)	4.5 (3)	86 (10)	5 (3)	95 (10)
96-y-323	MBS	9110 (5)	16.3 (3)	4.0 (5)	85 (8)	85 (18)	105 (20)
96-y-355	S	9030 (6)	17.5 (1)	5.0 (1)	83 (5)	97 (20)	101 (18)
96-y-420	M	8800 (7)	14.0 (17)	4.0 (5)	90 (17)	3 (2)	92 (5)
L-204	L	8780 (8)	15.6 (9)	3.5 (10)	90 (17)	10 (5)	94 (9)
96-y-507	L	8530 (9)	14.3 (14)	2.5 (18)	91 (19)	10 (5)	93 (7)
96-y-385	M	8520 (10)	16.2 (5)	3.0 (13)	86 (10)	13 (8)	90 (1)
96-y-277	M	8470 (11)	15.8 (7)	3.5 (10)	85 (7)	40 (14)	91 (3)
96-y-253	M	8350 (12)	13.2 (20)	4.5 (3)	83 (4)	28 (11)	98 (13)
96-y-503	L	8010 (13)	14.7 (10)	3.0 (13)	89 (15)	60 (16)	101 (17)
96-y-87	L	7960 (14)	14.6 (12)	3.0 (13)	82 (2)	50 (15)	103 (19)
96-y-231	M	7800 (15)	15.7 (8)	2.0 (19)	81 (1)	28 (11)	99 (14)
96-y-398	M	7790 (16)	13.6 (18)	4.0 (5)	88 (13)	8 (4)	100 (15)
95-y-316	S	7510 (17)	13.3 (19)	4.0 (5)	86 (9)	25 (10)	93 (8)
96-y-578	M	7370 (18)	14.4 (13)	3.0 (13)	88 (13)	15 (9)	95 (10)
96-y-505	L	7260 (19)	14.7 (10)	3.0 (13)	89 (15)	65 (17)	92 (5)
96-y-543	L	6610 (20)	14.1 (16)	2.0 (19)	91 (19)	1 (1)	92 (4)
MEAN		8400	15	3.6	86	34	96
CV		7.3	3.3	14.5	1.6	47.2	4.4
LSD (.05)		1280	1	1.1	3	34	9

Planting date=May 20, 1997

S = short; M = medium; L = long; WX = waxy; SWX = sweet waxy; MBS = medium 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 parentheses indicate relative rank in column.

Table 14. 1997 Yuba County Early Rice Variety Trial Single Location Summary (Quad 4)

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)
92-y-624	M	9450 (1)	23.1 (3)	4.3 (1)	99 (16)	1 (1)	93 (18)
94-y-615	M	9200 (2)	23.8 (2)	3.5 (15)	101 (18)	1 (1)	91 (12)
S-201	S	9000 (3)	24.9 (1)	4.0 (6)	104 (20)	1 (1)	95 (19)
M-204	M	8230 (4)	22.7 (4)	3.3 (18)	99 (17)	1 (1)	90 (10)
96-y-203	SWX	8160 (5)	20.2 (9)	4.3 (1)	91 (9)	1 (1)	92 (15)
96-y-55	S	8110 (6)	22.4 (5)	3.5 (15)	102 (19)	18 (19)	95 (20)
96-y-341	S	8010 (7)	19.0 (11)	4.0 (6)	93 (11)	1 (1)	91 (13)
95-y-629	L	7780 (8)	16.5 (16)	3.0 (19)	98 (14)	1 (1)	81 (5)
M-202	M	7730 (9)	22.3 (6)	4.3 (1)	97 (13)	1 (1)	91 (14)
95-y-356	M	7720 (10)	21.2 (8)	3.8 (9)	96 (12)	1 (1)	87 (8)
L-204	L	7410 (11)	17.1 (14)	4.3 (1)	89 (8)	1 (1)	78 (1)
S-102	S	7370 (12)	16.6 (15)	4.0 (6)	81 (1)	7 (18)	87 (9)
M-201	M	7270 (13)	21.8 (7)	4.3 (1)	98 (14)	1 (1)	90 (11)
CM-101	SWX	7050 (14)	16.3 (19)	3.8 (9)	86 (4)	2 (16)	82 (6)
L-203	L	6900 (15)	17.5 (13)	3.5 (15)	88 (5)	1 (1)	81 (4)
M-103	M	6680 (16)	18.4 (12)	3.8 (9)	82 (2)	2 (16)	82 (7)
96-y-5	S	6540 (17)	19.2 (10)	3.8 (9)	88 (6)	26 (20)	92 (15)
94-y-40	L	6450 (18)	16.3 (18)	3.8 (9)	84 (3)	1 (1)	79 (3)
96-y-480	L	6240 (19)	15.6 (20)	2.8 (20)	89 (7)	1 (1)	78 (1)
96-y-90	L	5520 (20)	16.5 (17)	3.8 (9)	92 (10)	1 (1)	92 (17)
MEAN		7540	19.6	3.8	93	3	87
CV		5.5	3.8	16.7	1.8	223	4
LSD (.05)		580	1.1	0.9	2	11	5

Preliminary Lines and Varieties

96-y-386	M	8560 (1)	21.3 (6)	4.0 (3)	99 (15)	1 (1)	87 (7)
96-y-253	M	8440 (2)	20.7 (7)	3.5 (10)	96 (11)	1 (1)	96 (19)
96-y-420	M	8030 (3)	21.3 (5)	4.0 (3)	98 (13)	1 (1)	86 (4)
96-y-249	M	7850 (4)	19.5 (10)	4.0 (3)	93 (10)	1 (1)	91 (16)
96-y-398	M	7760 (5)	20.2 (8)	4.0 (3)	98 (13)	1 (1)	96 (19)
96-y-323	MBS	7680 (6)	17.3 (15)	3.5 (10)	90 (8)	1 (1)	88 (11)
95-y-316	S	7640 (7)	22.2 (2)	3.0 (17)	102 (19)	1 (1)	92 (17)
96-y-403	M	7640 (8)	21.5 (4)	3.5 (10)	100 (17)	1 (1)	87 (7)
96-y-355	S	7310 (9)	18.0 (12)	3.5 (10)	90 (8)	1 (1)	86 (4)
96-y-177	M	7230 (10)	18.6 (11)	4.5 (1)	96 (11)	1 (1)	91 (15)
L-204	L	7200 (11)	15.8 (18)	4.5 (1)	89 (6)	1 (1)	80 (1)
96-y-578	M	6950 (12)	24.3 (1)	3.5 (10)	102 (19)	1 (1)	90 (14)
96-y-277	M	6940 (13)	22.2 (3)	4.0 (3)	100 (18)	1 (1)	90 (13)
96-y-385	M	6850 (14)	19.7 (9)	4.0 (3)	99 (16)	1 (1)	86 (4)
96-y-543	L	6700 (15)	16.6 (16)	2.5 (20)	90 (7)	1 (1)	87 (7)
96-y-231	M	6510 (16)	18.0 (13)	3.0 (17)	87 (4)	1 (1)	92 (18)
96-y-507	L	6490 (17)	16.5 (17)	4.0 (3)	87 (3)	1 (1)	87 (7)
96-y-505	L	6380 (18)	15.3 (20)	3.5 (10)	87 (4)	1 (1)	83 (2)
96-y-503	L	6320 (19)	15.8 (19)	3.5 (10)	84 (1)	1 (1)	84 (3)
96-y-87	L	5680 (20)	17.5 (14)	3.0 (17)	86 (2)	1 (1)	88 (12)
MEAN		7210	19.1	3.7	94	1	88
CV		4.5	3.8	16.5	1.6		2.5
LSD (.05)		680	1.5	n.s.	3	n.s.	5

Planting date=April 24, 1997

S = short; M = medium; L = long; WX = waxy; SWX = sweet waxy; MBS = medium 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 parentheses indicate relative rank in column.

Table 15. 1997 Glenn County Early Rice Variety Trial Single Location Summary (Extra 'Blast' Trial)

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)
96-y-203	SWX	10230 (1)	18.7 (1)	3.5 (9)	87 (9)	99 (17)	100 (18)
94-y-615	M	10200 (2)	15.1 (14)	3.3 (14)	93 (19)	11 (7)	94 (5)
M-201	M	10200 (3)	15.4 (12)	3.3 (14)	92 (16)	9 (6)	96 (8)
92-y-624	M	9980 (4)	17.1 (4)	3.8 (5)	92 (15)	96 (15)	100 (17)
S-201	S	9810 (5)	17.8 (2)	4.8 (1)	95 (20)	54 (11)	99 (15)
95-y-356	M	9730 (6)	14.9 (16)	2.5 (18)	91 (12)	4 (4)	96 (7)
L-203	L	9560 (7)	14.6 (17)	2.5 (18)	87 (8)	2 (2)	85 (1)
M-204	M	9550 (8)	15.0 (15)	3.0 (17)	91 (13)	11 (7)	97 (12)
96-y-341	S	9530 (9)	15.5 (9)	3.8 (5)	87 (10)	14 (10)	96 (11)
96-y-480	L	9470 (10)	14.1 (20)	3.5 (9)	86 (7)	3 (3)	95 (6)
L-204	L	9420 (11)	15.4 (11)	4.0 (2)	85 (6)	1 (1)	91 (3)
M-202	M	9170 (12)	15.9 (7)	3.5 (9)	90 (11)	77 (13)	102 (20)
95-y-629	L	9160 (13)	15.5 (8)	2.5 (18)	92 (16)	96 (14)	93 (4)
S-102	S	8860 (14)	16.5 (5)	3.8 (5)	82 (1)	99 (19)	97 (12)
94-y-40	L	8720 (15)	14.5 (18)	3.3 (14)	84 (4)	11 (7)	89 (2)
M-103	M	8290 (16)	16.5 (6)	3.5 (9)	83 (2)	99 (17)	99 (16)
96-y-55	S	8270 (17)	17.7 (3)	4.0 (2)	93 (18)	76 (12)	98 (14)
CM-101	SWX	8110 (18)	15.5 (10)	3.5 (9)	83 (3)	99 (16)	96 (9)
96-y-5	S	7790 (19)	15.3 (13)	4.0 (2)	84 (4)	99 (19)	101 (19)
96-y-90	L	7770 (20)	14.3 (19)	3.8 (5)	92 (14)	5 (5)	96 (9)
MEAN		9190	15.8	3.5	88	48	96
CV		5.1	5.6	13.8	1	31	3.6
LSD (.05)		660	1.3	0.7	1	21	5

Planting date=April 29

S = short; M = medium; L = long; WX = waxy; SWX = sweet waxy; MBS = medium 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 parentheses indicate relative rank in column.

Table 16. 1997 Five Location Advanced and Four Location Preliminary Early Rice Lines and Varieties Summary Table.

Advanced Lines and Varieties- Five Locations

(RES, Butte, Colusa, Yuba, Glenn-Extra Blast)

Variety	Grain Type	Grain Yield at 14% Moisture lb/acre (14%)	Grain Moisture at Harvest (%)	Seedling Vigor (1-5)	Days to 50% Heading	Lodging (1-99)	Plant Height (cm)
94-y-615	M	9910 (1)	18.3 (4)	3.8 (9)	91 (19)	21 (9)	94 (9)
92-y-624	M	9550 (2)	18.9 (2)	4.0 (3)	90 (17)	59 (15)	99 (20)
96-y-203	Swx	9450 (3)	18.2 (5)	3.7 (10)	86 (9)	62 (17)	97 (17)
95-y-356	M	9250 (4)	16.9 (10)	3.5 (14)	88 (11)	2 (1)	92 (5)
S-201	S	9230 (5)	19.5 (1)	4.4 (1)	95 (20)	44 (11)	99 (19)
M-204	M	9140 (6)	17.8 (7)	3.4 (16)	89 (13)	33 (10)	94 (10)
M-201	M	9100 (7)	18.7 (3)	3.8 (7)	90 (16)	6 (3)	94 (11)
96-y-341	S	9040 (8)	16.4 (11)	3.9 (5)	87 (10)	16 (6)	95 (14)
M-202	M	8960 (9)	18.2 (6)	4.0 (4)	88 (12)	55 (14)	98 (18)
L-204	L	8880 (10)	15.5 (14)	3.6 (12)	85 (6)	4 (2)	87 (2)
L-203	L	8780 (11)	15.3 (17)	3.1 (19)	85 (8)	11 (4)	84 (1)
95-y-629	L	8660 (12)	15.3 (16)	3.0 (20)	90 (15)	44 (12)	88 (3)
96-y-480	L	8590 (13)	14.6 (20)	3.2 (18)	85 (7)	18 (7)	92 (6)
S-102	S	8410 (14)	15.5 (13)	4.1 (2)	78 (1)	61 (16)	94 (12)
94-y-40	L	8390 (15)	15.1 (19)	3.2 (17)	84 (5)	20 (8)	90 (4)
CM-101	Swx	7980 (16)	15.8 (12)	3.9 (6)	80 (3)	70 (19)	93 (7)
96-y-55	S	7960 (17)	17.0 (9)	3.8 (8)	91 (18)	45 (13)	95 (15)
M-103	M	7570 (18)	17.3 (8)	3.7 (11)	79 (2)	67 (18)	93 (7)
96-y-5	S	7370 (19)	15.5 (15)	3.6 (13)	83 (4)	79 (20)	95 (13)
96-y-90	L	7200 (20)	15.2 (18)	3.5 (15)	90 (14)	11 (5)	96 (16)
MEAN		8670	16.7	3.7	87	36	93
CV		7.5	5.8	14.7	1.6	39.4	3.6
LSD (.05)		400	0.6	0.3	1	9	2

Preliminary Lines and Varieties- Four Locations

(RES, Butte, Colusa, Yuba)

96-y-420	M	9590 (1)	17.3 (4)	4.0 (8)	89 (17)	10 (7)	89 (3)
96-y-386	M	9380 (2)	16.8 (9)	3.9 (11)	87 (13)	32 (15)	92 (11)
96-y-403	M	9260 (3)	17.8 (3)	4.1 (4)	89 (16)	4 (3)	90 (6)
96-y-177	M	9200 (4)	16.5 (11)	4.6 (1)	85 (10)	50 (19)	95 (17)
96-y-253	M	9160 (5)	16.4 (12)	4.1 (6)	85 (10)	19 (10)	97 (19)
96-y-249	M	9090 (6)	17.0 (7)	4.1 (7)	85 (7)	4 (4)	95 (18)
L-204	L	9080 (7)	15.0 (17)	4.0 (9)	85 (7)	4 (2)	86 (1)
96-y-355	S	8910 (8)	16.8 (8)	4.1 (2)	83 (4)	48 (18)	92 (10)
95-y-316	S	8890 (9)	17.3 (5)	3.6 (14)	90 (19)	30 (13)	92 (12)
96-y-323	MBS	8860 (10)	16.1 (14)	3.9 (10)	84 (5)	52 (20)	95 (16)
96-y-507	L	8840 (11)	14.8 (18)	3.5 (16)	85 (9)	27 (12)	90 (5)
96-y-398	M	8840 (12)	16.5 (10)	4.1 (4)	88 (14)	3 (1)	98 (20)
96-y-385	M	8740 (13)	17.1 (6)	3.8 (12)	88 (15)	4 (5)	89 (4)
96-y-277	M	8730 (14)	17.9 (2)	4.1 (2)	89 (18)	12 (8)	91 (9)
96-y-231	M	8520 (15)	16.4 (13)	3.2 (19)	82 (1)	9 (6)	95 (15)
96-y-543	L	8330 (16)	15.1 (16)	2.9 (20)	85 (12)	26 (11)	91 (8)
96-y-578	M	8300 (17)	18.7 (1)	3.6 (14)	91 (20)	32 (14)	94 (13)
96-y-503	L	8250 (18)	14.5 (19)	3.4 (17)	83 (3)	36 (16)	90 (7)
96-y-505	L	8200 (19)	14.4 (20)	3.7 (13)	84 (6)	42 (17)	87 (2)
96-y-87	L	7490 (20)	15.4 (15)	3.3 (18)	82 (2)	13 (9)	94 (14)
MEAN		8780	16.4	3.8	86	23	92
CV		5.5	3.8	13.4	1.6	54.4	3.7
LSD (.05)		480	0.6	0.5	1	12	3

S = short; M = medium; L = long; WX = waxy; SWX = sweet waxy; MBS = medium 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 parentheses indicate relative rank in column.

Table 17. 1997 Early Rice Advanced Lines and Varieties Yield (lb/acre at 14% moisture) Summary Table.

Advanced Lines and Varieties-Five Locations

Variety	Grain	Average	Butte	Yuba	Colusa	Butte S	Butte EB
	Type		Biggs RES	Quad 4 Rnch	Dennis Rnch	Skinner Rch	Extra Blast
94-y-615	M	9910 (1)	11940 (1)	9200 (2)	9440 (1)	8760 (5)	10200 (2)
92-y-624	M	9550 (2)	11030 (5)	9450 (1)	9120 (5)	8150 (12)	9980 (4)
96-y-203	Swx	9450 (3)	11200 (2)	8160 (5)	8850 (6)	8830 (2)	10230 (1)
95-y-356	M	9250 (4)	10830 (9)	7720 (10)	9200 (3)	8750 (6)	9730 (6)
S-201	S	9230 (5)	10490 (14)	9000 (3)	9410 (2)	7420 (16)	9810 (5)
M-204	M	9140 (6)	10580 (11)	8230 (4)	8840 (7)	8480 (8)	9550 (8)
M-201	M	9100 (7)	11160 (4)	7270 (13)	8700 (9)	8170 (11)	10200 (3)
96-y-341	S	9040 (8)	11170 (3)	8010 (7)	8830 (8)	7680 (15)	9530 (9)
M-202	M	8960 (9)	10510 (13)	7730 (9)	9130 (4)	8240 (9)	9170 (12)
L-204	L	8880 (10)	10700 (10)	7410 (11)	8080 (10)	8790 (4)	9420 (11)
L-203	L	8780 (11)	10940 (6)	6900 (15)	7530 (14)	8980 (1)	9560 (7)
95-y-629	L	8660 (12)	10190 (15)	7780 (8)	7340 (16)	8820 (3)	9160 (13)
96-y-480	L	8590 (13)	10920 (7)	6240 (19)	7780 (11)	8560 (7)	9470 (10)
S-102	S	8410 (14)	10520 (12)	7370 (12)	7540 (13)	7770 (14)	8860 (14)
94-y-40	L	8390 (15)	10840 (8)	6450 (18)	7730 (12)	8200 (10)	8720 (15)
CM-101	Swx	7980 (16)	9350 (18)	7050 (14)	7510 (15)	7900 (13)	8110 (18)
96-y-55	S	7960 (17)	9690 (16)	8110 (6)	7270 (17)	6460 (20)	8270 (17)
M-103	M	7570 (18)	9100 (19)	6680 (16)	6960 (18)	6830 (19)	8290 (16)
96-y-5	S	7370 (19)	9400 (17)	6540 (17)	6160 (20)	6960 (18)	7790 (19)
96-y-90	L	7200 (20)	8660 (20)	5520 (20)	6700 (19)	7350 (17)	7770 (20)
MEAN		8670	10460	7540	8110	8050	9190
CV		7.5	7.4	5.5	10.6	7.7	5.1
LSD (.05)		400	1090	580	1220	880	660

Preliminary Lines and Varieties-Four Locations

Variety	Grain	Average	Butte	Yuba	Colusa	Butte SK
	Type		Biggs RES	Quad 4 Rnch	Dennis Ranc	Skinner Rnc
96-y-420	M	9520 (1)	11520 (4)	8030 (3)	8800 (7)	9750 (1)
96-y-386	M	9440 (2)	11610 (1)	8560 (1)	9430 (2)	8150 (17)
96-y-403	M	9240 (3)	11300 (5)	7640 (8)	9280 (4)	8760 (7)
96-y-253	M	9160 (4)	11580 (3)	8440 (2)	8350 (12)	8270 (16)
96-y-249	M	9120 (5)	10620 (12)	7850 (4)	9360 (3)	8640 (11)
96-y-177	M	9080 (6)	10440 (15)	7230 (10)	10000 (1)	8660 (10)
L-204	L	9050 (7)	10960 (11)	7200 (11)	8780 (8)	9260 (2)
96-y-355	S	9010 (8)	10990 (10)	7310 (9)	9030 (6)	8710 (9)
96-y-323	MBS	8890 (9)	10490 (14)	7680 (6)	9110 (5)	8290 (15)
95-y-316	S	8870 (10)	11580 (2)	7640 (7)	7510 (17)	8750 (8)
96-y-507	L	8790 (11)	11130 (8)	6490 (17)	8530 (9)	9000 (5)
96-y-398	M	8760 (12)	11150 (7)	7760 (5)	7790 (16)	8330 (14)
96-y-385	M	8750 (13)	10410 (17)	6850 (14)	8520 (10)	9200 (3)
96-y-277	M	8740 (14)	11130 (9)	6940 (13)	8470 (11)	8430 (13)
96-y-231	M	8430 (15)	10600 (13)	6510 (16)	7800 (15)	8800 (6)
96-y-543	L	8390 (16)	11230 (6)	6700 (15)	6610 (20)	9030 (4)
96-y-578	M	8220 (17)	10430 (16)	6950 (12)	7370 (18)	8140 (18)
96-y-503	L	8200 (18)	10360 (18)	6320 (19)	8010 (13)	8120 (19)
96-y-505	L	8110 (19)	10350 (19)	6380 (18)	7260 (19)	8460 (12)
96-y-87	L	7340 (20)	8280 (20)	5680 (20)	7960 (14)	7440 (20)
MEAN		9170	10810	7210	8400	8610
CV		5.2	3.7	4.5	7.3	7
LSD (.05)		420	570	680	1280	n.s.

S = short; M = medium; L = long; WX = waxy; SWX = sweet waxy; MBS = medium Basmati
 Numbers in parentheses indicate relative rank in column.

Table 18. Grain Yield (lb/acre @ 14% moisture) Summary of Early Rice Varieties by Location and Year (1987-1997)

Location	Year	M-201	M-202	M-204	L-203	L-204	S-102	S-201
Butte (RES)	1987	8,640	9,720	-	-	-	-	9,590
	1988	10,740	9,350	-	-	-	-	9,830
	1989	9,540	9,530	9,570	-	-	-	8,820
	1990	9,920	8,790	10,200	10,700	-	-	8,900
	1991	10,280	9,490	9,940	8,830	-	-	9,030
	1992	10,080	10,250	9,780	8,990	-	-	9,810
	1993	10,430	9,760	10,410	9,930	-	-	10,720
	1994	10,410	10,650	10,580	10,520	-	-	9,390
	1995	9,770	9,540	9,960	9,510	-	-	9,170
	1996	10,240	8,790	9,650	9,980	10,230	10,090	9,380
	1997	11,160	10,510	10,580	10,940	10,700	10,520	10,490
Loc. Mean		10,110	9,671	10,074	9,925	10,465	10,305	9,557
1997 Yield as a % of Decade Mean		110%	109%					110%
Colusa/Glenn	1987	7,320	10,880	-	-	-	-	11,080
	1988	9,710	8,190	-	-	-	-	7,460
	1989	9,640	9,900	10,440	-	-	-	9,540
	1990	8,530	7,430	8,760	9,220	-	-	7,810
	1991	9,850	9,130	10,390	9,680	-	-	9,020
	1992	9,630	10,250	10,070	8,830	-	-	10,160
	1993	8,520	8,210	8,840	8,960	-	-	8,730
	1994	10,800	10,080	10,280	9,710	-	-	9,930
	1995	9,370	8,130	9,780	9,390	-	-	8,880
	1996	10,240	10,340	9,630	9,250	9,390	9,180	9,680
	1997	8,700	9,130	8,840	7,530	8,080	7,540	9,410
Loc. Mean		9,301	9,243	9,670	9,071	8,735	8,360	9,245
1997 Yield as a % of Decade Mean		94%	99%					102%
Yuba (Dist 10)	1987	4,360	7,140	-	-	-	-	6,850
	1988	9,490	8,480	-	-	-	-	8,170
	1989	9,640	8,960	10,250	-	-	-	9,560
	1990	9,500	8,940	10,160	9,740	-	-	8,630
	1991	10,700	11,070	11,170	9,350	-	-	10,540
	1992	9,860	11,340	11,020	9,280	-	-	9,080
	1993	8,920	10,160	9,270	8,870	-	-	8,160
	1994	7,190	7,980	6,380	7,020	-	-	6,480
	1995	8,280	8,650	7,880	7,250	-	-	5,640
	1996	7,430	8,110	7,230	6,490	6,190	6,410	8,030
	1997	7,270	7,730	8,230	6,900	7,410	7,370	9,000
Loc. Mean		8,422	8,960	9,066	8,113	6,800	6,890	8,195
1997 Yield as a % of Decade Mean		86%	86%					110%
Loc/Years Mean		9,278	9,291	9,603	9,036	8,667	8,518	8,999
Yield as % of All Years M-???		---	100%	104%	97%	93%	92%	97%

Table 19. 1997 Butte County Intermediate/Late Rice Variety Trial Single Location Summary (RES)

Advanced Lines and Varieties

Variety	Grain Type	Grain Yield	Grain	Seedling Vigor	Days to		Plant Height
		at 14% Moisture	Moisture at Harvest		50% Heading	Lodging	
		lbs/acre	(%)	(1-5)		(1-99)	(cm)
95-y-60	M	12220 (1)	14.8 (3)	4.9 (7)	96 (11)	3 (3)	96 (8)
94-y-66	L	11870 (2)	11.3 (13)	4.7 (12)	90 (5)	4 (6)	88 (2)
96-y-12	L	11690 (3)	12.4 (10)	4.7 (13)	89 (3)	3 (3)	88 (1)
M-204	M	11250 (4)	14.3 (5)	4.9 (7)	93 (10)	4 (5)	99 (10)
M-401	MPQ	11120 (5)	19.1 (1)	4.9 (7)	108 (14)	11 (11)	108 (14)
L-202	L	11090 (6)	13.4 (8)	4.8 (10)	88 (2)	2 (2)	89 (3)
A-201	L	11090 (7)	12.7 (9)	5.0 (1)	91 (7)	5 (7)	100 (11)
A-301	L	10700 (8)	13.5 (7)	4.4 (14)	99 (12)	2 (1)	89 (4)
95-y-40	M	10620 (9)	14.4 (4)	5.0 (1)	86 (1)	5 (7)	97 (9)
94-y-11	M	10560 (10)	15.9 (2)	5.0 (1)	103 (13)	11 (10)	104 (13)
M-202	M	9890 (11)	14.2 (6)	5.0 (6)	91 (9)	16 (12)	102 (12)
96-y-55	LBA	9210 (12)	12.2 (11)	5.0 (1)	91 (8)	55 (13)	93 (5)
97-y-10	S	8900 (13)	11.1 (14)	5.0 (1)	90 (5)	55 (13)	95 (7)
96-y-90	LBA	8610 (14)	11.6 (12)	4.8 (10)	90 (4)	8 (9)	94 (6)
MEAN		10630	13.6	4.9	93	13	96
CV		5.4	7.8	1.4	1.8	59.9	3.2
LSD (.05)		820	1.5	0.1	2	11	4

Preliminary Lines and Varieties

96-y-63	M	12290 (1)	15.1 (1)	4.8 (18)	93 (15)	4 (3)	96 (6)
96-y-64	M	11970 (2)	14.6 (5)	4.9 (13)	96 (19)	3 (2)	94 (5)
96-y-40	M	11970 (3)	13.1 (14)	5.0 (1)	92 (12)	5 (5)	97 (8)
96-y-60	M	11760 (4)	14.2 (9)	5.0 (1)	95 (18)	10 (11)	98 (12)
96-y-67	L	11560 (5)	11.2 (19)	4.6 (20)	88 (6)	2 (1)	87 (1)
96-y-65	L	11370 (6)	13.4 (12)	4.9 (13)	93 (16)	7 (8)	90 (2)
96-y-66	L	11350 (7)	9.8 (20)	5.0 (1)	87 (5)	6 (7)	90 (2)
96-y-38	M	11320 (8)	14.3 (6)	5.0 (7)	92 (14)	7 (8)	98 (14)
96-y-57	M	11300 (9)	14.3 (6)	5.0 (1)	96 (20)	7 (8)	102 (18)
96-y-61	M	11220 (10)	15.0 (3)	4.8 (17)	91 (10)	5 (4)	97 (10)
96-y-50	L	11100 (11)	12.8 (15)	4.9 (13)	85 (1)	25 (13)	101 (17)
96-y-20	SWX	10960 (12)	12.0 (17)	4.9 (11)	89 (7)	30 (14)	97 (10)
96-y-43	M	10550 (13)	14.8 (4)	5.0 (7)	90 (9)	5 (5)	97 (8)
96-y-36	M	10400 (14)	15.1 (2)	5.0 (7)	87 (4)	30 (14)	98 (14)
97-y-11	M	9490 (15)	14.3 (6)	4.8 (18)	92 (12)	60 (16)	98 (12)
97-y-11	S	9460 (16)	14.0 (10)	5.0 (1)	89 (7)	97 (20)	102 (19)
97-y-11	M	9180 (17)	13.9 (11)	4.9 (13)	91 (10)	85 (18)	106 (20)
97-y-12	S	8980 (18)	11.9 (18)	5.0 (1)	94 (17)	83 (17)	92 (4)
97-y-11	M	8940 (19)	13.4 (12)	4.9 (11)	86 (3)	95 (19)	100 (16)
96-y-64	L	7460 (20)	12.4 (16)	5.0 (7)	85 (1)	18 (12)	96 (6)
MEAN		10630	13.5	4.9	90	29	97
CV		4.3	8.4	1.9	0.8	21.5	3.8
LSD (.05)		950	2.4	0.2	1	13	8

Planting date=May 22

S = short; M = Medium; L = long; WX = waxy; SWX = sweet waxy; MPQ = medium premium quality; LBA = long 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 parentheses indicate relative rank in column.

Table 20. 1997 Glenn County Intermediate/Late Rice Variety Trial Single Location Summary (Wiley)

Advanced Lines and Varieties

Variety	Grain Type	Grain Yield	Grain	Seedling	Days to		Plant Height
		at 14% Moisture	Moisture at Harvest	Vigor	50% Heading	Lodging	
		lbs/acre	(%)	(1-5)		(1-99)	(cm)
M-401	MPQ	8580 (1)	15.8 (1)	3.5 (6)	100 (14)	9 (14)	98 (14)
M-204	M	8300 (2)	14.4 (10)	2.8 (10)	92 (7)	1 (1)	92 (11)
94-y-11	M	8150 (3)	15.2 (2)	3.3 (7)	90 (3)	3 (13)	93 (12)
95-y-40	M	8020 (4)	14.2 (12)	4.3 (2)	91 (5)	1 (1)	86 (9)
94-y-66	L	7980 (5)	14.3 (11)	2.3 (12)	95 (10)	1 (1)	78 (3)
95-y-60	M	7950 (6)	15 (3)	3.3 (7)	92 (7)	1 (1)	88 (10)
A-301	L	7660 (7)	14.5 (9)	2.0 (14)	96 (12)	1 (1)	82 (6)
M-202	M	7550 (8)	14.9 (5)	3.0 (9)	90 (1)	1 (1)	96 (13)
96-y-12	L	7430 (9)	14.2 (14)	2.3 (12)	91 (4)	1 (1)	72 (1)
96-y-55	S	7230 (10)	14.2 (13)	4.0 (3)	98 (13)	1 (1)	81 (5)
97-y-10	S	6430 (11)	14.6 (8)	4.5 (1)	92 (7)	1 (1)	82 (6)
96-y-90	LBA	5850 (12)	14.6 (7)	3.8 (4)	91 (5)	1 (1)	86 (8)
A-201	L	5730 (13)	14.9 (4)	3.8 (4)	95 (11)	1 (1)	79 (4)
L-202	L	5670 (14)	14.8 (6)	2.5 (11)	90 (2)	1 (1)	74 (2)
MEAN		7320	14.7	3.2	93	2	85
CV		4.6	3.1	14.8	5	243.3	4.3
LSD (.05)		480	0.6	0.7	n.s.	n.s.	5

Preliminary Lines and Varieties

96-y-66	L	9120 (1)	13.7 (11)	3.0 (7)	87 (1)	1 (1)	73 (1)
96-y-64	M	8320 (2)	14.8 (3)	3.0 (7)	89 (3)	3 (17)	90 (17)
96-y-38	M	8100 (3)	14.0 (8)	3.5 (1)	90 (5)	1 (1)	88 (14)
96-y-60	M	7940 (4)	13.6 (15)	3.5 (1)	96 (18)	3 (17)	90 (17)
96-y-40	M	7850 (5)	13.9 (10)	2.0 (19)	92 (9)	1 (1)	86 (11)
97-y-11	M	7810 (6)	13.0 (20)	3.5 (1)	92 (9)	28 (19)	93 (19)
96-y-63	M	7780 (7)	14.3 (7)	2.5 (14)	95 (16)	1 (1)	84 (5)
96-y-67	L	7490 (8)	14.4 (6)	2.0 (19)	90 (8)	1 (1)	77 (3)
96-y-50	L	7460 (9)	15.0 (2)	3.0 (7)	89 (3)	1 (1)	84 (7)
97-y-12	S	7300 (10)	13.6 (14)	3.5 (1)	94 (14)	28 (19)	86 (11)
96-y-57	M	7240 (11)	13.5 (17)	3.0 (7)	88 (2)	1 (1)	85 (9)
96-y-20	SWX	7090 (12)	14.6 (4)	3.0 (7)	93 (13)	1 (1)	88 (14)
97-y-11	M	7060 (13)	13.2 (19)	2.5 (14)	90 (5)	1 (1)	96 (20)
96-y-61	M	7000 (14)	13.7 (12)	2.5 (14)	95 (17)	1 (1)	90 (16)
97-y-11	M	6940 (15)	13.7 (12)	3.0 (7)	93 (11)	1 (1)	84 (7)
97-y-11	S	6840 (16)	14.6 (4)	3.5 (1)	93 (11)	2 (16)	87 (13)
96-y-43	M	6740 (17)	13.6 (15)	2.5 (14)	97 (20)	1 (1)	85 (10)
96-y-36	M	6380 (18)	13.5 (17)	3.5 (1)	90 (5)	1 (1)	84 (5)
96-y-65	L	5330 (19)	15.4 (1)	3.0 (7)	94 (15)	1 (1)	73 (2)
96-y-64	L	4590 (20)	13.9 (9)	2.5 (14)	96 (18)	1 (1)	83 (4)
MEAN		7220	14	2.9	92	4	85
CV		11.8	3.7	18.4	4.7	225.9	4.3
LSD (.05)		1790	1.1	n.s.	n.s.	n.s.	8

Planting date=April 22, 1997

S = short; M = Medium; L = long; WX = waxy; SWX = sweet waxy; MPQ = medium premium quality; LBA = long 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 parentheses indicate relative rank in column.

Table 21. 1997 Sutter County Intermediate/Late Rice Variety Trial Single Location Summary (Brugman)

Advanced Lines and Varieties

Variety	Grain Type	Grain Yield	Grain	Seedling Vigor	Days to		Plant Height
		at 14% Moisture	Moisture at Harvest		50% Heading	Lodging	
		lbs/acre	(%)	(1-5)	(1-99)	(1-99)	(cm)
M-401	MPQ	8860 (1)	13.1 (1)	3.3 (8)	105 (14)	55 (14)	98 (14)
95-y-60	M	8790 (2)	10.8 (10)	3.0 (10)	95 (11)	1 (1)	79 (7)
94-y-11	M	8790 (3)	10.3 (13)	3.5 (4)	100 (13)	2 (9)	87 (12)
96-y-55	S	8510 (4)	10.6 (11)	4.3 (2)	91 (7)	15 (12)	83 (11)
95-y-40	M	8470 (5)	10.3 (12)	3.5 (4)	87 (1)	1 (1)	81 (10)
M-202	M	8390 (6)	10.1 (14)	3.5 (4)	92 (10)	3 (11)	91 (13)
M-204	M	8380 (7)	10.9 (9)	3.0 (10)	91 (5)	2 (9)	79 (8)
97-y-10	S	8050 (8)	11.7 (7)	4.3 (2)	91 (7)	20 (13)	79 (8)
96-y-12	L	7710 (9)	12.2 (2)	3.3 (8)	91 (9)	1 (1)	71 (1)
94-y-66	L	7700 (10)	11.8 (6)	3.0 (10)	91 (4)	1 (1)	78 (5)
A-301	L	7490 (11)	12.1 (3)	2.3 (14)	99 (12)	1 (1)	73 (2)
L-202	LBA	7380 (12)	12.1 (4)	2.8 (13)	90 (3)	1 (1)	77 (4)
A-201	L	7220 (13)	11.8 (5)	4.5 (1)	88 (2)	1 (1)	76 (3)
96-y-90	LBa	6810 (14)	11.1 (8)	3.5 (4)	91 (5)	1 (1)	78 (6)
MEAN		8040	11.3	3.4	93	8	81
CV		7.8	4.7	13.2	1.5	100.3	5.5
LSD (.05)		900	0.8	0.6	2	11	6

Preliminary Lines and Varieties

96-y-60	M	9770 (1)	11.0 (14)	3.0 (10)	97 (18)	1 (1)	90 (19)
96-y-38	M	9640 (2)	11.1 (10)	4.0 (2)	92 (11)	1 (1)	83 (11)
96-y-64	M	9310 (3)	11.1 (10)	3.5 (8)	99 (19)	3 (10)	77 (4)
96-y-50	L	9230 (4)	11.9 (2)	3.0 (10)	89 (4)	8 (12)	89 (18)
96-y-20	SWX	9150 (5)	9.7 (20)	2.5 (19)	90 (6)	46 (15)	80 (7)
96-y-63	M	9130 (6)	11.1 (10)	3.0 (10)	94 (15)	6 (11)	82 (8)
96-y-36	M	9080 (7)	10.4 (17)	4.0 (2)	87 (2)	48 (16)	88 (16)
96-y-61	M	8980 (8)	10.8 (15)	2.5 (19)	93 (13)	1 (1)	86 (13)
97-y-11	M	8940 (9)	10.0 (19)	4.0 (2)	89 (4)	82 (17)	91 (20)
96-y-57	M	8850 (10)	11.2 (8)	3.0 (10)	100 (20)	1 (1)	83 (9)
96-y-43	M	8670 (11)	10.2 (18)	3.0 (10)	90 (8)	1 (1)	74 (3)
96-y-40	M	8550 (12)	10.5 (16)	3.0 (10)	91 (10)	28 (13)	86 (14)
96-y-66	L	8540 (13)	11.5 (4)	4.0 (2)	93 (12)	1 (1)	77 (4)
96-y-67	L	8470 (14)	11.7 (3)	3.0 (10)	90 (6)	1 (1)	71 (1)
97-y-11	M	8460 (15)	11.2 (8)	3.5 (8)	93 (13)	33 (14)	85 (12)
97-y-12	S	8170 (16)	11.0 (13)	4.0 (2)	96 (17)	85 (18)	83 (9)
96-y-65	L	7900 (17)	11.4 (5)	3.0 (10)	96 (16)	1 (1)	72 (2)
97-y-11	S	7780 (18)	14.7 (1)	5.0 (1)	90 (8)	92 (19)	86 (14)
97-y-11	M	7640 (19)	11.2 (7)	3.0 (10)	88 (3)	95 (20)	88 (16)
96-y-64	L	7270 (20)	11.4 (6)	4.0 (2)	85 (1)	1 (1)	80 (6)
MEAN		8680	11.1	3.4	92	27	82
CV		5.8	2.8	15.2	1.9	90.9	5.2
LSD (.05)		1050	0.6	1.1	4	51	9

Planting date=April 24, 1997

S = short; M = Medium; L = long; WX = waxy; SWX = sweet waxy; MPQ = medium premium quality; LBA = long 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 parentheses indicate relative rank in column.

Table 22. 1997 Three Location Intermediate/Late Rice Lines and Varieties Summary Table

Advanced Lines and Varieties

(RES, Glenn, Sutter)

Variety	Grain Type	Grain Yield	Grain	Seedling	Days to	Lodging	Plant
		at 14% Moisture	Moisture at Harvest		50% Heading		
		lbs/acre	(%)	(1-5)	(1-99)	(cm)	
95-y-60	M	9650 (1)	13.5 (3)	3.7 (9)	95 (11)	2 (3)	87 (9)
M-401	MPQ	9520 (2)	16.0 (1)	3.9 (7)	104 (14)	25 (13)	101 (14)
M-204	M	9310 (3)	13.2 (6)	3.5 (10)	92 (9)	2 (6)	90 (11)
94-y-66	L	9180 (4)	12.5 (11)	3.3 (13)	92 (8)	2 (5)	81 (3)
94-y-11	M	9170 (5)	13.8 (2)	3.9 (6)	98 (12)	5 (10)	95 (12)
95-y-40	M	9030 (6)	13.0 (9)	4.3 (4)	88 (1)	2 (7)	88 (10)
96-y-12	L	8940 (7)	12.9 (10)	3.4 (11)	90 (3)	2 (3)	77 (1)
A-301	L	8620 (8)	13.4 (5)	2.9 (14)	98 (13)	1 (1)	81 (4)
M-202	M	8610 (9)	13.1 (8)	3.8 (8)	91 (5)	7 (11)	96 (13)
96-y-55	S	8320 (10)	12.3 (14)	4.4 (2)	93 (10)	24 (12)	86 (7)
L-202	L	8050 (11)	13.4 (4)	3.4 (12)	89 (2)	1 (2)	80 (2)
A-201	LBA	8010 (12)	13.2 (7)	4.4 (2)	91 (6)	2 (7)	85 (5)
97-y-10	S	7800 (13)	12.4 (13)	4.6 (1)	91 (6)	25 (14)	86 (6)
96-y-90	LBa	7090 (14)	12.4 (12)	4.0 (5)	91 (4)	3 (9)	86 (8)
MEAN		8660	13.2	3.8	93	7	87
CV		6.1	5.5	9.9	3.2	90.4	4.3
LSD (.05)		430	0.6	0.3	2	5	3

Preliminary Lines and Varieties

96-y-64	M	9870 (1)	13.5 (3)	3.8 (9)	94 (17)	3 (8)	87 (7)
96-y-60	M	9820 (2)	12.9 (11)	3.8 (7)	96 (20)	5 (10)	92 (18)
96-y-63	M	9730 (3)	13.5 (2)	3.4 (17)	94 (15)	3 (9)	87 (8)
96-y-38	M	9690 (4)	13.1 (7)	4.2 (3)	91 (10)	3 (5)	90 (10)
96-y-66	L	9670 (5)	11.7 (20)	4.0 (6)	89 (5)	3 (4)	80 (3)
96-y-40	M	9460 (6)	12.5 (15)	3.3 (18)	91 (12)	11 (12)	90 (10)
96-y-50	L	9260 (7)	13.2 (5)	3.6 (11)	87 (1)	11 (13)	91 (16)
96-y-67	L	9170 (8)	12.4 (16)	3.2 (20)	89 (6)	1 (1)	78 (1)
96-y-57	M	9130 (9)	13.0 (9)	3.7 (10)	95 (19)	3 (5)	90 (10)
96-y-20	SWX	9070 (10)	12.1 (19)	3.5 (16)	90 (7)	26 (14)	88 (9)
96-y-61	M	9060 (11)	13.1 (6)	3.3 (19)	93 (14)	2 (2)	91 (15)
96-y-43	M	8650 (12)	12.8 (12)	3.5 (15)	92 (13)	2 (3)	85 (4)
96-y-36	M	8620 (13)	13.0 (10)	4.2 (3)	88 (2)	26 (15)	90 (13)
97-y-11	M	8560 (14)	12.1 (18)	4.1 (5)	89 (4)	68 (20)	95 (19)
97-y-11	M	8230 (15)	12.7 (13)	3.6 (11)	91 (10)	40 (16)	96 (20)
96-y-65	L	8200 (16)	13.4 (4)	3.6 (11)	94 (16)	3 (5)	78 (2)
97-y-12	S	8150 (17)	12.2 (17)	4.2 (2)	94 (17)	65 (19)	87 (6)
97-y-11	S	8030 (18)	14.4 (1)	4.5 (1)	90 (7)	64 (18)	92 (17)
97-y-11	M	8020 (19)	13.1 (8)	3.6 (14)	91 (9)	52 (17)	90 (13)
96-y-64	L	6440 (20)	12.6 (14)	3.8 (8)	88 (3)	7 (11)	86 (5)
MEAN		8840	12.9	3.7	91	20	88
CV		7.1	5.7	11.6	3	77.2	4.4
LSD (.05)		730	0.9	0.5	3	18	4

S = short; M = Medium; L = long; WX = waxy; SWX = sweet waxy; MPQ = medium premium quality; LBA = long 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 parentheses indicate relative rank in column.

Table 23. 1997 Three Location Intermediate/Late Rice Advanced Lines and Varieties Yield (lb/acre at 14% moisture) Summary Table

Advanced Lines and Varieties

Variety	Grain	Average	Butte Biggs RES	Sutter Brugman	Glenn Wiley Ranch
	Type				
95-y-60	M	9650 (1)	12220 (1)	8790 (2)	7950 (6)
M-401	MPQ	9520 (2)	11120 (5)	8860 (1)	8580 (1)
M-204	M	9310 (3)	11250 (4)	8380 (7)	8300 (2)
94-y-66	L	9180 (4)	11870 (2)	7700 (10)	7980 (5)
94-y-11	M	9170 (5)	10560 (10)	8790 (3)	8150 (3)
95-y-40	M	9030 (6)	10620 (9)	8470 (5)	8020 (4)
96-y-12	L	8940 (7)	11690 (3)	7710 (9)	7430 (9)
A-301	L	8620 (8)	10700 (8)	7490 (11)	7660 (7)
M-202	M	8610 (9)	9890 (11)	8390 (6)	7550 (8)
96-y-55	S	8320 (10)	9210 (12)	8510 (4)	7230 (10)
L-202	L	8050 (11)	11090 (6)	7380 (12)	5670 (14)
A-201	L	8010 (12)	11090 (7)	7220 (13)	5730 (13)
97-y-10	LBA	7800 (13)	8900 (13)	8050 (8)	6430 (11)
96-y-90	LBA	7090 (14)	8610 (14)	6810 (14)	5850 (12)
MEAN		8660	10630	8040	7320
CV		6.1	5.4	7.8	4.6
LSD (.05)		430	820	900	480

Preliminary Lines and Varieties

96-y-64	M	9870 (1)	11970 (2)	9310 (3)	8320 (2)
96-y-60	M	9820 (2)	11760 (4)	9770 (1)	7940 (4)
96-y-63	M	9730 (3)	12290 (1)	9130 (6)	7780 (7)
96-y-38	M	9690 (4)	11320 (8)	9640 (2)	8100 (3)
96-y-66	L	9670 (5)	11350 (7)	8540 (13)	9120 (1)
96-y-40	M	9460 (6)	11970 (3)	8550 (12)	7850 (5)
96-y-50	L	9260 (7)	11100 (11)	9230 (4)	7460 (9)
96-y-67	L	9170 (8)	11560 (5)	8470 (14)	7490 (8)
96-y-57	M	9130 (9)	11300 (9)	8850 (10)	7240 (11)
96-y-20	SWX	9070 (10)	10960 (12)	9150 (5)	7090 (12)
96-y-61	M	9060 (11)	11220 (10)	8980 (8)	7000 (14)
96-y-43	M	8650 (12)	10550 (13)	8670 (11)	6740 (17)
96-y-36	M	8620 (13)	10400 (14)	9080 (7)	6380 (18)
97-y-11	M	8560 (14)	8940 (19)	8940 (9)	7810 (6)
97-y-11	M	8230 (15)	9180 (17)	8460 (15)	7060 (13)
96-y-65	L	8200 (16)	11370 (6)	7900 (17)	5330 (19)
97-y-12	S	8150 (17)	8980 (18)	8170 (16)	7300 (10)
97-y-11	S	8030 (18)	9460 (16)	7780 (18)	6840 (16)
97-y-11	M	8020 (19)	9490 (15)	7640 (19)	6940 (15)
96-y-64	L	6440 (20)	7460 (20)	7270 (20)	4590 (20)
MEAN		8840	10630	8680	7220
CV		7.1	4.3	5.8	11.8
LSD (.05)		730	950	1050	1790

S = short; M = Medium; L = long; WX = waxy; SWX = sweet waxy; MPQ = medium premium quality; LBA = long Basmati
Numbers in parentheses indicate relative rank in column.

Table 24. Grain Yield (lb/acre @ 14% moisture) Summary of Intermediate and Late Rice Varieties by Location and Year (1987-1997)

Location	Year	M-401	A-201	A-301
Butte (RES)	1987	9,890	-	3,410
	1988	9,330	-	9,520
	1989	9,070	-	10,040
	1990	7,800	-	10,370
	1991	9,950	-	8,910
	1992	10,320	-	9,100
	1993	10,310	-	8,840
	1994	10,320	-	10,120
	1995	8,790	-	8,790
	1996	8,090	9,420	10,320
1997	11,120	11,090	10,700	
Location Mean		9,545	10,255	9,102
1997 Yield as a % of Decade Me		117%		118%

Glenn/Colusa	1987	8,690	-	6,390
	1988	6,270	-	5,890
	1989	8,780	-	8,660
	1990	8,600	-	10,700
	1991	11,750	-	9,810
	1992	11,710	-	10,120
	1993	9,500	-	8,970
	1994	9,320	-	8,710
	1995	8,350	-	7,610
	1996	8,600	7,350	9,000
	1997	8,580	5,730	7,660
Location Mean		9,105	6,540	8,502
1997 Yield as a % of Decade Me		94%		90%

Sutter	1987	8,070	-	7,640
	1988	7,560	-	6,050
	1989	8,340	-	7,730
	1990	7,990	-	8,520
	1991	8,760	-	8,040
	1992	10,800	-	9,680
	1993	9,970	-	9,430
	1994	9,140	-	9,310
	1995	9,160	-	7,990
	1996	7,470	7,400	7,620
1997	8,860	7,220	7,490	
Location Mean		8,738	7,310	8,136
1997 Yield as a % of Decade Me		101%		92%

Loc/Years Mean		9,139	8,035	8,777
Yield as % of All years M-401		---	88%	96%