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**PROJECT TITLE:** Cooperative Extension Rice Variety Adaptation and Cultural Practice Research

**PROJECT LEADERS:**

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**OBJECTIVES AND EXPERIMENTS CONDUCTED BY LOCATION TO ACCOMPLISH OBJECTIVES:**

**Objective I**

To evaluate newly developed cultivars and existing varieties in on-farm trials under grower conditions in cooperation with the Rice Experiment Station for the purpose of new variety development and release: Cultivar trials were conducted by maturity group (3) at different locations in the Sacramento and San Joaquin Valleys. Several experimental cultivars were compared at each location within these groups to evaluate their performance in different environments of the rice-growing region.

**Very Early Maturity Group** - Two uniform trials were conducted at each of the following on-farm sites: the Brumley Ranch (San Joaquin County), the Lauppe Ranch (Sutter County), and the Erdman Ranch (District 108, Yolo County). Two additional tests were conducted at the Rice Experiment Station (RES) in Butte County. The Advanced test at each site included eighteen entries (eight commercial varieties and ten advanced breeding lines) in four replications. The Preliminary test included thirty-two entries, all preliminary breeding lines in two replications.

**Early Maturity Group** - two uniform tests were conducted at each of the following on-farm sites: the Rystrom Ranch (Butte County), the Dennis Ranch (Colusa County), and the Quad 4 Ranch (District 10, Yuba County). Two additional trials, Advanced and Preliminary, were conducted at the RES. The Advanced test at each site included twenty-one entries (eleven commercial varieties and ten advanced breeding lines) in four replications. The Preliminary test included thirty breeding lines in two replications.

**Intermediate and Late Maturity Group** - two uniform tests were conducted at each of the following on-farm sites: the Wiley Ranch (Glenn County) and the Akin Ranch (Sutter Basin,

Sutter County). Two additional tests were conducted at the RES. The Advanced test at each site included fourteen entries (six commercial varieties and eight advanced breeding lines) in four replications. The second test consisted of twenty preliminary breeding lines in two replications.

## **Objective II**

To provide research on more efficient cultural practices: The Rice Systems Project was continued at the RES.

Bakanae and blast studies were conducted in Sutter and Colusa counties. Detailed studies on rice growth and development were conducted at two of the variety test sites to evaluate and develop a temperature-based degree day program for California rice.

## **Objective III**

To maintain an Extension-based pool of research equipment for planting, fertilizing, treatment application, and harvesting rice and to provide professional technical assistance to UC research project leaders engaged in rice research.

To provide professional technical assistance to other UC research project leaders we assisted in approximately 40 trials including the 16 variety tests. Equipment from the UCCE-based pool for planting, fertilizing and harvesting field experiments was used at more than 25 sites at different times during the season. The most heavily used equipment was the harvester followed by the Clampco precision fertilizer rig. We also continued with the prescribed maintenance program for the SWECO plot combine..

## **Objective IV**

We disseminated research-based information to California rice producers, dryer operators, millers and the general public through winter grower meetings (5), field demonstrations (3), the Rice Production Workshop (1-Stockton) and the Weed Resistance Management Workshop (2-Colusa, Yuba City), personal communication, and the publication and distribution of fact sheets and other printed material. We printed the Rice Field Day Program. We also maintained and updated the UCCE rice website.

## **SUMMARY OF 2005 RESEARCH BY OBJECTIVE**

### **Objective I - Rice Variety Evaluation**

Eight uniform advanced breeding line trials and eight preliminary breeding line trials were conducted throughout the major rice producing areas of California. The rice breeders at the RES conducted six additional tests, two from each of the three maturity groups. Many of the experimental lines have been tested and screened in previous years and many lines were in advanced stages (2 or more years) of testing. The RES provided the seed for public varieties and experimental cultivars. No proprietary lines were tested.

The following analyses provide single-location yield summaries for the advanced line tests and over-location agronomic performance summaries for each entry in each maturity category. For quick reference, grain yields of commercially available varieties tested in very early, early and late tests across years and locations are summarized in Tables 6, 12 and 17. An Agronomy Progress Report, to be published later this year, will provide agronomic performance results for all entries in each experiment.

**Very Early Maturity Tests** (< 90 days to 50% heading at Biggs) - Ten advanced breeding lines and eight commercial varieties were compared in four very early advanced tests. Commercial varieties at each location included S-102, CM-101, M-103, M-104, M-202, M-206, L-204, and L-205. Thirty-two cultivar lines were tested in the preliminary trails at each location.

Grain yields in the advanced tests averaged 7980 lb/ac at the Biggs-RES, 7650 lb/ac at San Joaquin, 7410 lb/ac at Sutter, and 9330 lb/ac at Yolo (Table 5). Over all locations, the highest yielding entry on average was the advanced long grain 99Y041 (8780 lb/ac) followed by short grain S-102 (8690 lb/ac), advanced short grain 04Y206 (8400 lb/ac), and L-205 (8390 lb/ac). Other top yielding commercial varieties M-206, M-202, CM-101, and L-204 (ranked eighth, eleventh, twelfth, and thirteenth, respectively). Averaged across locations, yields in the preliminary tests ranged from 6570 to 8730 lb/ac (Table 5). Days to 50% heading for most varieties in 2005 were 2-5 days less than in 2004. A significant percentage of the rice acreage was planted later than normal due to frequent spring rains that delayed field preparation. An unusual two weeks of temperatures in excess of 100 °F in July also shortened the days to 50% heading. Average lodging scores across all four locations were similar to the 2003-04 seasons. Over a 5-year period and across locations, S-102 was the highest yielding variety followed by M-206 at 9653 lbs/ac and 9326 lbs/ac respectively (Table 6).

**Early Maturity Tests** (90-97 days to 50% heading at Biggs) – Ten advanced lines and eleven commercial varieties were compared in four early tests. Thirty preliminary lines were also evaluated in separate tests at each location. Commercial varieties at each location were CH-201, CM-101, S-102, M-202, M-204, M-205, M-206, M-207, CT-201, L-204, and L-205.

Yields in the advanced line tests averaged 7780 lb/ac at the RES; 8070 lb/ac at Colusa, and 7550 lb/ac at Yuba (Table 11). Butte county yields were not included in the over locations yield average due to heavy bird damage. Caution should be used when viewing the Butte single location yield data (Table 8). The advanced Newrex type long grain 01Y655 was the highest yielding entry (8490 lb/ac) when averaged over three locations in 2005 (Table 11). Other consistently high yielding entries were M-205, 99Y529, 99Y041, L-205, M-204, and M-206, all ranking within the top ten at two of the three locations. The yield of commercial varieties M-205, L-205, M-204, M-206, L-204, CH-201, S-102, M-202, M-207, CT-201, and CM-101 ranked second, fifth, seventh, eighth, ninth, fifteenth, sixteenth, seventeenth, eighteenth, twentieth, and twenty-first over all locations (Table 11). Average days to 50% heading ranged from 77 days at in the Yuba County test to 89 days at the Colusa County site. The commercial standard M-202 headed at 77 days at the RES and 91 days at Colusa. As in the very early tests, days to 50% heading were 2-13 days less than in 2004. M-205 was the highest yielding commercial variety (9529 lb/ac) followed by M-206 (9118 lb/ac) when averaged over the last five years and across locations (Table 12).

**Intermediate-Late Maturity Tests** (> 97 days to 50% heading at Biggs) - Eight advanced lines and six commercial varieties were compared in three intermediate-late tests. Twenty preliminary lines were also evaluated in separate tests at each location. Commercial varieties at each location included L-205, CT-201, CH-201, M-202, M-205, and M-402.

Average yields in the advanced tests were 9170 lb/ac at the RES, 7960 lb/ac at Glenn, and 9100 lb/ac at Sutter (Tables 16). The 2005 over location average yield was 1400 lb/ac less compared to the 2004 season. M-205 was the highest yielding commercial variety (10,040 lb/ac at Sutter) but ranked fourth over all. M-202 and L-205 were the next highest yielding commercial varieties across locations (Table 16). Long grain Newrex entry 03Y151 was the highest yielding advanced entry across locations, at 9470 lb/ac. Days to 50% heading ranged from 81 days at the Sutter County site to 89 days at the Glenn County and the RES locations. The environmental conditions described above had a similar effect of decreasing the number of days to 50% heading an average of 6 days compared to 2004. M-402 required the longest time to head among the commercial varieties at all locations, (average 102 days). The high temperatures in July could not compensate for the delayed planting dates of M-402, thus days to 50% heading actually increased four days compared to 2004.

Averaged over the last five years and across locations, M-205 was the highest yielding (9930 lb/ac) commercial variety (Table 17). M-205 and M-402 produced 107% and 98%, respectively, of the yield of M-202 on average over the last 5 years (Table 17).

## **Objective II - Cultural Practices**

**Rice Growth and Development Studies:** Rice degree day phenology models are not widely utilized for scheduling field management decisions in California. Degree day models developed for California are 10-15 years old and need to be updated and modernized to improve user access. The DD50 model, used extensively in the Southern states, may need to be modified for use in California. The purpose of this study is to collect morphologically accurate phenological data for the two most commonly grown medium grain rice cultivars in the Sacramento Valley.

The initial field studies were conducted in 2005 in commercial fields located at the southern and northern ends of the Sacramento valley. Two medium grain Calrose cultivars, M202 and M206, were grown in replicated plots at the two sites. The plots were direct seeded by hand into a continuously flooded field environment. The northern Butte county (warmer) site was planted 24 days later than the cooler Sutter county site. Water and air temperatures were recorded at both sites from planting to grain maturity. The Council 'Uniform, Objective, and Adaptive System for Expressing Rice Development' was used to record leaf and reproductive stage development.

Initial results indicate that the rate of leaf development was similar for both cultivars at each site. However, the delayed planting date at Butte increased the daily accumulation of degree day (DD) heat units available for leaf development and reduced days to 4<sup>th</sup> leaf by two days compared to the Sutter site. The degree days required from 4<sup>th</sup> leaf to flag leaf were similar for both cultivars at both sites. At the Butte site, M206 reached 50% heading (DTH) 7 days earlier and with 170 fewer DD units than M202. At the Sutter site, M206 only had a two day DTH and a 60 DD advantage. Both cultivars required a similar number of DD to reach stage R9 (all grains are brown colored) at Sutter while M206 needed significantly fewer DD than M202 to reach

stage R9 at Butte. Degree day accumulation and the duration of daily temperatures within the growing limits will influence the number of days required to reach specific stages of rice development.

**Stand Establishment Trials:** In 2004 we established a long term site at the RES to investigate the influence of different stand establishment methods on rice seedling establishment and weed resistance management. Since these stand establishment methods require different water management practices, in the case of no- or minimum-till substantial drains, we included N management as a factor to evaluate N use efficiency in each system. The five primary treatments are 1) conventional water seeded, 2) conventional drill seeded, 3) spring tilled delayed water seeding, 4) no spring till water seeding, and 5) no spring till drill seeding. Treatments 3-5 are pre-irrigated and treated with glyphosate (Roundup) to kill the initial flush of weeds. Seasonal weed/herbicide treatments are made as necessary and reported by the weed group. Different N rates were applied in subplots within each stand establishment method. In the water seeded and delayed water seeded spring till treatments, N was applied preplant incorporated as per conventional practices. The conventional drill seeded and the two no spring till plots were fertilized with a combination of top dress applications. Particularly in the no spring till treatments (4 and 5), the objective was avoid bringing weed seed to the surface by incorporation of N. In the main field treatments which all received 150 lb N/ac yields were relatively lower than in 2004 but the general trend was similar to what was observed in 2004 (Table 18). In both years the highest yields were in the conventional direct seeded treatment (T2) and the lowest yields were in the spring tilled delayed water seeded treatment (T3). Optimum N rates differed with the stand establishment method. The reason for the difference between T2 and T3 was N, as similar yields were obtained between the two treatments when 200 lb N/ac was applied to T3 (Fig.1). The early season flush of water to germinate weeds may have resulted in high native N losses compared to the conventionally water seeded treatment. In the conventional drill seeded and the two no spring till treatments similar yields were obtained when 100 lb N/ac or 150 lb N/ac was applied. Where it was measured, there did not appear to be a benefit of splitting the application. The impact of these treatments on weed management is reported in RP-1.

### **Objective III - Assistance to Other Projects**

We continued the maintenance program for the UC SWECO plot combine. Following a major overhaul in 2001, an annual maintenance was established to ensure combine durability and performance. All items listed in the fourth year maintenance schedule were inspected and replaced as needed.

The rice equipment pool, including a precision Clampco fertilizer applicator, SWECO 324 plot combine, moisture meters, backpack CO<sub>2</sub> sprayers, and other equipment were used along with personnel who provided technical assistance for numerous field experiments in 2005. The Clampco precision fertilizer applicator was used for the Rice Tillage Study at the RES. The SWECO 324 plot combine was used to harvest sixteen variety trials, four rice water temperature tests, two Bakanae trials, four fungicide experiments, a blast strip trial, and an entomology test. Over 2400 experimental plots were harvested in 2005. In addition to

equipment assistance to other projects, labor from this project was used to plant, collect samples, and monitor growth in several field and greenhouse experiments. Project personnel also applied fertilizer treatments and collected leaf samples for nitrogen analysis at the RES Systems Study site. Assistance was also provided to the annual RES Rice Field Day and the annual rice breeder's field tour.

#### **Objective IV - Publication and Distribution of Rice Research Information**

The following extension education materials were designed, formatted and printed with support from this project:

1. Annual Report Comprehensive Rice Research 2005. University of California and USDA, in electronic version only. This report is placed on the RRB website. To keep continuity with all previous RRB reports printed in hard copy, the UC Davis library has links to the RRB website.
2. Rice Field Day Program, 2005 for the California Cooperative Rice Research Foundation, RES, 55 pp.
3. The UCCE website was updated.
4. The UCCE Rice Production Workshop was given one in Stockton. The Weed Resistance Management Workshop was given in Colusa and Yuba City for the first time.
5. Five UCCE winter grower meetings were held in the Sacramento and San Joaquin valleys.
6. A quick reference guide entitled "Herbicide Resistance Stewardship in Rice" was produced and distributed to all rice growers.

#### **Publications and Reports:**

1. MJ Moechnig, AJ Fischer, JE Hill, S Bickley, JW Eckert, R. Wennig, RG Mutters and CA Greer. Herbicide resistance management systems in rice using alternative stand establishment techniques. Presented at the Rice Field Day, 31 August 2005, California Cooperative Rice Research Foundation, Inc. USDA-University of California, P.O. Box 306, Bigg, CA 95917-0306. p. 20-24.
2. MJ Moechnig, AJ Fischer, JE Hill, S Bickley, JW Eckert, R. Wennig, RG Mutters and CA Greer. Managing herbicide resistance using alternative rice establishment techniques. Presented at the Rice Field Day, 31 August 2005, California Cooperative Rice Research Foundation, Inc. USDA-University of California, P.O. Box 306, Biggs, CA 95917-0306. p. 19-20.
3. Hill JE, RG Mutters, CA Greer, LD Godfrey, AJ Fischer and RL Wennig. 2005. Rice Production Workshop Manual. Revised 2005. 132 pp.
4. Hill, JE, WM Canevari, CA Greer, RG Mutters and RL Wennig. 2005. University of California Cooperative Extension (UCCE) rice variety adaptation and cultural practices research. *In* Annual Report Comprehensive Rice Research 2004. University of California and USDA. 11 pp (available in e-version only).

1. Fischer AJ, M Moechnig, JE Hill and RG Mutters. Strategic concepts for herbicide resistance management in California rice. 2004. In: Proceedings of the Conference—challenges and Opportunities for Sustainable Rice-Based Production Systems. Edizioni Mercurio, Vercelli, IT, Torino Italy. 13-15 Sept., p. 69-74.
2. Hill, JE, JF Williams, RG Mutters and CA Greer. 2004. The California rice cropping system: Agronomic and natural resource issues for long-term sustainability. In: Proceedings of the Conference—Challenges and Opportunities for Sustainable Rice-Based Production Systems. Edizioni Mercurio, Vercelli, IT, Torino Italy. 13-15 Sept., p. 85-99.
3. Hill, JE, AJ Fischer, CA Greer and RG Mutters. 2005. Herbicide resistance stewardship in rice. UCCE publication. University of California, Davis. April 2005. 2pp.

### **CONCISE GENERAL SUMMARY OF CURRENT YEAR'S RESULTS:**

Sixteen on-farm rice variety evaluation trials were conducted throughout the rice growing region of California, with standard varieties compared to preliminary and advanced lines across a range of environments, cultural practices and disease levels. Six similar tests were conducted at the RES in Biggs, CA. Average yields across varieties and locations in the advanced line tests ranged from 8,090 lb/acre in the very early trials to 7,800 lb/acre in the early tests. In the intermediate to late test the advanced lines yielded over 8,660 lb/acre. Similar to the exceptionally wet 2003 planting season, the 2005 season resulted in reduced acres planted and lowered average yields. A two week period of 100 °F + temperatures helped shorten the days to harvest but may have had a negative effect on yield. Statewide, yields averaged 7,300 lb/ac on 511,000 planted acres. Several advanced lines in 2005 produced high yields as well as representing important breeding goals aside from yield (disease resistance, grain quality, specialty types, etc.). Testing advanced and preliminary lines under a variety of conditions remains a critical aspect of releasing varieties adapted to changing cultural practices, markets and pests.

A long term experiment on rice stand establishment was continued at the RES. Five different methods of stand establishment were evaluated for their impact on weed management. Two no-till treatments and one spring-tilled stand establishment treatment were treated with glyphosate (Roundup) to remove germinated weeds prior to planting. Weed control in the no-till water seeded treatment was greatly reduced. Pendimethlin (Prowl) was used in the drill treatments thus introducing another herbicide as an alternative to combat weed resistance (and lower herbicide costs). Because N management is expected to change with these stand establishment methods we tested various rates and timing of N application. It is clear that N losses can be high where water is removed.

Project RM-2 was involved in the planting, sampling and harvesting of more than 40 trial sites throughout the rice growing areas. This project also was also involved in several educational activities including the winter rice grower meetings, the rice production workshop, the UCCE rice website, rice field day, newsletters, fact sheets and other publications.

Table 1. 2005 Very Early Rice Variety Test - Biggs (RES)

<i>Advanced Lines and Varieties</i>							
Variety	Grain Type	Grain Yield at 14% Moisture lbs/acre	Grain Moisture at Harvest (%)	Seedling Vigor (1-5)	Days to 50% Heading	Lodging (1-99)	Plant Height (cm)
L-205	REX	8920 (1)	14.8 (10)	4.7 (13)	84 (18)	6 (5)	94 (8)
99Y041	L	8840 (2)	14.7 (11)	4.6 (16)	81 (16)	21 (7)	99 (16)
04Y508	L	8840 (3)	16.0 (3)	4.6 (17)	81 (16)	1 (2)	100 (17)
03Y467	REX	8670 (4)	13.8 (15)	4.8 (8)	73 (5)	5 (4)	93 (7)
99Y469	L	8400 (5)	14.0 (13)	4.7 (15)	76 (13)	25 (8)	91 (4)
S-102	S	8350 (6)	12.6 (18)	4.9 (1)	72 (3)	45 (12)	95 (9)
L-204	L	8140 (7)	13.8 (14)	4.8 (3)	79 (15)	1 (1)	90 (2)
03Y254	M	8140 (8)	15.8 (5)	4.5 (18)	72 (3)	42 (10)	102 (18)
04Y198	SPQ	8070 (9)	15.4 (7)	4.7 (11)	75 (11)	14 (6)	91 (3)
04Y206	S	8040 (10)	13.7 (16)	4.8 (9)	75 (11)	31 (9)	95 (10)
M-206	M	7970 (11)	16.8 (1)	4.7 (11)	73 (6)	48 (13)	96 (12)
03Y166	SPQ	7860 (12)	15.3 (8)	4.7 (13)	74 (10)	1 (2)	85 (1)
01Y185	SPQ	7700 (13)	13.0 (17)	4.8 (5)	72 (2)	60 (16)	91 (4)
03Y804	M	7620 (14)	15.4 (6)	4.8 (5)	74 (7)	43 (11)	97 (13)
M-202	M	7560 (15)	15.9 (4)	4.9 (2)	78 (14)	65 (18)	98 (15)
M-103	M	7460 (16)	16.3 (2)	4.8 (9)	74 (8)	60 (17)	97 (14)
CM101	WX	7220 (17)	14.9 (9)	4.8 (3)	74 (8)	53 (14)	95 (10)
M-104	M	5860 (18)	14.2 (12)	4.8 (5)	69 (1)	53 (14)	93 (6)
MEAN		7980	14.8	4.7	75	32	94
CV		8.9	5.3	2.6	2.6	60.4	4.4
LSD (.05)		1010	1.1	0.2	3	27	6
<i>Preliminary Lines and Varieties</i>							
01Y655	REX	9720 (1)	16.5 (5)	4.8 (9)	86 (32)	2 (5)	100 (21)
04Y501	REX	8970 (2)	15.1 (16)	4.8 (12)	79 (30)	4 (7)	105 (32)
03Y177	S	8780 (3)	14.1 (28)	4.7 (21)	73 (7)	59 (28)	91 (7)
02Y565	LSR	8760 (4)	15.5 (13)	4.6 (26)	82 (31)	1 (2)	100 (22)
02Y516	L	8730 (5)	15.8 (12)	4.8 (11)	76 (18)	20 (12)	104 (31)
04Y378	M	8720 (6)	17.0 (3)	4.7 (24)	77 (19)	45 (21)	100 (22)
04Y492	L	8710 (7)	16.0 (9)	4.7 (21)	79 (29)	2 (5)	100 (22)
04Y523	L	8430 (8)	14.5 (25)	4.8 (17)	78 (24)	19 (11)	99 (19)
04Y506	L	8390 (9)	15.5 (13)	4.8 (9)	77 (22)	1 (2)	89 (4)
04Y220	WX	8370 (10)	17.3 (1)	4.5 (30)	78 (24)	21 (13)	96 (13)
04Y332	MPQ	8280 (11)	16.4 (6)	4.8 (12)	74 (13)	33 (18)	103 (29)
03Y164	SPQ	8210 (12)	14.0 (30)	4.7 (21)	79 (27)	30 (16)	95 (10)
03Y454	L	8000 (13)	16.2 (7)	4.4 (31)	79 (28)	2 (4)	93 (8)
04Y855	M	7890 (14)	16.6 (4)	4.9 (2)	72 (6)	59 (28)	102 (28)
04Y286	M	7890 (15)	16.1 (8)	4.7 (18)	74 (13)	56 (26)	96 (14)
04Y999	M	7890 (16)	14.9 (18)	4.8 (12)	73 (11)	5 (9)	95 (12)
04Y837	M	7830 (17)	15.9 (10)	4.8 (12)	72 (5)	57 (27)	103 (30)
04Y817	M	7680 (18)	14.7 (21)	4.9 (5)	69 (1)	46 (22)	97 (15)
04Y827	M	7670 (19)	15.5 (13)	4.9 (2)	73 (7)	31 (17)	101 (25)
04Y816	M	7620 (20)	14.1 (28)	4.9 (6)	73 (10)	6 (10)	101 (25)
04Y213	WX	7610 (21)	14.8 (20)	4.7 (18)	78 (24)	51 (23)	87 (2)
04Y857	M	7610 (22)	15.8 (11)	4.8 (12)	74 (12)	34 (20)	99 (20)
04Y252	M	7520 (23)	14.9 (19)	4.3 (32)	75 (16)	33 (18)	98 (17)
04Y926	M	7510 (24)	15.0 (17)	4.9 (6)	71 (4)	54 (25)	97 (16)
04Y247	M	7460 (25)	14.0 (30)	4.6 (26)	73 (7)	25 (14)	91 (5)
03Y167	SPQ	7300 (26)	14.6 (22)	4.9 (2)	75 (17)	4 (7)	91 (5)
04Y177	SPQ	7090 (27)	13.8 (32)	4.6 (28)	74 (13)	51 (23)	88 (3)
04Y227	M	7000 (28)	14.5 (25)	4.7 (24)	69 (2)	65 (31)	102 (27)
03Y308	MPQ	6930 (29)	17.1 (2)	4.6 (29)	77 (19)	64 (30)	95 (10)
03Y485	BAS	6790 (30)	14.6 (22)	4.9 (1)	77 (22)	1 (1)	98 (17)
03Y170	SPQ	6780 (31)	14.6 (22)	4.9 (6)	77 (21)	75 (32)	86 (1)
04Y234	M	6610 (32)	14.1 (27)	4.7 (18)	70 (3)	28 (15)	94 (9)
MEAN		7900	15.3	4.7	75	31	97
CV		8.2	5	3.5	2.4	64.8	3.7
LSD (.05)		910	1.1	0.2	3	28	5

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

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

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

Numbers in parentheses indicate relative rank in column.



Table 2. 2005 Very Early Rice Variety Test - Sutter Co.

<i>Advanced Lines and Varieties</i>							
Variety	Grain Type	Grain Yield at 14% Moisture lbs/acre	Grain Moisture at Harvest (%)	Seedling Vigor (1-5)	Days to 50% Heading	Lodging (1-99)	Plant Height (cm)
S-102	S	8510 (1)	16.5 (12)	5.0 (1)	80 (1)	93 (14)	98 (14)
04Y206	S	7880 (2)	17.2 (9)	4.7 (13)	81 (3)	95 (17)	94 (6)
M-104	M	7800 (3)	19.8 (4)	5.0 (5)	81 (5)	58 (8)	96 (10)
99Y041	L	7720 (4)	16.5 (11)	5.0 (1)	90 (15)	64 (10)	94 (7)
01Y185	SPQ	7640 (5)	20.0 (3)	4.7 (13)	83 (8)	79 (11)	95 (8)
M-206	M	7570 (6)	16.4 (13)	4.9 (6)	86 (11)	97 (18)	99 (17)
L-205	LREX	7440 (7)	16.0 (15)	4.9 (7)	97 (18)	6 (4)	96 (10)
04Y198	SPQ	7380 (8)	21.0 (2)	4.5 (17)	82 (7)	12 (6)	91 (2)
03Y254	M	7340 (9)	16.5 (10)	4.8 (8)	85 (10)	95 (16)	99 (16)
99Y469	L	7310 (10)	13.0 (17)	4.6 (16)	87 (14)	94 (15)	91 (4)
03Y166	SPQ	7270 (11)	22.2 (1)	4.7 (15)	81 (5)	5 (2)	91 (2)
03Y804	M	7260 (12)	18.9 (6)	4.8 (12)	83 (9)	7 (5)	102 (18)
M-202	M	7220 (13)	16.1 (14)	4.8 (8)	87 (12)	91 (13)	97 (12)
CM101	SWX	7090 (14)	18.0 (8)	5.0 (1)	81 (3)	90 (12)	98 (15)
M-103	M	7040 (15)	19.6 (5)	5.0 (1)	81 (2)	50 (7)	97 (13)
L-204	L	6980 (16)	15.5 (16)	4.8 (8)	93 (16)	2 (1)	92 (5)
03Y467	LREX	6950 (17)	13.0 (18)	4.8 (8)	87 (12)	59 (9)	89 (1)
04Y508	L	6930 (18)	18.4 (7)	4.2 (18)	96 (17)	6 (3)	96 (9)
MEAN		7410	17.5	4.8	86	56	95
CV		5.2	7.2	4.2	1.6	30.2	2.5
LSD (.05)		550	1.8	0.3	2	24	3
<i>Preliminary Lines and Varieties</i>							
04Y220	SWX	8170 (1)	20.2 (3)	5.0 (1)	83 (11)	70 (22)	96 (13)
04Y247	M	8140 (2)	18.8 (5)	4.7 (24)	83 (11)	21 (16)	94 (7)
04Y177	SPQ	8040 (3)	18.0 (8)	5.0 (12)	81 (2)	92 (23)	90 (2)
04Y837	M	7940 (4)	17.6 (14)	5.0 (1)	82 (5)	50 (20)	103 (31)
04Y213	SWX	7870 (5)	14.8 (28)	5.0 (1)	83 (14)	93 (26)	91 (4)
04Y827	M	7870 (6)	16.9 (19)	5.0 (1)	85 (18)	38 (18)	99 (22)
04Y234	M	7860 (7)	20.0 (4)	4.9 (14)	81 (2)	1 (1)	97 (16)
04Y816	M	7850 (8)	18.4 (6)	5.0 (1)	82 (8)	16 (15)	100 (25)
04Y492	L	7770 (9)	18.0 (10)	5.0 (1)	91 (28)	1 (1)	100 (27)
04Y817	M	7690 (10)	17.2 (16)	5.0 (1)	82 (5)	33 (17)	99 (22)
04Y227	M	7620 (11)	16.0 (25)	4.9 (14)	83 (14)	92 (23)	100 (25)
03Y177	S	7490 (12)	16.6 (23)	4.7 (24)	81 (2)	93 (26)	95 (11)
04Y252	M	7490 (13)	17.7 (13)	4.6 (28)	83 (14)	5 (11)	92 (5)
03Y170	SPQ	7470 (14)	17.1 (18)	4.8 (21)	80 (1)	40 (19)	89 (1)
04Y855	M	7460 (15)	15.2 (27)	5.0 (1)	82 (8)	99 (30)	103 (32)
04Y378	M	7400 (16)	20.4 (2)	4.7 (24)	82 (8)	6 (12)	101 (28)
02Y565	LSR	7370 (17)	18.1 (7)	4.5 (29)	88 (26)	3 (9)	95 (11)
04Y501	LREX	7350 (18)	14.7 (29)	4.5 (29)	92 (30)	8 (13)	102 (29)
04Y506	L	7280 (19)	18.0 (11)	4.7 (27)	91 (29)	1 (1)	90 (2)
04Y286	M	7180 (20)	17.5 (15)	4.9 (13)	85 (19)	97 (28)	95 (10)
04Y857	M	7180 (21)	16.8 (21)	5.0 (1)	83 (11)	60 (21)	98 (19)
03Y167	SPQ	7060 (22)	21.3 (1)	5.0 (1)	82 (5)	2 (8)	92 (5)
01Y655	LREX	7050 (23)	16.7 (22)	4.9 (14)	96 (32)	3 (9)	99 (20)
04Y523	L	7020 (24)	13.0 (32)	4.5 (29)	90 (27)	8 (14)	97 (16)
04Y332	MPQ	7010 (25)	16.2 (24)	4.9 (14)	85 (19)	92 (23)	99 (20)
04Y999	M	6970 (26)	16.0 (26)	4.9 (14)	85 (19)	97 (29)	99 (22)
03Y164	SPQ	6940 (27)	18.0 (9)	4.8 (22)	83 (14)	1 (1)	96 (13)
02Y516	L	6930 (28)	16.9 (20)	4.9 (14)	87 (25)	1 (1)	102 (30)
04Y926	M	6870 (29)	14.5 (30)	4.9 (14)	86 (23)	99 (30)	97 (15)
03Y308	MPQ	6800 (30)	14.2 (31)	4.8 (22)	85 (19)	99 (30)	94 (8)
03Y454	L	6750 (31)	17.8 (12)	4.5 (29)	93 (31)	1 (1)	94 (8)
03Y485	LBAS	6560 (32)	17.1 (17)	5.0 (1)	86 (23)	1 (1)	97 (16)
MEAN		7390	17.2	4.8	85	41	96
CV		6.1	4.9	3.7	1.4	39.5	3.5
LSD (.05)		920	1.7	0.4	2	33	7

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

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

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

Numbers in parentheses indicate relative rank in column.

Table 3. 2005 Very Early Rice Variety Test - Yolo Co.

<i>Advanced Lines and Varieties</i>							
Variety	Grain Type	Grain Yield at 14% Moisture lbs/acre	Grain Moisture at Harvest (%)	Seedling Vigor (1-5)	Days to 50% Heading	Lodging (1-99)	Plant Height (cm)
99Y041	L	10290 (1)	15.9 (11)	5.0 (5)	89 (16)	3 (14)	108 (15)
M-202	M	9750 (2)	18.7 (1)	5.0 (5)	85 (14)	17 (18)	110 (18)
L-205	REX	9740 (3)	15.0 (17)	5.0 (1)	89 (16)	1 (1)	101 (7)
04Y508	L	9700 (4)	15.6 (13)	4.8 (15)	90 (18)	1 (1)	99 (6)
99Y469	L	9640 (5)	14.0 (18)	4.9 (14)	83 (12)	1 (1)	96 (3)
03Y467	REX	9600 (6)	15.3 (16)	4.9 (13)	83 (11)	1 (1)	97 (4)
M-206	M	9600 (7)	18.7 (2)	5.0 (5)	84 (13)	1 (1)	106 (14)
03Y254	M	9520 (8)	18.1 (5)	5.0 (5)	82 (9)	1 (1)	108 (16)
S-102	S	9460 (9)	15.6 (13)	5.0 (1)	79 (1)	1 (1)	104 (11)
04Y206	S	9380 (10)	17.3 (9)	4.8 (17)	80 (3)	1 (1)	103 (10)
01Y185	SPQ	9350 (11)	17.6 (7)	5.0 (10)	81 (8)	3 (14)	104 (12)
03Y804	M	9050 (12)	17.2 (10)	5.0 (10)	81 (4)	1 (1)	109 (17)
L-204	L	9030 (13)	15.9 (12)	4.9 (12)	88 (15)	1 (1)	94 (1)
M-104	M	8830 (14)	17.3 (8)	5.0 (1)	79 (2)	2 (13)	101 (7)
M-103	M	8810 (15)	17.7 (6)	5.0 (1)	81 (4)	13 (17)	103 (9)
CM101	SWX	8800 (16)	15.4 (15)	5.0 (5)	81 (4)	8 (16)	104 (13)
04Y198	SPQ	8700 (17)	18.3 (4)	4.8 (18)	81 (4)	1 (1)	98 (5)
03Y166	SPQ	8680 (18)	18.3 (3)	4.8 (15)	82 (10)	1 (1)	95 (2)
MEAN		9330	16.8	4.9	83	3	102
CV		2.9	3.2	1.5	1.2	200.1	3.2
LSD (.05)		380	0.8	0.1	1	9	5
<i>Preliminary Lines and Varieties</i>							
04Y501	REX	10340 (1)	14.9 (28)	5.0 (13)	88 (28)	1 (1)	110 (25)
04Y506	L	10250 (2)	16.0 (22)	4.9 (26)	88 (30)	1 (1)	95 (3)
02Y516	L	10140 (3)	16.2 (20)	4.9 (20)	83 (20)	1 (1)	109 (24)
01Y655	REX	10040 (4)	14.3 (31)	4.9 (20)	91 (32)	45 (32)	110 (27)
04Y523	L	9860 (5)	14.3 (32)	5.0 (1)	85 (25)	1 (1)	103 (14)
03Y308	MPQ	9780 (6)	17.9 (4)	5.0 (1)	85 (25)	25 (31)	100 (7)
04Y177	SPQ	9630 (7)	16.1 (21)	5.0 (1)	81 (4)	16 (30)	99 (6)
04Y837	M	9480 (8)	17.4 (10)	5.0 (1)	81 (4)	1 (1)	118 (32)
04Y857	M	9400 (9)	17.4 (9)	5.0 (13)	82 (13)	1 (1)	110 (25)
03Y177	S	9380 (10)	16.4 (19)	4.9 (26)	81 (4)	3 (20)	104 (17)
02Y565	LSR	9350 (11)	14.9 (29)	4.8 (32)	89 (31)	1 (1)	101 (9)
04Y220	WX	9340 (12)	19.2 (1)	4.9 (20)	82 (13)	11 (27)	106 (21)
04Y492	L	9330 (13)	15.1 (26)	5.0 (1)	87 (27)	1 (1)	107 (23)
04Y213	WX	9290 (14)	15.1 (27)	5.0 (13)	84 (21)	15 (29)	94 (1)
04Y332	MPQ	9260 (15)	17.6 (6)	5.0 (1)	82 (13)	3 (20)	115 (31)
04Y227	M	9140 (16)	17.6 (7)	5.0 (1)	79 (1)	13 (28)	112 (30)
04Y855	M	9140 (17)	17.1 (14)	5.0 (1)	82 (13)	6 (25)	112 (29)
04Y816	M	9100 (18)	17.3 (12)	5.0 (1)	81 (4)	1 (1)	105 (20)
03Y454	L	9100 (19)	15.4 (25)	4.9 (20)	88 (28)	1 (1)	98 (5)
04Y286	M	8900 (20)	17.4 (8)	5.0 (13)	81 (4)	1 (1)	102 (10)
04Y378	M	8820 (21)	17.9 (3)	4.9 (20)	82 (11)	1 (1)	104 (18)
04Y817	M	8730 (22)	16.8 (15)	5.0 (1)	81 (4)	8 (26)	104 (18)
04Y926	M	8620 (23)	17.1 (13)	5.0 (13)	82 (11)	1 (1)	102 (10)
04Y999	M	8580 (24)	17.9 (5)	4.9 (20)	84 (21)	3 (20)	102 (10)
03Y164	SPQ	8490 (25)	15.5 (23)	5.0 (13)	82 (13)	3 (20)	102 (10)
04Y234	M	8460 (26)	16.8 (17)	4.9 (26)	81 (2)	1 (1)	103 (14)
04Y827	M	8420 (27)	17.3 (11)	4.9 (26)	84 (21)	3 (20)	106 (22)
03Y167	SPQ	8370 (28)	18.1 (2)	5.0 (13)	81 (2)	1 (1)	103 (14)
04Y252	M	8330 (29)	16.8 (16)	4.8 (30)	82 (13)	1 (1)	100 (7)
03Y170	SPQ	8260 (30)	15.5 (24)	5.0 (1)	82 (13)	1 (1)	94 (1)
04Y247	M	7640 (31)	16.7 (18)	4.8 (30)	81 (4)	1 (1)	97 (4)
03Y485	BAS	7340 (32)	14.8 (30)	5.0 (1)	84 (21)	1 (1)	110 (27)
MEAN		9070	16.5	4.9	83	5	104
CV		4	2.9	1.1	1.1	176.4	3.3
LSD (.05)		740	1	0.1	2	19	7

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

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

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

Numbers in parentheses indicate relative rank in column.

Table 4. 2005 Very Early Rice Variety Test - San Joaquin Co.

<i>Advanced Lines and Varieties</i>							
Variety	Grain Type	Grain Yield at 14% Moisture lbs/acre	Grain Moisture at Harvest (%)	Seedling Vigor (1-5)	Days to 50% Heading	Lodging (1-99)	Plant Height (cm)
CM101	SWX	8480 (1)	20.1 (11)	5.0 (1)	90 (10)	9 (16)	92 (17)
S-102	S	8430 (2)	17.3 (17)	5.0 (1)	82 (1)	12 (17)	86 (12)
99Y041	L	8290 (3)	18.2 (15)	5.0 (1)	89 (9)	1 (1)	84 (8)
04Y206	S	8290 (4)	20.5 (10)	4.5 (17)	83 (2)	16 (18)	86 (11)
04Y508	L	8070 (5)	19.7 (12)	4.9 (15)	88 (7)	5 (14)	83 (6)
03Y254	M	7890 (6)	20.7 (9)	4.9 (14)	88 (6)	1 (1)	87 (13)
M-104	M	7810 (7)	23.2 (5)	5.0 (1)	90 (12)	1 (1)	93 (18)
03Y467	REX	7810 (8)	16.3 (18)	5.0 (1)	86 (4)	2 (12)	76 (2)
01Y185	SPQ	7660 (9)	23.1 (6)	4.9 (9)	91 (13)	1 (1)	82 (3)
M-206	M	7550 (10)	24.6 (3)	4.9 (9)	93 (16)	1 (1)	87 (13)
M-202	M	7530 (11)	26.0 (1)	5.0 (1)	96 (18)	1 (1)	91 (16)
M-103	M	7490 (12)	21.3 (8)	5.0 (1)	85 (3)	4 (13)	85 (10)
L-205	REX	7450 (13)	18.2 (16)	5.0 (8)	93 (17)	1 (1)	84 (7)
L-204	L	7360 (14)	19.0 (14)	4.9 (9)	90 (11)	8 (15)	84 (9)
03Y804	M	7220 (15)	22.8 (7)	4.9 (9)	87 (5)	1 (1)	91 (15)
99Y469	L	7190 (16)	19.1 (13)	4.9 (9)	92 (14)	1 (1)	70 (1)
03Y166	SPQ	6690 (17)	25.6 (2)	4.7 (16)	92 (15)	1 (1)	82 (3)
04Y198	SPQ	6600 (18)	23.3 (4)	4.3 (18)	89 (8)	1 (1)	82 (5)
MEAN		7650	21.0	4.9	89	4	85
CV		5.4	4.3	4	2.7	204	4.3
LSD (.05)		580	1.3	0.3	3		5
<i>Preliminary Lines and Varieties</i>							
04Y855	M	8650 (1)	20.5 (19)	5.0 (1)	95 (27)	30 (32)	93 (29)
04Y837	M	8550 (2)	22.0 (16)	5.0 (1)	89 (6)	1 (2)	100 (32)
04Y220	SWX	8490 (3)	25.1 (2)	5.0 (1)	93 (15)	8 (29)	91 (23)
04Y523	L	8190 (4)	17.4 (32)	5.0 (1)	89 (3)	1 (2)	84 (9)
04Y227	M	8190 (5)	20.8 (18)	5.0 (1)	92 (13)	6 (27)	97 (31)
01Y655	REX	8120 (6)	19.9 (21)	5.0 (1)	94 (20)	1 (2)	88 (18)
04Y213	SWX	7970 (7)	18.8 (27)	5.0 (21)	97 (30)	25 (31)	86 (13)
04Y378	M	7970 (8)	22.5 (12)	4.8 (26)	88 (2)	1 (2)	88 (18)
04Y506	L	7900 (9)	18.6 (30)	5.0 (1)	91 (9)	1 (2)	79 (3)
02Y565	LSR	7820 (10)	19.2 (24)	4.6 (30)	94 (20)	1 (2)	83 (6)
04Y501	REX	7780 (11)	17.7 (31)	5.0 (1)	91 (9)	1 (2)	88 (18)
03Y177	S	7740 (12)	22.8 (8)	4.8 (28)	92 (11)	6 (27)	89 (21)
04Y492	L	7740 (13)	19.0 (26)	5.0 (1)	90 (7)	1 (2)	95 (30)
04Y926	M	7710 (14)	22.2 (15)	5.0 (1)	93 (15)	1 (2)	86 (13)
04Y332	MPQ	7700 (15)	23.1 (7)	5.0 (1)	93 (18)	1 (2)	90 (22)
03Y308	MPQ	7700 (16)	23.5 (5)	5.0 (21)	100 (32)	8 (29)	84 (10)
04Y817	M	7660 (17)	22.3 (14)	5.0 (1)	95 (27)	1 (2)	92 (27)
02Y516	L	7630 (18)	19.5 (23)	5.0 (1)	89 (3)	1 (2)	92 (25)
04Y816	M	7540 (19)	22.5 (10)	5.0 (1)	93 (18)	1 (2)	87 (17)
04Y286	M	7420 (20)	24.4 (4)	5.0 (1)	94 (20)	3 (22)	92 (25)
04Y177	SPQ	7410 (21)	20.4 (20)	4.9 (24)	94 (24)	1 (2)	78 (2)
04Y827	M	7370 (22)	24.6 (3)	5.0 (1)	98 (31)	1 (2)	92 (27)
04Y252	M	7270 (23)	21.2 (17)	4.9 (24)	92 (11)	3 (22)	85 (11)
03Y454	L	7240 (24)	19.9 (22)	5.0 (1)	93 (15)	3 (22)	86 (13)
04Y999	M	7190 (25)	23.1 (6)	5.0 (21)	94 (24)	3 (22)	86 (13)
03Y164	SPQ	7160 (26)	19.1 (25)	4.5 (32)	86 (1)	3 (22)	79 (3)
03Y170	SPQ	7080 (27)	18.6 (29)	4.8 (28)	89 (3)	1 (1)	70 (1)
04Y247	M	7070 (28)	22.5 (11)	4.6 (30)	94 (24)	1 (2)	85 (11)
04Y857	M	7030 (29)	22.4 (13)	5.0 (1)	94 (20)	1 (2)	91 (24)
04Y234	M	7020 (30)	22.8 (9)	4.8 (26)	92 (13)	1 (2)	83 (6)
03Y167	SPQ	6370 (31)	26.3 (1)	5.0 (1)	96 (29)	1 (2)	83 (6)
03Y485	BAS	5610 (32)	18.7 (28)	5.0 (1)	91 (8)	1 (2)	82 (5)
MEAN		7570	21.3	4.9	92	4	87
CV		3.7	4.2	2.8	1.7	115	4.3
LSD (.05)		570	1.8	0.3	3	9	8

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

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

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

Numbers in parentheses indicate relative rank in column.

Table 5. 2005 Very Early Rice Variety Tests - Four Location Yield (lb/ac @ 14% moisture) Summary.

*Advanced Lines and Varieties*

Variety	Grain	Average	Biggs	Sutter	Yolo	San Joaquin
	Type		RES	Lauppe	Erdman	Brumley
99Y041	L	8780 (1)	8840 (2)	7720 (4)	10290 (1)	8290 (3)
S-102	S	8690 (2)	8350 (6)	8510 (1)	9460 (9)	8430 (2)
04Y206	S	8400 (3)	8040 (10)	7880 (2)	9380 (10)	8290 (4)
L-205	REX	8390 (4)	8920 (1)	7440 (7)	9740 (3)	7450 (13)
04Y508	L	8380 (5)	8840 (3)	6930 (18)	9700 (4)	8070 (5)
03Y467	REX	8260 (6)	8670 (4)	6950 (17)	9600 (6)	7810 (8)
03Y254	M	8220 (7)	8140 (8)	7340 (9)	9520 (8)	7890 (6)
M-206	M	8170 (8)	7970 (11)	7570 (6)	9600 (7)	7550 (10)
99Y469	L	8130 (9)	8400 (5)	7310 (10)	9640 (5)	7190 (16)
01Y185	SPQ	8090 (10)	7700 (13)	7640 (5)	9350 (11)	7660 (9)
M-202	M	8010 (11)	7560 (15)	7220 (13)	9750 (2)	7530 (11)
CM101	WX	7900 (12)	7220 (17)	7090 (14)	8800 (16)	8480 (1)
L-204	L	7880 (13)	8140 (7)	6980 (16)	9030 (13)	7360 (14)
03Y804	M	7790 (14)	7620 (14)	7260 (12)	9050 (12)	7220 (15)
M-103	M	7700 (15)	7460 (16)	7040 (15)	8810 (15)	7490 (12)
04Y198	SPQ	7690 (16)	8070 (9)	7380 (8)	8700 (17)	6600 (18)
03Y166	SPQ	7620 (17)	7860 (12)	7270 (11)	8680 (18)	6690 (17)
M-104	M	7580 (18)	5860 (18)	7800 (3)	8830 (14)	7810 (7)
MEAN		8090	7980	7410	9330	7650
CV		5.9	8.9	5.2	2.9	5.4
LSD (.05)		330	1010	550	380	580

*Preliminary Lines and Varieties*

01Y655	REX	8730 (1)	9720 (1)	7050 (23)	10040 (4)	8650 (1)
04Y501	REX	8610 (2)	8970 (2)	7350 (18)	10340 (1)	7970 (8)
04Y220	SWX	8600 (3)	8370 (10)	8170 (1)	9340 (12)	7970 (7)
04Y506	L	8460 (4)	8390 (9)	7280 (19)	10250 (2)	7780 (11)
04Y837	M	8450 (5)	7830 (17)	7940 (4)	9480 (8)	7370 (22)
04Y492	L	8390 (6)	8710 (7)	7770 (9)	9330 (13)	7740 (13)
04Y523	L	8380 (7)	8430 (8)	7020 (24)	9860 (5)	7900 (9)
02Y516	L	8360 (8)	8730 (5)	6930 (28)	10140 (3)	8120 (6)
03Y177	S	8350 (9)	8780 (3)	7490 (12)	9380 (10)	7080 (27)
02Y565	LSR	8330 (10)	8760 (4)	7370 (17)	9350 (11)	7630 (18)
04Y855	M	8280 (11)	7890 (14)	7460 (15)	9140 (17)	8550 (2)
04Y378	M	8220 (12)	8720 (6)	7400 (16)	8820 (21)	7700 (15)
04Y213	SWX	8190 (13)	7610 (21)	7870 (5)	9290 (14)	7410 (21)
04Y332	MPQ	8060 (14)	8280 (11)	7010 (25)	9260 (15)	7420 (20)
04Y177	SPQ	8040 (15)	7090 (27)	8040 (3)	9630 (7)	5610 (32)
04Y816	M	8030 (16)	7620 (20)	7850 (8)	9100 (18)	8190 (4)
04Y227	M	7990 (17)	7000 (28)	7620 (11)	9140 (16)	8490 (3)
04Y817	M	7940 (18)	7680 (18)	7690 (10)	8730 (22)	7540 (19)
04Y286	M	7850 (19)	7890 (15)	7180 (20)	8900 (20)	7270 (23)
04Y827	M	7830 (20)	7670 (19)	7870 (6)	8420 (27)	7660 (17)
04Y857	M	7800 (21)	7610 (22)	7180 (21)	9400 (9)	7030 (29)
03Y308	MPQ	7800 (22)	6930 (29)	6800 (30)	9780 (6)	7740 (12)
03Y454	L	7770 (23)	8000 (13)	6750 (31)	9100 (19)	7700 (16)
03Y164	SPQ	7700 (24)	8210 (12)	6940 (27)	8490 (25)	7820 (10)
04Y926	M	7680 (25)	7510 (24)	6870 (29)	8620 (23)	7710 (14)
04Y999	M	7660 (26)	7890 (16)	6970 (26)	8580 (24)	7190 (25)
04Y252	M	7650 (27)	7520 (23)	7490 (13)	8330 (29)	7070 (28)
04Y247	M	7580 (28)	7460 (25)	8140 (2)	7640 (31)	7020 (30)
04Y234	M	7490 (29)	6610 (32)	7860 (7)	8460 (26)	8190 (5)
03Y170	SPQ	7400 (30)	6780 (31)	7470 (14)	8260 (30)	6370 (31)
03Y167	SPQ	7270 (31)	7300 (26)	7060 (22)	8370 (28)	7160 (26)
03Y485	BAS	6570 (32)	6790 (30)	6560 (32)	7340 (32)	7240 (24)
MEAN		7970	7900	7390	9070	7570
CV		6.6	8.2	6.1	4.0	3.7
LSD (.05)		470	910	920	740	570

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

Numbers in parentheses indicate relative rank in column.

Table 6. Grain Yield (lb/acre @14% moisture) Summary of Very Early Rice Varieties by Location and Year (2001-2005)\*

Location	Year	M-103	M-104	M-202	M-206	Calmochi			
						101	S-102	L-204	L-205
Biggs (RES)	2001	<b>9040</b>	9760	9950	9720	8930	10260	10300	10220
	2002	<b>8740</b>	10170	9710	10670	8890	9910	10120	10910
	2003	<b>6720</b>	7470	7760	7950	8630	10150	9480	9370
	2004	<b>9380</b>	9380	9050	10210	8150	9620	10830	10350
	2005	<b>7460</b>	5860	7560	7970	7220	8350	8140	8920
Location Mean		<b>8268</b>	8528	8806	9304	8364	9658	9774	9954
San Joaquin	2001	<b>8452</b>	8787	7333	8661	9487	10126	8107	7636
	2002	<b>9027</b>	9833	9153	9310	8944	9320	8159	7615
	2003	<b>8713</b>	8860	8347	9299	9027	9487	8567	8253
	2004	<b>8260</b>	8880	8530	9110	9250	8330	8190	8050
	2005	<b>7490</b>	7810	7530	7550	8480	8430	7360	7450
Location Mean		<b>8388</b>	8834	8179	8786	9038	9139	8077	7801
Sutter	2001	<b>9655</b>	9184	8985	9916	8923	9686	8923	8630
	2002	<b>8692</b>	10063	9351	10324	9425	10408	9268	9467
	2003	<b>9749</b>	8808	8630	8975	7688	8849	8755	9006
	2004	<b>10110</b>	10400	11090	10150	10750	11050	11350	10400
	2005	<b>7040</b>	7800	7220	7570	7090	8510	6980	7440
Location Mean		<b>9049</b>	9251	9055	9387	8775	9701	9055	8989
Yolo	2001	<b>10165</b>	10176	9716	9990	10449	10810	9005	8403
	2002	<b>10165</b>	10482	9497	10044	9727	10756	8283	8950
	2003	<b>9530</b>	9716	10230	10176	9279	9902	9399	9880
	2004**	-	-	-	-	-	-	-	-
	2005	<b>8810</b>	8830	9750	9600	8800	9460	9030	9740
Location Mean		<b>9667</b>	9801	9799	9952	9564	10232	8929	9243
Loc/Years Mean		<b>8800</b>	9067	8915	9326	8902	9653	8960	8984
Yield % M-103		<b>100.0</b>	<b>103.0</b>	<b>101.3</b>	<b>106.0</b>	<b>101.2</b>	<b>109.7</b>	<b>101.8</b>	<b>102.1</b>
Number of Tests		<b>19</b>	19	19	19	19	19	19	19

\* 2000-2003 yields for San Joaquin, Sutter, and Yolo were converted to represent the 2004 harvested plot area of 143.4 square feet.

\*\* 2004 Yolo results not included due to Abolish herbicide damage.

Advanced Lines and Varieties													
Variety	Grain Type	Grain Yield at 14%		Grain Moisture at Harvest (%)	Seedling Vigor (1-5)	Days to 50% Heading	Lodging (1-99)	Plant Height (cm)					
		lbs/acre											
01Y655	REX	8820	(1)	16.2	(1)	4.8	(6)	88	(21)	2	(4)	101	(19)
L-205	REX	8760	(2)	14.8	(8)	4.6	(17)	87	(20)	1	(1)	96	(10)
99Y041	L	8620	(3)	14.1	(14)	4.7	(11)	83	(18)	5	(8)	98	(17)
99Y529	L	8450	(4)	14.5	(10)	4.6	(17)	81	(17)	1	(3)	99	(18)
99Y469	L	8250	(5)	13.2	(20)	4.6	(19)	77	(6)	9	(11)	88	(1)
M-205	M	7980	(6)	15.6	(5)	4.7	(13)	80	(15)	8	(9)	95	(6)
S-102	S	7950	(7)	13.4	(18)	4.7	(11)	75	(4)	34	(13)	97	(14)
M-206	M	7890	(8)	15.8	(4)	4.9	(2)	73	(2)	35	(14)	98	(16)
01Y327	SPQ	7810	(9)	13.5	(16)	4.8	(7)	78	(9)	9	(10)	91	(4)
L-204	L	7810	(10)	13.4	(17)	4.7	(15)	80	(14)	1	(1)	89	(2)
CH-201	SPQ	7740	(11)	13.4	(19)	4.9	(1)	79	(12)	44	(16)	90	(3)
03Y316	SPQ	7710	(12)	14.4	(12)	4.7	(13)	86	(19)	2	(5)	96	(8)
M-204	M	7560	(13)	15.3	(6)	4.8	(7)	79	(13)	10	(12)	96	(10)
M-207	M	7540	(14)	14.8	(8)	4.8	(4)	73	(1)	39	(15)	95	(6)
03Y680	M	7520	(15)	16.0	(3)	4.8	(7)	78	(10)	3	(6)	94	(5)
02Y816	M	7450	(16)	15.2	(7)	4.6	(16)	79	(11)	50	(19)	101	(20)
M-202	M	7350	(17)	14.4	(13)	4.8	(4)	77	(8)	48	(18)	96	(12)
03Y308	MPQ	7290	(18)	16.1	(2)	4.8	(7)	77	(6)	60	(21)	97	(13)
01Y185	SPQ	7220	(19)	13.1	(21)	4.6	(19)	74	(3)	45	(17)	96	(8)
CT-201	BAS	6900	(20)	13.8	(15)	4.9	(2)	81	(16)	5	(7)	109	(21)
CM-101	WX	6830	(21)	14.4	(11)	4.5	(21)	77	(5)	51	(20)	97	(14)
MEAN		7780		14.5		4.7		79		22		96	
CV		8.6		6.8		3.2		2.4		82.2		4.4	
LSD (.05)		950		1.4		0.2		3		25		6	
Preliminary Lines and Varieties													
03Y496	LSR	9410	(1)	18.3	(1)	4.8	(14)	84	(27)	1	(1)	104	(28)
04Y105	REX	8960	(2)	15.4	(17)	4.9	(1)	84	(25)	1	(1)	96	(11)
04Y460	M	8700	(3)	16.4	(7)	4.7	(25)	81	(20)	13	(15)	97	(17)
03Y151	REX	8620	(4)	16.0	(11)	4.7	(17)	84	(25)	1	(1)	97	(15)
04Y165	SPQ	8530	(5)	15.5	(16)	4.6	(26)	82	(22)	38	(25)	92	(3)
04Y564	L	8510	(6)	15.2	(22)	4.9	(5)	85	(29)	2	(7)	99	(21)
01Y502	LSR	8400	(7)	16.6	(6)	4.5	(28)	83	(23)	1	(5)	97	(15)
04Y189	SPQ	8300	(8)	16.4	(7)	4.8	(14)	83	(23)	63	(28)	94	(7)
04Y524	JAS	8290	(9)	17.7	(2)	4.9	(1)	84	(27)	1	(6)	102	(26)
04Y314	MPQ	8240	(10)	15.9	(14)	4.8	(10)	77	(11)	64	(29)	101	(25)
04Y928	M	8160	(11)	14.6	(25)	4.8	(9)	75	(5)	10	(14)	96	(11)
04Y656	M	8070	(12)	16.8	(5)	4.7	(21)	80	(19)	19	(18)	99	(22)
04Y405	M	7920	(13)	16.1	(9)	4.7	(17)	79	(18)	3	(8)	93	(4)
04Y687	M	7900	(14)	16.0	(11)	4.7	(17)	82	(21)	4	(9)	98	(19)
04Y274	M	7840	(15)	14.4	(27)	4.8	(7)	76	(7)	4	(9)	94	(6)
04Y330	MPQ	7790	(16)	15.4	(17)	4.9	(3)	72	(2)	19	(19)	91	(2)
04Y280	M	7650	(17)	14.7	(24)	4.7	(21)	77	(11)	9	(12)	96	(13)
04Y294	M	7640	(18)	16.9	(4)	4.8	(14)	75	(6)	9	(12)	97	(17)
04Y905	M	7600	(19)	15.9	(13)	4.8	(10)	77	(10)	28	(21)	105	(29)
04Y173	SPQ	7590	(20)	14.2	(29)	4.7	(21)	74	(3)	5	(11)	89	(1)
03Y559	MPQ	7560	(21)	15.3	(21)	4.5	(27)	77	(9)	36	(24)	100	(23)
04Y288	M	7530	(22)	14.4	(26)	4.8	(10)	72	(1)	43	(27)	96	(13)
04Y387	M	7520	(23)	15.7	(15)	4.8	(10)	77	(8)	30	(23)	98	(20)
04Y1006	M	7330	(24)	15.4	(17)	4.9	(5)	74	(3)	14	(16)	95	(8)
03Y324	S	7270	(25)	13.6	(30)	4.3	(30)	77	(11)	28	(21)	96	(10)
04Y428	M	7240	(26)	17.0	(3)	4.7	(17)	79	(14)	15	(17)	102	(26)
04Y181	SPQ	7130	(27)	15.2	(23)	4.4	(29)	79	(17)	40	(26)	93	(5)
03Y295	MPQ	7060	(28)	15.3	(20)	4.7	(21)	79	(15)	21	(20)	95	(9)
04Y537	BAS	6860	(29)	14.3	(28)	4.8	(7)	79	(15)	1	(1)	101	(24)
04P3220	BAS	6240	(30)	16.1	(10)	4.9	(3)	86	(30)	69	(30)	111	(30)
MEAN		7860		15.7		4.7		79		19		97	
CV		5.2		6		4.7		2.1		96.7		2.9	
LSD (.05)		570		1.3				2		26		4	

S = short; M = medium; L = long; PQ = premium quality; BAS = Basmati; WX = waxy; REX = Newrex;

JAS = Jasmine; SR = stem rot resistant.

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

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

Numbers in parentheses indicate relative rank in column.

Table 8. 2005 Early Rice Variety Test - Butte Co.*							
<i>Advanced Lines and Varieties</i>							
Variety	Grain Type	Grain Yield at 14% Moisture lbs/acre	Grain Moisture at Harvest (%)	Seedling Vigor (1-5)	Days to 50% Heading	Lodging (1-99)	Plant Height (cm)
M-205	M	9740 (1)	23.7 (6)	5.0 (1)	85 (20)	14 (7)	97 (6)
03Y680	M	9280 (2)	22.1 (12)	5.0 (14)	80 (10)	21 (8)	93 (2)
99Y529	L	9220 (3)	20.2 (15)	5.0 (14)	78 (6)	35 (11)	101 (15)
99Y041	L	9190 (4)	19.2 (18)	5.0 (1)	80 (11)	1 (2)	99 (13)
M-202	M	8990 (5)	23.0 (8)	5.0 (1)	84 (18)	6 (6)	102 (16)
01Y655	REX	8900 (6)	20.1 (17)	5.0 (14)	88 (21)	1 (2)	97 (9)
01Y327	SPQ	8780 (7)	22.9 (9)	5.0 (14)	83 (14)	23 (9)	98 (11)
M-204	M	8690 (8)	23.7 (7)	5.0 (1)	83 (15)	38 (12)	97 (7)
L-205	REX	8620 (9)	18.8 (20)	5.0 (1)	84 (17)	34 (10)	95 (3)
L-204	L	8610 (10)	19.1 (19)	5.0 (14)	79 (8)	1 (1)	91 (1)
99Y469	L	8580 (11)	20.2 (16)	5.0 (1)	77 (5)	68 (17)	95 (3)
02Y816	M	8450 (12)	24.0 (4)	5.0 (1)	78 (7)	65 (16)	106 (20)
M-207	M	8270 (13)	22.4 (10)	5.0 (1)	77 (4)	84 (20)	107 (21)
03Y308	MPQ	8240 (14)	23.8 (5)	5.0 (14)	80 (13)	64 (15)	96 (5)
03Y316	SPQ	7960 (15)	24.4 (3)	5.0 (20)	84 (16)	1 (2)	97 (9)
01Y185	SPQ	7950 (16)	22.2 (11)	5.0 (20)	79 (9)	42 (13)	99 (13)
CM-101	SW	7820 (17)	20.7 (14)	5.0 (1)	74 (2)	70 (19)	97 (8)
S-102	S	7520 (18)	20.9 (13)	5.0 (1)	71 (1)	68 (17)	104 (19)
CH-201	SPQ	7100 (19)	26.0 (1)	5.0 (1)	80 (11)	97 (21)	99 (12)
M-206	M	7010 (20)	25.6 (2)	5.0 (1)	74 (3)	58 (14)	102 (17)
CT-201	BAS	6550 (21)	16.6 (21)	5.0 (1)	84 (18)	1 (2)	103 (18)
MEAN		8350	21.9	5.0	80	38	99
CV		7.7	6.1	0.7	1.3	63.3	2.9
LSD (.05)		910	1.9		1	34	4
<i>Preliminary Lines and Varieties</i>							
04Y687	M	9680 (1)	24.1 (7)	4.9 (27)	85 (21)	1 (1)	102 (21)
04Y656	M	9490 (2)	22.1 (18)	5.0 (15)	85 (21)	60 (24)	103 (25)
03Y496	LSR	9320 (3)	20.4 (27)	5.0 (15)	86 (25)	1 (1)	103 (22)
04Y405	M	8950 (4)	23.2 (14)	5.0 (15)	82 (16)	1 (1)	99 (13)
04Y314	MPQ	8890 (5)	22.8 (16)	5.0 (15)	80 (13)	60 (23)	99 (15)
04Y280	M	8480 (6)	23.6 (10)	5.0 (1)	78 (10)	60 (24)	103 (22)
04Y105	REX	8480 (7)	21.0 (26)	5.0 (15)	86 (25)	1 (1)	102 (20)
04Y460	M	8350 (8)	25.2 (4)	5.0 (1)	85 (21)	1 (1)	97 (9)
03Y151	REX	8310 (9)	21.6 (23)	5.0 (1)	88 (27)	1 (1)	94 (3)
04Y564	L	8290 (10)	22.7 (17)	5.0 (15)	92 (29)	1 (1)	97 (7)
04Y428	M	8160 (11)	25.0 (5)	4.9 (25)	85 (21)	50 (20)	97 (9)
04Y537	BAS	8050 (12)	16.7 (30)	5.0 (1)	74 (4)	1 (1)	107 (28)
03Y295	MPQ	8040 (13)	27.4 (2)	5.0 (1)	84 (20)	75 (28)	103 (22)
04Y294	M	7640 (14)	23.1 (15)	5.0 (1)	72 (2)	6 (15)	100 (16)
03Y324	S	7630 (15)	21.5 (24)	4.8 (29)	77 (7)	1 (1)	95 (5)
04Y274	M	7610 (16)	23.5 (11)	5.0 (1)	78 (10)	50 (20)	101 (19)
04Y387	M	7580 (17)	24.1 (9)	5.0 (15)	82 (16)	1 (1)	107 (29)
03Y559	MPQ	7380 (18)	26.8 (3)	5.0 (15)	80 (12)	94 (30)	100 (17)
04Y905	M	6970 (19)	23.4 (12)	4.9 (27)	81 (14)	1 (1)	104 (27)
04Y524	JAS	6800 (20)	21.6 (22)	5.0 (15)	88 (27)	1 (1)	100 (17)
04Y173	SPQ	6540 (21)	21.8 (21)	4.8 (29)	78 (8)	1 (1)	94 (4)
01Y502	LSR	6530 (22)	20.2 (29)	4.9 (25)	82 (16)	11 (16)	88 (2)
04Y928	M	6430 (23)	21.1 (25)	5.0 (1)	74 (4)	35 (18)	103 (25)
04Y288	M	6120 (24)	24.7 (6)	5.0 (1)	74 (4)	50 (20)	98 (12)
04Y165	SPQ	5940 (25)	23.3 (13)	5.0 (15)	83 (19)	45 (19)	97 (7)
04Y181	SPQ	5620 (26)	27.5 (1)	5.0 (1)	78 (8)	88 (29)	99 (13)
04Y1006	M	5450 (27)	20.3 (28)	5.0 (1)	73 (3)	1 (1)	97 (9)
04Y189	SPQ	5370 (28)	22.1 (19)	5.0 (1)	81 (14)	60 (24)	96 (6)
04Y330	MPQ	2850 (29)	21.8 (20)	5.0 (1)	71 (1)	15 (17)	86 (1)
04P3220	BAS	2710 (30)	24.1 (8)	5.0 (1)	92 (29)	60 (24)	109 (30)
MEAN		7260	22.9	5.0	81	28	99
CV		14	6.7	1.1	1.6	81.5	2.9
LSD (.05)		2080	3.1	0.1	3	46	6

S = short; M = medium; L = long; PQ = premium quality; BAS = Basmati; WX = waxy; REX = Newrex;  
JAS = Jasmine; SR = stem rot resistant.  
Subjective rating of 1-5 where 1 = poor and 5 = excellent seedling emergence.  
Subjective rating of 1-99 where 1 = none and 99 = completely lodged.  
Numbers in parentheses indicate relative rank in column.  
\* Yield data best estimate due to heavy bird damage.

<i>Advanced Lines and Varieties</i>							
		Grain Yield at 14%	Grain Moisture at Harvest	Seedling Vigor (1-5)	Days to 50% Heading	Lodging (1-99)	Plant Height (cm)
Variety	Grain Type	Moisture lbs/acre	(%)				
M-205	M	8150 ( 1)	23.4 ( 4)	5.0 ( 6)	79 (17)	12 (10)	100 ( 6)
01Y655	REX	7960 ( 2)	18.1 (16)	4.9 (12)	81 (20)	1 ( 1)	108 (20)
M-204	M	7950 ( 3)	22.3 (11)	5.0 ( 6)	78 (15)	18 (12)	101 (11)
99Y469	L	7910 ( 4)	17.4 (20)	4.9 (12)	76 ( 8)	1 ( 1)	97 ( 2)
99Y041	L	7880 ( 5)	18.8 (15)	4.9 (12)	81 (21)	9 ( 9)	106 (19)
02Y816	M	7870 ( 6)	23.0 ( 6)	5.0 ( 1)	78 (13)	33 (13)	104 (18)
01Y185	SPQ	7860 ( 7)	20.6 (13)	4.9 (15)	74 ( 3)	61 (17)	103 (15)
M-206	M	7670 ( 8)	22.6 ( 9)	5.0 ( 6)	75 ( 4)	13 (11)	102 (14)
S-102	S	7630 ( 9)	19.4 (14)	4.9 (17)	70 ( 1)	43 (15)	104 (16)
01Y327	SPQ	7550 (10)	25.3 ( 2)	4.9 (17)	77 (11)	38 (14)	99 ( 4)
99Y529	L	7500 (11)	17.4 (19)	5.0 (10)	78 (15)	1 ( 1)	101 (13)
L-205	REX	7490 (12)	17.5 (18)	5.0 ( 1)	79 (17)	1 ( 1)	101 (12)
CH-201	SPQ	7470 (13)	23.2 ( 5)	5.0 ( 6)	76 ( 8)	83 (21)	97 ( 1)
03Y308	MPQ	7420 (14)	25.0 ( 3)	4.8 (20)	76 ( 6)	66 (18)	101 (10)
03Y316	SPQ	7320 (15)	22.8 ( 7)	4.8 (20)	80 (19)	3 ( 8)	100 ( 9)
03Y680	M	7220 (16)	22.6 ( 8)	4.9 (17)	77 (10)	1 ( 1)	100 ( 8)
L-204	L	7190 (17)	17.8 (17)	5.0 (10)	78 (12)	1 ( 1)	97 ( 2)
CM-101	SW	7190 (18)	21.8 (12)	4.9 (15)	72 ( 2)	53 (16)	100 ( 6)
M-207	M	7140 (19)	22.3 (10)	5.0 ( 1)	75 ( 4)	68 (19)	99 ( 4)
CT-201	BAS	7110 (20)	16.1 (21)	5.0 ( 1)	78 (13)	1 ( 1)	112 (21)
M-202	M	7100 (21)	25.3 ( 1)	5.0 ( 1)	76 ( 6)	70 (20)	104 (16)
MEAN		7550	21.1	4.9	77	27	101
CV		5.2	5.6	1.3	1	66.1	2.7
LSD (.05)		550	1.7	0.1	1	26	4
<i>Preliminary Lines and Varieties</i>							
04Y460	M	8140 ( 1)	23.9 ( 6)	5.0 ( 9)	79 (20)	3 (13)	100 (13)
01Y502	LSR	8080 ( 2)	19.5 (26)	4.9 (18)	78 (18)	1 ( 1)	101 (15)
04Y656	M	8030 ( 3)	26.1 ( 1)	5.0 ( 9)	79 (20)	55 (23)	103 (22)
04Y564	L	7840 ( 4)	19.2 (28)	5.0 ( 1)	79 (23)	8 (14)	102 (16)
03Y496	LSR	7820 ( 5)	21.6 (21)	4.8 (29)	83 (30)	1 ( 1)	105 (25)
04Y280	M	7800 ( 6)	22.2 (18)	5.0 ( 9)	76 (11)	8 (16)	106 (27)
04Y105	REX	7790 ( 7)	19.2 (27)	5.0 ( 1)	81 (26)	1 ( 1)	102 (16)
04Y687	M	7770 ( 8)	23.2 (11)	5.0 ( 9)	81 (26)	1 ( 1)	104 (24)
03Y151	REX	7690 ( 9)	19.0 (29)	5.0 ( 1)	80 (24)	1 ( 1)	98 ( 5)
04Y189	SPQ	7580 (10)	23.4 ( 9)	4.9 (26)	78 (17)	83 (27)	98 ( 5)
04Y524	JAS	7520 (11)	21.1 (24)	5.0 ( 9)	82 (28)	1 ( 1)	109 (29)
04Y428	M	7510 (12)	22.3 (17)	5.0 ( 1)	77 (15)	1 ( 1)	100 (13)
04Y274	M	7500 (13)	23.7 ( 8)	4.9 (26)	77 (15)	30 (18)	99 ( 7)
04Y165	SPQ	7440 (14)	22.5 (16)	4.9 (18)	79 (20)	40 (21)	96 ( 3)
04Y288	M	7440 (15)	21.5 (22)	5.0 ( 1)	75 ( 8)	60 (24)	100 (11)
04Y405	M	7420 (16)	21.8 (19)	4.9 (18)	80 (24)	1 ( 1)	102 (19)
04Y314	MPQ	7360 (17)	23.7 ( 7)	4.9 (18)	75 ( 8)	85 (28)	98 ( 4)
03Y324	S	7270 (18)	22.6 (15)	4.8 (28)	75 ( 7)	20 (17)	102 (19)
04Y928	M	7150 (19)	20.2 (25)	5.0 ( 9)	74 ( 5)	1 ( 1)	99 ( 7)
03Y295	MPQ	7120 (20)	22.7 (14)	4.9 (18)	78 (18)	30 (18)	102 (16)
04Y387	M	7110 (21)	25.3 ( 5)	5.0 ( 9)	76 (11)	60 (24)	103 (23)
04Y330	MPQ	7100 (22)	21.3 (23)	5.0 ( 9)	71 ( 1)	50 (22)	92 ( 1)
04Y294	M	7090 (23)	23.2 (10)	5.0 ( 1)	71 ( 3)	1 ( 1)	102 (19)
04Y905	M	6940 (24)	23.1 (12)	5.0 ( 1)	73 ( 4)	36 (20)	107 (28)
04Y173	SPQ	6840 (25)	23.0 (13)	4.8 (29)	74 ( 6)	8 (14)	95 ( 2)
04Y1006	M	6830 (26)	21.7 (20)	5.0 ( 9)	71 ( 1)	1 ( 1)	99 ( 7)
03Y559	MPQ	6770 (27)	26.0 ( 2)	4.9 (18)	77 (13)	60 (24)	100 (11)
04Y537	BAS	6550 (28)	15.5 (30)	4.9 (18)	77 (13)	1 ( 1)	105 (25)
04Y181	SPQ	6150 (29)	25.9 ( 3)	4.9 (18)	75 ( 8)	95 (30)	99 ( 7)
04P3220	BAS	5600 (30)	25.5 ( 4)	5.0 ( 1)	83 (29)	90 (29)	111 (30)
MEAN		7310	22.3	4.9	77	28	101
CV		5.8	6.1	1.6	1.1	66	2.9
LSD (.05)		860	2.8		2	37	6

S = short; M = medium; L = long; PQ = premium quality; BAS = Basmati; WX = waxy; REX = Newrex;

JAS = Jasmine; SR = stem rot resistant.

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

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

Numbers in parentheses indicate relative rank in column.



Table 10. 2005 Early Rice Variety Test -Colusa Co.							
<i>Advanced Lines and Varieties</i>							
		Grain Yield at 14%	Grain Moisture at Harvest	Seedling Vigor (1-5)	Days to 50% Heading	Lodging (1-99)	Plant Height (cm)
Variety	Grain Type	Moisture lbs/acre	(%)				
M-205	M	9330 ( 1)	20.9 ( 5)	5.0 ( 1)	93 (20)	50 ( 7)	105 (10)
99Y529	L	9310 ( 2)	15.1 (21)	4.9 (14)	91 (13)	63 (14)	107 (17)
M-204	M	8840 ( 3)	20.8 ( 6)	5.0 (10)	92 (15)	26 ( 2)	106 (14)
01Y655	REX	8690 ( 4)	16.2 (16)	5.0 (10)	95 (21)	72 (16)	110 (20)
L-205	REX	8570 ( 5)	15.6 (19)	5.0 (10)	92 (17)	90 (20)	105 (10)
L-204	L	8520 ( 6)	15.7 (18)	4.9 (18)	92 (15)	60 (13)	101 ( 3)
03Y680	M	8490 ( 7)	19.9 ( 9)	4.8 (20)	90 ( 8)	71 (15)	104 ( 7)
03Y308	MPQ	8460 ( 8)	20.0 ( 8)	4.8 (19)	90 ( 9)	26 ( 2)	103 ( 6)
99Y041	L	8410 ( 9)	18.2 (13)	5.0 ( 1)	93 (19)	96 (21)	107 (15)
99Y469	L	8230 (10)	15.2 (20)	4.9 (14)	87 ( 5)	50 ( 8)	98 ( 1)
M-206	M	8160 (11)	22.4 ( 1)	5.0 ( 1)	87 ( 4)	48 ( 6)	104 ( 8)
03Y316	SPQ	8040 (12)	22.0 ( 2)	4.9 (17)	91 (11)	50 ( 8)	105 (10)
M-202	M	8030 (13)	21.3 ( 4)	5.0 ( 8)	91 (11)	26 ( 2)	110 (19)
02Y816	M	8030 (14)	19.5 (10)	5.0 ( 1)	90 ( 9)	75 (19)	109 (18)
M-207	M	7790 (15)	18.4 (12)	5.0 ( 1)	88 ( 6)	26 ( 2)	107 (15)
01Y327	SPQ	7670 (16)	20.2 ( 7)	4.7 (21)	88 ( 6)	50 ( 8)	106 (13)
CH-201	SPQ	7580 (17)	17.6 (15)	5.0 ( 1)	91 (14)	50 ( 8)	105 ( 9)
CT-201	BAS	7330 (18)	15.8 (17)	5.0 ( 1)	93 (18)	72 (17)	112 (21)
S-102	S	6970 (19)	18.1 (14)	4.9 (13)	81 ( 1)	18 ( 1)	100 ( 2)
01Y185	SPQ	6620 (20)	21.8 ( 3)	5.0 ( 8)	84 ( 2)	74 (18)	102 ( 5)
CM-101	WX	6470 (21)	19.1 (11)	4.9 (14)	84 ( 3)	50 ( 8)	101 ( 4)
MEAN		8070	18.8	4.9	90	54	105
CV		9.8	6.4	2.3	1	83.7	3.8
LSD (.05)		1120	1.7	0.2	1		6
<i>Preliminary Lines and Varieties</i>							
03Y496	LSR	9520 ( 1)	17.4 (25)	4.7 (29)	94 (26)	3 ( 9)	108 (26)
03Y151	REX	9370 ( 2)	17.3 (26)	4.7 (30)	95 (30)	1 ( 1)	107 (24)
01Y502	LSR	9260 ( 3)	15.8 (27)	4.8 (23)	92 (22)	23 (10)	102 (12)
04Y687	M	8980 ( 4)	19.8 ( 9)	5.0 ( 1)	94 (26)	78 (23)	105 (18)
04Y405	M	8760 ( 5)	19.2 (15)	5.0 ( 9)	90 (14)	33 (11)	104 (17)
04Y274	M	8680 ( 6)	19.3 (14)	5.0 ( 9)	90 (14)	85 (25)	97 ( 1)
04Y656	M	8590 ( 7)	20.2 ( 5)	5.0 ( 9)	92 (22)	50 (18)	99 ( 6)
04Y460	M	8370 ( 8)	20.0 ( 7)	4.9 (17)	91 (19)	75 (21)	103 (15)
04Y280	M	8290 ( 9)	19.1 (17)	4.9 (17)	90 (14)	1 ( 1)	107 (24)
04Y564	L	8240 (10)	15.5 (28)	4.8 (23)	95 (28)	97 (29)	105 (18)
03Y559	MPQ	8020 (11)	19.6 (10)	4.9 (17)	90 (14)	48 (14)	105 (18)
04Y294	M	7950 (12)	19.2 (16)	5.0 ( 9)	86 ( 6)	75 (21)	98 ( 5)
04Y330	MPQ	7890 (13)	18.7 (19)	5.0 ( 9)	84 ( 2)	50 (18)	97 ( 1)
03Y324	S	7880 (14)	18.8 (18)	4.8 (23)	84 ( 1)	85 (25)	101 (10)
04Y428	M	7850 (15)	20.2 ( 4)	5.0 ( 9)	91 (21)	48 (14)	103 (15)
04Y165	SPQ	7740 (16)	19.5 (11)	4.9 (17)	88 (11)	1 ( 1)	97 ( 3)
04Y905	M	7650 (17)	18.3 (20)	5.0 ( 1)	87 ( 9)	1 ( 1)	110 (27)
04Y105	REX	7590 (18)	18.1 (21)	5.0 ( 1)	95 (28)	41 (12)	110 (28)
04Y1006	M	7560 (19)	18.1 (22)	4.8 (23)	86 ( 6)	88 (27)	97 ( 3)
04Y288	M	7540 (20)	19.9 ( 8)	5.0 ( 1)	88 (10)	50 (18)	102 (14)
04Y524	JAS	7520 (21)	20.0 ( 6)	5.0 ( 1)	93 (25)	83 (24)	113 (29)
04Y189	SPQ	7390 (22)	19.4 (13)	5.0 ( 1)	91 (19)	1 ( 1)	106 (23)
04Y387	M	7360 (23)	20.8 ( 3)	5.0 ( 1)	88 (11)	95 (28)	105 (18)
03Y295	MPQ	7250 (24)	17.9 (23)	4.9 (17)	90 (14)	1 ( 1)	101 (11)
04Y173	SPQ	7210 (25)	22.5 ( 1)	5.0 ( 9)	84 ( 2)	97 (29)	102 (12)
04Y314	MPQ	7210 (26)	19.5 (12)	5.0 ( 9)	89 (13)	1 ( 1)	100 ( 9)
04Y928	M	6910 (27)	17.9 (24)	4.8 (23)	86 ( 6)	48 (14)	99 ( 6)
04Y537	BAS	6710 (28)	13.8 (30)	4.9 (17)	85 ( 5)	41 (12)	106 (22)
04Y181	SPQ	6580 (29)	22.3 ( 2)	4.8 (23)	84 ( 2)	48 (14)	99 ( 8)
04P3220	BAS	5530 (30)	14.2 (29)	5.0 ( 1)	92 (24)	1 ( 1)	116 (30)
MEAN		7850	18.7	4.9	89	45	103
CV		7.1	4.8	3.2	2	73.8	3.7
LSD (.05)		1140	1.8		4	68	8

S = short; M = medium; L = long; PQ = premium quality; BAS = Basmati; WX = waxy; REX = Newrex;

JAS = Jasmine; SR = stem rot resistant.

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

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

Numbers in parentheses indicate relative rank in column.

Table 11. 2005 Early Rice Variety Tests - Three Location Yield (lb/ac @ 14% moisture) Summary.

<i>Advanced Lines and Varieties</i>					
Variety	Grain Type	Average	Biggs RES	Yuba Quad 4	Colusa Canal Ranch
01Y655	REX	8490 ( 1)	8820 ( 1)	7960 ( 2)	8690 ( 4)
M-205	M	8490 ( 2)	7980 ( 6)	8150 ( 1)	9330 ( 1)
99Y529	L	8420 ( 3)	8450 ( 4)	7500 (11)	9310 ( 2)
99Y041	L	8300 ( 4)	8620 ( 3)	7880 ( 5)	8410 ( 9)
L-205	REX	8270 ( 5)	8760 ( 2)	7490 (12)	8570 ( 5)
99Y469	L	8130 ( 6)	8250 ( 5)	7910 ( 4)	8230 (10)
M-204	M	8120 ( 7)	7560 (13)	7950 ( 3)	8840 ( 3)
M-206	M	7910 ( 8)	7890 ( 8)	7670 ( 8)	8160 (11)
L-204	L	7840 ( 9)	7810 (10)	7190 (17)	8520 ( 6)
02Y816	M	7780 (10)	7450 (16)	7870 ( 6)	8030 (14)
03Y680	M	7740 (11)	7520 (15)	7220 (16)	8490 ( 7)
03Y308	MPQ	7720 (12)	7290 (18)	7420 (14)	8460 ( 8)
03Y316	SPQ	7690 (13)	7710 (12)	7320 (15)	8040 (12)
01Y327	SPQ	7680 (14)	7810 ( 9)	7550 (10)	7670 (16)
CH-201	SPQ	7600 (15)	7740 (11)	7470 (13)	7580 (17)
S-102	S	7520 (16)	7950 ( 7)	7630 ( 9)	6970 (19)
M-202	M	7500 (17)	7350 (17)	7100 (21)	8030 (13)
M-207	M	7490 (18)	7540 (14)	7140 (19)	7790 (15)
01Y185	SPQ	7230 (19)	7220 (19)	7860 ( 7)	6620 (20)
CT-201	BAS	7110 (20)	6900 (20)	7110 (20)	7330 (18)
CM-101	WX	6830 (21)	6830 (21)	7190 (18)	6470 (21)
MEAN		7800	7780	7550	8070
CV		8.2	8.6	5.2	9.8
LSD (.05)		520	950	550	1120
<i>Preliminary Lines and Varieties</i>					
03Y496	LSR	8920 ( 1)	9410 ( 1)	7820 ( 5)	9520 ( 1)
01Y502	LSR	8580 ( 2)	8400 ( 7)	8080 ( 2)	9260 ( 3)
03Y151	REX	8560 ( 3)	8620 ( 4)	7690 ( 9)	9370 ( 2)
04Y460	M	8400 ( 4)	8700 ( 3)	8140 ( 1)	8370 ( 8)
04Y656	M	8230 ( 5)	8070 (12)	8030 ( 3)	8590 ( 7)
04Y687	M	8220 ( 6)	7900 (14)	7770 ( 8)	8980 ( 4)
04Y564	L	8200 ( 7)	8510 ( 6)	7840 ( 4)	8240 (10)
04Y105	REX	8120 ( 8)	8960 ( 2)	7790 ( 7)	7590 (18)
04Y405	M	8030 ( 9)	7920 (13)	7420 (16)	8760 ( 5)
04Y274	M	8010 (10)	7840 (15)	7500 (13)	8680 ( 6)
04Y280	M	7910 (11)	7650 (17)	7800 ( 6)	8290 ( 9)
04Y165	SPQ	7900 (12)	8530 ( 5)	7440 (14)	7740 (16)
04Y524	JAS	7780 (13)	8290 ( 9)	7520 (11)	7520 (21)
04Y189	SPQ	7760 (14)	8300 ( 8)	7580 (10)	7390 (22)
04Y314	MPQ	7600 (15)	8240 (10)	7360 (17)	7210 (26)
04Y330	MPQ	7600 (16)	7790 (16)	7100 (22)	7890 (13)
04Y294	M	7560 (17)	7640 (18)	7090 (23)	7950 (12)
04Y428	M	7540 (18)	7240 (26)	7510 (12)	7850 (15)
04Y288	M	7500 (19)	7530 (22)	7440 (15)	7540 (20)
03Y324	S	7470 (20)	7270 (25)	7270 (18)	7880 (14)
03Y559	MPQ	7450 (21)	7560 (21)	6770 (27)	8020 (11)
04Y928	M	7410 (22)	8160 (11)	7150 (19)	6910 (27)
04Y905	M	7400 (23)	7600 (19)	6940 (24)	7650 (17)
04Y387	M	7330 (24)	7520 (23)	7110 (21)	7360 (23)
04Y1006	M	7240 (25)	7330 (24)	6830 (26)	7560 (19)
04Y173	SPQ	7220 (26)	7590 (20)	6840 (25)	7210 (25)
03Y295	MPQ	7140 (27)	7060 (28)	7120 (20)	7250 (24)
04Y537	BAS	6710 (28)	6860 (29)	6550 (28)	6710 (28)
04Y181	SPQ	6620 (29)	7130 (27)	6150 (29)	6580 (29)
04P3220	BAS	5790 (30)	6240 (30)	5600 (30)	5530 (30)
MEAN		7720	7860	7310	7850
CV		5.8	5.2	5.8	7.1
LSD (.05)		440	570	860	1140

S = short; M = medium; L = long; PQ = premium quality; BAS = Basmati; WX = waxy;

REX = Newrex; JAS = Jasmine; SR = stem rot resistant.

Numbers in parentheses indicate relative rank in column.

\* Butte not included due to heavy bird damage.

Table 12. Grain Yield (lb/acre @14% moisture) Summary of Early Rice Varieties by Location and Year (2001-2005) \*

Location	Year	Calhikari				Calmati		
		201	<b>M-202</b>	M-204	M-205	M-206	201	L-205
Biggs (RES)	2001	9290	<b>9300</b>	9880	10180	9290	8280	10320
	2002	8910	<b>10620</b>	10180	11230	10210	9040	10890
	2003	8310	<b>8530</b>	9280	9860	8320	7910	9290
	2004	8120	<b>9500</b>	9590	10270	9650	8500	9810
	2005	7740	<b>7350</b>	7560	7980	7890	6900	8760
Location Mean		8474	<b>9060</b>	9298	9904	9072	8126	9814
Butte	2001	8491	<b>8939</b>	8917	9202	8983	7440	8141
	2002	8677	<b>9333</b>	9683	9913	9858	8086	9191
	2003	6828	<b>8294</b>	8907	9257	8808	6379	8283
	2004	8200	<b>8990</b>	8800	9490	8800	7380	8060
	2005	-	-	-	-	-	-	-
Location Mean		8049	<b>8889</b>	9077	9465	9112	7321	8419
Colusa	2001	9069	<b>9801</b>	10262	10418	10397	7050	9331
	2002	8452	<b>9247</b>	9362	10136	9592	8065	9697
	2003	7762	<b>9205</b>	9383	10010	8389	7981	8713
	2004	9570	<b>10330</b>	10830	10750	10200	8440	10450
	2005	7580	<b>8030</b>	8840	9330	8160	7330	8570
Location Mean		8486	<b>9323</b>	9735	10129	9348	7773	9352
Yuba	2001	7667	<b>8169</b>	8326	8128	8609	5889	7835
	2002	8609	<b>9456</b>	7866	8598	9948	7103	8431
	2003	8389	<b>8305</b>	8190	9027	8504	7186	7897
	2004	8240	<b>9850</b>	9050	9120	9960	6720	8510
	2005	7470	<b>7100</b>	7950	8150	7670	7110	7490
Location Mean		8075	<b>8576</b>	8277	8605	8938	6802	8033
Loc/Years Mean		8283	<b>8966</b>	9098	9529	9118	7515	8930
<b>Yield % M-202</b>		<b>92.4</b>	<b>100</b>	<b>101.5</b>	<b>106.3</b>	<b>101.7</b>	<b>83.8</b>	<b>99.6</b>
Number of Tests		19	<b>19</b>	19	19	19	19	19

\* 2000-2003 yields for Butte, Colusa, and Yuba were converted to represent the 2004 harvested plot area of 143.4 square feet.

Table 13. 2005 Intermediate/Late Rice Variety Test - RES.													
<i>Advanced Lines and Varieties</i>													
		Grain Yield		Grain		Seedling	Days to		Plant				
	Grain	at 14%		Moisture		Vigor	50%	Lodging	Height				
Variety	Type	lbs/acre		at Harvest		(1-5)	Heading	(1-99)	(cm)				
03Y151	REX	10630	( 1)	16.1	( 9)	4.8	( 8)	91	(11)	4	( 2)	98	( 4)
04Y706	L	10530	( 2)	16.7	( 5)	4.7	(13)	88	( 8)	4	( 2)	101	( 7)
01Y501	LSR	10340	( 3)	16.6	( 6)	4.8	(12)	89	( 9)	4	( 2)	103	(10)
03Y576	SSR	9940	( 4)	18.1	( 2)	4.7	(13)	97	(13)	1	( 1)	96	( 2)
04Y622	MPQ	9270	( 5)	16.5	( 7)	4.8	( 8)	84	( 4)	15	( 7)	96	( 2)
03Y818	M	9230	( 6)	16.5	( 7)	4.8	( 8)	87	( 6)	65	(11)	99	( 6)
03Y559	MPQ	9140	( 7)	16.1	( 9)	4.8	( 8)	83	( 2)	83	(12)	105	(11)
L-205	REX	9110	( 8)	14.5	(12)	4.9	( 5)	94	(12)	13	( 6)	98	( 4)
M-205	M	9110	( 9)	17.5	( 3)	4.9	( 5)	90	(10)	28	( 9)	101	( 8)
M-202	M	8610	(10)	16.8	( 4)	4.9	( 1)	86	( 5)	93	(13)	109	(14)
M-402	MPQ	8570	(11)	20.8	( 1)	4.9	( 1)	106	(14)	4	( 5)	106	(12)
03Y324	S	8570	(12)	14.6	(11)	4.9	( 5)	82	( 1)	25	( 8)	102	( 9)
CT-201	BAS	7690	(13)	13.6	(14)	4.9	( 1)	87	( 6)	28	( 9)	108	(13)
CH-201	SPQ	7590	(14)	14.4	(13)	4.9	( 1)	83	( 2)	97	(14)	95	( 1)
MEAN		9170		16.3		4.8		89		33		101	
CV		8.8		9.3		0.8		0.7		20.3		3.4	
LSD (.05)		1740		3.3		0.1		1		14		7	
<i>Preliminary Lines and Varieties</i>													
04Y404	M	9980	( 1)	16.4	( 4)	4.8	(10)	86	( 9)	25	(13)	104	(13)
04Y704	LSR	9860	( 2)	15.6	(11)	4.7	(16)	94	(17)	1	( 1)	93	( 3)
04Y638	SSR	9520	( 3)	17.1	( 2)	4.7	(16)	97	(20)	2	( 2)	90	( 1)
99Y041	L	9380	( 4)	15.2	(14)	4.8	(14)	96	(18)	5	( 5)	104	(13)
04Y208	SSR	9230	( 5)	14.0	(18)	4.7	(16)	85	( 8)	4	( 3)	92	( 2)
99Y529	L	9180	( 6)	14.0	(17)	4.7	(16)	86	(10)	10	( 7)	104	(15)
04Y625	MPQ	9170	( 7)	16.9	( 3)	4.8	(10)	87	(11)	13	( 8)	103	(12)
04Y842	M	9140	( 8)	15.8	( 9)	5.0	( 2)	80	( 3)	63	(18)	108	(20)
04Y413	M	9110	( 9)	17.2	( 1)	4.8	(14)	88	(16)	15	( 9)	105	(16)
04Y660	M	9110	(10)	16.2	( 7)	4.9	( 7)	87	(11)	9	( 6)	99	( 7)
04Y997	M	8660	(11)	16.1	( 8)	4.9	( 4)	82	( 4)	18	(11)	107	(17)
99Y494	LWX	8650	(12)	14.8	(15)	4.9	( 7)	96	(18)	4	( 3)	96	( 4)
04Y662	M	8630	(13)	16.4	( 5)	4.8	(10)	87	(13)	25	(13)	101	( 9)
02Y321	MPQ	8080	(14)	15.5	(12)	4.9	( 7)	87	(13)	60	(17)	107	(17)
04Y683	M	7990	(15)	16.4	( 5)	4.9	( 4)	87	(13)	28	(15)	99	( 8)
99Y469	L	7900	(16)	13.4	(20)	4.7	(20)	82	( 4)	35	(16)	97	( 5)
04Y1007	M	7640	(17)	14.5	(16)	5.0	( 2)	79	( 2)	15	( 9)	102	(11)
04Y419	M	7470	(18)	15.7	(10)	5.0	( 1)	84	( 6)	20	(12)	102	(10)
04Y153	BAS	6860	(19)	13.6	(19)	4.8	(10)	84	( 7)	70	(19)	98	( 6)
04Y823	M	6550	(20)	15.4	(13)	4.9	( 4)	77	( 1)	70	(19)	108	(19)
MEAN		8600		15.5		4.8		86		24		101	
CV		9		5.1		1.3		2.5		38.9		3.1	
LSD (.05)		1630		1.6		0.1		5		20		7	

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

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

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

Numbers in parentheses indicate relative rank in column.

Table 14. 2005 Intermediate/LateRice Variety Test - Glenn Co.

<i>Advanced Lines and Varieties</i>							
Variety	Grain Type	Grain Yield at 14% Moisture lbs/acre	Grain Moisture at Harvest (%)	Seedling Vigor (1-5)	Days to 50% Heading	Lodging (1-99)	Plant Height (cm)
M-402	MPQ	9040 (1)	17.6 (1)	5.0 (1)	104 (14)	20 (13)	102 (12)
03Y576	SSR	8660 (2)	16.1 (2)	4.4 (13)	92 (13)	1 (1)	100 (9)
M-202	M	8430 (3)	14.5 (7)	4.9 (6)	87 (2)	15 (12)	102 (11)
01Y501	LSR	8250 (4)	12.4 (11)	4.3 (14)	88 (7)	1 (1)	98 (5)
03Y818	M	8240 (5)	14.9 (3)	4.9 (7)	87 (2)	13 (11)	99 (8)
M-205	M	8190 (6)	14.7 (4)	5.0 (5)	89 (9)	1 (1)	96 (3)
03Y151	REX	8030 (7)	11.9 (12)	4.7 (12)	88 (7)	1 (1)	101 (10)
04Y706	L	7980 (8)	11.8 (13)	4.8 (10)	91 (10)	1 (1)	99 (7)
03Y324	S	7920 (9)	13.8 (8)	4.9 (8)	86 (1)	1 (1)	98 (5)
CH-201	SPQ	7770 (10)	13.4 (9)	5.0 (1)	87 (2)	24 (14)	97 (4)
L-205	REX	7510 (11)	12.5 (10)	5.0 (4)	92 (12)	1 (1)	96 (2)
03Y559	MPQ	7490 (12)	14.5 (5)	4.9 (8)	87 (2)	3 (10)	102 (12)
04Y622	MPQ	7270 (13)	14.5 (6)	4.7 (11)	87 (6)	1 (1)	91 (1)
CT-201	BAS	6620 (14)	11.5 (14)	5.0 (1)	91 (11)	1 (1)	104 (14)
MEAN		7960	13.9	4.8	90	6	99
CV		4.4	2	3.8	0.4	157.1	2.7
LSD (.05)		500	0.4	0.3	1	14	4
<i>Preliminary Lines and Varieties</i>							
99Y494	LW	8350 (1)	11.4 (20)	5.0 (1)	91 (16)	1 (1)	92 (4)
04Y842	M	8160 (2)	14.7 (8)	5.0 (1)	86 (4)	1 (1)	107 (20)
99Y529	L	8000 (3)	11.6 (19)	4.9 (12)	88 (9)	1 (1)	104 (18)
04Y413	M	7880 (4)	14.9 (3)	4.9 (12)	89 (14)	1 (1)	98 (11)
04Y683	M	7620 (5)	14.8 (6)	5.0 (1)	88 (9)	1 (1)	96 (7)
99Y041	L	7570 (6)	12.4 (17)	5.0 (1)	89 (13)	1 (1)	102 (16)
99Y469	L	7570 (7)	12.1 (18)	4.8 (16)	87 (5)	1 (1)	88 (1)
04Y404	M	7560 (8)	14.8 (5)	5.0 (1)	87 (5)	1 (1)	98 (11)
04Y823	M	7490 (9)	14.7 (9)	5.0 (1)	84 (1)	1 (1)	99 (15)
04Y662	M	7430 (10)	14.8 (4)	5.0 (1)	87 (5)	1 (1)	98 (13)
04Y638	SSR	7240 (11)	15.9 (1)	4.4 (20)	95 (20)	1 (1)	97 (9)
04Y660	M	7230 (12)	15.1 (2)	4.8 (17)	91 (17)	1 (1)	95 (5)
02Y321	MPQ	7190 (13)	14.7 (7)	4.9 (12)	90 (15)	15 (20)	104 (17)
04Y419	M	7160 (14)	14.0 (14)	5.0 (1)	87 (5)	1 (1)	95 (6)
04Y208	SSR	7020 (15)	14.4 (12)	4.5 (19)	88 (9)	1 (1)	89 (2)
04Y1007	M	6760 (16)	14.1 (13)	5.0 (1)	84 (1)	1 (1)	97 (9)
04Y997	M	6690 (17)	14.4 (11)	5.0 (11)	85 (3)	1 (1)	105 (19)
04Y625	MPQ	6690 (18)	14.6 (10)	5.0 (1)	91 (17)	1 (1)	98 (13)
04Y704	LSR	6680 (19)	13.1 (16)	4.6 (18)	94 (19)	1 (1)	92 (3)
04Y153	BAS	5160 (20)	13.3 (15)	4.9 (12)	88 (12)	3 (19)	96 (7)
MEAN		7270	14.0	4.9	88	2	97
CV		6.6	2.3	3.2	0.6	92.9	2.9
LSD (.05)		1010	0.7	0.3	1	3	6

S = short; M = medium; L = long; PQ = premium quality; BAS = Basmati; WX = waxy; REX = Newrex;

SR = stem rot resistant.

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

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

Numbers in parentheses indicate relative rank in column.

Table 15. 2005 Intermediate/LateRice Variety Test - Sutter Co.

<i>Advanced Lines and Varieties</i>							
Variety	Grain Type	Grain Yield at 14% Moisture lbs/acre	Grain Moisture at Harvest (%)	Seedling Vigor (1-5)	Days to 50% Heading	Lodging (1-99)	Plant Height (cm)
M-205	M	10040 (1)	25.6 (2)	5.0 (1)	83 (11)	6 (7)	100 (9)
03Y324	S	9960 (2)	21.7 (8)	5.0 (1)	80 (5)	2 (4)	100 (8)
03Y151	REX	9750 (3)	19.4 (11)	5.0 (1)	79 (3)	1 (1)	98 (7)
03Y559	MPQ	9590 (4)	25.4 (3)	5.0 (11)	82 (7)	22 (11)	104 (14)
L-205	REX	9560 (5)	17.0 (14)	5.0 (1)	79 (2)	2 (4)	94 (1)
M-202	M	9500 (6)	25.4 (4)	5.0 (1)	81 (6)	32 (13)	101 (11)
01Y501	LSR	9370 (7)	19.0 (12)	5.0 (9)	78 (1)	1 (1)	98 (5)
03Y818	M	9330 (8)	24.1 (7)	5.0 (11)	82 (8)	30 (12)	100 (9)
04Y706	L	9270 (9)	20.2 (10)	4.9 (13)	82 (8)	8 (8)	97 (4)
04Y622	MPQ	8890 (10)	25.0 (5)	5.0 (9)	83 (11)	20 (10)	94 (1)
CH-201	SPQ	8570 (11)	20.9 (9)	5.0 (1)	79 (3)	90 (14)	98 (5)
03Y576	SSR	8390 (12)	24.8 (6)	4.9 (13)	82 (10)	5 (6)	97 (3)
CT-201	BAS	7670 (13)	19.0 (13)	5.0 (1)	86 (13)	1 (1)	102 (13)
M-402	MPQ	7530 (14)	26.9 (1)	5.0 (1)	95 (14)	13 (9)	102 (12)
MEAN		9100	22.5	5.0	82	17	99
CV		4.4	4.8	0.7	1	92.7	3
LSD (.05)		570	1.6	0	1	22	4
<i>Preliminary Lines and Varieties</i>							
04Y404	M	10460 (1)	24.0 (9)	5.0 (1)	80 (4)	5 (10)	99 (10)
04Y823	M	10370 (2)	25.2 (2)	5.0 (1)	80 (4)	21 (17)	110 (20)
04Y662	M	10320 (3)	24.5 (5)	5.0 (1)	82 (13)	10 (15)	102 (14)
04Y683	M	10170 (4)	24.4 (6)	5.0 (1)	81 (10)	1 (1)	97 (6)
04Y413	M	10120 (5)	25.4 (1)	4.9 (16)	82 (13)	31 (19)	102 (14)
99Y529	L	10100 (6)	17.5 (17)	5.0 (12)	76 (1)	1 (1)	100 (12)
04Y842	M	10050 (7)	22.5 (12)	5.0 (12)	80 (4)	8 (14)	105 (19)
99Y469	L	9790 (8)	17.8 (16)	4.9 (19)	80 (4)	3 (7)	87 (1)
99Y494	LW	9660 (9)	17.4 (18)	5.0 (1)	83 (15)	3 (7)	90 (3)
04Y660	M	9630 (10)	24.3 (7)	4.9 (16)	84 (16)	3 (7)	98 (8)
04Y625	MPQ	9560 (11)	24.9 (3)	5.0 (1)	85 (18)	26 (18)	102 (14)
99Y041	L	9460 (12)	16.5 (19)	5.0 (1)	78 (3)	11 (16)	98 (8)
04Y997	M	9080 (13)	24.1 (8)	5.0 (12)	80 (4)	1 (1)	105 (18)
04Y419	M	9040 (14)	24.5 (4)	5.0 (1)	81 (11)	6 (11)	101 (13)
04Y704	LSR	9000 (15)	20.7 (15)	5.0 (1)	88 (20)	1 (1)	92 (4)
04Y638	SSR	9000 (16)	23.8 (10)	4.8 (20)	84 (16)	6 (11)	98 (7)
04Y208	SSR	8940 (17)	20.9 (14)	4.9 (16)	78 (2)	1 (1)	90 (2)
02Y321	MPQ	8860 (18)	23.5 (11)	5.0 (12)	87 (19)	48 (20)	102 (17)
04Y1007	M	8410 (19)	22.1 (13)	5.0 (1)	80 (4)	1 (1)	99 (10)
04Y153	BAS	6320 (20)	15.8 (20)	5.0 (1)	81 (11)	6 (11)	93 (5)
MEAN		9420	22.0	5.0	81	9	98
CV		5.3	5.3	1.4	2.4	195.7	5
LSD (.05)		1040	2.4		4		10

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

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

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

Numbers in parentheses indicate relative rank in column.

Table 16. 2005 Intermediate/Late Rice Variety Tests - Three Location Yield  
(lb/ac @ 14% moisture) Summary.

<i>Advanced Lines and Varieties</i>					
Variety	Grain Type	Average	Biggs RES	Glenn Wylie	Sutter Akin
03Y151	REX	9470 ( 1)	10630 ( 1)	8030 ( 7)	9750 ( 3)
01Y501	LSR	9320 ( 2)	10340 ( 3)	8250 ( 4)	9370 ( 7)
04Y706	L	9260 ( 3)	10530 ( 2)	7980 ( 8)	9270 ( 9)
M-205	M	9120 ( 4)	9110 ( 9)	8190 ( 6)	10040 ( 1)
03Y576	SSR	9000 ( 5)	9940 ( 4)	8660 ( 2)	8390 (12)
03Y818	M	8930 ( 6)	9230 ( 6)	8240 ( 5)	9330 ( 8)
M-202	M	8850 ( 7)	8610 (10)	8430 ( 3)	9500 ( 6)
03Y324	S	8820 ( 8)	8570 (12)	7920 ( 9)	9960 ( 2)
03Y559	MPQ	8740 ( 9)	9140 ( 7)	7490 (12)	9590 ( 4)
L-205	REX	8730 (10)	9110 ( 8)	7510 (11)	9560 ( 5)
04Y622	MPQ	8480 (11)	9270 ( 5)	7270 (13)	8890 (10)
M-402	MPQ	8380 (12)	8570 (11)	9040 ( 1)	7530 (14)
CH-201	SPQ	7980 (13)	7590 (14)	7770 (10)	8570 (11)
CT-201	BAS	7330 (14)	7690 (13)	6620 (14)	7670 (13)
MEAN		8660	9170	7960	9100
CV		5.3	8.8	4.4	4.4
LSD (.05)		410	1740	500	570
<i>Preliminary Lines and Varieties</i>					
04Y404	M	9330 ( 1)	9980 ( 1)	7560 ( 8)	10460 ( 1)
04Y842	M	9120 ( 2)	9140 ( 8)	8160 ( 2)	10050 ( 7)
99Y529	L	9090 ( 3)	9180 ( 6)	8000 ( 3)	10100 ( 6)
04Y413	M	9030 ( 4)	9110 ( 9)	7880 ( 4)	10120 ( 5)
99Y494	LWX	8880 ( 5)	8650 (12)	8350 ( 1)	9660 ( 9)
99Y041	L	8800 ( 6)	9380 ( 4)	7570 ( 6)	9460 (12)
04Y662	M	8790 ( 7)	8630 (13)	7430 (10)	10320 ( 3)
04Y660	M	8650 ( 8)	9110 (10)	7230 (12)	9630 (10)
04Y683	M	8600 ( 9)	7990 (15)	7620 ( 5)	10170 ( 4)
04Y638	SSR	8580 (10)	9520 ( 3)	7240 (11)	9000 (16)
04Y704	LSR	8510 (11)	9860 ( 2)	6680 (19)	9000 (15)
04Y625	MPQ	8470 (12)	9170 ( 7)	6690 (18)	9560 (11)
99Y469	L	8420 (13)	7900 (16)	7570 ( 7)	9790 ( 8)
04Y208	SSR	8400 (14)	9230 ( 5)	7020 (15)	8940 (17)
04Y997	M	8140 (15)	8660 (11)	6690 (17)	9080 (13)
04Y823	M	8140 (16)	6550 (20)	7490 ( 9)	10370 ( 2)
02Y321	MPQ	8040 (17)	8080 (14)	7190 (13)	8860 (18)
04Y419	M	7890 (18)	7470 (18)	7160 (14)	9040 (14)
04Y1007	M	7600 (19)	7640 (17)	6760 (16)	8410 (19)
04Y153	BAS	6120 (20)	6860 (19)	5160 (20)	6320 (20)
MEAN		8430	8600	7270	9420
CV		7.1	9	6.6	5.3
LSD (.05)		700	1630	1010	1040

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

Numbers in parentheses indicate relative rank in column.

Table 17. Grain Yield (lb/acre @14% moisture) Summary of Intermediate/Late Rice Varieties by Location and Year (2001-2005) \*

Location	Year	M-205	M-402	<b>M-202</b>	L-205
Biggs (RES)	2001	9430	8710	<b>8580</b>	8910
	2002	11600	10800	<b>9970</b>	11330
	2003	10180	8130	<b>8650</b>	10580
	2004	10180	9310	<b>9480</b>	10150
	2005	9110	8570	<b>8610</b>	9110
Location Mean		10100	9104	<b>9058</b>	10016
Glenn	2001	9435	8473	<b>8044</b>	6935
	2002	9247	9257	<b>8368</b>	7782
	2003	8483	7887	<b>6862</b>	7500
	2004	10210	9860	<b>9040</b>	9140
	2005	8190	9040	<b>8430</b>	7510
Location Mean		9113	8903	<b>8149</b>	7774
Sutter	2001	10324	9822	<b>10711</b>	9153
	2002	10115	8692	<b>10743</b>	8933
	2003	11151	9613	<b>10356</b>	9310
	2004	10850	9430	<b>11140</b>	10970
	2005	10040	7530	<b>9500</b>	9560
Location Mean		10496	9018	<b>10490</b>	9585
Loc/Years Mean		9903	9008	<b>9232</b>	9125
<b>Yield % M-202</b>		<b>107.3</b>	<b>97.6</b>	<b>100</b>	<b>98.8</b>
Number of Tests		15	15	<b>15</b>	15

\* 2000-2003 yields for Glenn and Sutter were converted to represent the 2004 harvested plot area of 143.4 square feet.



Table 18 Grain yields (lb/ac at 14@ moisture) from 2004 and 2005 as affected by early season tillage, water management and seeding. In all treatments 150 lb N/ac was applied.

#	System	2004	2005
1	Water seeded - conventional	11888	7295
2	Direct seeded - conventional	12055	7509
3	Water seeded - stale	10532	6555
4	Water seeded - no till stale	11629	7299
5	Direct seeded - no till stale	11488	7404
<b>ANOVA (P)</b>		<b>0.09</b>	<b>0.19</b>

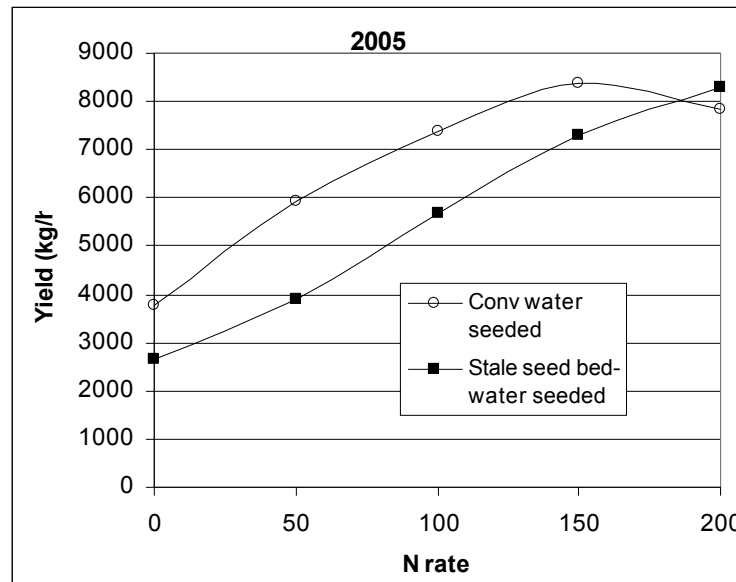


Figure 1: Yield x nitrogen rate for conventional water seeded and stale seed bed water seeded treatments.