

**AGRONOMY PROGRESS REPORT**

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CALIFORNIA RICE VARIETIES
DESCRIPTION AND PERFORMANCE SUMMARY
OF THE 1996 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 1996. 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.

1996 was marked by cool early-season temperatures, significant rainfall at planting, strong winds and extremely high mid-season temperatures. Rice acreage increased to 512,700 acres in 1996, up 37,400 acres (7%) compared to 1995 (Table 2). Medium-grain varieties M-202, M-201, M-204, M-401, and M-103 were produced on 95% of the acreage. As in recent years, most acreage was planted to M-202 (63%). M-204, continued to be planted on about 60,000 acres. M-401, a premium quality medium-grain, was produced on 38,000 acres, 5,000 acres more than in 1995. Acreage of short-grain types also decreased from 1995 levels with S-201 produced on 4,920 acres. Long grain acreage decreased from 3,390 acres to 2,670 acres. Calmochi-101, a sweet or waxy rice, was produced as a specialty variety on 5,130 acres.

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Cool mild-season temperatures and strong winds associated with mid-May storms 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 effecting seed set and grain fill. Additionally, resistance of major weeds to Londax® coupled with restrictions on phenoxy herbicides due to cotton, greatly increased weed problems. Yields were significantly lower with estimates of 7,400 lb/acre as compared to statewide yields of over 8,000 lb/acre in the early 1990's.

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 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 (Luppe)
- 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. Nine advanced lines and nine commercial varieties were evaluated in Advanced Tests at each of the following locations.

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

Commercial varieties included Calmochi-101, M-103, M-201, M-202, M-204, L-203, L-204, S-102 and S-201. Twenty-three 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. Table 15 compares the yield of all commercial entries common to both the Very Early and Early maturity tests.

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

- Butte County (RES)
- Glenn County (Wylie)
- Sutter County (Peacock Bros.)

Commercial varieties included M-401, A-301, A-201, M-202, M-204, and L-202. Twenty-three experimental lines, with L- 202 as a standard, were also included in separate tests at each site. Advanced and preliminary non-commercial lines were entries from the RES breeding program.

Planting and Harvesting

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

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 9390 lb/acre at the RES, 8490 lb/acre at San Joaquin, 8220 lb/acre at Sutter, and 9400 lb/acre at Yolo. Over the four locations, the highest yielding entry was commercial variety, M-202 at 9320 lb/acre (Table 8). Entry 92-y-624, an advanced medium-grain, was the second highest yielding entry at Sutter, and ranked second in the four location summary. Of the other commercial varieties, M-204, L-204, S-102 and M-201 ranked sixth, seventh, tenth and eleventh, respectively over-locations.

No entry produced yields significantly higher than M-202 at any of the trials. Calmochi-101, S-102 and medium grain cultivar, 91-y-381, yielded highest (first, second and third, respectively) in the cooler San Joaquin trial. M-103, a very early, medium-grain, commercial variety was eighth in the San Joaquin trial.

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 108%, Calmochi-101, 102%, M-204, 104%, S-102, 98%, L-203, 97%, and L-204, 97% of M-103 in the Very Early tests over the past five year period.

SUMMARY OF THE EARLY RICE VARIETY TESTS

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

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

Yields in the advanced test averaged 9240 lb/acre at the RES, 8080 lb/acre at Butte, 9170 lb/acre at Colusa, and 6850 lb/acre at Yuba. The medium-grain variety, 94-y-615 exceeded 13000 lb/acre at the RES and was the highest yielding entry over the four locations (Table 14) and first at the RES and Yuba. Other leading advanced cultivars were 92-y-624 and 91-y-381 (third and sixth, respectively). Commercial varieties M-201, M-202, and S-201 ranked second, fourth and fifth in over-location yield average. Of the preliminary lines, 95-y-356, 95-y-388 and 95-y-400 (medium-grains) were ranked first, second and third, respectively.

Table 15 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 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 9440 lb/acre at the RES, 8370 lb/acre at Glenn, and 7520 lb/acre at Sutter. An advanced medium-grain cultivar, 94-y-416, was the highest yielding entry at Sutter, second at the RES and Glenn, and ranked first in the over-location results (Table 19). Premium quality M-401 ranked twelfth, seventh and eighth in yield at the RES, Glenn and Sutter, respectively, and was ranked ninth overall. In the preliminary test, medium-grain 95-y-405 exceeded 10500 lb/acre at the RES and Glenn, and was the highest yielding preliminary cultivar.

Table 20 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 85% and 96% of M-401, respectively, over the last five years.

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Table 1

CHARACTERISTICS OF PUBLIC CALIFORNIA RICE VARIETIES - 1996

Grain Type	Maturity	Yr. Seed Widely Available	Stem Rot Score ¹	Seedling Vigor ²	Comments
Short Grain					
S-102	Very Early	1998	7.0	4.3	Very high yield potential and 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	5.9	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	5.8	3.9	Earliest variety, vigor less than M-202. Excellent resistance to blanking. Very 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	5.5	4.1	Very high yield potential. Two inches shorter than M-202 with excellent resistance to lodging. Thresholds 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 the Escalon area.
M-202	Early	1987	6.0	4.4	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. Thresholds easily but does not shatter.
M-204	Early	1993	6.0	4.2	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. Thresholds easily like M-202. Not recommended for the Escalon area.
Long Grain					
L-202	Early	1986	6.4	3.9	Good yield potential in warmer areas. Not adapted to colder areas. Height shortest of current varieties. Excellent resistance to lodging. Seedling vigor fair, may be affected by water depth. Thresholds easily so reduce cylinder speed to enhance head rice. Harvest moisture for L-202 should be between 18% and 21%.
L-204	Early	1998	6.8	4.1	High yield potential. Two days earlier than L-203. Resistant to lodging. Seedling vigor fair, may be affected by deep water. Milling yield and cooking characteristics better than L-202 and L-203. Avoid early draining (requires 40-45 days after 80% heading to mature) and harvest at 17-19% moisture to maximize milling yield.
L-203	Early	1993	5.7	4.1	High yield potential. Five to seven 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 at moisture of 18-20%. Reduce cylinder speed for harvesting to enhance head rice.
Premium Quality					
M-401	Late	1983	5.5	4.3	<i>Premium Quality</i> rice with large kernels. Good yield potential but susceptible to blanking, lodging and damage from premature drainage. Use somewhat less N than on other medium varieties. Best adapted to warmer areas. Milling yields lower than other medium grains.
Specialty Rices					
Calmoch 101	Very Early ^{3,4}	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. Grain dries down rapidly during ripening. Be careful not to contaminate with other varieties. ASCS non-program rice.
A-201	Early	1998	6.0	4.2	Aromatic long grain, eight days earlier than A-301. Moderate yield potential similar to L-202 and A-301. Likely to become too leafy under excessively high N. Poor milling yield, like A-301. Use slower cylinder speed and harvest at 18-20% moisture. Air dry without heat to retain aroma.
A-301	Intermediate ⁴	1988	5.7	3.5	An aromatic ("popcorn" aroma) 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.

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

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

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

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

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Table 2. California Rice Acreage by Variety (1993-1996)

Variety	1996		1995		1994		1993	
	acres	(%)	acres	(%)	acres	(%)	acres	(%)
Medium Grains	484,690	94.5	442,990	93.2	453,410	90.0	432,442	93.4
M-103	15,790	3.1	16,060	3.4	13,540	2.7	23,613	5.1
M-201	47,150	9.2	31,530	6.6	26,550	5.3	43,985	9.5
M-202	323,950	63.2	303,740	63.9	296,330	58.8	305,177	65.9
M-204	59,800	11.7	58,890	12.4	79,400	15.7	36,577	7.9
M-401	38,000	7.4	32,770	6.9	37,590	7.5	23,150	5.0
Short Grain	12,730	2.5	19,610	4.0	41,300	8.2	21,761	4.7
S-102	-	-	-	-	-	-	-	-
S-201	4,920	1.0	9,860	2.0	25,160	5.0	8,797	1.9
Cal Pearl	2,680	0.5	3,510	0.7	1,860	0.4	3,241	0.7
Calmochi-101	5,130	1.0	6,240	1.3	14,280	2.8	9,723	2.1
Long Grains	2,675	0.5	3,390	0.8	1,130	0.3	4,630	1.0
L-202	700	0.1	1,200	0.3	100	<0.1	463	0.1
L-203	1,975	0.4	2,190	0.5	1,030	0.2	4,167	0.9
L-204	-	-	-	-	-	-	-	-
Others	12,615	2.0	9,320	2.0	8,160	1.6	4,167	0.9
Total	512,710	100	475,310	100	504,000	100	463,000	100

Table 3. 1996 County Weather Data - Daily Maximums and Minimums. Collected by UC IPM IMPACT and CIMIS.

	Glenn (Orland)		San Joaquin (Lodi)		Butte (Durham)		Sutter (Yuba City)		Yolo (Zamora)		Colusa (Colusa)	
	max	min	max	min	max	min	max	min	max	min	max	min
Apr 01	68	48	60	47	55	50	57	48	60	43	60	47
Apr 02	63	44	65	43	64	45	64	43	65	41	66	44
Apr 03	70	45	67	41	70	45	68	43	69	40	69	46
Apr 04	75	44	75	46	75	41	73	40	73	48	74	45
Apr 05	83	46	77	42	84	44	79	40	80	45	85	49
Apr 06	82	44	79	47	81	47	80	45	79	47	82	47
Apr 07	81	46	83	49	82	50	84	48	80	49	82	48
Apr 08	79	46	71	51	79	49	73	50	77	47	78	48
Apr 09	73	43	67	46	69	49	68	47	70	45	71	47
Apr 10	70	40	67	45	70	45	70	39	71	42	70	40
Apr 11	69	40	70	45	67	41	69	40	70	42	71	42
Apr 12	68	41	67	48	67	46	67	43	67	45	68	43
Apr 13	72	37	71	40	73	34	72	35	72	40	72	36
Apr 14	74	41	78	42	74	40	75	38	73	41	74	40
Apr 15	68	50	76	51	67	54	68	51	70	51	67	54
Apr 16	66	48	66	47	65	44	66	46	66	44	67	46
Apr 17	63	32	67	41	60	42	62	41	65	41	62	41
Apr 18	64	33	63	43	63	38	64	39	64	39	64	38
Apr 19	60	35	62	40	52	42	56	42	57	40	59	40
Apr 20	60	34	61	38	61	35	60	36	61	40	61	39
Apr 21	64	38	69	40	65	33	69	36	67	37	66	38
Apr 22	70	45	72	47	70	43	71	46	71	44	70	46
Apr 23	75	52	76	47	73	51	75	49	75	45	74	50
Apr 24	76	59	74	52	77	55	75	53	74	54	77	56
Apr 25	83	43	83	51	83	50	81	46	82	50	82	49
Apr 26	85	42	87	55	85	58	84	49	87	59	87	53
Apr 27	82	43	79	47	76	58	77	50	77	54	75	53
Apr 28	81	50	84	55	83	51	82	49	83	60	80	55
Apr 29	89	49	87	47	93	47	90	41	90	46	90	43
Apr 30	93	52	94	51	93	50	93	48	95	52	93	46
Jun 01	95	57	92	52	95	57	95	54	91	57	95	56
Jun 02	95	60	100	56	93	60	99	58	95	58	98	58
Jun 03	97	64	100	58	94	60	101	59	98	57	100	61
Jun 04	98	63	96	60	97	60	97	63	94	59	97	61
Jun 05	100	61	99	59	97	66	101	62	97	64	99	61
Jun 06	98	65	97	57	94	62	100	61	98	61	101	63
Jun 07	98	67	93	60	94	67	96	67	96	60	98	66
Jun 08	97	59	94	54	95	64	99	60	96	52	98	61
Jun 09	93	61	90	61	92	59	94	60	93	59	96	58
Jun 10	87	56	85	56	86	59	89	58	87	56	91	57
Jun 11	98	58	89	51	95	58	92	54	91	52	94	56
Jun 12	91	65	86	56	88	62	88	60	90	55	92	60
Jun 13	85	57	82	49	84	57	83	54	84	51	87	55
Jun 14	90	57	88	50	88	57	88	55	90	52	91	56
Jun 15	87	58	82	49	86	57	83	55	85	50	88	56
Jun 16	83	54	77	47	82	57	76	54	79	52	83	56
Jun 17	82	52	82	47	81	52	84	52	82	51	84	50
Jun 18	89	56	85	54	87	55	89	60	84	54	87	49
Jun 19	89	60	90	52	88	56	88	54	88	51	92	51
Jun 20	81	53	78	51	81	57	82	55	82	50	85	57
Jun 21	83	56	80	50	82	57	82	55	82	52	85	57
Jun 22	90	59	86	50	88	57	89	54	88	52	91	54
Jun 23	87	61	89	55	87	57	89	57	89	56	91	56
Jun 24	79	55	73	53	77	54	76	56	77	54	79	59
Jun 25	77	52	75	49	75	51	73	52	74	50	76	50
Jun 26	75	50	72	55	76	55	73	56	75	52	77	52
Jun 27	75	51	73	53	73	54	75	53	74	47	77	52
Jun 28	83	51	82	49	84	52	84	54	83	48	85	51
Jun 29	89	60	91	53	92	54	96	56	91	55	94	54
Jun 30	96	67	98	58	96	60	104	60	97	56	101	59
May 01	92	55	93	57	92	65	91	52	93	57	92	52
May 02	91	54	88	55	85	53	86	50	87	55	88	53
May 03	84	41	78	49	78	41	78	42	79	48	79	41
May 04	77	40	80	41	78	48	77	39	77	42	77	45
May 05	76	41	78	43	78	48	77	45	79	40	79	49
May 06	77	45	78	43	78	46	78	46	78	42	79	51
May 07	76	43	77	43	77	46	78	47	77	42	78	51
May 08	74	43	76	43	75	46	77	47	77	40	77	49
May 09	80	44	80	42	81	44	80	41	81	41	81	43
May 10	83	45	84	43	85	48	86	46	85	44	84	51
May 11	95	54	93	51	93	54	96	49	90	51	95	51
May 12	97	59	96	56	98	57	98	53	96	57	98	57
May 13	94	60	89	60	89	63	91	58	89	55	90	57
May 14	89	60	80	60	78	65	78	61	75	64	77	64
May 15	78	56	71	61	66	59	68	60	67	57	70	57
May 16	70	54	72	58	67	57	67	59	69	58	70	58
May 17	65	56	69	60	64	59	69	58	68	58	66	59
May 18	73	53	70	55	69	54	68	53	68	51	70	49
May 19	71	48	73	50	72	49	71	48	73	44	72	46
May 20	74	45	75	48	73	44	75	46	74	48	76	46
May 21	71	46	71	48	64	50	66	52	67	52	67	52
May 22	75	47	72	52	72	54	71	50	72	48	75	50
May 23	74	46	74	49	74	53	72	49	72	54	73	55
May 24	82	44	80	55	83	55	78	52	78	55	81	55
May 25	87	53	86	54	86	58	83	56	84	61	87	58
May 26	84	55	77	51	75	54	73	55	77	51	79	57
May 27	82	52	78	53	83	54	77	52	80	49	83	54
May 28	80	53	77	50	78	52	77	55	75	51	80	54
May 29	78	51	75	46	76	52	76	51	76	49	78	51
May 30	81	53	80	46	80	54	81	51	80	49	82	50
May 31	85	52	85	47	85	54	83	52	84	48	85	55
Jul 01	99	68	101	61	98	62	102	61	98	61	102	62
Jul 02	99	65	95	63	95	64	97	66	98	57	100	65
Jul 03	90	59	89	55	88	60	92	59	94	54	95	61
Jul 04	89	55	89	55	87	60	89	60	88	56	90	61
Jul 05	97	61	92	52	94	56	97	51	92	52	96	54
Jul 06	96	64	96	56	93	59	96	59	96	56	99	59
Jul 07	97	67	91	57	93	64	96	59	95	57	98	63
Jul 08	93	63	89	56	92	62	93	60	95	55	97	61
Jul 09	96	65	94	57	93	64	95	61	96	58	97	61
Jul 10	98	66	92	57	97	65	98	62	97	58	100	68
Jul 11	95	63	92	60	92	64	93	62	94	58	96	68
Jul 12	94	67	91	60	92	62	93	59	91	58	95	61
Jul 13	98	73	93	59	97	68	97	64	97	63	100	68
Jul 14	94	72	89	60	94	69	93	63	97	62	98	68
Jul 15	87	62	85	56	85	62	86	58	90	57	89	60
Jul 16	86	57	82	53	86	56	83	57	85	52	87	57
Jul 17	83	58	82	53	84	58	83	56	89	54	88	58
Jul 18	86	56	86	51	85	58	86	56	85	52	87	56
Jul 19	96	61	90	52	94	55	89	52	91	60	93	52
Jul 20	98	61	95	53	96	54	104	54	96	55	98	55
Jul 21	99	67	99	57	96	59	99	58	100	57	101	59
Jul 22	100	64	93	56	99	64	96	61	100	56	101	61
Jul 23	92	64	92	60	88	63	94	62	94	62	95	61
Jul 24	96	67	92	57	94	65	95	60	96	56	104	65
Jul 25	97	71	96	58	97	66	103	59	98	58	102	61
Jul 26	96	62	90	58	93	65	90	58	93	57	98	61
Jul 27	97	66	90	60	90	64	92	60	97	62	94	64
Jul 28	98	75	97	65	97	71	100	66	98	68	99	69
Jul 29	103	75	100	64	99	72	103	68	102	70	106	69
Jul 30	102	73	98	64	98	70	101	68	103	66	104	69
Jul 31	102	70	100	63	98	67	101	64	105	62	104	62

Table 3 (con't). 1996 County Weather Data - Daily Maximums and Minimums. Collected by UC IPM IMPACT and CIMIS.

	Glenn (Orland)		San Joaquin (Lodi)		Butte (Durham)		Sutter (Yuba City)		Yolo (Zamora)		Colusa (Colusa)	
	max	min	max	min	max	min	max	min	max	min	max	min
Aug 01	93	61	88	55	97	62	91	60	95	53	97	61
Aug 02	95	58	93	54	95	59	95	57	97	55	97	57
Aug 03	88	67	86	54	84	60	89	60	87	56	89	58
Aug 04	95	64	91	56	91	61	94	58	94	56	95	56
Aug 05	85	61	82	54	82	58	89	62	88	54	86	59
Aug 06	91	54	85	51	86	54	86	52	88	54	91	52
Aug 07	92	59	90	52	88	59	94	57	93	54	95	60
Aug 08	101	59	95	56	98	61	102	58	90	57	104	59
Aug 09	103	62	100	60	100	63	102	60	101	60	105	61
Aug 10	103	69	101	63	102	64	106	64	105	61	108	62
Aug 11	108	75	101	68	99	68	100	69	104	70	107	67
Aug 12	108	76	101	65	98	71	104	70	101	71	103	69
Aug 13	106	75	101	67	100	72	110	74	106	67	106	68
Aug 14	101	72	98	63	99	70	98	66	106	65	105	68
Aug 15	98	64	97	55	96	63	98	60	93	56	100	59
Aug 16	98	67	96	53	96	57	97	54	99	53	101	57
Aug 17	91	60	84	54	84	58	85	57	89	52	90	55
Aug 18	89	59	85	51	83	58	85	55	81	56	86	56
Aug 19	80	56	80	50	83	56	78	55	85	52	85	57
Aug 20	84	52	83	46	80	52	84	53	82	51	85	51
Aug 21	94	54	90	54	89	53	95	53	92	54	96	54
Aug 22	95	63	93	52	91	56	94	54	96	55	97	55
Aug 23	98	66	95	56	94	62	95	58	98	60	99	58
Aug 24	98	70	88	56	93	61	92	59	96	58	98	60
Aug 25	88	53	81	55	85	57	85	56	91	51	88	57
Aug 26	84	51	77	55	82	55	79	56	86	49	86	57
Aug 27	83	51	82	49	84	53	86	54	82	51	88	55
Aug 28	97	58	92	50	89	55	94	52	94	52	97	53
Aug 29	96	65	96	55	95	60	98	58	98	58	99	58
Aug 30	100	69	97	57	95	62	105	59	102	59	103	60
Aug 31	94	61	93	52	90	60	91	58	93	53	95	59

	Glenn (Orland)		San Joaquin (Lodi)		Butte (Durham)		Sutter (Yuba City)		Yolo (Zamora)		Colusa (Colusa)	
	max	min	max	min	max	min	max	min	max	min	max	min
Oct 01	80	51	76	47	77	50	75	52	79	51	79	51
Oct 02	84	58	80	49	82	52	81	50	83	52	85	53
Oct 03	89	58	84	48	88	52	89	50	89	49	88	51
Oct 04	87	61	84	50	87	55	88	54	87	52	88	54
Oct 05	93	62	90	50	94	53	94	50	91	53	93	52
Oct 06	95	60	92	50	95	52	91	52	91	55	96	54
Oct 07	98	62	94	54	96	53	92	52	93	53	98	52
Oct 08	100	56	94	56	98	54	96	53	98	54	99	53
Oct 09	94	62	90	55	92	53	90	53	94	55	95	53
Oct 10	81	52	78	50	79	48	79	53	80	49	82	55
Oct 11	86	46	81	44	86	49	84	44	88	44	86	47
Oct 12	85	54	76	51	80	54	78	55	84	52	83	60
Oct 13	80	52	78	50	78	55	78	50	80	48	79	51
Oct 14	86	52	81	46	84	52	82	41	80	49	84	46
Oct 15	84	54	81	43	83	45	84	43	80	50	82	46
Oct 16	72	54	72	42	71	51	70	40	69	52	72	46
Oct 17	77	47	75	37	76	38	77	35	77	40	78	39
Oct 18	64	49	68	41	67	46	69	48	70	42	69	47
Oct 19	63	37	66	40	64	36	63	35	66	39	65	35
Oct 20	64	42	67	39	66	39	65	36	65	45	66	40
Oct 21	73	43	70	32	71	38	70	36	71	42	73	41
Oct 22	74	42	71	34	73	37	71	34	71	36	72	35
Oct 23	74	46	74	40	74	45	72	37	73	49	74	41
Oct 24	69	47	63	47	65	32	64	43	71	45	74	32
Oct 25	61	37	75	46	67	30	49	38	65	38	49	38
Oct 26	65	49	67	39	72	44	69	47	66	49	69	47
Oct 27	72	50	72	33	72	46	71	43	72	50	74	52
Oct 28	64	41	70	37	64	38	67	34	67	39	68	40
Oct 29	60	47	52	48	50	48	54	50	55	49	55	49
Oct 30	64	48	61	44	65	48	60	49	61	48	63	48

	Glenn (Orland)		San Joaquin (Lodi)		Butte (Durham)		Sutter (Yuba City)		Yolo (Zamora)		Colusa (Colusa)	
	max	min	max	min	max	min	max	min	max	min	max	min
Sep 01	94	62	89	50	90	58	88	52	93	52	95	55
Sep 02	87	56	86	49	87	54	86	54	91	50	92	52
Sep 03	82	53	80	51	83	52	81	53	87	49	88	56
Sep 04	81	55	80	46	79	52	81	54	86	48	85	50
Sep 05	86	51	83	45	85	48	82	45	74	45	84	48
Sep 06	87	57	88	46	85	46	90	47	89	47	91	45
Sep 07	91	58	91	47	88	51	92	48	93	48	93	49
Sep 08	93	59	93	47	92	51	94	48	93	54	95	49
Sep 09	94	61	94	51	91	51	96	52	95	52	96	51
Sep 10	94	61	93	52	91	53	99	59	95	54	96	50
Sep 11	83	59	74	52	79	55	76	54	85	52	83	57
Sep 12	74	53	78	47	75	51	77	52	78	48	78	53
Sep 13	72	53	75	54	71	56	71	55	73	55	73	53
Sep 14	79	54	79	48	79	51	81	50	81	49	82	49
Sep 15	83	60	78	54	76	60	79	51	80	52	82	53
Sep 16	80	56	79	49	78	53	79	47	77	47	78	46
Sep 17	84	58	82	47	81	54	80	46	79	54	82	54
Sep 18	86	65	83	50	84	53	83	49	81	59	84	52
Sep 19	87	54	88	48	86	47	89	48	88	49	88	47
Sep 20	90	55	89	48	93	51	90	50	92	52	95	56
Sep 21	89	59	90	53	88	54	88	52	93	56	92	53
Sep 22	87	63	83	49	87	56	84	50	84	52	88	54
Sep 23	87	56	81	48	84	51	84	51	86	49	87	49
Sep 24	85	55	83	46	85	52	85	49	79	49	87	53
Sep 25	91	55	86	46	86	51	88	47	90	46	90	50
Sep 26	92	61	84	48	90	50	87	50	89	49	91	52
Sep 27	93	62	85	47	96	56	86	47	89	50	96	57
Sep 28	94	58	87	50	94	53	91	51	91	49	94	51
Sep 29	91	60	88	52	90	52	91	52	91	53	93	53
Sep 30	86	61	75	52	85	56	79	54	83	50	87	55

Table 4. 1996 Butte County Very Early Rice Variety Trial Single Location Summary (RES)

Advanced Lines and Varieties

Variety	Grain Type	Grain Yield at 14% Moisture lb/acre	Grain Moisture at Harvest (%)	Seedling Vigor (1-5)	Days to 50% Heading	Lodging (1-99)	Plant Height (cm)
96-y-20	L	10310 (1)	15.2 (16)	4.9 (5)	81 (8)	2 (3)	95 (11)
94-y-39	L	10260 (2)	13.6 (20)	4.9 (10)	79 (5)	3 (5)	91 (4)
M-204	M	10090 (3)	18.7 (6)	4.9 (8)	86 (17)	10 (7)	101 (18)
L-204	L	10060 (4)	14.1 (19)	5.0 (2)	83 (14)	1 (2)	85 (1)
M-201	M	10000 (5)	19.5 (2)	4.9 (10)	87 (18)	16 (10)	93 (7)
92-y-624	M	9910 (6)	21.2 (1)	4.9 (6)	87 (19)	41 (14)	103 (19)
L-203	L	9890 (7)	16.0 (13)	4.9 (8)	84 (15)	1 (1)	88 (3)
95-y-529	L	9880 (8)	14.4 (18)	4.9 (10)	82 (11)	2 (3)	92 (6)
94-y-40	L	9690 (9)	14.5 (17)	4.8 (18)	82 (11)	11 (8)	91 (5)
S-201	S	9680 (10)	19.2 (4)	4.8 (13)	93 (20)	5 (6)	99 (17)
93-y-218	M	9570 (11)	18.8 (5)	4.8 (16)	81 (10)	36 (13)	95 (11)
94-y-253	M	9560 (12)	18.0 (10)	4.8 (16)	83 (13)	13 (9)	96 (16)
S-102	S	9410 (13)	15.7 (15)	5.0 (3)	76 (2)	33 (12)	95 (15)
91-y-381	M	9380 (14)	17.8 (11)	4.9 (6)	80 (7)	27 (11)	94 (9)
93-y-185	M	9340 (15)	18.2 (8)	4.8 (13)	81 (8)	60 (19)	95 (11)
M-103	M	8570 (16)	18.0 (9)	4.8 (18)	76 (1)	59 (18)	95 (14)
M-202	M	8570 (17)	19.3 (3)	5.0 (3)	85 (16)	56 (17)	104 (20)
95-y-158	S	8200 (18)	16.8 (12)	4.8 (13)	76 (3)	48 (15)	85 (2)
CM-101	Swx	8150 (19)	18.2 (7)	4.8 (20)	76 (3)	55 (16)	93 (8)
96-y-5	S	7240 (20)	15.7 (14)	5.0 (1)	80 (6)	87 (20)	94 (10)
MEAN		9390	17.1	4.9	82	28	94
CV		6.9	5	1.7	1.4	54.7	3.1
LSD(.05)		910	1.2	0.1	2	22	4

Preliminary Lines and Varieties

L-204	L	9970 (1)	14.5 (18)	5.0 (3)	83 (18)	1 (1)	84 (1)
96-y-40	L	9620 (2)	14.2 (19)	4.9 (4)	76 (5)	2 (2)	90 (7)
95-y-468	L	9550 (3)	14.8 (17)	4.8 (12)	84 (19)	6 (4)	98 (19)
93-y-218	M	9500 (4)	17.8 (3)	4.9 (9)	80 (13)	36 (12)	91 (8)
95-y-220	M	9470 (5)	16.8 (10)	4.8 (14)	76 (4)	13 (6)	96 (15)
95-y-214	M	9340 (6)	15.9 (12)	4.9 (4)	75 (2)	33 (8)	97 (18)
93-y-195	wx	9310 (7)	17.0 (8)	4.7 (19)	74 (1)	36 (12)	86 (4)
96-y-39	L	9300 (8)	14.0 (20)	4.8 (16)	79 (12)	5 (3)	93 (11)
95-y-538	L	9270 (9)	15.8 (14)	4.8 (12)	86 (20)	6 (4)	93 (10)
96-y-24	S	9250 (10)	15.8 (13)	4.9 (4)	79 (9)	58 (16)	87 (5)
95-y-221	M	9180 (11)	17.8 (4)	4.9 (8)	77 (7)	34 (9)	94 (13)
95-y-197	wx	8990 (12)	17.3 (6)	4.9 (4)	78 (8)	36 (11)	93 (11)
95-y-215	M	8960 (13)	17.4 (5)	4.9 (9)	75 (2)	55 (15)	96 (17)
95-y-474	L	8820 (14)	14.8 (16)	4.8 (14)	80 (14)	34 (9)	96 (16)
95-y-315	S	8780 (15)	16.9 (9)	4.7 (18)	83 (16)	23 (7)	92 (9)
95-y-5	S	8430 (16)	16.7 (11)	4.9 (9)	77 (6)	63 (17)	86 (3)
95-y-157	S	8390 (17)	17.2 (7)	4.8 (17)	79 (10)	43 (14)	84 (1)
96-y-25	S	8310 (18)	15.7 (15)	5.0 (1)	79 (10)	76 (19)	88 (6)
95-y-209	M	8290 (19)	18.4 (1)	5.0 (1)	83 (16)	63 (17)	95 (14)
AKITA	S	5730 (20)	18.4 (2)	4.6 (20)	81 (15)	99 (20)	100 (20)
MEAN		8920	16.3	4.8	79	36	92
CV		5.6	5.5	2.2	2.6	43.5	3.6
LSD(.05)		710	1.3	0.1	3	22	5

S = short; M = Medium; L = long; 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. 1996 San Joaquin County Very Early Rice Variety Trial Single Location Summary (Brumley)

Advanced Lines and Varieties

Variety	Grain Type	Grain Yield at 14% Moisture lb/acre	Grain Moisture at Harvest (%)	Seedling Vigor (1-5)	Days to 50% Heading	Lodging (1-99)	Plant Height (cm)
CM-101	Swx	9690 (1)	16.2 (15)	5.0 (1)	94 (2)	19 (12)	85 (12)
S-102	S	9590 (2)	15.8 (16)	4.8 (5)	94 (1)	21 (13)	85 (11)
91-y-381	M	9360 (3)	20.1 (4)	5.0 (1)	98 (9)	10 (9)	86 (13)
M-202	M	9170 (4)	20.2 (3)	4.8 (5)	99 (10)	26 (15)	86 (14)
93-y-185	M	8910 (5)	16.9 (12)	4.5 (10)	99 (11)	58 (19)	78 (2)
93-y-218	M	8820 (6)	18.4 (8)	4.5 (10)	101 (12)	38 (17)	88 (17)
94-y-253	M	8770 (7)	19.1 (5)	4.5 (10)	104 (14)	24 (14)	92 (19)
M-103	M	8650 (8)	18.5 (7)	4.8 (5)	95 (3)	10 (9)	81 (7)
94-y-39	L	8470 (9)	16.5 (13)	4.5 (10)	96 (6)	1 (1)	79 (4)
94-y-40	L	8470 (10)	16.2 (14)	3.3 (19)	98 (8)	3 (5)	84 (10)
M-204	M	8440 (11)	18.6 (6)	4.5 (10)	105 (15)	10 (9)	86 (15)
96-y-5	S	8350 (12)	15.1 (19)	3.0 (20)	102 (13)	65 (20)	87 (16)
L-204	L	8150 (13)	17.0 (11)	5.0 (1)	98 (7)	1 (1)	80 (5)
95-y-529	L	8100 (14)	14.8 (20)	4.5 (10)	96 (4)	3 (5)	80 (6)
96-y-20	L	8090 (15)	17.3 (10)	4.8 (5)	107 (19)	2 (3)	78 (2)
95-y-158	S	8080 (16)	15.5 (17)	4.5 (10)	96 (4)	29 (16)	81 (8)
92-y-624	M	8050 (17)	15.4 (18)	4.5 (10)	105 (15)	55 (18)	94 (20)
M-201	M	7990 (18)	22.6 (1)	5.0 (1)	106 (17)	5 (8)	88 (18)
L-203	L	7870 (19)	18.0 (9)	4.8 (5)	106 (18)	2 (3)	75 (1)
S-201	S	6870 (20)	21.7 (2)	4.5 (10)	109 (20)	4 (7)	83 (9)
MEAN		8490	17.7	4.5	100	19	84
CV		5.7	6.8	9.8	2.6	72.5	6
LSD(.05)		690	1.7	0.6	4	20	7

Preliminary Lines and Varieties

95-y-197	wx	9470 (1)	15.8 (14)	5.0 (1)	97 (10)	35 (17)	81 (13)
95-y-214	M	9390 (2)	19.2 (2)	5.0 (1)	97 (10)	25 (16)	88 (18)
95-y-220	M	9120 (3)	18.7 (3)	4.5 (5)	96 (5)	10 (7)	80 (12)
93-y-195	wx	9070 (4)	18.1 (7)	4.5 (5)	94 (2)	8 (5)	75 (5)
96-y-24	S	8950 (5)	15.6 (17)	4.5 (5)	100 (17)	10 (7)	73 (3)
95-y-215	M	8880 (6)	18.5 (4)	4.5 (5)	95 (3)	6 (2)	81 (13)
95-y-5	S	8660 (7)	14.5 (20)	4.0 (15)	96 (5)	40 (19)	74 (4)
95-y-209	M	8370 (8)	20.3 (1)	5.0 (1)	103 (20)	20 (13)	86 (16)
93-y-218	M	8330 (9)	18.5 (4)	4.5 (5)	97 (14)	20 (13)	77 (8)
95-y-474	L	8170 (10)	16.3 (11)	4.5 (5)	96 (8)	36 (18)	91 (19)
95-y-221	M	8090 (11)	18.5 (4)	4.5 (5)	97 (10)	13 (10)	79 (10)
96-y-25	S	8070 (12)	16.4 (10)	4.0 (15)	97 (14)	15 (11)	75 (6)
95-y-315	S	7940 (13)	17.5 (8)	5.0 (1)	98 (16)	20 (13)	73 (2)
95-y-468	L	7780 (14)	16.2 (12)	4.0 (15)	100 (17)	15 (11)	87 (17)
95-y-157	S	7710 (15)	15.8 (14)	4.5 (5)	96 (8)	6 (2)	68 (1)
L-204	L	7700 (16)	15.8 (13)	4.5 (5)	96 (5)	11 (9)	76 (7)
95-y-538	L	7690 (17)	15.4 (18)	4.0 (15)	102 (19)	8 (5)	86 (15)
96-y-40	L	7230 (18)	15.7 (16)	4.0 (15)	94 (1)	1 (1)	77 (9)
96-y-39	L	7050 (19)	15.2 (19)	4.5 (5)	95 (4)	6 (2)	80 (11)
AKITA	S	6660 (20)	17.2 (9)	3.5 (20)	97 (10)	45 (20)	93 (20)
MEAN		8220	17	4.4	97	17	80
CV		6	2.8	17.4	2.5	90.1	5
LSD(.05)		1040	1	ns	ns	ns	8

S = short; M = Medium; L = long; 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. 1996 Sutter County Very Early Rice Variety Trial Single Location Summary (Laupe)

Advanced Lines and Varieties

Variety	Grain Type	Grain Yield at 14% Moisture lb/acre	Grain Moisture at Harvest (%)	Seedling Vigor (1-5)	Days to 50% Heading	Lodging (1-99)	Plant Height (cm)
M-202	M	9680 (1)	19.0 (4)	4.5 (5)	85 (13)	8 (11)	97 (17)
92-y-624	M	9500 (2)	18.9 (5)	4.3 (10)	87 (18)	3 (8)	96 (16)
91-y-381	M	9070 (3)	18.7 (7)	4.8 (3)	82 (9)	8 (11)	95 (11)
93-y-218	M	8780 (4)	18.6 (9)	4.0 (13)	84 (11)	10 (14)	96 (14)
M-204	M	8730 (5)	19.4 (3)	4.0 (13)	86 (15)	3 (8)	91 (7)
L-204	L	8650 (6)	17.3 (12)	5.0 (1)	84 (12)	3 (8)	89 (5)
M-103	M	8360 (7)	18.7 (8)	4.0 (13)	78 (3)	53 (19)	98 (20)
94-y-39	L	8350 (8)	15.6 (18)	4.3 (10)	80 (5)	1 (1)	82 (1)
96-y-20	L	8260 (9)	16.4 (15)	3.8 (18)	85 (13)	1 (1)	92 (9)
M-201	M	8190 (10)	19.7 (2)	5.0 (1)	87 (17)	1 (1)	89 (6)
94-y-253	M	8160 (11)	17.8 (11)	3.8 (18)	83 (10)	11 (15)	85 (2)
93-y-185	M	8080 (12)	18.7 (6)	4.0 (13)	81 (6)	25 (17)	95 (13)
L-203	L	7960 (13)	17.0 (13)	4.0 (13)	86 (15)	1 (1)	88 (4)
S-102	S	7800 (14)	15.5 (19)	4.5 (5)	76 (1)	16 (16)	92 (10)
S-201	S	7730 (15)	21.8 (1)	4.3 (10)	89 (20)	1 (1)	91 (7)
94-y-40	L	7650 (16)	16.5 (14)	3.0 (20)	87 (18)	1 (1)	98 (19)
96-y-5	S	7430 (17)	15.7 (17)	4.8 (3)	82 (8)	89 (20)	97 (18)
95-y-529	L	7380 (18)	15.3 (20)	4.5 (5)	81 (7)	1 (1)	96 (15)
CM-101	Swx	7370 (19)	18.0 (10)	4.5 (5)	78 (4)	42 (18)	95 (12)
95-y-158	S	7270 (20)	16.2 (16)	4.5 (5)	77 (2)	8 (11)	88 (3)
MEAN		8220	17.8	4.3	83	14	92
CV		10.1	7.6	15.7	1.5	99.7	7
LSD(.05)		1170	1.9	0.9	2	20	9

Preliminary Lines and Varieties

95-y-468	L	8810 (1)	16.6 (13)	4.0 (4)	85 (20)	1 (1)	101 (20)
93-y-195	wx	8490 (2)	19.2 (4)	3.0 (19)	76 (1)	1 (1)	86 (4)
95-y-315	S	8440 (3)	19.6 (2)	4.5 (3)	81 (13)	1 (1)	94 (13)
95-y-214	M	8420 (4)	19.3 (3)	4.0 (4)	77 (5)	6 (13)	96 (15)
95-y-5	S	8350 (5)	16.5 (15)	3.5 (14)	77 (5)	26 (18)	86 (6)
95-y-474	L	8290 (6)	16.2 (17)	4.0 (4)	81 (13)	1 (1)	99 (18)
95-y-215	M	8270 (7)	17.5 (8)	4.0 (4)	76 (1)	3 (12)	92 (12)
95-y-157	S	8160 (8)	16.3 (16)	4.0 (4)	76 (1)	1 (1)	84 (2)
95-y-197	wx	8060 (9)	16.5 (14)	3.5 (14)	77 (5)	11 (16)	94 (13)
96-y-25	S	7890 (10)	18.3 (6)	5.0 (1)	81 (12)	70 (19)	92 (10)
96-y-40	L	7820 (11)	16.1 (19)	4.0 (4)	77 (5)	1 (1)	96 (15)
96-y-39	L	7770 (12)	15.7 (20)	3.5 (14)	81 (13)	1 (1)	98 (17)
95-y-221	M	7610 (13)	18.6 (5)	4.0 (4)	77 (5)	6 (13)	92 (10)
95-y-538	L	7600 (14)	17.0 (11)	3.5 (14)	84 (19)	1 (1)	85 (3)
95-y-209	M	7430 (15)	17.8 (7)	5.0 (1)	81 (13)	6 (13)	91 (9)
95-y-220	M	7200 (16)	17.0 (10)	4.0 (4)	76 (1)	1 (1)	91 (7)
93-y-218	M	7160 (17)	17.1 (9)	4.0 (4)	79 (11)	1 (1)	91 (7)
L-204	L	7140 (18)	16.8 (12)	4.0 (4)	81 (13)	1 (1)	83 (1)
96-y-24	S	6860 (19)	16.2 (18)	3.5 (14)	78 (10)	16 (17)	86 (4)
AKITA	S	6060 (20)	19.9 (1)	3.0 (19)	82 (18)	93 (20)	100 (19)
MEAN		7790	17.4	3.9	79	12	92
CV		13.7	3.6	11.9	2	81.3	5.8
LSD(.05)		ns	1.3	1	3	21	ns

S = short; M = Medium; L = long; 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. 1996 Yolo County Very Early Rice Variety Trial Single Location Summary (Geer)

Advanced Lines and Varieties

Variety	Grain Type	Grain Yield at 14% Moisture lb/acre	Grain Moisture at Harvest (%)	Seedling Vigor (1-5)	Days to 50% Heading	Lodging (1-99)	Plant Height (cm)
94-y-40	L	9860 (1)	15.3 (14)	3.3 (19)	92 (17)	8 (12)	104 (16)
M-202	M	9850 (2)	18.0 (2)	4.8 (2)	90 (14)	20 (15)	106 (19)
93-y-218	M	9820 (3)	17.2 (6)	4.0 (16)	87 (9)	8 (13)	99 (11)
S-201	S	9800 (4)	17.9 (3)	4.8 (2)	93 (19)	30 (17)	105 (18)
L-204	L	9720 (5)	15.5 (11)	4.8 (2)	89 (12)	1 (1)	96 (6)
92-y-624	M	9700 (6)	19.4 (1)	4.8 (2)	95 (20)	33 (18)	107 (20)
M-201	M	9670 (7)	17.6 (4)	4.8 (2)	91 (15)	1 (1)	102 (15)
94-y-39	L	9590 (8)	14.2 (19)	4.3 (14)	86 (8)	1 (1)	93 (2)
96-y-20	L	9550 (9)	14.7 (15)	4.5 (9)	91 (16)	1 (1)	101 (14)
95-y-529	L	9500 (10)	14.3 (18)	4.3 (14)	88 (11)	1 (1)	98 (10)
94-y-253	M	9440 (11)	15.6 (10)	4.0 (16)	86 (5)	2 (8)	100 (13)
M-204	M	9350 (12)	17.3 (5)	4.5 (9)	89 (13)	3 (9)	99 (12)
L-203	L	9320 (13)	15.5 (11)	4.5 (9)	93 (18)	1 (1)	94 (4)
91-y-381	M	9280 (14)	16.9 (7)	5.0 (1)	86 (7)	4 (10)	93 (2)
M-103	M	9200 (15)	16.7 (9)	4.0 (16)	80 (2)	20 (15)	98 (9)
S-102	S	9120 (16)	14.1 (20)	4.5 (9)	80 (1)	6 (11)	97 (7)
93-y-185	M	9090 (17)	16.7 (8)	3.0 (20)	86 (5)	43 (19)	97 (7)
CM-101	S	8840 (18)	14.7 (17)	4.5 (9)	82 (4)	18 (14)	96 (5)
96-y-5	S	8790 (19)	15.5 (13)	4.8 (2)	87 (10)	85 (20)	105 (17)
95-y-158	S	8540 (20)	14.7 (16)	4.8 (2)	81 (3)	1 (1)	85 (1)
MEAN		9400	16.1	4.4	87	14	99
CV		8.4	3.2	11.9	1.6	73.7	2.9
LSD (.05)		ns	0.7	0.7	2	15	4

Preliminary Lines and Varieties

95-y-315	S	10410 (1)	17.5 (1)	5.0 (1)	87 (15)	45 (14)	97 (9)
96-y-24	S	10310 (2)	15.4 (11)	4.0 (13)	86 (13)	55 (17)	94 (4)
95-y-468	L	10290 (3)	14.9 (14)	4.0 (13)	93 (20)	11 (6)	111 (20)
95-y-214	M	10230 (4)	16.3 (8)	5.0 (1)	83 (3)	15 (8)	99 (13)
93-y-218	M	10150 (5)	16.7 (5)	4.5 (6)	88 (17)	6 (5)	98 (11)
95-y-474	L	10110 (6)	14.7 (15)	4.5 (6)	85 (10)	50 (15)	106 (17)
95-y-538	L	9930 (7)	15.5 (10)	3.0 (19)	92 (19)	15 (8)	107 (19)
L-204	L	9840 (8)	15.2 (12)	4.5 (6)	88 (18)	1 (1)	96 (7)
95-y-215	M	9720 (9)	16.6 (6)	5.0 (1)	80 (1)	60 (18)	100 (15)
95-y-5	S	9610 (10)	14.5 (17)	4.0 (13)	83 (4)	20 (10)	89 (2)
96-y-40	L	9520 (11)	14.6 (16)	4.0 (13)	81 (2)	1 (1)	96 (8)
95-y-209	M	9490 (12)	17.1 (4)	5.0 (1)	87 (15)	21 (12)	99 (12)
95-y-220	M	9310 (13)	15.9 (9)	4.0 (13)	85 (10)	11 (6)	105 (16)
95-y-197	wx	9180 (14)	14.0 (20)	4.5 (6)	84 (7)	20 (10)	90 (3)
96-y-25	S	9020 (15)	15.2 (13)	5.0 (1)	86 (13)	85 (19)	94 (5)
93-y-195	wx	8950 (16)	17.5 (1)	3.5 (18)	83 (4)	25 (13)	95 (6)
95-y-221	M	8610 (17)	16.5 (7)	4.5 (6)	84 (7)	50 (15)	99 (13)
95-y-157	S	8520 (18)	14.5 (18)	4.5 (6)	83 (4)	1 (1)	86 (1)
96-y-39	L	8510 (19)	14.3 (19)	4.5 (6)	85 (10)	1 (1)	97 (10)
AKITA	S	8210 (20)	17.3 (3)	2.9 (20)	84 (9)	95 (20)	106 (18)
MEAN		9530	15.7	4.3	85	28	98
CV		6.6	4.2	10.3	1.6	66.4	4
LSD (.05)		ns	1.4	0.9	3	39	8

S = short; M = Medium; L = long; 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. 1996 Four Location Very Early Rice Lines and Varieties Summary Table

Advanced Lines and Varieties

(RES, San Joaquin, Sutter, Yolo)

Variety	Grain Type	Grain Yield at 14% Moisture lb/acre	Grain Moisture at Harvest (%)	Seedling Vigor (1-5)	Days to 50% Heading	Lodging (1-99)	Plant Height (cm)
M-202	M	9320 (1)	19.1 (3)	4.7 (4)	89 (13)	28 (15)	98 (19)
92-y-624	M	9290 (2)	18.7 (4)	4.6 (8)	94 (19)	33 (16)	100 (20)
91-y-381	M	9270 (3)	18.4 (6)	4.9 (2)	87 (7)	12 (10)	92 (8)
93-y-218	M	9240 (4)	18.2 (7)	4.3 (17)	88 (10)	23 (14)	94 (14)
94-y-39	L	9170 (5)	15.0 (19)	4.5 (14)	85 (5)	2 (2)	86 (2)
M-204	M	9150 (6)	18.5 (5)	4.5 (13)	92 (16)	7 (8)	94 (17)
L-204	L	9140 (7)	16.0 (13)	4.9 (1)	88 (11)	2 (4)	88 (4)
96-y-20	L	9050 (8)	15.9 (14)	4.5 (12)	91 (15)	2 (2)	91 (5)
94-y-253	M	8980 (9)	17.6 (9)	4.3 (18)	89 (12)	12 (11)	93 (13)
S-102	S	8980 (10)	15.3 (18)	4.7 (6)	81 (1)	19 (12)	92 (10)
M-201	M	8960 (11)	19.8 (2)	4.9 (3)	92 (18)	6 (7)	93 (12)
94-y-40	L	8920 (12)	15.6 (16)	3.6 (20)	90 (14)	6 (6)	94 (15)
93-y-185	M	8860 (13)	17.6 (10)	4.1 (19)	86 (6)	46 (19)	91 (6)
L-203	L	8760 (14)	16.6 (12)	4.5 (10)	92 (17)	1 (1)	86 (3)
95-y-529	L	8720 (15)	14.7 (20)	4.5 (11)	87 (8)	2 (5)	92 (7)
M-103	M	8700 (16)	18.0 (8)	4.4 (15)	82 (2)	35 (18)	93 (11)
S-201	S	8520 (17)	20.1 (1)	4.6 (9)	96 (20)	10 (9)	94 (16)
CM-101	Swx	8510 (18)	16.8 (11)	4.7 (5)	82 (3)	33 (17)	92 (9)
95-y-158	S	8020 (19)	15.8 (15)	4.6 (7)	82 (3)	21 (13)	85 (1)
96-y-5	S	7950 (20)	15.5 (17)	4.4 (16)	88 (9)	81 (20)	96 (18)
MEAN		8880	17.2	4.5	88	19	92
CV		7.9	6	10.7	1.9	71.9	5
LSD (.05)		490	0.7	0.3	1	10	3

Preliminary Lines and Varieties

95-y-214	M	9340 (1)	17.7 (6)	4.7 (4)	83 (4)	20 (10)	95 (17)
95-y-468	L	9110 (2)	15.6 (15)	4.2 (16)	90 (19)	8 (5)	99 (19)
95-y-215	M	8960 (3)	17.5 (8)	4.6 (5)	81 (1)	31 (16)	92 (13)
93-y-195	wx	8950 (4)	17.9 (3)	3.9 (18)	82 (3)	17 (9)	85 (5)
95-y-197	wx	8930 (5)	15.9 (13)	4.5 (7)	84 (9)	25 (12)	89 (9)
95-y-315	S	8900 (6)	17.8 (5)	4.8 (2)	87 (17)	22 (11)	89 (7)
95-y-474	L	8850 (7)	15.5 (18)	4.5 (10)	86 (13)	30 (15)	98 (18)
96-y-24	S	8840 (8)	15.7 (14)	4.2 (14)	85 (11)	35 (17)	85 (4)
93-y-218	M	8790 (9)	17.6 (7)	4.5 (9)	86 (15)	16 (8)	89 (8)
95-y-220	M	8780 (10)	17.1 (9)	4.3 (12)	83 (6)	9 (6)	93 (15)
95-y-5	S	8760 (11)	15.5 (17)	4.1 (17)	83 (5)	37 (18)	84 (2)
L-204	L	8670 (12)	15.6 (16)	4.5 (6)	87 (16)	3 (3)	85 (3)
95-y-538	L	8620 (13)	15.9 (12)	3.8 (19)	91 (20)	7 (4)	92 (14)
96-y-40	L	8550 (14)	15.1 (19)	4.2 (14)	82 (2)	1 (1)	90 (10)
95-y-209	M	8390 (15)	18.4 (1)	5.0 (1)	88 (18)	27 (14)	93 (16)
95-y-221	M	8370 (16)	17.8 (4)	4.5 (8)	83 (7)	25 (13)	91 (11)
96-y-25	S	8320 (17)	16.4 (10)	4.8 (3)	85 (12)	61 (19)	87 (6)
95-y-157	S	8190 (18)	15.9 (11)	4.4 (11)	83 (7)	13 (7)	81 (1)
96-y-39	L	8160 (19)	14.8 (20)	4.3 (13)	85 (10)	3 (2)	92 (12)
AKITA	S	6520 (20)	18.2 (2)	3.5 (20)	86 (14)	83 (20)	100 (20)
MEAN		8660	16.6	4.5	84	26	91
CV		7.5	4.6	9.3	2.3	58.3	4.3
LSD (.05)		580	0.7	0.4	2	13	3

S = short; M = Medium; L = long; 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 (1992-1996)

Location	Year	Calmochi						
		M-103	101	M-202	M-204	S-102	L-203	L-204
Butte (RES)	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	-
	1995	9,270	9,430	10,560	10,500	-	10,300	-
	1996	8,570	8,150	8,570	10,090	9,410	9,890	10,060
Location Mean		8,830	8,868	9,380	9,802	9,410	9,622	10,060
Sutter	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	-
	1995	7,910	7,460	9,810	9,540	-	9,210	-
	1996	8,360	7,370	9,680	8,730	7,800	7,960	8,650
Location Mean		8,740	8,618	10,032	9,314	7,800	8,712	8,650
San Joaquin	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	-
	1995	8,450	9,050	8,730	8,250	-	7,850	-
	1996	8,650	9,690	9,170	8,440	9,590	7,870	8,150
Location Mean		9,054	9,580	9,218	8,352	9,590	8,040	8,150
Loc/Years Mean		9,110	9,260	9,840	9,460	8,933	8,791	8,953
Yield % M-201		---	102%	108%	104%	98%	97%	97%
Number of tests		20	20	20	20	20	20	20

Table 10. 1996 Butte County Early Rice Variety Trial Single Location Summary (RES)

Advanced Lines and Varieties

Variety	Grain Type	Grain Yield at 14% Moisture lb/acre	Grain Moisture at Harvest (%)	Seedling Vigor (1-5)	Days to 50% Heading	Lodging (1-99)	Plant Height (cm)
94-y-615	M	10320 (1)	20.4 (2)	4.8 (12)	87 (16)	6 (5)	97 (11)
M-201	M	10240 (2)	19.2 (6)	4.8 (13)	86 (15)	10 (8)	95 (9)
L-204	L	10230 (3)	14.7 (17)	5.0 (1)	82 (6)	1 (1)	84 (1)
S-102	S	10090 (4)	16.5 (13)	4.9 (10)	76 (3)	24 (12)	96 (10)
94-y-40	L	9990 (5)	14.7 (17)	4.6 (18)	82 (7)	10 (8)	94 (8)
L-203	L	9980 (6)	15.8 (14)	4.9 (10)	83 (10)	2 (2)	89 (2)
92-y-624	M	9820 (7)	19.9 (4)	4.9 (6)	87 (17)	16 (11)	102 (16)
96-y-67	L	9670 (8)	15.4 (16)	4.8 (15)	84 (11)	7 (6)	98 (13)
M-204	M	9650 (9)	19.0 (7)	5.0 (3)	86 (14)	9 (7)	100 (14)
91-y-381	M	9560 (10)	18.6 (8)	4.9 (9)	80 (4)	15 (10)	93 (5)
S-201	S	9380 (11)	21.0 (1)	4.9 (6)	93 (18)	3 (4)	97 (12)
M-202	M	8790 (12)	19.5 (5)	5.0 (1)	84 (13)	35 (14)	104 (18)
96-y-55	S	8430 (13)	16.6 (12)	5.0 (3)	84 (11)	25 (13)	92 (4)
M-103	M	8370 (14)	17.0 (11)	4.7 (17)	75 (1)	50 (16)	93 (6)
CM-101	Swx	8190 (15)	18.3 (9)	4.8 (15)	75 (2)	51 (17)	92 (3)
95-y-77	M	8100 (16)	20.0 (3)	5.0 (3)	82 (5)	61 (18)	101 (15)
95-y-90	L	7860 (17)	15.6 (15)	4.8 (13)	83 (8)	3 (3)	102 (17)
96-y-54	S	7670 (18)	17.8 (10)	4.9 (6)	83 (8)	40 (15)	94 (7)
MEAN		9240	17.8	4.9	83	20	96
CV		4.3	7	1.8	2	57.3	3.7
LSD(.05)		570	1.8	0.1	2	17	5

Preliminary Lines and Varieties

95-y-356	M	10120 (1)	18.7 (5)	4.9 (8)	84 (15)	2 (3)	98 (15)
L-204	L	10100 (2)	15.6 (19)	4.9 (8)	82 (11)	1 (1)	87 (4)
95-y-629	L	9950 (3)	16.3 (16)	4.7 (23)	86 (21)	4 (5)	87 (2)
95-y-268	M	9890 (4)	16.8 (13)	4.9 (4)	78 (4)	5 (7)	94 (11)
95-y-388	M	9650 (5)	20.3 (2)	4.9 (4)	86 (19)	5 (10)	99 (18)
95-y-271	M	9640 (6)	17.4 (11)	4.8 (15)	79 (6)	10 (12)	94 (9)
95-y-272	M	9570 (7)	18.0 (7)	4.8 (11)	82 (10)	15 (15)	99 (19)
95-y-400	M	9470 (8)	19.5 (4)	4.9 (7)	86 (23)	5 (7)	94 (10)
95-y-604	M	9370 (9)	18.4 (6)	4.8 (11)	85 (17)	5 (7)	97 (23)
96-y-72	M	9360 (10)	17.2 (12)	4.8 (15)	81 (8)	31 (20)	96 (12)
95-y-170	M	9360 (11)	17.8 (9)	4.8 (11)	74 (1)	24 (19)	88 (5)
96-y-91	L	9210 (12)	15.5 (20)	4.8 (18)	85 (18)	4 (5)	85 (24)
95-y-265	M	9070 (13)	17.8 (8)	4.8 (11)	78 (5)	21 (18)	98 (15)
95-y-159	S	8720 (14)	16.1 (17)	4.7 (20)	76 (3)	54 (21)	85 (1)
96-y-92	L	8690 (15)	14.3 (24)	4.4 (24)	76 (2)	10 (12)	87 (3)
95-y-569	M	8650 (16)	17.4 (10)	5.0 (1)	84 (15)	18 (16)	98 (17)
96-y-89	L	8580 (17)	15.0 (22)	4.8 (15)	86 (19)	3 (4)	92 (8)
96-y-71	S	8490 (18)	16.4 (15)	4.9 (4)	83 (12)	19 (17)	92 (7)
96-y-90	L	8470 (19)	14.9 (23)	4.7 (22)	86 (21)	6 (11)	102 (20)
95-y-574	M	8290 (20)	21.7 (1)	5.0 (3)	92 (24)	12 (14)	112 (22)
96-y-87	L	8080 (21)	15.7 (18)	4.7 (20)	80 (7)	2 (2)	96 (12)
95-y-178	M	8060 (22)	19.5 (3)	4.9 (8)	81 (9)	80 (23)	105 (21)
96-y-69	S	8030 (23)	16.6 (14)	5.0 (2)	83 (14)	61 (22)	90 (6)
96-y-88	L	7610 (24)	15.0 (21)	4.8 (18)	83 (12)	93 (24)	97 (14)
MEAN		9020	17.2	4.8	82	20	95
CV		5	5.4	2.1	2.1	51.2	42.8
LSD(.05)		640	1.3	0.1	2	15	5

S = short; M = Medium; L = long; 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. 1996 Butte County Early Rice Variety Trial Single Location Summary (Skinner)

Advanced Lines and Varieties

Variety	Grain Type	Grain Yield at 14% Moisture lb/acre	Grain Moisture at Harvest (%)	Seedling Vigor (1-5)	Days to 50% Heading	Lodging (1-99)	Plant Height (cm)
M-201	M	9460 (1)	18.5 (3)	4.5 (2)	81 (11)	3 (3)	93 (4)
94-y-615	M	9380 (2)	18.0 (5)	4.3 (4)	81 (12)	28 (7)	92 (3)
L-203	L	9330 (3)	16.3 (11)	3.8 (13)	82 (16)	2 (1)	88 (2)
S-102	S	8710 (4)	14.6 (17)	4.5 (2)	71 (2)	43 (9)	97 (11)
91-y-381	M	8540 (5)	17.1 (8)	4.3 (4)	77 (5)	53 (10)	94 (7)
M-204	M	8520 (6)	17.3 (7)	4.0 (7)	79 (8)	24 (6)	97 (11)
94-y-40	L	8440 (7)	15.5 (14)	3.3 (16)	82 (17)	40 (8)	94 (7)
L-204	L	8400 (8)	15.5 (15)	4.0 (7)	82 (14)	21 (5)	85 (1)
92-y-624	M	8370 (9)	19.0 (1)	4.0 (7)	82 (14)	63 (12)	99 (16)
96-y-55	S	7780 (10)	16.1 (12)	3.3 (16)	81 (12)	60 (11)	93 (4)
S-201	S	7650 (11)	18.0 (6)	4.0 (7)	77 (5)	70 (14)	95 (10)
96-y-54	S	7600 (12)	16.7 (10)	4.0 (7)	80 (10)	75 (15)	94 (9)
96-y-67	L	7590 (13)	15.7 (13)	2.5 (18)	84 (18)	6 (4)	97 (14)
CM-101	Swx	7360 (14)	14.6 (17)	4.8 (1)	72 (3)	75 (15)	97 (11)
M-103	M	7340 (15)	17.0 (9)	3.5 (15)	70 (1)	68 (13)	93 (6)
M-202	M	7280 (16)	18.2 (4)	3.8 (13)	79 (8)	75 (15)	102 (17)
95-y-77	M	7150 (17)	18.5 (2)	4.0 (7)	77 (4)	89 (18)	99 (15)
95-y-90	L	6630 (18)	15.2 (16)	4.3 (4)	79 (7)	2 (1)	102 (17)
MEAN		8080	16.8	3.9	79	44	95
CV		6.5	5.1	14.5	0.3	40.8	3.9
LSD (.05)		750	1.2	0.8	1	26	5

Preliminary Lines and Varieties

95-y-356	M	8930 (1)	16.9 (7)	3.0 (18)	79 (11)	3 (3)	95 (11)
L-204	L	8380 (2)	15.0 (18)	5.0 (1)	81 (13)	1 (1)	84 (2)
95-y-170	M	8320 (3)	16.7 (9)	3.0 (18)	73 (2)	50 (16)	91 (5)
96-y-69	S	8310 (4)	14.8 (19)	3.5 (12)	82 (17)	80 (20)	86 (3)
95-y-271	M	8210 (5)	15.1 (17)	3.0 (18)	76 (7)	35 (14)	95 (12)
95-y-268	M	8170 (6)	16.3 (10)	5.0 (1)	76 (5)	20 (10)	93 (8)
95-y-629	L	8100 (7)	14.3 (22)	3.5 (12)	83 (20)	80 (20)	90 (4)
96-y-71	S	8090 (8)	15.3 (12)	4.0 (6)	81 (16)	65 (18)	92 (6)
96-y-72	M	8040 (9)	15.2 (14)	3.5 (12)	73 (2)	85 (22)	97 (15)
96-y-88	L	8020 (10)	14.2 (23)	3.0 (18)	83 (20)	85 (22)	96 (14)
95-y-388	M	8020 (11)	17.6 (3)	2.5 (23)	82 (17)	13 (8)	98 (19)
96-y-91	L	8010 (12)	14.0 (24)	4.5 (3)	83 (20)	1 (1)	100 (22)
96-y-92	L	7990 (13)	15.2 (15)	3.0 (18)	76 (5)	5 (5)	93 (7)
95-y-569	M	7970 (14)	16.9 (7)	4.0 (6)	81 (13)	15 (9)	98 (19)
95-y-159	S	7920 (15)	15.3 (13)	4.5 (3)	73 (1)	20 (10)	80 (1)
95-y-272	M	7840 (16)	17.3 (5)	3.5 (12)	78 (9)	50 (16)	98 (18)
95-y-400	M	7590 (17)	18.3 (2)	4.0 (6)	82 (19)	40 (15)	94 (9)
95-y-604	M	7570 (18)	17.6 (3)	4.0 (6)	80 (12)	5 (5)	95 (12)
95-y-574	M	7510 (19)	18.5 (1)	4.5 (3)	83 (20)	70 (19)	110 (24)
95-y-265	M	7480 (20)	15.8 (11)	3.5 (12)	76 (7)	20 (10)	100 (21)
96-y-89	L	7370 (21)	15.1 (16)	2.5 (23)	85 (24)	5 (5)	97 (15)
96-y-90	L	7030 (22)	14.4 (21)	4.0 (6)	81 (13)	30 (13)	102 (23)
95-y-178	M	6920 (23)	17.0 (6)	3.5 (12)	75 (4)	85 (22)	97 (15)
96-y-87	L	6890 (24)	14.6 (20)	4.0 (6)	78 (9)	3 (3)	94 (9)
MEAN		7860	15.9	3.7	79	36	95
CV		5.7	3.9	14.9	1.8	24.5	3.3
LSD (.05)		930	1.3	1.1	3	18	7

S = short; M = Medium; L = long; 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. 1996 Colusa County Early Rice Variety Trial Single Location Summary (Dennis)

Advanced Lines and Varieties

Variety	Grain Type	Grain Yield at 14% Moisture lb/acre	Grain Moisture at Harvest (%)	Seedling Vigor (1-5)	Days to 50% Heading	Lodging (1-99)	Plant Height (cm)
M-202	M	10340 (1)	16.0 (4)	4.8 (3)	86 (4)	85 (13)	106 (18)
M-201	M	10240 (2)	15.8 (5)	4.8 (3)	93 (15)	13 (5)	102 (12)
91-y-381	M	10160 (3)	15.0 (12)	4.5 (8)	87 (5)	80 (12)	100 (9)
94-y-615	M	10120 (4)	15.8 (5)	4.0 (16)	93 (12)	18 (8)	97 (6)
92-y-624	M	9790 (5)	16.6 (1)	5.0 (1)	94 (16)	90 (15)	103 (14)
S-201	S	9680 (6)	15.6 (7)	4.8 (3)	90 (10)	28 (9)	95 (1)
M-204	M	9630 (7)	15.4 (8)	4.5 (8)	93 (14)	13 (5)	99 (7)
L-204	L	9390 (8)	15.1 (10)	4.5 (8)	90 (9)	3 (2)	96 (4)
L-203	L	9250 (9)	15.3 (9)	4.0 (16)	95 (17)	1 (1)	96 (4)
S-102	S	9180 (10)	14.4 (16)	5.0 (1)	85 (3)	33 (10)	104 (17)
94-y-40	L	9040 (11)	14.4 (17)	4.3 (15)	89 (6)	18 (7)	103 (14)
CM-101	Swx	8870 (12)	14.2 (18)	4.8 (3)	85 (2)	90 (15)	100 (9)
96-y-67	L	8640 (13)	15.0 (11)	4.0 (16)	93 (12)	11 (4)	103 (14)
95-y-77	M	8560 (14)	16.3 (2)	4.5 (8)	90 (7)	90 (15)	101 (11)
96-y-55	S	8520 (15)	15.0 (13)	4.5 (8)	95 (17)	90 (15)	100 (8)
96-y-54	S	8460 (16)	14.8 (14)	4.8 (3)	90 (8)	85 (13)	95 (2)
M-103	M	7920 (17)	16.0 (3)	4.5 (8)	84 (1)	75 (11)	95 (2)
95-y-90	L	7230 (18)	14.5 (15)	4.5 (8)	91 (11)	5 (3)	103 (13)
MEAN		9170	15.3	4.5	90	46	100
CV		6.1	4.1	9.9	10.5	24.4	3.2
LSD(.05)		790	0.9	0.6	2	16	5

Preliminary Lines and Varieties

95-y-271	M	10160 (1)	14.2 (13)	4.5 (2)	89 (7)	10 (9)	94 (2)
95-y-400	M	10040 (2)	14.5 (9)	4.0 (7)	93 (20)	6 (6)	97 (10)
95-y-388	M	9930 (3)	15.0 (2)	4.0 (7)	91 (14)	15 (11)	100 (13)
95-y-629	L	9770 (4)	14.4 (11)	4.0 (7)	93 (20)	30 (13)	96 (4)
95-y-272	M	9670 (5)	14.8 (6)	4.0 (7)	92 (15)	40 (16)	103 (16)
95-y-356	M	9610 (6)	14.0 (20)	4.0 (7)	90 (9)	1 (1)	101 (14)
96-y-72	M	9350 (7)	13.8 (22)	4.0 (7)	87 (4)	90 (21)	108 (22)
95-y-268	M	9270 (8)	14.2 (13)	4.0 (7)	88 (6)	8 (8)	97 (7)
95-y-265	M	9130 (9)	14.2 (16)	4.0 (7)	87 (4)	50 (18)	104 (19)
95-y-604	M	9040 (10)	15.0 (2)	4.0 (7)	93 (19)	6 (6)	103 (16)
95-y-170	M	8960 (11)	14.1 (18)	4.0 (7)	85 (1)	45 (17)	96 (6)
96-y-88	L	8870 (12)	14.4 (10)	4.0 (7)	94 (24)	50 (18)	103 (16)
96-y-71	S	8850 (13)	13.5 (23)	4.5 (2)	93 (20)	85 (20)	97 (7)
95-y-569	M	8730 (14)	14.7 (8)	3.5 (23)	92 (15)	30 (13)	105 (20)
95-y-159	S	8520 (15)	14.8 (5)	4.5 (2)	86 (2)	10 (9)	91 (1)
95-y-178	M	8350 (16)	14.7 (7)	4.0 (7)	90 (11)	90 (21)	101 (15)
96-y-89	L	8230 (17)	14.2 (15)	3.0 (24)	93 (20)	1 (1)	95 (3)
L-204	L	8190 (18)	14.9 (4)	5.0 (1)	89 (7)	1 (1)	97 (10)
95-y-574	M	8110 (19)	16.9 (1)	4.0 (7)	92 (15)	90 (21)	116 (24)
96-y-91	L	8090 (20)	13.2 (24)	4.0 (7)	90 (11)	1 (1)	106 (21)
96-y-90	L	8030 (21)	13.9 (21)	4.0 (7)	92 (15)	30 (13)	108 (22)
96-y-69	S	8020 (22)	14.3 (12)	4.0 (7)	91 (13)	90 (21)	96 (4)
96-y-92	L	7100 (23)	14.2 (17)	4.5 (2)	87 (3)	1 (1)	97 (7)
96-y-87	L	6700 (24)	14.1 (19)	4.5 (2)	90 (9)	16 (12)	99 (12)
MEAN		8780	14.4	4.1	90	33	108
CV		6.2	2.2	8.7	1.5	50.9	3.7
LSD(.05)		1120	0.7	0.7	3	35	8

S = short; M = Medium; L = long; 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. 1996 Yuba County Early Rice Variety Trial Single Location Summary (Quad-4)

Advanced Lines and Varieties

Variety	Grain Type	Grain Yield at 14% Moisture lb/acre	Grain Moisture at Harvest (%)	Seedling Vigor (1-5)	Days to 50% Heading	Lodging (1-99)	Plant Height (cm)
94-y-615	M	8390 (1)	15.6 (6)	3.8 (12)	91 (15)	1 (1)	89 (14)
M-202	M	8110 (2)	16.7 (3)	4.8 (4)	89 (9)	6 (13)	88 (12)
S-201	S	8030 (3)	17.0 (2)	4.3 (9)	91 (16)	1 (1)	89 (14)
92-y-624	M	7790 (4)	16.1 (5)	4.8 (4)	90 (14)	1 (1)	86 (9)
M-201	M	7430 (5)	16.2 (4)	3.8 (12)	92 (17)	1 (1)	89 (16)
M-204	M	7230 (6)	15.6 (7)	4.8 (4)	89 (10)	8 (14)	87 (11)
94-y-40	L	7030 (7)	14.7 (9)	3.3 (17)	85 (4)	1 (1)	83 (6)
91-y-381	M	6930 (8)	14.2 (12)	5.0 (1)	87 (6)	1 (1)	78 (3)
96-y-54	S	6780 (9)	14.7 (10)	3.3 (17)	89 (13)	38 (18)	83 (6)
96-y-67	L	6640 (10)	14.1 (13)	4.3 (9)	89 (10)	1 (1)	95 (18)
96-y-55	S	6610 (11)	13.9 (14)	3.5 (14)	92 (18)	35 (17)	86 (8)
L-203	L	6490 (12)	15.4 (8)	4.8 (4)	89 (10)	1 (1)	86 (9)
M-103	M	6420 (13)	13.9 (14)	4.0 (11)	79 (1)	8 (14)	80 (5)
S-102	S	6410 (14)	13.3 (17)	3.5 (14)	80 (2)	1 (1)	79 (4)
95-y-77	M	6270 (15)	17.6 (1)	4.8 (4)	88 (8)	13 (16)	88 (13)
L-204	L	6190 (16)	14.4 (11)	5.0 (1)	86 (5)	1 (1)	76 (2)
CM-101	Swx	5820 (17)	13.2 (18)	3.5 (14)	81 (3)	3 (12)	74 (1)
95-y-90	L	4770 (18)	13.6 (16)	5.0 (1)	87 (7)	1 (1)	92 (17)
MEAN		6850	15	4.2	87	7	85
CV		7.1	5.7	12.3	1.2	198.8	4.5
LSD(.05)		690	1.2	0.7	1	19	5

Preliminary Lines and Varieties

95-y-574	M	8530 (1)	16.0 (2)	4.0 (7)	93 (21)	36 (19)	101 (24)
95-y-356	M	8380 (2)	15.3 (4)	3.5 (16)	91 (14)	1 (1)	92 (20)
95-y-388	M	8150 (3)	16.2 (1)	3.5 (16)	91 (15)	21 (18)	99 (22)
95-y-400	M	8050 (4)	14.9 (8)	4.0 (7)	92 (17)	1 (1)	91 (17)
95-y-272	M	7610 (5)	14.3 (13)	4.0 (7)	89 (6)	1 (1)	95 (21)
95-y-265	M	7580 (6)	13.6 (19)	3.5 (16)	87 (4)	1 (1)	85 (5)
95-y-268	M	7440 (7)	14.2 (14)	4.5 (2)	89 (11)	1 (1)	91 (17)
95-y-629	L	7400 (8)	14.4 (10)	3.5 (16)	94 (23)	1 (1)	88 (11)
95-y-604	M	7400 (9)	15.7 (3)	4.0 (7)	92 (17)	1 (1)	88 (8)
96-y-71	S	7310 (10)	15.0 (6)	4.0 (7)	94 (23)	36 (19)	89 (14)
95-y-159	S	7300 (11)	14.8 (9)	4.0 (7)	83 (1)	65 (22)	80 (4)
95-y-271	M	7040 (12)	13.5 (21)	4.5 (2)	89 (6)	1 (1)	88 (8)
96-y-72	M	6930 (13)	13.0 (23)	3.5 (16)	88 (5)	6 (17)	78 (2)
95-y-178	M	6770 (14)	15.1 (5)	3.5 (16)	90 (13)	41 (21)	88 (8)
96-y-90	L	6710 (15)	13.9 (15)	4.5 (2)	93 (22)	1 (1)	59 (1)
96-y-91	L	6700 (16)	13.0 (24)	5.0 (1)	89 (6)	1 (1)	99 (22)
95-y-170	M	6540 (17)	14.4 (11)	4.0 (7)	89 (6)	1 (1)	89 (12)
95-y-569	M	6480 (18)	15.0 (7)	4.0 (7)	92 (17)	1 (1)	90 (15)
L-204	L	6450 (19)	13.5 (20)	4.5 (2)	90 (12)	1 (1)	87 (7)
96-y-69	S	6330 (20)	14.3 (12)	3.5 (16)	92 (20)	70 (23)	85 (5)
96-y-89	L	6320 (21)	13.8 (17)	4.5 (2)	91 (15)	1 (1)	90 (15)
96-y-88	L	5920 (22)	13.7 (18)	3.5 (16)	89 (6)	90 (24)	92 (19)
96-y-87	L	5290 (23)	13.9 (15)	4.0 (7)	86 (3)	1 (1)	89 (12)
96-y-92	L	4170 (24)	13.1 (22)	3.5 (16)	83 (1)	1 (1)	79 (3)
MEAN		6950	14.4	4	90	16	88
CV		5.3	4.4	15.5	1.2	115.1	17.7
LSD(.05)		770	1.3	ns	2	38	ns

S = short; M = Medium; L = long; 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. 1996 Four Location Early Rice Lines and Varieties Summary Table

Advanced Lines and Varieties

(RES, Butte, Colusa, Yuba)

Variety	Grain Type	Grain Yield	Grain	Seedling	Days to	Lodging	Plant Height
		at 14% Moisture	Moisture at Harvest	Vigor	50% Heading		
		lb/acre	(%)	(1-5)		(1-99)	(cm)
94-y-615	M	9460 (1)	16.9 (6)	4.1 (15)	89 (15)	12 (6)	94 (11)
M-201	M	9170 (2)	16.9 (5)	4.4 (10)	89 (17)	7 (5)	95 (13)
92-y-624	M	8890 (3)	17.4 (2)	4.7 (1)	89 (16)	43 (12)	96 (15)
M-202	M	8830 (4)	17.2 (4)	4.6 (5)	85 (5)	49 (14)	99 (17)
S-201	S	8740 (5)	17.3 (3)	4.5 (8)	89 (14)	22 (9)	93 (9)
91-y-381	M	8710 (6)	15.7 (8)	4.7 (2)	84 (4)	38 (11)	91 (5)
M-204	M	8650 (7)	16.4 (7)	4.6 (6)	88 (11)	13 (7)	95 (12)
L-203	L	8470 (8)	15.6 (11)	4.4 (11)	89 (13)	1 (1)	90 (4)
94-y-40	L	8430 (9)	14.7 (15)	3.8 (18)	85 (5)	14 (8)	93 (8)
S-102	S	8330 (10)	14.4 (18)	4.4 (9)	80 (3)	22 (10)	93 (10)
L-204	L	8300 (11)	14.9 (14)	4.7 (4)	86 (8)	5 (3)	85 (1)
96-y-67	L	7970 (12)	14.9 (13)	4.0 (17)	88 (12)	6 (4)	98 (16)
96-y-55	S	7740 (13)	15.1 (12)	4.0 (16)	90 (18)	56 (16)	92 (7)
96-y-54	S	7630 (14)	15.6 (10)	4.2 (14)	87 (10)	60 (18)	91 (5)
CM-101	Swx	7480 (15)	14.6 (16)	4.3 (12)	86 (7)	52 (15)	89 (3)
95-y-77	M	7480 (16)	17.7 (1)	4.6 (6)	80 (2)	59 (17)	96 (14)
M-103	M	7400 (17)	15.7 (9)	4.2 (13)	79 (1)	47 (13)	89 (2)
95-y-90	L	6410 (18)	14.5 (17)	4.7 (3)	86 (9)	3 (2)	99 (18)
MEAN		8340	16.2	4.4	85	29	94
CV		8.4	8.4	14.2	3	61.9	3.8
LSD (.05)		560	1.1	0.5	2	15	3

Preliminary Lines and Varieties

95-y-356	M	9280 (1)	16.0 (6)	3.9 (21)	87 (12)	1 (2)	97 (16)
95-y-388	M	9100 (2)	17.0 (2)	3.9 (23)	89 (17)	14 (11)	100 (21)
95-y-400	M	9020 (3)	16.3 (4)	4.2 (10)	90 (21)	7 (9)	95 (12)
95-y-629	L	8880 (4)	15.0 (15)	4.0 (20)	90 (23)	19 (14)	91 (6)
95-y-271	M	8830 (5)	14.9 (16)	4.4 (4)	85 (8)	9 (10)	92 (8)
95-y-272	M	8800 (6)	15.8 (8)	4.2 (12)	87 (11)	22 (15)	99 (20)
95-y-268	M	8710 (7)	15.2 (11)	4.5 (3)	84 (6)	5 (7)	94 (11)
95-y-265	M	8460 (8)	15.2 (12)	4.0 (18)	84 (4)	23 (16)	96 (15)
95-y-604	M	8440 (9)	16.4 (3)	4.2 (11)	89 (18)	3 (6)	96 (23)
96-y-72	M	8440 (10)	14.6 (19)	4.0 (19)	84 (5)	48 (19)	95 (12)
95-y-574	M	8260 (11)	18.0 (1)	4.3 (9)	91 (24)	52 (21)	110 (22)
96-y-71	S	8210 (12)	15.0 (14)	4.4 (6)	90 (19)	51 (20)	93 (9)
95-y-170	M	8210 (13)	15.5 (9)	4.1 (13)	82 (3)	25 (17)	92 (7)
95-y-159	S	8130 (14)	15.3 (10)	4.4 (5)	81 (1)	38 (18)	85 (1)
L-204	L	8100 (15)	14.8 (17)	4.8 (1)	86 (10)	0 (1)	91 (5)
95-y-569	M	7920 (16)	15.8 (7)	4.1 (14)	89 (16)	15 (13)	98 (19)
96-y-91	L	7900 (17)	13.9 (24)	4.6 (2)	88 (13)	1 (3)	98 (24)
95-y-178	M	7640 (18)	16.3 (5)	4.0 (17)	86 (9)	70 (22)	97 (17)
96-y-90	L	7610 (19)	14.4 (22)	4.4 (8)	90 (20)	14 (12)	90 (3)
96-y-89	L	7610 (20)	14.5 (20)	3.9 (24)	90 (22)	1 (4)	93 (10)
96-y-88	L	7550 (21)	14.4 (21)	3.9 (22)	88 (15)	76 (24)	98 (18)
96-y-69	S	7530 (22)	15.0 (13)	4.0 (15)	88 (14)	75 (23)	90 (4)
96-y-92	L	6610 (23)	14.1 (23)	4.0 (16)	82 (2)	3 (5)	89 (2)
96-y-87	L	6600 (24)	14.6 (18)	4.4 (7)	85 (7)	5 (8)	95 (14)
MEAN		8330	15.8	4.3	85	25	95
CV		7.8	5.2	14.8	2.9	67.6	31.3
LSD (.05)		640	0.8	ns	2	17	ns

S = short; M = Medium; L = long; 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 (1992

Location	Year	M-201	M-202	M-204	L-203	L-204	S-102	S-201
Butte (RES)	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
Loc. Mean		10,186	9,798	10,076	9,786	10,230	10,090	9,694
Colusa	1992	9,630	10,270	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
Loc. Mean		9,712	9,406	9,720	9,228	9,390	9,180	9,476
Yolo	1992	10,660	11,920	11,020	10,750	-	-	9,290
	1993	10,140	10,660	10,150	9,330	-	-	9,770
	1994	11,380	12,040	10,870	10,310	-	-	9,850
	1995	9,050	10,580	10,330	9,920	-	-	8,970
	1996	9,670	9,850	9,350	9,320	9,720	9,120	9,800
Loc. Mean		10,180	11,010	10,344	9,926	9,720	9,120	9,536
Yuba (Dist 10)	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
Loc. Mean		8,336	9,248	8,356	7,782	6,190	6,410	7,478
Loc/Years Mean		9,604	9,866	9,624	9,181	8,883	8,700	9,046
Yield % M-201		---	103%	100%	96%	92%	91%	94%
Number of tests		20	20	20	20	20	20	20

Table 16. 1996 Butte County Intermediate/Late Rice Variety Trial Single Location Summary (RES)

Advanced Lines and Varieties

Variety	Grain Type	Grain Yield at 14% Moisture lb/acre	Grain Moisture at Harvest (%)	Seedling Vigor (1-5)	Days to 50% Heading	Lodging (1-99)	Plant Height (cm)
94-y-663	L	10610 (1)	16.4 (10)	4.8 (11)	88 (6)	2 (4)	90 (3)
94-y-416	M	10510 (2)	18.4 (7)	4.8 (9)	87 (5)	8 (6)	98 (6)
A-301	L	10320 (3)	18.7 (5)	4.5 (12)	94 (10)	1 (1)	86 (1)
93-y-421	M	10040 (4)	18.1 (9)	4.9 (6)	85 (3)	15 (7)	94 (4)
94-y-118	M	9840 (5)	24.6 (2)	5.0 (3)	100 (11)	3 (5)	103 (10)
L-202	L	9680 (6)	16.3 (11)	4.8 (9)	88 (6)	2 (3)	88 (2)
A-201	L	9420 (7)	15.7 (12)	5.0 (3)	88 (6)	1 (1)	96 (5)
M-204	M	9330 (8)	18.5 (6)	4.9 (6)	85 (2)	30 (10)	99 (8)
94-y-589	M	8550 (9)	19.4 (4)	5.0 (1)	86 (4)	68 (11)	105 (11)
96-y-103	S	8470 (10)	18.2 (8)	4.9 (6)	93 (9)	19 (8)	99 (7)
M-202	M	8420 (11)	19.8 (3)	5.0 (1)	85 (1)	81 (12)	102 (9)
M-401	MPQ	8090 (12)	30.0 (1)	5.0 (5)	109 (12)	29 (9)	110 (12)
MEAN		9440	19.5	4.9	90	21	97
CV		6.4	6.7	1.3	1.5	72.4	3.8
LSD(.05)		870	1.9	0.1	2	22	5

Preliminary Lines and Varieties

94-y-561	L	10740 (1)	18.4 (13)	4.5 (23)	86 (10)	2 (2)	95 (7)
94-y-563	L	10640 (2)	16.9 (18)	4.5 (24)	89 (18)	2 (2)	93 (3)
95-y-405	M	10500 (3)	18.4 (12)	4.8 (16)	88 (17)	2 (6)	94 (6)
95-y-382	M	10030 (4)	19.4 (8)	4.8 (14)	87 (11)	4 (9)	99 (16)
96-y-135	L	9970 (5)	16.6 (19)	4.7 (21)	91 (21)	2 (1)	95 (8)
95-y-406	M	9880 (6)	17.5 (17)	4.9 (5)	80 (1)	17 (14)	96 (12)
95-y-606	M	9860 (7)	21.6 (2)	4.9 (10)	87 (11)	6 (11)	96 (12)
95-y-429	M	9800 (8)	18.8 (10)	4.8 (17)	86 (8)	4 (10)	93 (4)
95-y-615	L	9650 (9)	16.3 (21)	4.7 (22)	89 (18)	3 (8)	96 (10)
95-y-385	M	9590 (10)	18.8 (11)	4.9 (10)	84 (4)	31 (17)	99 (18)
95-y-250	M	9470 (11)	18.2 (15)	4.9 (10)	83 (3)	31 (17)	98 (15)
L-202	L	9450 (12)	16.4 (20)	4.8 (20)	88 (16)	2 (5)	91 (1)
95-y-248	M	9350 (13)	18.2 (14)	4.8 (17)	81 (2)	25 (16)	98 (14)
95-y-633	L	9160 (14)	14.5 (23)	4.9 (5)	84 (5)	10 (12)	95 (9)
95-y-573	M	9130 (15)	19.4 (7)	4.9 (5)	86 (9)	21 (15)	93 (4)
96-y-136	L	9130 (16)	16.0 (22)	4.8 (17)	90 (20)	2 (2)	92 (2)
95-y-373	M	9070 (17)	19.1 (9)	4.9 (10)	84 (5)	46 (19)	99 (16)
95-y-296	M	8950 (18)	20.2 (5)	4.9 (9)	87 (11)	74 (22)	103 (21)
96-y-134	L	8720 (19)	14.5 (23)	4.8 (14)	84 (5)	16 (13)	96 (10)
96-y-113	M	8620 (20)	23.3 (1)	5.0 (3)	99 (24)	2 (6)	102 (20)
95-y-576	M	8290 (21)	21.4 (3)	5.0 (2)	93 (23)	47 (20)	111 (24)
95-y-282	M	8130 (22)	19.9 (6)	4.9 (5)	87 (11)	81 (23)	105 (23)
96-y-119	S	7570 (23)	18.1 (16)	5.0 (3)	92 (22)	54 (21)	100 (19)
96-y-118	S	7480 (24)	20.4 (4)	5.0 (1)	87 (15)	95 (24)	103 (21)
MEAN		9300	18.4	4.8	87	24	98
CV		6.2	6.3	2.1	2	56.6	3.2
LSD(.05)		810	1.6	0.1	2	19	4

S = short; M = Medium; L = long; 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. 1996 Glenn County Intermediate/Late Rice Variety Trial Single Location Summary (Wiley)

Advanced Lines and Varieties

Variety	Grain Type	Grain Yield at 14% Moisture lb/acre	Grain Moisture at Harvest (%)	Seedling Vigor (1-5)	Days to 50% Heading	Lodging (1-99)	Plant Height (cm)
M-204	M	9300 (1)	14.7 (8)	3.0 (4)	93 (2)	1 (1)	107 (7)
94-y-416	M	9120 (2)	15.7 (4)	2.5 (10)	94 (5)	11 (9)	105 (4)
A-301	L	9000 (3)	14.8 (7)	2.3 (12)	101 (11)	1 (1)	99 (2)
94-y-118	M	8980 (4)	18.7 (2)	3.8 (1)	100 (10)	48 (12)	113 (10)
93-y-421	M	8880 (5)	16.2 (3)	3.3 (2)	93 (2)	1 (1)	106 (6)
94-y-663	L	8820 (6)	14.5 (10)	2.5 (10)	93 (2)	1 (1)	102 (3)
M-401	MPQ	8600 (7)	21.6 (1)	3.0 (4)	106 (12)	45 (10)	114 (11)
94-y-589	M	8120 (8)	15.5 (6)	3.3 (2)	95 (6)	1 (1)	115 (12)
M-202	M	7880 (9)	15.7 (4)	3.0 (4)	92 (1)	6 (8)	112 (9)
A-201	L	7350 (10)	14.5 (9)	3.0 (4)	98 (9)	2 (7)	106 (5)
L-202	L	7320 (11)	14.1 (12)	2.8 (8)	95 (6)	1 (1)	93 (1)
96-y-103	S	7070 (12)	14.3 (11)	2.8 (8)	97 (8)	48 (11)	111 (8)
MEAN		8370	15.9	2.9	96	14	107
CV		6.1	5.5	15.2	1.9	106.4	3.1
LSD (.05)		740	1.3	0.6	3	21	5

Preliminary Lines and Varieties

95-y-405	M	10780 (1)	16.0 (9)	3.0 (8)	96 (19)	1 (1)	104 (10)
95-y-606	M	10090 (2)	16.5 (5)	3.0 (8)	94 (10)	16 (15)	107 (17)
95-y-373	M	9890 (3)	15.6 (11)	3.0 (8)	94 (10)	11 (14)	102 (7)
95-y-406	M	9520 (4)	15.4 (13)	4.0 (1)	102 (24)	20 (16)	105 (12)
94-y-561	L	9380 (5)	15.6 (10)	3.0 (8)	93 (8)	1 (1)	100 (5)
94-y-563	L	9230 (6)	14.6 (16)	2.0 (23)	95 (17)	1 (1)	93 (2)
95-y-250	M	9190 (7)	15.0 (14)	3.5 (5)	93 (2)	1 (1)	104 (8)
96y113	M	9010 (8)	15.6 (11)	4.0 (1)	100 (22)	50 (20)	112 (19)
95-y-296	M	9000 (9)	14.7 (15)	2.5 (15)	94 (14)	1 (1)	106 (15)
95-y-429	M	8790 (10)	16.3 (7)	2.5 (15)	93 (2)	1 (1)	100 (4)
95-y-248	M	8510 (11)	14.5 (17)	4.0 (1)	102 (23)	35 (19)	104 (10)
95-y-615	L	8450 (12)	14.5 (18)	3.0 (8)	93 (2)	26 (17)	101 (6)
96-y-136	L	8440 (13)	14.1 (21)	3.0 (8)	93 (8)	1 (1)	106 (13)
95-y-385	M	8420 (14)	16.6 (4)	2.5 (15)	93 (2)	1 (1)	115 (22)
95-y-282	M	8330 (15)	17.0 (2)	3.0 (8)	94 (14)	70 (22)	115 (22)
95-y-576	M	8250 (16)	16.6 (3)	4.0 (1)	97 (21)	85 (23)	124 (24)
95-y-382	M	8210 (17)	16.1 (8)	2.0 (23)	93 (2)	3 (13)	112 (20)
96-y-135	L	8180 (18)	14.1 (20)	3.5 (5)	95 (17)	1 (1)	98 (3)
96-y-118	S	7780 (19)	17.4 (1)	2.5 (15)	94 (10)	85 (23)	110 (18)
96-y-134	L	7780 (20)	12.7 (24)	3.5 (5)	93 (2)	1 (1)	104 (8)
95-y-573	M	7750 (21)	16.5 (5)	2.5 (15)	94 (10)	30 (18)	106 (15)
L-202	L	7600 (22)	14.4 (19)	2.5 (15)	94 (14)	1 (1)	91 (1)
96-y-119	S	7420 (23)	13.5 (22)	2.5 (15)	96 (20)	65 (21)	113 (21)
95-y-633	L	6270 (24)	13.2 (23)	2.5 (15)	92 (1)	1 (1)	106 (13)
MEAN		8600	15.3	3	95	21	105
CV		9.7	4.1	23.2	6.3	57.7	4.4
LSD (.05)		1720	1.3	n/s	n/s	25	10

S = short; M = Medium; L = long; 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. 1996 Sutter County Intermediate/Late Rice Variety Trial Single Location Summary (Peacock Bros.)

Advanced Lines and Varieties

Variety	Grain Type	Grain Yield at 14% Moisture lb/acre	Grain Moisture at Harvest (%)	Seedling Vigor (1-5)	Days to 50% Heading	Lodging (1-99)	Plant Height (cm)
94-y-416	M	8250 (1)	14.4 (2)	4.0 (8)	92 (6)	85 (7)	95 (4)
93-y-421	M	8190 (2)	14.0 (3)	4.8 (2)	91 (4)	75 (5)	95 (5)
94-y-118	M	7980 (3)	13.1 (11)	4.0 (8)	95 (9)	90 (11)	99 (7)
M-204	M	7800 (4)	13.8 (6)	4.0 (8)	91 (4)	88 (8)	98 (6)
M-202	M	7750 (5)	12.7 (12)	5.0 (1)	89 (1)	91 (12)	102 (9)
A-301	L	7620 (6)	13.9 (4)	4.5 (5)	97 (10)	17 (2)	80 (1)
94-y-589	M	7600 (7)	15.4 (1)	4.0 (8)	90 (2)	83 (6)	109 (12)
M-401	MPQ	7470 (8)	13.6 (8)	4.0 (8)	103 (12)	89 (10)	108 (11)
94-y-663	L	7400 (9)	13.9 (5)	4.8 (2)	91 (3)	14 (1)	90 (3)
A-201	L	7400 (10)	13.7 (7)	4.8 (2)	94 (8)	35 (4)	101 (8)
L-202	L	6610 (11)	13.3 (10)	4.5 (5)	92 (7)	19 (3)	90 (2)
96-y-103	S	6160 (12)	13.6 (9)	4.3 (7)	97 (10)	88 (8)	104 (10)
MEAN		7520	13.8	4.4	93	64	98
CV		7	5.1	10.5	1.7	20	3.8
LSD(.05)		750	1	0.7	2	19	5

Preliminary Lines and Varieties

95-y-606	M	8870 (1)	13.8 (10)	4.0 (12)	91 (13)	60 (8)	96 (6)
95-y-382	M	8490 (2)	14.2 (3)	4.0 (12)	89 (7)	90 (11)	100 (16)
95-y-406	M	8430 (3)	13.9 (8)	5.0 (1)	86 (1)	90 (11)	99 (10)
95-y-405	M	8370 (4)	14.2 (3)	4.0 (12)	92 (15)	90 (11)	99 (12)
95-y-296	M	8350 (5)	14.5 (2)	3.5 (22)	89 (5)	90 (11)	102 (19)
94-y-563	L	8200 (6)	13.9 (9)	4.5 (3)	96 (23)	45 (7)	87 (1)
95-y-250	M	8170 (7)	13.3 (19)	4.0 (12)	88 (2)	90 (11)	102 (19)
94-y-561	L	8010 (8)	14.0 (6)	4.5 (3)	92 (15)	20 (5)	95 (3)
95-y-373	M	8010 (9)	14.1 (5)	4.5 (3)	90 (9)	90 (11)	95 (3)
95-y-385	M	7740 (10)	13.8 (11)	4.5 (3)	91 (10)	90 (11)	99 (12)
95-y-615	L	7620 (11)	13.2 (20)	4.5 (3)	93 (18)	15 (4)	96 (6)
95-y-429	M	7530 (12)	13.5 (15)	3.0 (23)	91 (13)	65 (9)	99 (10)
96-y-119	S	7370 (13)	12.7 (23)	4.0 (12)	96 (22)	90 (11)	106 (21)
95-y-248	M	7340 (14)	13.4 (16)	5.0 (1)	88 (2)	90 (11)	99 (12)
96y113	M	7230 (15)	12.3 (24)	4.0 (12)	93 (19)	90 (11)	100 (15)
96-y-135	L	7220 (16)	13.8 (13)	4.5 (3)	96 (23)	10 (1)	94 (2)
96-y-136	L	7210 (17)	13.5 (14)	4.5 (3)	92 (15)	13 (3)	95 (3)
95-y-282	M	7070 (18)	13.8 (11)	4.0 (12)	89 (5)	90 (11)	107 (22)
95-y-576	M	6970 (19)	13.3 (18)	4.5 (3)	94 (21)	90 (11)	115 (24)
96-y-134	L	6950 (20)	12.8 (22)	4.0 (12)	91 (10)	10 (1)	101 (18)
95-y-573	M	6880 (21)	14.0 (7)	4.5 (3)	89 (7)	90 (11)	96 (8)
95-y-633	L	6770 (22)	12.9 (21)	3.0 (23)	88 (2)	65 (9)	96 (8)
96-y-118	S	6730 (23)	14.6 (1)	4.0 (12)	91 (10)	93 (24)	112 (23)
L-202	L	6640 (24)	13.4 (17)	4.0 (12)	93 (19)	25 (6)	100 (16)
MEAN		7590	13.6	4.2	91	66	99
CV		8.3	2.8	10.8	1.09	12.2	4.1
LSD(.05)		1300	0.8	0.9	4	17	8

S = short; M = Medium; L = long; 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. 1996 Three Location Intermediate/Late Rice Lines and Varieties Summary Table

Advanced Lines and Varieties

(RES, Glenn, Suffer)

Variety	Grain Type	Grain Yield at 14% Moisture lb/acre	Grain Moisture at Harvest (%)	Seedling Vigor (1-5)	Days to 50% Heading	Lodging (1-99)	Plant Height (cm)
94-y-416	M	9290 (1)	16.2 (4)	3.8 (11)	91 (6)	34 (6)	99 (5)
93-y-421	M	9040 (2)	16.1 (6)	4.3 (2)	90 (3)	30 (5)	98 (4)
A-301	L	8980 (3)	15.8 (7)	3.8 (12)	97 (10)	6 (2)	88 (1)
94-y-663	L	8950 (4)	14.9 (10)	4.0 (7)	91 (5)	6 (1)	94 (3)
94-y-118	M	8930 (5)	18.8 (2)	4.2 (3)	98 (11)	47 (8)	105 (9)
M-204	M	8810 (6)	15.7 (8)	4.0 (9)	90 (2)	40 (7)	101 (7)
94-y-589	M	8090 (7)	16.8 (3)	4.1 (5)	90 (4)	50 (9)	110 (11)
A-201	L	8060 (8)	14.6 (11)	4.2 (3)	93 (8)	13 (4)	101 (6)
M-401	MPQ	8050 (9)	21.7 (1)	4.0 (8)	106 (12)	54 (11)	111 (12)
M-202	M	8020 (10)	16.1 (5)	4.3 (1)	88 (1)	59 (12)	105 (10)
L-202	L	7870 (11)	14.6 (12)	4.0 (6)	91 (7)	7 (3)	90 (2)
96-y-103	S	7230 (12)	15.3 (9)	4.0 (9)	96 (9)	51 (10)	104 (8)
MEAN		8440	16.4	4.1	93	33	101
CV		6.5	6	9.1	1.7	43.4	3.6
LSD (.05)		450	0.8	0.3	1	12	3

Preliminary Lines and Varieties

95-y-405	M	9880 (1)	16.2 (12)	3.9 (16)	92 (19)	31 (11)	99 (11)
95-y-606	M	9610 (2)	17.3 (2)	4.0 (14)	90 (14)	27 (10)	99 (12)
94-y-561	L	9380 (3)	16.0 (13)	4.0 (11)	90 (14)	8 (3)	97 (4)
94-y-563	L	9360 (4)	15.1 (17)	3.7 (20)	93 (20)	16 (7)	91 (1)
95-y-406	M	9280 (5)	15.6 (14)	4.6 (1)	89 (6)	42 (15)	100 (13)
95-y-373	M	8990 (6)	16.3 (10)	4.1 (6)	89 (4)	49 (18)	99 (9)
95-y-250	M	8940 (7)	15.5 (15)	4.1 (6)	88 (1)	41 (13)	101 (16)
95-y-382	M	8910 (8)	16.5 (7)	3.6 (22)	89 (7)	32 (12)	104 (18)
95-y-296	M	8770 (9)	16.5 (8)	3.6 (21)	90 (10)	55 (20)	103 (17)
95-y-429	M	8710 (10)	16.2 (11)	3.4 (24)	90 (9)	23 (8)	97 (5)
95-y-385	M	8580 (11)	16.4 (9)	4.0 (14)	89 (3)	41 (13)	104 (19)
95-y-615	L	8580 (12)	14.7 (21)	4.1 (10)	91 (16)	15 (6)	97 (6)
96-y-135	L	8460 (13)	14.8 (18)	4.2 (5)	94 (21)	4 (1)	96 (3)
95-y-248	M	8400 (14)	15.4 (16)	4.6 (2)	90 (12)	50 (19)	100 (15)
96y113	M	8290 (15)	17.1 (4)	4.3 (4)	97 (24)	47 (17)	104 (20)
96-y-136	L	8260 (16)	14.5 (22)	4.1 (9)	92 (17)	5 (2)	98 (7)
95-y-573	M	7920 (17)	16.7 (6)	4.0 (12)	90 (8)	47 (16)	98 (8)
L-202	L	7900 (18)	14.7 (20)	3.8 (19)	92 (17)	9 (5)	94 (2)
95-y-282	M	7840 (19)	16.9 (5)	4.0 (12)	90 (10)	80 (23)	109 (23)
95-y-576	M	7840 (20)	17.1 (3)	4.5 (3)	94 (22)	74 (22)	117 (24)
96-y-134	L	7820 (21)	13.4 (24)	4.1 (8)	89 (4)	9 (4)	100 (14)
96-y-119	S	7460 (22)	14.8 (19)	3.8 (18)	95 (23)	70 (21)	106 (21)
95-y-633	L	7400 (23)	13.5 (23)	3.5 (23)	88 (2)	25 (9)	99 (10)
96-y-118	S	7330 (24)	17.5 (1)	3.8 (17)	90 (13)	91 (24)	108 (22)
MEAN		8700	16.4	4.2	90	34	100
CV		7.4	5.8	9	3.4	36.6	3.6
LSD (.05)		640	0.9	0.4	3	12	4

S = short; M = Medium; L = long; 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 (1992-1996)

Location	Year	M-401	A-201	A-301
Butte (RES)	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
	Location Mean		9,566	9,420
Glenn	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
	Location Mean		9,496	7,350
Sutter	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
	Location Mean		9,308	7,400
Loc/Years Mean		9,457	8,057	9,041
Yield % M-401		---	85%	96%
Number of tests		18	18	18