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CALIFORNIA RICE VARIETIES DESCRIPTION AND PERFORMANCE SUMMARY OF THE 1986 AND MULTIYEAR STATEWIDE RICE VARIETY TESTS IN CALIFORNIA

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INTRODUCTION

University of California rice variety evaluation trials are conducted in the Sacramento and San Joaquin Valleys in cooperation with the California Cooperative Rice Research Foundation, Inc. (CCRRFI) and the United States Department of Agriculture (USDA). The tests, conducted by UC Cooperative Extension, compare advanced experimental lines with commercially available rice varieties to determine their adaption to the principal rice growing regions of the state. The program is partially funded by a grant from the Rice Research Board. Rice growers provide land and on-site management for the trials. This report describes the results of the 1986 regional rice variety testing program. The names and a brief description of the current publicly developed varieties are listed in Table 1.

GENERAL SUMMARY OF THE 1986 SEASON

Approximately 390,000 acres of rice were planted in California in 1986. Most of the acreage was planted to the varieties M-201, M-9, S-201 followed by M-202, L-202, M-401 and various public and proprietary varieties.

Early planting weather was extremely cool. High temperatures were mostly in the low to middle 70s F during the last two weeks in April. From May 1 to May 10, when most of the acreage is normally planted, high temperatures ranged from 64°F to 86°F, with most daytime highs only in the 60s. After May 10, daytime temperatures warmed to 80-90°F. The remainder of the season was relatively cool with few days exceeding 100°F, but temperatures were adequate for good tillering and crop development. At flowering, nighttime temperatures were mostly above critical levels for cold temperature-induced floret sterility, thus blanking was not excessive. Warm temperatures in August and early September provided ideal conditions for grain ripening and maturity. Thus, the statewide yields were estimated by the California Crop and Livestock Reporting Service to be a record 7700 lbs/A.

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EXPERIMENTAL PROCEDURE FOR THE 1986 REGIONAL RICE VARIETY TESTS

A total of 14 uniform rice variety tests were conducted in nine locations from Butte to Fresno County. Twenty-four to 32 entries including commercially grown "standards" and experimental lines were planted in each of three maturity classes and 2 special tests for a total of 121 entries. Five tests, one of each maturity group and 2 special tests were conducted at the Rice Experiment Station, Biggs by the CCRRFI. The remaining trials were conducted off-station using the cultural practices of individual growers, thus testing agronomic performance under a wide range of production practices and environments. The maturity groups and locations were as follows:

VERY EARLY MATURITY GROUP: Three uniform tests were conducted, 1) at the Rice Experiment Station (Biggs, Butte County), 2) the Maxwell Ranch (Valley Home, San Joaquin), and 3) the Lauppe Ranch (Natomas District, Sutter County). Twenty-five experimental lines and seven commercially available varieties were included.

EARLY MATURITY GROUP: Five uniform tests were conducted, 1) at the Rice Experiment station (Biggs, Butte County), 2) Britz, Inc. (Firebaugh, Fresno County), 3) the Wylie Ranch (Norman Road, Glenn County), 3) William Geer and Son (District 108, Yolo County) and, 4) the Mohammed Ranch (District 10, Yuba County). Twenty-three experimental lines and eight commercially available varieties were included.

LATE MATURITY GROUP: Two uniform late maturity tests were conducted, 1) at the Rice Experiment Station (Biggs, Butte County), and 2) on the Middleton Ranch (Sutter, Sutter County). Twenty-one experimental lines and three commercially available varieties were included.

LONG GRAIN GROUP: Two uniform long grain tests were conducted, 1) at the Rice Experiment Station (Biggs, Butte County) and, 2) at William Geer and Son (District 108, Yolo County). Twenty-three experimental lines and three commercially available varieties were included.

SHORT AND MEDIUM GRAIN GROUP: Two uniform short and medium grain tests were conducted at 1) the Rice Experiment Station (Biggs, Butte County) and 2) the Erdman Ranch (Grimes, Colusa County). Twenty-three experimental lines and two standard varieties were included. The advanced line, 85-Y-149, was an additional entry at the Colusa County site.

Performance characteristics measured for each cultivar were seedling vigor, days to 50% heading, plant height, lodging, grain moisture at harvest and grain yield at 14% moisture. Seedling vigor was subjectively rated by visual observation on a scale of 1 (poor) to 5 (excellent) at 21-28 days after planting based on plant health, height and stand at emergence through the water. Days to 50% heading was determined when 50% of the heads were free of the boot. Plant height was determined at harvest by measuring from the soil surface to the tip of the panicle. Plant lodging was rated visually at harvest on a scale of 1 (no lodging) to 99 (all plants lodged). This method does not characterize time of lodging which is more highly correlated with grain yield.

County trials were harvested with a SWECO 324 plot combine and on-station tests were harvested with an Allis-Chalmers plot combine. A 7.5 x 20 ft swath was harvested in the off-station tests and a 10 x 15 ft swath was harvested at Biggs. Both had harvested area of 0.0034 A. Grain was subsampled for moisture determination at harvest and grain yield was adjusted to 14% moisture.

AGRONOMIC PERFORMANCE SUMMARY OF 1986 AND MULTIYEAR VARIETAL ENTRIES BY MATURITY GROUP

Varietal performance summaries are presented by location for each maturity group followed by an over-location summary and a multi-year and multi-location grain yield summary. Only the yields of commercial varieties or very advanced experimental cultivars are summarized in the multi-year and multi-location tables. Comparative yield is expressed as the percentage of a standard variety based on equivalent location and year means. The special long grain, and the short and medium grain tests are reported by location followed only by an over-location summary. Multi-year and multi-location yield summaries are not reported for the special long grain and short and medium grain test.

VERY EARLY RICE VARIETY TESTS (LESS THAN 90 DAYS TO 50% HEADING AT BIGGS, CA): The 1986 very early maturity tests were conducted at the three locations previously described. Twenty-two or 23 experimental lines and four to nine commercial standards were tested depending on location. Varietal standards at the Rice Experiment Station were California Belle, Calmochi-101, M-102 and M-202. At the off-station sites Earlirose 83, CBR 31, L-202, M-201 and S-201 were also included. Sixteen cultivars were new in the 1986 trails and six had been previously tested. S-1, a proprietary experimental line was included in the off-station sites. Nine short grain, eight medium grain and five long grain experimental lines were tested.

Tables 3, 4, and 5 show the agronomic performance of these lines at the Biggs, San Joaquin and Sutter locations respectively. Table 6 shows the over-location summary for the 26 entries common to all locations. Calmochi-101 and M-202 led all entries in yield averaging 10,350 and 10,320 lbs/A respectively in the three tests. 84-Y-149 ranked third at 10,200 lbs/A. 84-Y-149 is a candidate to become M-102. Several short, medium and long grain experimental cultivars yielded over 9,500 lbs/A. Lowest yielding in the test was the long grain variety California Belle (8,470 lbs/A). Grain moisture at the time of harvest varied from a low of 15.8% for California Belle to a high of 22.4% for the latest heading experimental cultivar, 83-Y-14. Average grain moisture at harvest varied from 16.2% at Biggs to 23.2% at San Joaquin. Seedling vigor showed a high of 4.4 out of 5.0 for four entries including M-202. The lowest seedling vigor scores (below 4.0) were generally given to long grain cultivars. Lower vigor for the long grain types has been typical of the results obtained in previous years. Days to 50% heading varied from 86 days after seeding (DAS) (Calmochi-101 was 87 DAS), to 97 DAS (83-Y-14), or one day later than M-202. Plant height varied from one exceptionally short cultivar measuring 30 inches to an

average height of 35 inches for the test. The tallest cultivar was California Belle at 40 inches.

Table 8 shows the over location summary for four very early varieties and two advanced experimental lines for the years 1982 through 1986. All entries were not included every year or at every location; therefore means cannot always be compared. Common year-location entries, however, were compared to give relative yield expressed as a percent of the standard, M-101. M-202 produced 113% relative to M-101 in 12 year-location comparisons and Calmochi-101 was 111% of M-101 in ten year-location comparisons. The experimental entry 84-Y-149 produced 114% relative to M-101 in five comparisons. In contrast to those varieties producing yields greater than the standard, California Belle produced 95% relative to M-101 in ten year-location comparisons.

EARLY RICE VARIETY TESTS (90-97 DAYS TO 50% HEADING AT BIGGS):

1986 early maturity trials were conducted at the five locations described previously. Thirty-one experimental lines and commercial varieties were tested. Commercial varieties included California Belle, M-101, M-201, M-202, L-202 and S-201 at all locations. Calmochi-101, Calmochi-202, C8R-31, Earlirose 83 and S-1 (Valencia 87) were added to the off-station sites. Sixteen experimental lines were new to the statewide tests and four had been previously tested. Grain types of the experimental lines included six short, eight medium and six long grain.

The agronomic performance of these cultivars at each location are given in Tables 9 through 13. Table 14 shows the performance summary as an average of five locations. M-202 (9,500 lb/A) ranked second in yield in the over location analysis (Table 14) whereas all others in the top twelve were experimental lines. Experimental line 85-Y-136 (9,550 lb/A) led all entries in yield. S-201, M-201 and L-202 ranked 13th, 14th, and 17th respectively and M-101 and California Belle were lowest in yield ranking 25th and 26th respectively. Grain moisture at harvest varied from 15.5% (85-Y-717) to 22.7% (84-Y-257). Among commercial entries, California Belle was the lowest in grain moisture at harvest (15%) and M-201 and S-201 the highest (22.3%, 22.4%). Seedling vigor was measured in four of five locations. Two short grain cultivars, S-201 and 85-Y-136, showed the highest seedling vigor at a rating of 4.4 out of 5.0. Lowest seedling vigor was shown by the long grain types with experimental line 85-Y-365 having the least at 3.5 out of 5.0. The earliest to 50% heading among all cultivars was M-101 at 87 days after planting, with all the remaining entries requiring 90 days or more. One experimental line, 85-Y-384, required 100 days to reach 50% heading. Plant height ranged from 30 inches for the shortest experimental line, 85-Y-384, to 42 inches for California Belle. Lodging was greatest for experimental line S-6196-1, which showed approximately 64% lodging; several experimental lines exhibited no lodging.

Table 15 summarizes the agronomic performance for 10 commercially available varieties and one experimental line in the four off-station locations where all were tested. M-202, Calmochi-101 and Earlirose 83 were highest in yield, all above 9,000 lbs/A. Calmochi-202 was the lowest at 5,330 lbs/A. S-201 showed the best seedling vigor (4.2) and Calmochi-202 the poorest (possibly because of a poor seed lot). Earlirose 83 headed earliest among

these varieties at 86 days after planting, California Belle was tallest (42 inches) and M-101 had the greatest lodging at approximately 38%.

Table 16 shows the over location summary for four early varieties and one advanced experimental line for the years 1982 through 1986. All entries were not included every year, therefore means cannot always be compared. Common year entries, however, were compared to give relative yield expressed as a percent of the standard, M-201. Only M-202 produced higher yields than the standard at 102% of M-201. All others, including the experimental line 86-Y-35 compared only over the four 1986 locations, ranged from 94-97% of M-201.

SUMMARY OF THE INTERMEDIATE AND LATE VARIETY TESTS (GREATER THAN 105 DAYS TO 50% HEADING AT BIGGS): The 1986 late maturity tests were conducted at the two previously described locations. Twenty-one experimental lines and three commercial standards, M-7, M-302 and M-401, were included in the tests. Eighteen experimental lines were new to the statewide late maturity test and three were tested previously. Grain types of the experimental lines included ten short, ten medium and one long grain.

Tables 17 and 18 show the agronomic performance of these lines at the Biggs and Sutter locations, respectively. Table 19 shows the over location summary. M-401 was the leading commercial variety ranking second in yield (9,190 lb/A) which was significantly above M-302 and M-7 (16th and 19th respectively). Of the top twelve entries, nine were experimental short grains and two were experimental medium grains. The single long grain type, 83-Y-414, is an experimental aromatic line to be released as A-301 for specialty markets. 83-Y-414 ranked last for yield (7,320 lb/A) in the late maturity test, significantly below all the commercial standards. The average moisture at harvest was low (15.6%) for these tests and ranged from a low of 14.8% (with several lines around 15%) to a high of 18.3% for M-7. Seedling vigor was generally good for all entries excepting the aromatic long grain, 83-Y-414; as noted in previous years, 83-Y-414 showed relatively poor seedling vigor with a rating of 2.5 out of 5.0. Time to 50% heading was predominately in the range of 99 to 106 days indicating the emphasis placed on developing intermediate rather than late maturing varieties. Both of the late entries were commercial standards; M-401 (109 days) and M-7 (111 days). Plant height ranged from 32 inches to 38 inches and lodging was very low. M-401 showed significant lodging at 11%.

Table 20 shows the over location summary for three intermediate and late varieties and one experimental line for the years 1982 through 1986. The experimental line, 83-Y-414, was not included in all years, thus location means of this cultivar cannot be compared with the other varieties. M-302 and M-401 produced 103% of the standard, M-7, in 14 tests over these five years. 83-Y-414 produced 91% of M-7 in a comparison of the seven tests where both cultivars were grown.

SUMMARY OF THE LONG GRAIN TEST: Long grain variety tests were conducted in the two previously described locations. Twenty-five cultivars were included at the Rice Experiment Station and 26 in the Yolo County test. Both trials contained 23 experimental long grains and the two standard

varieties, L-202 and M-201. California Belle was added as a standard in the Yolo County test. The agronomic performance of these cultivars is given in Tables 21 and 22 for individual locations and Table 23 gives the cross-location summary. Fifteen long grain experimentals and M-202 were statistically similar in yield to L-202. Only the experimental, 85-Y-349, produced a significantly higher yield. Time required to 50% heading varied from 85 to 96 days and height ranged from 32 to 41 inches.

SUMMARY OF THE SHORT AND MEDIUM GRAIN TEST: Short and medium grain experimentals were tested to identify superior cultivars for advancement into the statewide trials. Testing procedures and locations have been previously described. Fourteen medium, ten short and one waxy grain experimental were included with the varietal standards M-101 and M-202. Tables 24 and 25 show the agronomic performance of these cultivars at the Butte and Colusa county sites, respectively. Table 26 gives the over location summary for these two trials. None of the experimentals showed statistically greater yields than M-202, although two were nearly 400 lb/A higher. Eighteen cultivars including M-202 yielded greater than M-101. None of the cultivars were earlier than M-101 to 50% heading. Several showed lodging equivalent to M-101.

Table 1. Characteristics of Publicly Developed Rice Varieties*, 1986.

Grain Type	Maturity	Seed Widely Available	Comments
SHORT GRAIN			
S-201	Early	1981	High yield potential, excellent seedling vigor, similar to M-201 in maturity and in resistance to blanking; has good pearl shape.
MEDIUM GRAIN			
M-101	Very Early	1981	Earliest variety; excellent seedling vigor; good resistance to blanking. Yields less than other varieties at normal planting dates. Suggested only for special conditions such as cold areas and/or late planting dates. To minimize reduction in head rice, which is generally low, harvest at 25% moisture.
M9	Early	1979	Foundation seed production discontinued in 1985; being replaced by M-201 and M-202.
M-201	Early	1984	Very high yield potential; 2-3 inches shorter than M9 with excellent resistance to lodging and more responsive to nitrogen. Threshes very easily so reduce reel and cylinder speed to minimize shatter and enhance head rice. Has replaced M9 in warmer rice growing areas; best resistance to stem rot but susceptible to aggregate sheath spot.
M-202	Early	1987	Very high yield potential; replacing M9 in cooler rice growing areas where M-201 is not well adapted and for later seeding dates; three days earlier and more resistant to blanking than M-201; lodging intermediate between M-201 and M9; threshes easily but does not shatter.
M-302	Intermediate	1983	Foundation seed production discontinued in 1985 in favor of earlier maturing varieties.
LONG GRAIN			
L-202	Early	1986	Good yield potential in warmer areas; not adapted to colder areas; shortest of current varieties; excellent resistance to lodging and appears to be highly responsive to nitrogen. Seedling vigor fair; requires careful water management. threshes easily so reduce cylinder speed to minimum to enhance head rice.
SWEET			
Calmochi-101*	Very Early	1987	A sweet rice 15 days earlier than Calmochi-202; has desirable larger seed and improved cooking quality; excellent resistance to low temperature blanking; has rough leaves and hulls; no awns. Foundation seed available in 1986.
Calmochi-202**	Early	1983	A sweet rice similar to S-201 in growth characteristics but two days later. Has smaller seeds. Yields about 8% less than S-201.

*Proper management of the short stature varieties to obtain high yield include: (1) managing water depth and other factors to obtain a dense stand; (2) good weed control; (3) adequate nitrogen fertilization; (4) increase water depth to about 8 inches at 65 to 70 days after seeding; (5) drain as late as possible before harvest.

**Calmochi varieties should not be grown unless arrangements have first been made with marketing agency.

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Prepared by:

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Table 2. Comparison of weather patterns between Butte and Sutter counties, 1986.

Month	Butte		Sutter		Month	Butte		Sutter		Month	Butte		Sutter																
	Max	Min	Max	Min		Max	Min	Max	Min		Max	Min	Max	Min															
April					May					June					July					August					September				
1	71	54	70	57	1	88	61	83	56	1	99	66	96	58	1	100	63	95	56	1	101	61	99	57	1	101	61	99	57
2	71	56	73	52	2	88	59	80	56	2	99	66	95	64	2	101	61	97	56	2	100	62	97	56	2	100	62	97	58
3	65	54	67	44	3	86	56	85	54	3	94	65	90	62	3	104	65	102	56	3	95	60	91	58	3	95	60	91	58
4	67	49	67	44	4	83	59	84	56	4	86	60	84	58	4	104	66	102	58	4	99	61	93	58	4	99	61	93	58
5	66	51	66	40	5	79	59	76	56	5	91	63	88	57	5	100	65	92	62	5	99	63	94	58	5	99	63	94	58
6	65	38	64	36	6	81	55	77	53	6	90	60	85	58	6	97	60	91	55	6	97	63	92	57	6	97	63	92	57
7	76	44	74	37	7	85	57	82	55	7	90	60	89	56	7	98	59	91	55	7	87	59	81	56	7	87	59	81	56
8	76	52	77	43	8	88	63	87	55	8	91	61	86	59	8	100	59	97	52	8	80	55	76	52	8	80	55	76	52
9	86	54	82	46	9	94	66	93	58	9	92	60	89	56	9	99	59	92	55	9	83	51	83	45	9	83	51	83	45
10	80	54	75	50	10	103	63	99	57	10	98	63	97	56	10	96	60	90	55	10	92	53	88	49	10	92	53	88	49
11	77	49	75	45	11	90	84	82	60	11	100	67	99	63	11	97	60	92	58	11	88	54	86	53	11	88	54	86	53
12	85	55	82	46	12	93	82	89	57	12	101	67	97	61	12	95	62	95	56	12	75	54	72	54	12	75	54	72	54
13	88	55	87	48	13	88	61	82	56	13	92	66	87	62	13	93	58	94	52	13	78	50	76	49	13	78	50	76	49
14	83	60	80	52	14	82	58	81	56	14	94	62	91	57	14	92	56	91	54	14	75	52	73	50	14	75	52	73	50
15	53	46	59	43	15	84	56	83	48	15	85	58	81	56	15	89	62	83	55	15	91	58	87	56	15	91	58	87	56
16	57	45	59	43	16	86	57	85	50	16	86	56	85	54	16	89	58	83	55	16	89	58	83	55	16	89	58	83	55
17	67	42	66	41	17	94	59	92	50	17	85	60	82	57	17	92	56	89	55	17	92	56	89	55	17	92	56	89	55
18			76	45	18	93	64	90	57	18	81	56	80	54	18	87	54	82	54	18	97	59	91	57	18	97	59	91	57
19			81	40	19	86	60	83	55	19	89	58	89	49	19	95	59	90	53	19	101	59	99	54	19	101	59	99	54
20			87	43	20	75	57	73	52	20	91	59	91	53	20	97	61	94	58	20	98	66	92	61	20	98	66	92	61
21			88	48	21	72	51	72	44	21	99	61	98	56	21	98	67	93	60	21	97	60	92	54	21	97	60	92	54
22			73	50	22	79	50	81	43	22	101	68	102	62	22	90	65	85	61	22	95	58	87	53	22	95	58	87	53
23	81	50	72	47	23	80	59	78	54	23	104	71	99	66	23	87	67	87	66	23	96	58	93	53	23	96	58	93	53
24	71	42	72	41	24	85	54	87	45	24	100	66	96	61	24	96	66	90	62	24	94	59	89	54	24	94	59	89	54
25	71	50	71	45	25	93	61	91	57	25	85	60	83	58	25	95	59	95	55	25	95	59	95	55	25	95	59	95	55
26	71	42	73	39	26	93	64	91	60	26	89	62	84	57	26	87	58	84	55	26	93	61	94	56	26	93	61	94	56
27	82	46	81	41	27	95	64	91	61	27	92	60	85	56	27	96	60	91	57	27	96	60	91	57	27	96	60	91	57
28	77	50	77	43	28	95	61	91	55	28	88	61	85	58	28	90	56	85	58	28	88	58	85	58	28	88	58	85	58
29	73	42	74	37	29	96	66	92	56	29	91	58	90	54	29	88	57	86	56	29	88	57	86	56	29	88	57	86	56
30	76	35	76	37	30	94	67	88	57	30	100	63	96	56	30	93	58	94	54	30	93	58	94	54	30	93	58	94	54
					31	88	62	85	57	31	100	64	99	61	31	98	60	96	55	31	98	60	96	55	31	98	60	96	55

Table 3. Performance summary of the very early rice experimental lines and varieties, Butte County, 1986.

Variety	Grain ¹ type	Grain yield @14% moisture (lbs/a)	Grain moisture at harvest (%)	Seedling ² vigor (1-5)	Days to 50% heading	Plant height (in)	Lodging ³ (1-99)
13 84-Y-103	S	10530	16.1	5.0	89	33	1
4 84-Y-149	M	10400	18.4	5.0	88	37	1
17 85-Y-130	S	10320	17.3	5.0	90	37	1
16 85-Y-98	S	9930	17.0	5.0	87	35	49
14 83-Y-14	S	9930	18.9	5.0	93	38	1
8 85-Y-144	M	9910	18.5	4.9	89	36	1
19 85-Y-121	S	9910	17.1	4.9	86	35	16
20 85-Y-20	L	9890	13.8	5.0	85	34	1
25 85-Y-725	L	9880	13.8	4.9	86	34	2
7 85-Y-186	M	9850	15.1	4.9	82	35	21
15 83-Y-116	S	9830	18.7	5.0	92	37	9
12 85-Y-136	S	9780	16.2	5.0	90	34	1
23 85-Y-718	L	9620	13.4	4.9	86	30	3
10 M-202	M	9510	18.8	5.0	91	37	50
21 Calmochi-101	W	9490	15.3	4.9	84	36	43
5 84-Y-170	M	9480	18.6	4.9	89	37	44
3 85-Y-189	M	9440	17.4	5.0	89	37	13
11 P-224	M	9300	16.2	5.0	86	37	32
18 85-Y-99	S	9260	14.3	5.0	80	33	10
9 84-Y-9	M	9110	15.5	5.0	82	34	24
24 85-Y-24	L	9040	14.8	5.0	88	33	1
6 85-Y-188	M	9040	17.9	5.0	87	37	25
2 P-307	S	8910	16.2	5.0	82	35	32
22 85-Y-339	L	8810	13.8	4.7	90	31	1
1 M-101	M	8170	15.8	5.0	84	37	58
26 California Belle	L	7920	13.6	4.9	89	41	36
Grand Mean		9510	16.2	5.0	87	35	18
CV		6.0	7.8	1.6	2.1	4.0	122.7
LSD (.05)		800	1.8	0.1	3	2	32

Location: Rice Experiment Station, Biggs.

Planting date: Replications 1 and 2 - May 6, 1986; Replications 3 and 4 - May 23, 1986.

Data is average of all replications.

¹S = short; M = medium; L = long; W = waxy

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

³Subjective rating of 1-99 where 1 = none and 99 = 99% lodged.

Table 4. Performance summary of the very early rice experimental lines and varieties, San Joaquin County, 1986

Variety	Grain ¹ type	Grain yield @14% moisture (lbs/a)	Grain moisture at harvest (%)	Seedling ² vigor (1-5)	Days to 50% heading	Plant height (in)	Lodging ³ (1-99)
21 Calmochi-101	W	10950	20.3	4.3	94	34	2
28 Earlirose 83	M	10430	17.2	4.1	95	35	1
10 M-202	M	9670	24.9	4.9	102	33	1
16 85-Y-98	S	9660	22.6	4.8	100	31	1
1 M-101	M	9630	22.6	4.9	98	35	1
20 85-Y-20	L	9230	17.6	3.5	85	34	1
9 84-Y-9	M	9220	23.2	4.6	95	32	2
17 85-Y-130	S	9180	21.6	4.6	98	34	1
18 85-Y-99	S	9150	21.7	5.0	97	33	1
11 P-224	M	9140	22.3	5.0	98	33	1
6 85-Y-188	M	9130	25.8	4.6	99	34	1
7 85-Y-186	M	9090	22.2	4.4	94	32	2
25 85-Y-725	L	8620	18.2	3.9	92	30	1
26 California Belle	L	8610	16.8	4.3	90	32	1
23 85-Y-718	L	8530	18.9	4.0	95	38	2
24 85-Y-24	L	8520	19.5	4.3	95	33	1
27 CBR 31	L	8470	17.3	3.9	92	33	1
4 84-Y-149	M	8450	26.2	4.8	102	33	1
19 85-Y-121	S	8350	25.1	4.8	97	33	1
3 85-Y-189	M	8140	26.0	5.0	104	33	3
5 84-Y-170	M	7720	26.5	4.9	102	33	2
29 S-1	S	7600	22.1	4.4	101	33	6
22 85-Y-339	L	7570	19.6	4.0	97	33	11
2 P-307	S	7380	28.1	4.5	102	36	1
8 85-Y-144	M	7300	27.0	5.0	103	32	1
12 85-Y-136	S	7300	25.9	4.9	105	33	1
13 84-Y-103	S	7190	26.5	4.8	105	31	2
14 83-Y-14	S	7150	28.6	4.8	106	36	1
32 L-202	L	7010	23.8	4.5	106	29	1
30 M-201	M	6460	27.8	4.9	106	31	2
15 83-Y-116	S	6320	27.6	4.6	104	33	1
31 S-201	S	5500	29.4	4.9	108	33	1
Grand Mean		8330	23.2	4.5	99	33	2
CV		10.2	5.3	7.2	1.8	4.6	221.7
LSD (.05)		1190	1.7	0.5	2	2.1	NS

Location: Valley Home

Planting date: May 19, 1986

¹S = short; M = medium; L = long; W = waxy

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

³Subjective rating of 1-99 where 1 = none and 99 = 99% lodged.

Table 5. Performance summary of the very early rice experimental lines and varieties, Sutter County, 1986.

Variety	Grain ¹ type	Grain yield @14% moisture (lbs/a)	Grain moisture at harvest (%)	Seedling ² vigor (1-5)	Days to 50% heading	Plant height (in)	Lodging ³ (1-99)
10 M-202	M	11770	19.5	3.3	94	37	75
4 84-Y-149	M	11760	21.4	3.3	91	36	1
13 84-Y-103	S	11610	17.1	2.5	90	33	18
12 85-Y-136	S	11380	16.4	3.0	93	33	4
6 85-Y-188	M	11130	21.4	2.6	91	36	2
28 Earlirose 83	M	11030	14.4	3.0	85	38	69
30 M-201	M	10920	22.6	2.6	97	36	1
8 85-Y-144	M	10900	20.9	2.6	93	35	1
25 85-Y-725	L	10900	16.1	3.0	88	34	18
15 83-Y-116	S	10870	18.0	2.9	92	35	51
5 84-Y-170	M	10820	19.4	2.4	91	36	2
31 S-201	S	10740	20.8	3.1	98	35	83
18 85-Y-99	S	10620	16.8	3.3	86	33	34
21 Calmochi-101	W	10600	16.0	2.9	83	35	75
9 84-Y-9	M	10580	17.8	3.1	83	33	55
22 85-Y-339	L	10490	15.9	2.0	91	33	1
3 85-Y-189	M	10490	19.1	3.1	93	33	63
2 P-307	S	10470	18.0	3.0	90	37	37
14 83-Y-14	S	10460	19.7	3.4	93	37	88
24 85-Y-24	L	10430	16.6	2.1	90	34	1
32 L-202	L	10380	18.9	2.5	98	32	1
11 P-224	M	10350	17.2	2.4	87	37	19
17 85-Y-130	S	10160	15.8	3.3	90	31	87
23 85-Y-718	L	10140	15.7	1.8	90	33	1
7 85-Y-186	M	10090	17.6	2.5	82	35	35
16 85-Y-98	S	10010	19.6	2.9	89	33	90
19 85-Y-121	S	9990	19.4	2.6	84	35	14
20 85-Y-20	L	9790	15.3	1.9	87	35	1
1 M-101	M	9480	18.0	2.9	83	37	89
29 S-1	S	9310	15.8	1.9	87	36	1
27 CBR 31	L	9090	16.8	2.5	88	38	70
26 California Belle	L	8890	17.1	2.8	87	40	94
Grand Mean		10490	18.0	2.7	89	35	37
CV		6.2	3.6	11.2	1.8	3.3	48.8
LSD (.05)		910	0.9	0.4	2	2.0	25

Location: Natomas

Planting date: May 13, 1986

¹S = short; M = medium; L = long; W = waxy

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

³Subjective rating of 1-99 where 1 = none and 99 = 99% lodged.

Table 6. 1986 very early variety trial - three location summary (Butte, San Joaquin, and Sutter counties).

Variety	Grain ¹ type	Grain yield @14% moisture (lbs/a)	Grain moisture at harvest (%)	Seedling ² vigor (1-5)	Days to 50% heading	Plant height (in)	Lodging ³ (1-99)
21 Calmochi-101	W	10350	17.2	4.0	87	35	40
10 M-202	M	10320	21.1	4.4	96	35	42
4 84-Y-149	M	10200	22.0	4.3	94	35	1
17 85-Y-130	S	9890	18.2	4.3	93	36	30
16 85-Y-98	S	9860	19.7	4.2	92	33	47
25 85-Y-725	L	9800	16.0	3.9	89	33	7
13 84-Y-103	S	9780	19.9	4.1	95	32	7
6 85-Y-188	M	9760	21.7	4.1	93	36	10
7 85-Y-186	M	9680	18.3	3.9	86	33	19
18 85-Y-99	S	9680	17.6	4.4	88	33	15
9 84-Y-9	M	9640	18.8	4.2	87	33	27
20 85-Y-20	L	9640	15.6	3.5	86	35	1
11 P-224	M	9600	18.6	4.1	90	35	17
12 85-Y-136	S	9490	19.5	4.3	96	33	2
23 85-Y-718	L	9430	16.0	3.5	90	30	2
19 85-Y-121	S	9410	20.5	4.1	89	34	10
8 85-Y-144	M	9370	22.1	4.2	95	34	1
3 85-Y-189	M	9360	20.8	4.4	95	35	26
5 84-Y-170	M	9340	21.5	4.1	94	35	16
24 85-Y-24	L	9330	17.0	3.8	91	33	1
14 83-Y-14	S	9180	22.4	4.4	97	37	30
1 M-101	M	9100	18.8	4.3	88	36	49
15 83-Y-116	S	9000	21.4	4.2	96	35	20
22 85-Y-339	L	8960	16.5	3.6	93	33	4
2 P-307	S	8920	20.8	4.2	92	36	23
26 California Belle	L	8470	15.8	4.0	89	40	44
Grand Mean		9520	19.2	4.1	91	88	19
CV		7.2	5.7	6.1	1.9	3.9	91.4
LSD (.05)		550	0.9	0.2	1	1.0	14

¹S = short; M = medium; L = long; W = waxy.

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

³Subjective rating of 1-99 where 1 = 1% lodging and 99 = 99% lodged.

Table 7. 1986 very early variety trial - two location summary (San Joaquin and Sutter counties).

Variety	Grain ¹ type	Grain yield @14% moisture (lbs/a)	Grain moisture at harvest (%)	Seedling ² vigor (1-5)	Days to 50% heading	Plant height (in)	Lodging ³ (1-99)
21 Calmochi-101	W	10770	18.1	3.6	89	35	38
28 ER 83	M	10730	15.8	3.6	90	37	35
10 M-202	M	10720	22.2	4.1	98	35	38
4 84-Y-149	M	10110	23.8	4.0	97	35	1
1 M-101	M	9560	20.3	3.9	90	37	45
12 85-Y-136	S	9340	21.2	3.9	99	33	2
27 CBR 31	L	8780	17.0	3.2	90	38	36
26 California Belle	L	8750	16.9	3.5	89	39	48
32A L-202	L	8700	21.3	3.5	102	30	1
30A M-201	M	8690	25.2	3.8	102	33	1
29A S-1	S	8460	19.0	3.1	94	35	3
31A S-201	S	8120	25.1	4.0	103	34	42
Grand Mean		9390	20.5	3.7	95	35	24
CV		8.0	4.8	8.7	1.8	1.5	67.4
LSD (.05)		740	1.0	0.3	2	3	13

¹S = short; M = medium; L = long; W = waxy.

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

³Subjective rating of 1-99 where 1 = none and 99 = 99% lodged.

Table 8. Grain yield summary of the very early experimental lines and varieties by locations and years.

County Location	Year	Varieties					
		M-101	M-202	California Belle	Calmochi 101	84-Y-149	85-Y-136
Butte	1982	9840	9930	-	-	-	-
	1983	9920	10790	-	10650	-	-
	1984	7180	9690	7970	8950	-	-
	1985	8810	10470	9200	9080	10710	-
	1986	8170	9510	7920	9490	10400	9780
Location mean		8780	10080	8360	9540	10560	9780
Sacramento, Sutter	1982	8420	9200	6400	-	-	-
	1983	9000	11160	8480	9730	-	-
	1984	9600	11520	8750	11130	-	-
	1985	8760	8130	9090	9170	9030	-
	1986	9480	11770	8890	10600	11760	11380
Location mean		9050	10356	8320	10160	10395	11380
San Joaquin	1982	-	-	-	-	-	-
	1983	-	-	-	-	-	-
	1984	8070	8460	7280	8880	-	-
	1985	-	-	-	-	-	-
	1986	9630	9670	8610	10950	9220	7300
Location mean		8850	9065	7950	9920	9220	7300
Location-years mean		8910	10025	8259	9860	10220	9490
Yield as % of M-101		-	113	95	111	114	104
Number of tests		12	12	10	10	5	3

Table 9. Performance summary of the early rice experimental lines and varieties, Butte County, 1986.

Variety	Grain ¹ type	Grain yield @14% moisture (lbs/a)	Grain moisture at harvest (%)	Seedling ² vigor (1-5)	Days to 50% heading	Plant height (in)	Lodging ³ (1-99)
41 85-Y-207	S	11080	16.9	5.0	95	36	3
52 P-1478	M	11000	19.1	5.0	93	35	1
54 P-1480	M	10980	19.0	5.0	93	35	1
50 85-Y-384	L	10760	16.1	4.7	94	32	1
42 84-Y-298	M	10610	20.0	4.9	95	35	1
34 85-Y-136	S	10510	15.5	5.0	89	33	1
31 S-201	S	10490	18.7	5.0	99	36	1
36 203=35-A,254	S	10490	17.4	5.0	97	34	1
33 84-Y-149	M	10410	18.0	5.0	88	37	3
37 206=35-B,254	S	10400	17.5	5.0	96	35	2
30 M-201	M	10390	19.3	5.0	92	35	8
51 84-Y-257	M	10360	18.5	5.0	94	37	1
49 85-Y-365	L	10270	14.7	4.3	93	37	1
29 M-202	M	10270	18.3	5.0	90	37	50
38 85-Y-197	M	10180	16.8	5.0	94	34	7
39 85-Y-287	M	10170	16.5	5.0	90	37	36
44 L-202	L	10130	16.3	4.8	92	31	1
48 85-Y-336	L	10120	16.9	4.5	92	37	1
47 85-Y-717	L	9990	13.5	4.9	86	37	2
46 85-Y-715	L	9880	15.6	4.8	91	32	1
40 85-Y-231	S	9780	17.9	5.0	95	36	55
43 85-Y-275	M	9770	16.9	5.0	92	39	9
45 84-Y-348	L	9160	14.8	4.8	90	35	39
32 M-101	M	8920	15.6	5.0	84	36	64
35 5-6196-1	M	8690	16.0	5.0	90	36	92
53 California Belle	L	7990	14.4	5.0	89	41	55
Grand Mean		10110	16.9	4.9	92	35	17
CV		5.2	6.1	2.0	1.8	3.8	111.5
LSD (.05)		740	1.4	0.1	2	2.0	26

Location: Rice Experiment Station, Biggs.

Planting date: Replications 1 and 2, May 6, 1986; Replications 3 and 4, May 21, 1986.

Data is average of all replications.

¹S = short; M = medium; L = long; W = waxy

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

³Subjective rating of 1-99 where 1 = none and 99 = 99% lodged.

Table 10. Performance summary of the early rice experimental lines and varieties, Fresno County, 1986.

Variety	Grain ¹ type	Grain yield @14% moisture (lbs/a)	Grain moisture at harvest (%)	Seedling ² vigor (1-5)	Days to 50% heading	Plant height (in)	Lodging ³ (1-99)
57 S-1	S	8420	16.0	3.9	91	31	1
34 85-Y-136	S	8340	16.3	4.2	91	30	3
44 L-202	L	8110	20.6	3.7	103	31	1
47 85-Y-717	L	7930	15.4	3.3	95	31	2
58 Calmochi-101	W	7780	15.8	4.1	89	33	29
49 85-Y-365	L	7760	16.9	3.2	98	36	2
39 85-Y-287	M	7710	19.3	4.2	94	33	10
38 85-Y-197	S	7630	16.8	4.0	94	30	34
46 85-Y-715	L	7520	19.3	3.8	101	33	7
29 M-202	M	7450	21.1	4.2	99	34	7
33 84-Y-149	M	7310	25.0	4.3	97	36	2
54 P-1480	M	7230	24.4	4.1	100	34	1
55 CBR 31	L	7160	15.3	3.8	93	42	4
53 California Belle	L	7020	14.7	3.8	94	43	30
35 S-6196-1	M	7010	16.6	3.7	90	33	93
52 P-1478	M	6990	24.2	4.0	99	32	1
48 85-Y-336	L	6790	23.4	3.4	105	34	1
36 203=35-A,254	S	6780	24.8	4.2	101	31	1
56 ER 83	M	6750	14.9	4.0	87	35	71
41 85-Y-207	S	6740	22.1	3.8	97	33	1
42 84-Y-298	M	6680	25.0	4.3	101	33	1
50 85-Y-384	L	6470	17.3	4.3	105	30	1
30 M-201	M	6420	26.4	4.0	103	34	1
43 85-Y-275	M	6180	25.8	4.2	104	37	3
37 206=35-B,254	S	6130	25.6	4.2	100	33	1
32 M-101	M	6130	17.6	3.8	91	33	51
40 85-Y-231	S	5890	25.8	4.3	97	36	72
45 84-Y-348	L	5880	22.9	3.3	104	29	1
59 Calmochi-202	W	5090	27.6	3.8	101	37	1
31 S-201	S	5060	27.2	4.5	103	33	2
51 84-Y-257	M	4790	29.1	4.1	106	35	1
Grand Mean		6880	21.1	3.9	98	34	14
CV		10.9	8.3	9.3	2.5	5.8	130.8
LSD (.05)		1050	2.5	0.5	3	3	26

Location: West Dos Palos
Planting date: May 15, 1986

¹S = short; M = medium; L = long; W = waxy

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

³Subjective rating of 1-99 where 1 = none and 99 = 99% lodged.

Table 11. Performance summary of the early rice experimental lines and varieties, Glenn County, 1986.

Variety	Grain ¹ type	Grain yield @14% moisture (lbs/a)	Grain moisture at harvest (%)	Seedling ² vigor (1-5)	Days to 50% heading	Plant height (in)	Lodging ³ (1-99)
29 M-202	M	9530	24.7	3.7	93	41	6
41 85-Y-207	S	9110	23.1	4.1	92	37	1
58 Calmochi-101	W	8850	20.8	3.8	88	38	4
33 84-Y-149	M	8540	22.8	3.7	91	40	1
34 85-Y-136	S	8520	19.4	4.3	91	34	1
54 P-1480	M	8480	23.5	3.5	96	38	1
37 206=35-B,254	S	8470	23.1	3.9	95	39	1
40 85-Y-231	S	8460	22.3	3.6	92	40	30
31 S-201	S	8460	23.5	4.1	95	38	4
43 85-Y-275	M	8440	26.3	4.0	95	38	3
30 M-201	M	8430	26.1	3.4	97	39	1
56 ER 83	M	8380	18.1	3.6	85	43	8
46 85-Y-715	L	8370	19.9	3.3	94	38	1
55 CBR 31	L	8290	20.0	3.5	93	39	2
36 203=35-A,254	S	8210	22.9	3.8	94	38	1
52 P-1478	M	8200	25.2	3.6	96	38	1
39 85-Y-287	M	8170	23.4	3.8	91	39	10
42 84-Y-298	M	8060	24.5	3.8	96	38	1
38 85-Y-197	S	8030	23.7	3.4	91	37	16
44 L-202	L	7900	20.6	3.5	96	35	1
45 84-Y-348	L	7900	19.0	3.6	94	39	2
51 84-Y-257	M	7850	24.2	3.3	97	39	1
57 S-1	S	7820	20.1	3.6	89	34	1
50 85-Y-384	L	7690	20.0	3.7	98	32	1
47 85-Y-717	L	7530	17.3	3.7	89	34	31
48 85-Y-336	L	7520	20.4	3.6	95	38	1
35 S-6196-1	M	7500	25.1	3.2	94	40	49
53 California Belle	L	7440	19.3	3.4	94	44	10
49 85-Y-365	L	7360	18.4	3.3	93	39	1
32 M-101	M	7220	22.0	4.0	85	37	51
59 Calmochi-202	W	3470	24.5	1.0	102	36	1
Grand Mean		8030	22.2	3.6	93	38	8
CV		9.5	5.1	8.8	1.6	3.4	141.9
LSD (.05)		1080	1.6	0.4	2	2	15

Location: Norman Road

Planting date: May 5, 1986

¹S = short; M = medium; L = long; W = waxy.

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

³Subjective rating of 1-99 where 1 = none and 99 = 99% lodged.

Table 12. Performance summary of the early rice experimental lines and varieties, Yolo County, 1986.

Variety	Grain ¹ type	Grain yield @14% moisture (lbs/a)	Grain moisture at harvest (%)	Seedling ² vigor (1-5)	Days to 50% heading	Plant height (in)	Lodging ³ (1-99)
34 85-Y-136	S	10740	14.1	4.0	91	36	15
56 ER 83	M	10560	13.8	4.0	86	40	24
43 85-Y-275	M	10480	16.3	4.0	96	39	65
58 Calmochi-101	W	10300	13.9	3.7	88	38	2
29 M-202	M	10150	18.4	3.8	93	40	11
54 P-1480	M	10040	18.6	3.4	95	38	1
33 84-Y-149	M	9960	17.7	4.1	91	41	1
39 85-Y-287	M	9950	16.4	3.8	93	39	20
41 85-Y-207	S	9850	16.5	4.0	93	37	45
48 85-Y-336	L	9840	16.9	3.4	99	41	1
51 84-Y-257	M	9830	18.8	3.5	98	38	17
42 84-Y-298	M	9760	18.8	3.6	99	39	2
37 206=35-8,254	S	9740	17.2	3.8	95	37	8
31 S-201	S	9690	17.5	4.1	98	39	53
36 203=35-A,254	S	9640	17.0	3.7	95	37	12
44 L-202	L	9600	17.2	3.5	100	35	1
47 85-Y-717	L	9570	15.0	3.6	90	35	1
40 85-Y-231	S	9480	19.9	4.0	93	40	69
45 84-Y-348	L	9420	16.5	3.5	98	39	1
50 85-Y-384	L	9350	16.8	3.7	102	36	1
55 CBR 31	L	9220	16.5	3.3	93	41	3
49 85-Y-365	L	9130	15.6	3.3	96	39	1
30 M-201	M	9120	18.4	3.6	96	36	1
52 P-1478	M	9110	18.4	3.5	96	37	1
57 S-1	S	8970	14.2	3.5	90	39	1
46 85-Y-715	L	8950	16.4	3.6	96	36	1
53 California Belle	L	8870	14.9	3.3	92	41	5
38 85-Y-197	S	8810	16.9	3.8	92	37	18
35 S-6196-1	M	8440	17.7	3.5	90	39	80
32 M-101	M	8420	17.0	4.0	87	41	43
59 Calmochi-202	W	3750	25.5	1.0	102	35	1
Grand Mean		9380	17.1	3.6	94	38	16
CV		6	7.9	5.7	1.7	3	87.2
LSD (.05)		880	1.9	0.3	2	2	20

Location: District 108

Planting date: May 9, 1986

¹S = short; M = medium; L = long; W = waxy.

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

³Subjective rating of 1-99 where 1 = none and 99 = 99% lodged.



Table 13. Performance summary of the early rice experimental lines and varieties, Yuba County, 1986.

Variety	Grain ¹ type	Grain yield @14% moisture (lbs/a)	Grain moisture at harvest (%)	Days to 50% heading	Plant height (in)	Lodging ² (1-99)
43 85-Y-275		10650	22.5	96	34	1
56 ER 83		10410	14.0	87	34	3
58 Calmochi-101		10290	15.9	87	33	1
29 M-202		10100	21.1	93	35	1
41 85-Y-207		9940	21.0	96	33	1
35 S-6195-1		9940	22.2	96	35	4
31 S-201		9710	24.6	100	34	1
34 85-Y-136		9660	15.8	92	31	1
39 85-Y-287		9570	20.4	94	35	1
32 M-101		9530	18.4	88	35	5
40 85-Y-231		9410	22.0	96	35	1
33 84-Y-149		9400	20.5	92	35	1
37 206=35-B,254		9330	23.1	96	33	1
45 84-Y-348		9200	15.1	89	31	1
51 84-Y-257		9170	23.0	97	35	1
38 85-Y-197		9050	21.3	96	33	1
59 Calmochi-202		8990	24.1	97	37	1
30 M-201		8960	21.7	96	33	1
36 203=35-A,254		8890	22.0	97	32	1
42 84-Y-298		8690	22.5	98	33	1
54 P-1480		8530	23.3	98	39	1
48 85-Y-336		8440	17.9	96	32	1
52 P-1478		8420	23.8	98	31	1
53 California Belle		8380	15.1	89	40	2
55 C8R 31		8140	15.3	89	39	1
57 S 1		7550	16.7	90	32	1
50 85-Y-384		7050	19.5	100	25	1
49 85-Y-365		6910	17.4	97	33	1
44 L-202		6800	18.5	97	28	1
47 85-Y-717		6740	16.4	88	29	1
46 85-Y-715		6710	16.8	93	33	1
Grand Mean		8860	19.7	94	33	1
CV		4	5.2	1	2.8	67.4
LSD (.05)		570	1.4	2	1	1

Location: District 10
Planting date: May 5, 1986

¹S = short; M = medium; L = long; W = waxy.

²Subjective rating of 1-99 where 1 = none and 99 = 99% lodged.

Table 14. 1986 early rice variety trial - five location summary (Butte, Fresno, Glenn, Yolo and Yuba counties).

Variety	Grain ¹ type	Grain yield @14% moisture (lbs/a)	Grain moisture at harvest (%)	Seedling ² vigor [*] (1-5)	Days to 50% heading	Plant height (in)	Lodging ³ (1-99)
34 85-Y-136	S	9550	16.2	4.4	91	33	4
29 M-202	M	9500	20.7	4.2	94	37	15
41 85-Y-207	S	9350	19.9	4.2	95	35	10
33 84-Y-149	M	9120	20.8	4.3	92	37	2
39 85-Y-287	M	9110	19.2	4.2	92	37	15
43 85-Y-275	M	9100	21.6	4.3	97	37	16
54 P-1480	M	9050	21.8	4.0	96	35	1
37 206=35-B,254	S	8810	21.3	4.2	96	35	3
36 203=35-A,254	S	8800	20.8	4.2	97	34	3
42 84-Y-298	M	8760	22.2	4.1	98	35	1
52 P-1478	M	8750	22.1	4.0	96	35	1
38 85-Y-197	S	8740	19.1	4.0	93	34	15
31 S-201	S	8680	22.3	4.4	99	36	12
30 M-201	M	8660	22.4	4.0	97	35	2
40 85-Y-231	S	8610	21.6	4.2	94	38	45
48 85-Y-336	L	8540	19.1	3.7	97	37	1
44 L-202	L	8510	18.7	3.9	98	32	1
51 84-Y-257	M	8400	22.7	4.0	98	37	4
47 85-Y-717	L	8350	15.5	3.9	90	32	8
35 S-6196-1	M	8320	19.5	3.8	92	37	64
45 84-Y-348	L	8310	17.6	3.8	95	35	9
49 85-Y-365	L	8290	16.6	3.5	95	37	1
46 85-Y-715	L	8290	17.6	3.9	95	35	2
50 85-Y-384	L	8260	17.9	4.1	100	30	1
32 M-101	M	8040	18.1	4.2	87	36	43
53 California Belle	L	7940	15.7	3.9	91	42	21
Grand Mean		8690	19.7	4.1	95	35	12
CV		7.2	6.3	6.5	1.8	3.8	121.1
LSD (.05)		390	0.8	0.2	1	1	9

* Yuba County is not included in the seedling vigor average.

¹S = short; M = medium; L = long; W = waxy.

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

³Subjective rating of 1-99 where 1 = none and 99 = 99% lodged.

Table 15. 1985 early rice variety trial - four location summary (Fresno, Glenn, Yolo and Yuba counties).

Variety	Grain ¹ type	Grain yield @14% moisture (lbs/a)	Grain moisture at harvest (%)	Seedling ² vigor [*] (1-5)	Days to 50% heading	Plant height (in)	Lodging ³ (1-99)
29 M-202	M	9310	21.3	3.9	94	37	6
58 Calmochi-101	W	9300	16.6	3.9	88	35	9
56 ER 83	M	9030	15.2	3.9	86	37	26
30 M-201	M	8230	23.2	3.7	98	35	1
31 S-201	S	8230	23.2	4.2	99	36	15
55 CBR 31	L	8200	16.7	3.5	92	41	3
57 S 1	S	8190	16.8	3.7	90	34	1
44 L-202	L	8100	19.3	3.6	99	32	1
53 California Belle	L	7930	16.0	3.5	92	42	12
32 M-101	M	7830	18.7	3.9	88	36	38
59 Calmochi-202	W	5330	25.4	1.9	100	36	1
Grand Mean		8280	20.0	3.7	95	36	10
CV		7.9	6.7	8.1	1.9	3.9	130.2
LSD (.05)		460	0.9	0.2	1	1	9

* Yuba County is not included in the seedling vigor average.

¹S = short; M = medium; L = long; W = waxy.

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

³Subjective rating of 1-99 where 1 = none and 99 = 99% lodged.

Table 16. Grain yield summary of the early experimental lines and varieties by locations and years.

County location	Year	Varieties				
		S-201	M-201	L-202	M-202	86-Y-35
Butte	1982	9910	9640	-	-	-
	1983	11100	10010	9700	10200	-
	1984	9150	10470	10020	8800	-
	1985	8590	8400	7920	9280	-
	1986	10490	10390	10130	10270	8690
Location mean		9850	9780	9440	9640	8690
Yuba	1982	8940	9310	-	-	-
	1983	8740	8710	8020	9440	-
	1984	7870	8900	9720	9190	-
	1985	8640	8730	6900	9240	-
	1986	9710	8960	6800	10100	9940
Location mean		8780	8920	7860	9490	9940
Yolo	1982	9100	10360	-	-	-
	1983	9590	11190	11530	11220	-
	1984	8610	9090	8470	8630	-
	1985	9540	10060	10080	10070	-
	1986	9690	9120	9600	10150	8440
Location mean		9300	9960	9900	10020	8440
Colusa-Glenn	1982	8990	9100	-	-	-
	1983	9600	8790	8120	9530	-
	1984	7650	9950	8770	9110	-
	1985	10450	10680	9580	10890	-
	1986	8460	8430	7900	9530	7500
Location mean		9030	9390	8590	9760	7500
Location-years mean		9241	9520	8950	9728	8640
Yield as a % of M-201		97	-	94	102	94
Number of tests		20	20	16	16	4

Table 17. Performance summary of the intermediate and late rice experimental lines and varieties, Butte County, 1986.

Variety	Grain ¹ type	Grain yield @14% moisture (lbs/a)	Grain moisture at harvest (%)	Seedling ² vigor (1-5)	Days to 50% heading	Plant height (in)	Lodging ³ (1-99)
64 83-Y-502	S	10180	15.9	4.8	103	33	1
63 M-401	M	10040	19.0	5.0	105	38	19
83 P-2049	S	10020	16.9	5.0	102	35	1
82 P-2023	S	10010	16.5	4.9	101	35	1
69 85-Y-502	S	9880	16.1	4.9	102	35	1
66 85-Y-487	M	9780	16.9	5.0	103	35	1
71 85-Y-497	S	9750	15.8	4.9	100	34	1
73 85-Y-499	S	9670	16.6	5.0	101	35	1
68 84-Y-480	S	9640	16.3	4.9	100	35	1
65 85-Y-508	S	9620	15.3	4.8	100	33	1
72 85-Y-472	M	9570	15.6	4.9	96	35	1
84 83-Y-414	L	9520	14.8	3.0	99	31	1
75 85-Y-466	M	9520	16.1	4.9	100	35	1
67 84-Y-492	S	9510	16.0	4.9	101	34	1
74 85-Y-463	M	9490	15.6	4.9	99	37	1
79 P-1798	M	9460	15.9	5.0	99	36	1
78 P-1795	M	9430	15.3	4.9	98	36	1
76 85-Y-501	S	9400	14.9	4.9	99	33	1
62 M-302	M	9380	16.5	4.9	102	35	1
61 M-7	M	9230	18.5	4.9	108	35	1
77 P-1783	M	9220	15.2	5.0	99	35	1
70 85-Y-474	M	8980	15.4	4.8	101	34	1
81 P-1876	M	8590	14.3	5.0	97	35	1
80 P-1802	M	8330	14.7	5.0	99	34	1
Grand Mean		9510	16.0	4.8	101	35	2
CV		5.4	6.8	2.0	0.8	3.5	188.3
LSD (.05)		730	1.5	0.1	1	2	5

Location: Rice Experiment Station, Biggs

Planting date: May 9, 1986

¹S = short; M = medium; L = long; W = waxy.

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

³Subjective rating of 1-99 where 1 = none and 99 = 99% lodged.

Table 18. Performance summary of the intermediate and late rice experimental lines and varieties, Sutter County, 1986.

Variety	Grain ¹ type	Grain yield @14% moisture (lbs/a)	Grain moisture at harvest (%)	Seedling ² vigor (1-5)	Days to 50% heading	Plant height (in)	Lodging ³ (1-99)
64 83-Y-502	S	8410	15.1	3.4	109	34	5
63 M-401	M	8340	14.1	3.8	113	37	2
69 85-Y-502	S	7830	15.9	3.1	107	36	1
71 85-Y-497	S	7550	15.3	2.9	104	35	3
83 P-2049	S	7430	15.9	3.0	106	35	1
74 85-Y-463	M	7310	15.1	3.0	105	38	1
68 84-Y-480	S	7250	16.1	3.3	105	37	1
75 85-Y-466	M	7230	14.3	2.9	104	35	4
82 P-2023	S	7160	15.6	2.9	105	36	1
70 85-Y-474	M	7140	14.5	3.0	105	36	1
67 84-Y-492	S	7090	15.4	3.5	106	38	1
73 85-Y-499	S	7090	14.9	3.0	105	35	1
62 M-302	M	7060	15.4	2.9	106	37	3
79 P-1798	M	7050	14.3	3.8	104	37	1
76 85-Y-501	S	7050	14.8	3.4	104	35	2
77 P-1783	M	7010	14.8	3.5	103	36	1
78 P-1795	M	7000	14.7	3.0	103	37	1
65 85-Y-508	S	6990	15.6	3.1	105	35	2
61 M-7	M	6980	18.0	3.4	114	39	1
80 P-1802	M	6860	14.4	3.8	104	38	1
66 85-Y-487	M	6790	15.0	3.6	107	38	1
81 P-1876	M	6750	14.4	3.5	103	37	2
72 85-Y-472	M	5800	16.3	3.8	101	35	1
84 83-Y-414	L	5110	16.4	2.0	108	33	1
Grand Mean		7100	15.3	3.2	106	36	2
CV		6.8	5.2	15.6	1.1	4.3	148.4
LSD (.05)		680	1.1	0.7	1	6	NS

Location: Sutter

Planting date: April 25, 1986

¹S = short; M = medium; L = long; W = waxy.

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

³Subjective rating of 1-99 where 1 = none and 99 = 99% lodged.

Table 19. 1986 intermediate and late rice variety trial - two location summary (Butte and Sutter Counties).

Variety	Grain ¹ type	Grain yield @14% moisture (lbs/a)	Grain moisture at harvest (%)	Seedling ² vigor (1-5)	Days to 50% heading	Plant height (in)	Lodging ³ (1-99)
64 83-Y-502	S	9300	15.5	4.1	106	33	3
63 M-401	M	9190	16.6	4.4	109	38	11
69 85-Y-502	S	8850	16.0	4.0	104	35	1
83 P-2049	S	8730	16.4	4.0	104	35	1
71 85-Y-497	S	8650	15.6	3.9	102	35	2
82 P-2023	S	8590	16.0	3.9	103	35	1
68 84-Y-480	S	8450	16.2	4.1	102	36	1
74 85-Y-463	M	8400	15.4	3.9	102	37	1
73 85-Y-499	S	8380	15.7	4.0	103	35	1
75 85-Y-466	M	8370	15.2	3.9	102	35	2
65 85-Y-508	S	8310	15.4	4.0	102	34	1
67 84-Y-492	S	8300	15.7	4.2	104	36	1
66 85-Y-487	M	8280	15.9	4.3	105	37	1
79 P-1798	M	8250	15.1	4.4	102	37	1
76 85-Y-501	S	8230	14.8	4.1	102	34	1
62 M-302	M	8220	15.9	3.9	104	36	2
78 P-1795	M	8210	15.0	4.0	100	36	1
77 P-1783	M	8110	15.0	4.2	101	36	1
61 M-7	M	8100	18.3	4.1	111	37	1
70 85-Y-474	M	8060	14.9	3.9	103	35	1
72 85-Y-472	M	7680	16.0	4.3	99	35	1
81 P-1876	M	7670	14.4	4.3	100	36	1
80 P-1802	M	7600	14.6	4.4	101	36	1
84 83-Y-414	L	7320	15.6	2.5	103	32	1
Grand Mean		8300	15.6	4.0	103	33	2
CV		6.0	6.1	8.9	1.0	3.9	171.4
LS0 (.05)		490	0.9	0.4	1	2	3

¹S = short; M = medium; L = long; W = waxy.

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

³Subjective rating of 1-99 where 1 = none and 99 = 99% lodged.

Table 20. Grain yield summary of the intermediate and late experimental lines and varieties by locations and years.

County Location	Year	Varieties			
		M-7	M-302	M-401	83-Y-414
Butte	1982	10630	10550	9170	-
	1983	9520	9690	11230	-
	1984	8320	8810	6360	9800
	1985	9540	10640	10720	8940
	1986	9230	9380	10040	9520
Location mean		9450	9810	9500	9420
Glenn-Colusa	1982	8950	8160	6740	-
	1983	6900	7940	8090	-
	1984	8010	7940	9380	5060
	1985	7370	7150	8620	4170
	1986	-	-	-	-
Location mean		7810	7800	8210	4620
Sutter	1982	8820	9720	9500	-
	1983	9570	9350	9660	-
	1984	8110	8640	8070	9760
	1985	9940	10980	9650	8940
	1986	6980	7060	8340	5110
Location mean		8684	9150	9040	7937
Location-year means		8710	9000	8970	7660
Yield as a % of M-7		-	103	103	91
Number of tests		14	14	14	8

Table 21. Performance summary of the long grain special rice experimental lines and varieties, Butte County, 1986.

Variety	Grain ¹ type	Grain yield @14% moisture (lbs/a)	Grain moisture at harvest (%)	Seedling ² vigor (1-5)	Days to 50% heading	Plant height (in)	Lodging ³ (1-99)
703 85-Y-296	L	10170	11.2	5.0	85	34	1
702 M-201	M	10120	18.1	4.9	91	35	1
705 85-Y-305	L	10100	14.1	4.4	86	34	2
709 85-Y-349	L	10070	15.8	4.8	89	34	1
708 85-Y-342	L	9900	12.2	4.9	87	35	1
706 85-Y-321	L	9880	14.4	4.4	84	35	1
701 L-202	L	9820	15.7	4.9	90	31	1
704 85-Y-304	L	9810	13.2	4.1	85	34	1
714 85-Y-377	L	9780	15.2	5.0	91	37	2
711 85-Y-354	L	9710	12.5	5.0	86	30	1
712 85-Y-363	L	9590	13.7	4.6	90	37	7
710 85-Y-353	L	9540	12.7	4.9	85	30	1
716 85-Y-406	L	9300	14.3	4.8	89	31	1
725 8449988	L	9280	14.4	4.8	86	37	23
724 8449685	L	9220	13.5	5.0	84	30	1
713 85-Y-370	L	9210	13.4	4.5	92	36	1
723 8433542	L	9080	11.2	4.8	83	32	1
717 85-Y-407	L	9060	14.0	4.8	89	32	1
707 85-Y-338	L	9060	12.8	4.8	84	30	1
720 8432029	L	8810	12.6	4.6	87	34	1
722 8433174	L	8730	11.0	4.8	81	33	1
719 8431177	L	8620	12.0	5.0	83	38	19
715 85-Y-404	L	8600	10.3	4.4	88	27	1
721 8433041	L	8460	11.4	4.7	86	28	1
718 8431171	L	8300	12.9	5.0	83	39	19
Grand Mean		9370	13.3	4.8	86	33	4
CV		5.5	11.4	2.9	1.5	3.7	248.6
LSD (.05)		730	2.1	0.2	2	2	13

Location: Rice Experiment Station, Biggs.

Planting date: Replications 1 and 2, May 8, 1986; Replications 3 and 4, May 22, 1986.

Data is average of all replications.

¹S = short; M = medium; L = long; W = waxy.

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

³Subjective rating of 1-99 where 1 = none and 99 = 99% lodged.

Table 22. Performance summary of the long grain special rice experimental lines and varieties, Yolo County, 1986.

Variety	Grain ¹ type	Grain yield @14% moisture (lbs/a)	Grain moisture at harvest (%)	Seedling ² vigor (1-5)	Days to 50% heading	Plant height (in)	Lodging ³ (1-99)
709 85-Y-349	L	10590	14.9	3.7	97	36	1
711 85-Y-354	L	10210	14.1	3.7	95	34	3
710 85-Y-353	L	10170	13.9	3.7	90	34	1
703 85-Y-296	L	10070	13.6	3.8	95	39	1
716 85-Y-406	L	9970	16.5	3.7	98	35	1
725 8449988	L	9850	14.8	3.8	92	37	10
701 L-202	L	9810	16.4	3.7	99	33	1
707 85-Y-338	L	9810	13.9	3.6	90	34	1
724 8449685	L	9750	14.5	3.7	91	33	1
708 85-Y-342	L	9740	13.6	3.7	95	38	3
713 85-Y-370	L	9720	14.9	3.3	100	38	18
712 85-Y-363	L	9710	14.4	3.6	97	38	1
706 85-Y-321	L	9700	14.8	3.7	91	37	1
726 California Belle	L	9700	13.9	3.5	92	41	9
717 85-Y-407	L	9670	15.6	3.7	97	35	1
714 85-Y-377	L	9650	15.5	3.7	96	41	13
704 85-Y-304	L	9590	15.1	3.0	99	36	1
705 85-Y-305	L	9550	14.1	3.2	97	36	1
702 M-201	M	9450	16.1	3.8	96	36	1
723 8433542	L	9440	14.4	3.3	95	35	1
722 8433174	L	9310	13.4	3.4	90	36	1
719 8431177	L	8960	14.0	4.1	90	39	1
715 85-Y-404	L	8860	15.3	3.5	97	32	1
721 8433041	L	8750	14.0	3.5	96	28	1
720 8432029	L	8630	14.9	2.6	99	36	1
718 8431171	L	8560	14.1	3.9	91	40	1
Grand Mean		9590	14.6	3.6	95	36	3
CV		4.3	3.1	4.9	2.2	3.6	219.3
LSD (.05)		580	0.6	0.2	3	2	9

Location: District 108
Planting date: May 9, 1986

¹S = short; M = medium; L = long; W = waxy.

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

³Subjective rating of 1-99 where 1 = none and 99 = 99% lodged.

Table 23. 1986 long grain rice variety trial - two location summary (Butte and Yolo counties).

Variety	Grain ¹ type	Grain yield @14% moisture (lbs/a)	Grain moisture at harvest (%)	Seedling ² vigor (1-5)	Days to 50% heading	Plant height (in)	Lodging ³ (1-99)
709 85-Y-349	L	10330	15.4	4.2	93	35	1
703 85-Y-296	L	10120	12.4	4.4	90	37	1
711 85-Y-354	L	9960	13.3	4.3	91	32	2
710 85-Y-353	L	9850	13.3	4.3	88	32	1
705 85-Y-305	L	9830	14.1	3.8	92	35	1
708 85-Y-342	L	9820	12.9	4.3	91	37	2
701 L-202	L	9810	16.0	4.3	94	32	1
706 85-Y-321	L	9790	14.6	4.0	87	36	1
702 M-201	M	9790	17.1	4.3	93	36	1
714 85-Y-377	L	9710	15.6	4.3	94	39	8
704 85-Y-304	L	9700	14.1	3.6	92	35	1
712 85-Y-363	L	9650	14.1	4.2	93	37	4
716 85-Y-406	L	9630	15.4	4.2	94	33	1
725 8449988	L	9560	14.6	4.3	89	37	16
724 8449685	L	9480	14.0	4.3	88	32	1
713 85-Y-370	L	9460	14.1	3.9	96	37	9
707 85-Y-338	L	9430	13.3	4.2	87	32	1
717 85-Y-407	L	9370	14.8	4.3	93	33	1
723 8433542	L	9260	12.8	4.1	89	34	1
722 8433174	L	9020	12.2	4.1	85	35	1
719 8431177	L	8790	13.0	4.5	87	39	10
715 85-Y-404	L	8730	12.8	4.0	92	30	1
720 8432029	L	8720	13.7	3.6	93	35	1
721 8433041	L	8610	12.7	4.1	91	28	1
718 8431171	L	8430	13.5	4.5	87	40	10
Grand Mean		9470	14.0	4.2	91	35	3
CV		4.9	8.1	3.8	1.9	3.6	246.0
LSD (.05)		460	1.1	0.2	2	1	8

¹S = short; M = medium; L = long; W = waxy.

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

³Subjective rating of 1-99 where 1 = none and 99 = 99% lodged.

Table 24. Performance summary of the short and medium grain early special rice experimental lines and varieties, Butte County, 1986.

Variety	Grain ¹ type	Grain yield @14% moisture (lbs/a)	Grain moisture at harvest (%)	Seedling ² vigor (1-5)	Days to 50% heading	Plant height (in)	Lodging ³ (1-99)
761 P-1477	M	11120	19.8	4.8	95	37	1
768 P-965	S	10740	20.8	5.0	101	38	1
769 P-984	S	10690	17.9	5.0	93	38	1
773 4-A-23(Y-196)	S	10660	20.0	4.9	98	37	1
774 Y-225	S	10560	17.1	5.0	97	37	5
767 P-937	S	10550	19.2	5.0	100	34	1
766 P-798	W	10550	18.2	4.9	95	37	25
754 P-62	M	10550	17.8	5.0	92	37	45
755 P-137	M	10530	15.7	5.0	88	35	34
758 P-1348	M	10510	17.7	5.0	95	37	1
771 4-A-14(Y-204)	S	10420	18.5	5.0	99	36	1
765 Y-265	M	10410	19.1	5.0	94	38	18
770 P-1052	S	10350	17.8	5.0	96	35	1
760 P-1457	M	10330	18.7	4.9	89	35	6
764 Y-236	M	10220	16.3	5.0	89	35	28
763 Y-187	M	10020	18.4	5.0	93	38	38
752 M-202	M	9860	18.1	5.0	91	37	52
753 P-21	M	9750	17.7	5.0	91	39	59
775 Y-230	S	9550	17.3	5.0	90	37	42
757 P-1328	M	9310	16.7	5.0	89	37	64
756 P-215	M	9310	16.4	5.0	89	37	52
751 M-101	M	9300	15.6	5.0	84	37	57
772 4-A-21(Y-194)	S	9270	17.0	5.0	91	37	64
759 P-1453	S	9120	19.7	5.0	98	40	44
762 4-A-6	M	8890	16.5	5.0	91	39	92
Grand Mean		10100	17.9	5.0	93	37	29
CV		6.9	5.3	1.0	2.0	3.1	78.8
LSD (.05)		990	1.3	0.1	3	2	33

Location: Rice Experiment Station, Biggs

Planting date: Replications 1 and 2, May 6, 1986; Replications 3 and 4, May 21, 1986.

Data is average of two replications.

¹S = short; M = medium; L = long; W = waxy.

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

³Subjective rating of 1-99 where 1 = none and 99 = 99% lodged.

Table 25. Performance summary of the short and medium grain early special rice experimental lines and varieties, Colusa County, 1986.

Variety	Grain ¹ type	Grain yield @14% moisture (lbs/a)	Grain moisture at harvest (%)	Seedling ² vigor (1-5)	Days to 50% heading	Plant height (in)	Lodging ³ (1-99)
752 M-202	M	10270	23.7	3.4	97	37	1
754 P-62	M	10190	23.8	3.3	96	37	1
765 Y-265	M	10180	23.8	3.0	98	38	1
763 Y-187	M	10180	23.6	3.5	96	39	1
768 P-965	S	10090	25.6	3.5	99	39	1
753 P-21	M	9910	23.5	2.9	96	39	1
759 P-1453	M	9810	23.6	3.3	97	40	1
764 Y-236	M	9790	23.6	3.6	96	37	1
762 4-A-6	M	9780	24.0	2.5	97	35	29
761 P-1477	S	9730	24.1	2.2	99	37	1
767 P-937	S	9660	25.6	3.1	99	37	1
771 4-A-14(Y-204)	S	9630	25.4	3.5	98	36	1
766 P-798	S	9530	25.0	2.6	96	37	1
770 P-1052	S	9480	25.3	3.7	97	37	1
773 4-A-23(Y-196)	S	9440	25.6	3.5	99	36	1
755 P-137	M	9370	23.5	3.6	96	37	1
776 85-Y-149	S	9340	23.5	3.3	96	38	1
758 P-1348	M	9340	23.4	3.7	96	37	1
757 P-1328	M	9310	23.5	3.3	96	38	3
775 Y-230	S	9300	25.0	3.5	91	35	1
769 P-984	S	9190	25.3	3.5	98	41	1
756 P-215	M	9140	22.2	3.1	91	38	1
772 4-A-21(Y-194)	S	9120	25.4	3.8	93	37	1
760 P-1457	M	9030	23.9	3.2	97	36	1
774 Y-225	S	9010	25.3	3.5	97	36	1
751 M-101	M	8760	23.0	3.7	89	37	1
Grand Mean		9560	24.2	3.3	96	95	2
CV		5.0	1.1	7.2	1.4	4.1	228.7
LSD (.05)		680	0.4	0.3	2	2	7

Location: Grimes

Planting date: April 30, 1986

¹S = short; M = medium; L = long; W = waxy.

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

³Subjective rating of 1-99 where 1 = none and 99 = 99% lodged.

Table 26. 1986 short and medium grain variety trial - two location summary (Butte and Colusa counties).

Variety	Grain ¹ type	Grain yield @14% moisture (lbs/a)	Grain moisture at harvest (%)	Seedling ² vigor (1-5)	Days to 50% heading	Plant height (in)	Lodging ³ (1-99)
761 P-1477	M	10430	22.0	3.5	97	37	1
768 P-965	S	10420	23.2	4.2	100	38	1
754 P-62	M	10370	20.8	4.2	94	37	23
765 Y-265	M	10300	21.5	4.0	96	38	10
767 P-937	S	10110	22.4	4.1	100	35	1
763 Y-187	M	10100	21.0	4.2	94	39	20
752 M-202	M	10060	20.9	4.2	94	37	27
773 4-A-23(Y-196)	S	10050	22.8	4.2	98	36	1
766 P-798	S	10040	21.6	3.8	95	37	13
771 4-A-14(Y-204)	S	10030	21.9	4.3	98	36	1
764 Y-236	M	10000	20.0	4.3	92	36	15
755 P-137	M	9950	19.6	4.3	92	36	18
769 P-984	S	9940	21.6	4.2	95	40	1
758 P-1348	M	9920	20.5	4.3	96	37	1
770 P-1052	S	9920	21.5	4.3	96	36	1
753 P-21	M	9830	20.6	4.0	94	39	30
774 Y-225	S	9780	21.2	4.3	97	36	3
760 P-1457	M	9680	21.3	4.0	93	36	3
759 P-1453	M	9470	21.7	4.2	97	40	23
775 Y-230	S	9430	21.2	4.3	90	36	21
762 4-A-6	M	9330	20.3	3.8	94	38	60
757 P-1328	M	9310	20.1	4.2	92	37	34
756 P-215	M	9220	19.3	4.1	90	37	26
772 4-A-21(Y-194)	S	9190	21.2	4.4	92	37	32
751 M-101	M	9030	19.3	4.3	87	37	29
Grand Mean		9840	21.1	4.1	95	37	16
CV		6.1	3.3	4.2	1.7	3.7	106.1
LSD (.05)		590	0.7	0.2	2	2	16

¹S = short; M = medium; L = long; W = waxy.

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

³Subjective rating of 1-99 where 1 = none and 99 = 99% lodged.