# ANNUAL REPORT COMPREHENSIVE RESEARCH ON RICE 

PROJECT TITLE: Cooperative Extension Rice Variety Adaptation and Cultural Practice Research
PROJECT LEADERS:
James E. Hill, Specialist in UCCE, UC Davis

## PRINCIPAL UC INVESTIGATORS:

L.A. Espino, UCCE Farm Advisor, Colusa, Glenn, Yolo
C.A. Greer, UCCE Farm Advisor, Sacramento, Sutter, Placer, Yuba
R.G. Mutters, UCCE Farm Advisor, Butte
R.L. Wennig, Staff Research Associate, UCCE/UC Davis

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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 at different locations in the Sacramento Valley and the Sacramento-San Joaquin Delta. Several experimental cultivars were evaluated at each location within these groups to compare their performance in different environments of the rice-growing region.

Very Early Maturity Group: Three uniform trials for each of the advanced and experimental lines were conducted at each of the following on-farm sites: the Lauppe Ranch (south Sutter County), the Erdman Ranch (District 108, Yolo County), and at the Del Rio Partners Ranch (San Joaquin Delta, San Joaquin County). In addition to the three on-farm sites, two additional tests were conducted at the Rice Experiment Station (RES) in Butte County. The Advanced test at each site included 18 entries (seven commercial varieties and eleven advanced breeding lines) in four replications. The Preliminary tests included 32 entries, 30 preliminary breeding lines and two commercial varieties as checks, in two replications.

Early Maturity Group: Three uniform tests were conducted at each of the following on-farm sites: the Larrabee Ranch (Glenn County), the Dennis Ranch (Colusa County), and the Marler Farms Ranch (District 10, Yuba County). Two additional trials, Advanced and Preliminary, were conducted at the RES. The Advanced test at each site included 17 entries (eight commercial varieties and nine advanced breeding lines) in four replications. The Preliminary tests included 38 entries, four commercial varieties and 34 preliminary 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 Tucker Ranch (Sutter Basin, Sutter County). Two additional tests were conducted at the RES. The Advanced test at each site included 9 entries (five commercial varieties and four advanced breeding lines) in four replications. The Preliminary tests consisted of three commercial varieties and 27 preliminary breeding lines in two replications.

## Objective II

Cultural Practices: Rice variety tests were conducted on Twitchell Island in the western Delta as part of a larger project to evaluate rice under flooded culture as a method of preventing organic soil subsidence. Four commercial varieties with the best potential to tolerate cold temperatures (Calmochi-101, S-102, M104, and M-206) were compared in one acre plots replicated three times. A small plot test similar to the statewide variety trials was conducted with the eight commercial varieties and eight advanced cold tolerant lines. The purpose of the small plot test was to provide the RES breeders with additional information under very cold conditions. A third test was conducted again this year to compare water and drill seeding methods. M-104 was used and the methods were replicated four times.

## Objective III

Extension-Based Equipment and Service: A centrally-based equipment pool is maintained by Project RM2 to provide services for planting, fertilizing, treatment application, and harvesting of rice and to provide professional technical assistance to UC research project leaders engaged in rice.

To provide professional technical assistance to other UC research project leaders, we assisted in approximately 22 trials including the 19 variety tests. Equipment from the UCCE-based pool for planting and harvesting field experiments was used at 13 sites at different times during the season. The most heavily used equipment were the combines followed by the Kincaid seed drill planter. The rice combines were maintained according to the established maintenance schedules.

The ALMACO combine was used to harvest all Statewide trials except Colusa. Due to the presence of Rice Blast, the SWECO was used to harvest the Colusa site to prevent the possible spread of the disease to other test sites.

## Objective IV

Extension Education: We disseminated research-based information to California rice producers, dryer operators, millers and the general public through two winter grower meetings, field demonstrations, personal communication and through the distribution of one fact sheet (re-publication of the 2010 Characteristics of Publicly Developed Varieties), the Rice Field Day Program and other printed material. We hosted the Rice Breeders Tour. Progress was made updating the UCCE rice website.

## SUMMARY OF 2011 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 overlocation agronomic performance summaries for each entry in each maturity category. For quick reference, grain yields of selected commercially available varieties tested in very early, early and intermediate-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): Seven commercial varieties and eleven advanced breeding lines were compared in four very early advanced tests. Commercial varieties at each location included S-102, CH-201, CM-101, M-104, M-105, M-206 and L-206. The preliminary tests included two commercial varieties and 30 preliminary lines evaluated in separate tests at each location.

Grain yields in the advanced tests averaged 8,320 lbs/ac at Biggs-RES, 9,210 lbs/ac at Sutter, 10,080 $\mathrm{lbs} / \mathrm{ac}$ at Yolo and $8,760 \mathrm{lbs} / \mathrm{ac}$ at San Joaquin (Tables $1,2 \& 3$ ). The Biggs and Sutter locations were dropped from the over-all location summary due to unusually high yield cvs (Table 1). The three highest yielding entries on average for Yolo and San Joaquin were advanced long grain line 06Y575, advanced short grain line 09Y2141, and advanced medium grain 08Y3076 (10,600, 10,580, and 9,890 lbs/ac respectively). Other top yielding commercial varieties $\mathrm{M}-206, \mathrm{M}-105, \mathrm{M}-104$, and $\mathrm{CH}-201$ ranked fourth, eighth, tenth, and thirteenth, respectively. Averaged across two locations, cultivar yields in the preliminary tests ranged from 5,940 to $9,960 \mathrm{lbs} / \mathrm{ac}$ (Table 1). The average number of days to $50 \%$ heading for varieties in 2011 was one day more than in 2010. Spring rains delayed field preparation, planting, and prevented a significant percentage of the projected acreage from being planted. Moderate daytime and nighttime temperatures may have slightly increased the number of days to $50 \%$ heading. Average lodging slightly decreased while plant heights increased three inches.

Comparing the commercial standard entries over a 5-year period and across locations, M-206, L-206 and S-102 were the highest yielding varieties (Table 6).

Early Maturity Tests (90-97 days to 50\% heading at Biggs): Eight commercial varieties and nine advanced lines were compared in four early advanced tests. The preliminary tests included four commercial varieties and 34 preliminary lines evaluated in separate tests at each location. Commercial varieties at each location were CH-201, CM-101, Akita, S-102, M-105, M-202, M-205, M-206, M-208, A-201, CT202 and L-206.

Yields in the advanced line tests averaged 10,200 lbs/ac at the RES; $8,840 \mathrm{lbs} / \mathrm{ac}$ at Butte, $9,590 \mathrm{lbs} / \mathrm{ac}$ at Yuba and $9,090 \mathrm{lbs} / \mathrm{ac}$ at Colusa (Table 7). Advanced long grain 09Y1122 was the highest yielding entry ( $10,400 \mathrm{lbs} / \mathrm{ac}$ ) when averaged over four locations in 2011 (Table 7). Other entries with yields averaging greater than $10,000 \mathrm{lbs} / \mathrm{ac}$ were short grains 09 Y 2179 and 09 Y 2141 and medium grain 08Y3269. The yield of commercial varieties M-208, M-205, L-206, M-206, M-202, and S-102 ranked sixth, seventh, eighth, tenth, thirteenth and fourteenth over all locations (Table 7). Average days to $50 \%$ heading ranged from 91 days at Biggs to 98 days at the Yuba County site. The commercial standard M-206 headed at 88 days at Biggs and 94 days at Yuba. Biggs was not included in the Preliminary over location summary due to unusually high yield cvs. Twenty preliminary lines averaged higher yields than M-105 in the Preliminary tests.

L-206 was the highest yielding commercial variety (9,534 lbs/ac) followed by M-205 (9,510 lbs/ac) and M-206 ( $9445 \mathrm{lbs} / \mathrm{ac}$ ) when averaged over the last 5 years and across 4 locations (Table 12).

Intermediate-Late Maturity Tests (> 97 days to 50\% heading at Biggs): Five commercial varieties and four advanced lines were compared in three intermediate-late tests. The preliminary tests included three commercial varieties and 27 preliminary lines that were evaluated in separate tests at each location. Commercial varieties at each location included CH-201, Koshihikari, M-202, M-205, M-401, M-402, L206 and CT-202.

Average yields in the advanced tests were 9,760 lbs/ac at the RES, 9,250 lbs/ac at Glenn and 9,400 lbs/ac at Sutter (Table 13). The 2011 advanced over location average yield was $320 \mathrm{lbs} / \mathrm{ac}$ greater than the 2010 average. The average yields at the Glenn and Sutter increased 870 and $270 \mathrm{lbs} / \mathrm{ac}$ respectively, while decreasing $180 \mathrm{lbs} / \mathrm{ac}$ at Biggs compared to the 2010 season. M-205 was the highest yielding commercial variety ( $9,710 \mathrm{lbs} / \mathrm{ac}$ ), ranking third overall. L-206 and M-202 were the next highest yielding commercial
varieties across locations, ranking fifth and seventh respectively (Table 13). The long grain Newrex entry 06 Y 575 was the highest yielding advanced entry across all locations, at $10,310 \mathrm{lbs} / \mathrm{ac}$. Average days to $50 \%$ heading decreased one day compared to 2010. M-401 was the latest variety (113 days) to reach $50 \%$ heading among the commercial varieties at all locations.

Averaged over the last 5 years and across locations, M-205 is the highest yielding ( $9,651 \mathrm{lb} / \mathrm{ac}$ ) commercial variety closely followed by L-206 at 9,519 lbs/ac. Both M-205 and L-206 produced $106 \%$ of the yield of M-202 on average over the last 5 years (Table 17).

## Objective II - Cultural Practices

Twitchell Island Variety Test: Table 18 shows the results of the large plot variety test at Twitchell Island. The average yield for the test ( $8800 \mathrm{lbs} / \mathrm{ac}$ ) increased $28 \%$ compared to 2010 . The leading variety was S102 followed by M-104, M-206 and Calmochi-101. Calmochi-101 is well-known as the most cold tolerant of commercial California varieties and has become the standard by which to measure this trait against other varieties and advanced lines. Calmochi-101 unexpectedly yielded the lowest this year but was not significantly lower in yield than the highest yielding entry S-102. Days to $50 \%$ heading ranged from 105 days for M-104 to 117 days for CM-101.

The commercial variety yields in the small plot cold tolerance test were similar in ranking to the large plot test with Calmochi-101 ranking below M-104, M-206 and S-102. CH-201 and M-202 were the lowest yielding commercial varieties in the test (Table 19). This year we selected a more uniform location for the cold tolerance test which resulted in a $56.5 \%$ average yield increase and a $5 \%$ decrease in the yield cv. There were no significant yield differences between the top four commercial varieties. However the unusually large yield CV, compared to typical small plot variety tests, was likely due to an undetermined soil condition that resulted in a 3 to 4 day increase in days to $50 \%$ heading from the bottom to the top of the field. The highest yielding entry was the long grain 'Newrex’ type 06Y575. Three advanced medium grain cultivars ranked second, third, and fourth in yield thus indicating the continued potential for medium grain Calrose types in cold environments. At Twitchell Island, the average time to $50 \%$ heading for these very early varieties was 119 days after planting, 22 days later than the average days to heading for intermediate to late maturing varieties in the Sacramento Valley tests. The large delay in maturity demonstrates one of the main challenges of growing rice in this environment.

A third trial was conducted to compare water and drill seeding methods of planting (Table 20). M104 (the field variety) was replicated four times for each of the two planting methods. Once planting was completed, the water-seeded basins were drained to encourage seedling development. All basins were periodically flushed until the seedlings were established. Following herbicide and fertilizer applications all basins were continuously flooded. There were no significant differences in crop management other than seeding method. All measured characteristics were essentially the same for both planting methods. The average yield for the test increased $28 \%$ compared to 2010.

Improved field uniformity could greatly improve the chances of obtaining reliable and statistically significant results for all of the tests. Each year field uniformity and cultural practices are improving as we learn to maximize growing conditions for rice in the coldest growing area of the Sacramento - San Joaquin Valley region.

On-farm drill seeded variety trials: The performance of California public varieties under drill seeded conditions has not been tested in replicated on-farm trials. An early and a late planted trial were proposed for the 2011 season. The early drill seeded variety trial was planted on May 3 in the field of a cooperating grower in Butte County. Varieties M104, M105, M206, and M205 were seeded at the rate of $100 \mathrm{lb} / \mathrm{a}$ with a seven inch row spacing in a randomized complete block design. Soil fertility and pest control was managed by the participating grower according his standard practices. The initial irrigation was applied on

May 5 and the permanent flood was established on May 31. The field was drained in preparation for harvest on September 5 . The second 'late' planted variety trial was not planted due to ongoing weather related challenges and the resulting need to plant as quickly as possible. The test area in the last field was inadvertently planted. The early planted trial was inadvertently harvested by the grower, therefore no yield data are available to report.

Irrigation Management: The possibility of growing rice with periodic flushes of water (aerobic rice) is frequently discussed among various agencies in the context of water savings and reduced greenhouse emissions. Whether such an irrigation method could be successfully employed and thereby constitute a rational approach to improving water use efficiency is unknown. Small scale test plots at the RES in 2009 indicated that irrigating drill seeded in this fashion resulted in a small yield loss. Heading and consequently maturation were delayed by a week.

In cooperation with a Butte County grower, a commercial sized field (42 acres) was drill seeded on May 27 at a rate of $100 \mathrm{lb} /$ a with seven inch row spacing. Field preparation, fertility management, weed control were according to the grower's standard drill seeding practices. An additional herbicide application was needed beyond the grower's standard practice to treat the ongoing emergence of weeds in the aerobic system. Also in addition to the grower's standard fertilizer practice, an additional $20 \mathrm{lb} / \mathrm{a}$ of N as ammonium sulfate was applied as ammonium sulfate at 55 days after planting.

The experimental field was divided into four basin separated by low levies similar to those used in irrigated pastures. Basins were irrigated individually. Previous UC experimentation indicated that the critical soil moisture content for Calrose varieties grown on the heavy, clay soils was $35 \%$ by volume (Mutters et al., 2009; Fischer et al., 2010). The time intervals between flood irrigation was determined based on four soil moisture sensors (Decagon, model 10HS) located along the length of the field center. The time required to deplete the soil to suboptimal moisture content decreased as the season progressed; as the plant size increases so does the water use (Figure 1). The early season water loss from the soil is dominated by evaporation, while transpiration from the leaf surface would govern changes in soil moisture after canopy closure ( $\sim$ July 25). By in large the soil moisture content remained above $30 \%$ with the exception of July 14 to 24 . To achieve this level of consistency the grower was continually applying water; complete the cycle of four basins then immediately return to basin one to repeat the irrigation sequence. The soil moisture content was consistently higher in the bottom portion of the field, due to the $2 \%$ fall in field level from top to bottom resulting in quick flow across the field with ponding at the bottom.

The yield was 65 cwt /a dry. The low yield was likely attributable to a number of factors, principally a suboptimal stand density and soil nitrogen level, as well as high weed pressure. The leaf nitrogen content of plants in the test field was marginally adequate throughout the season even with the additional top dressing. A thorough investigation of nitrogen management in an aerobic system would be required if the system is to be seriously considered. Moreover and as expected, the intermittent irrigation resulted in the ongoing emergence of new weeds until the point of canopy closure. After which time the rate of recruitment noticeably declined. However the population of established weed even with an additional herbicide application was sufficient to impair harvest operations and reduce yields.
Based on this and previous work at the RES, aerobic rice does not appear to be an economically viable alternative production practice by which water use and greenhouse gas emissions may be reduced. The delayed maturation along with the added cost of irrigation, chemical inputs, and yield loss makes the utility of such a system highly questionable under California conditions.

## 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 maintenance schedule were inspected and replaced as needed.

The rice equipment pool, including a precision Clampco fertilizer applicator, SWECO 324 plot combine, ALMACO SP40 plot combine, moisture meters, remote temperature stations, and other equipment were used along with personnel who provided technical assistance for numerous field experiments in 2011. The SWECO 324 plot combine was used to harvest 2 statewide variety tests. The ALMACO was used to harvest 16 variety tests, a rice quality test at the RES, two cold temperature variety tests and a planting methods test at Twitchell Island. Over 1,100 experimental plots were harvested in 2011. In addition to equipment assistance to other projects, labor from this project was used to plant, collect samples, and monitor growth in several field experiments. Assistance was also provided to the annual RES Rice Field Day and the annual rice breeders' 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. Rice Field Day Program 2011, for the California Cooperative Rice Research Foundation, RES, 42 pp.
2. The UCCE website was updated.
3. UCCE winter grower meetings were held at Colusa and Yuba City.
4. Two activities were held in conjunction with the RES -- the annual California Rice Field day, and the Rice Breeders’ field tour.

## Publications and Reports:

MD Ruark, BA Linquist, J Six, C van Kessel, CA Greer, RG Mutters, and JE Hill. Seasonal losses of dissolved organic carbon and total dissolved solids from rice production systems in northern California. J. Env Qual 38:304-313, 2010

Linquist BA, K Koffler, JE Hill and C van Kessel. The impact of rice field drainage on nitrogen management. Cal Agic 63:80-84, 2011.

Hill, JE, Espino, LA, Greer, C.A., Mutters, RG, and Wennig, RL 2010. University of California Cooperative Extension (UCCE) rice variety adaptation and cultural practices research. In Annual Report Comprehensive Rice Research 2010. University of California and USDA. (available in eversion only).

Williams, Jack, ed. RG Mutters and CA Greer, tech ed. WR Horwath, SG Pettygrove, RE Plant, C van Kessel, AT O’Geen, JE Hill, C Bruice, B Linquist and C Hartley, Contributing. Rice nutrient management in California. Oakland: University of California Agriculture and Natural Resources Publication 3516, 2010.

Hill, J, R Mutters, C Greer, L Espino. R Stogsdill, B Linquist and H Sharifi. Predicting rice crop growth and development. 2011 Rice Field Day Program. 1 pp.

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

Seventeen 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 9,420 lbs/acre in the very early trials to $9,430 \mathrm{lbs} /$ acre in the early tests. In the intermediate to late tests the advanced lines average yield was $9,470 \mathrm{lbs} /$ acre. Frequent spring rains delayed field preparation and planting by 7 to 10 days. Several advanced lines in 2011 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.

The overall purpose of evaluating rice production in the western San Joaquin Delta is to find a flood tolerant crop to prevent subsidence of the organic soils from oxidation due to cultivation of upland crops. The special variety tests on Twitchell Island were conducted to determine the feasibility of commercial rice production in an extremely cold environment for rice. The results showed that varieties with good cold tolerance such as Calmochi-101 will produce reasonable yields. Clearly blanking and delayed plant development due to cold temperatures was a negative factor in achieving high yields.

Project RM-2 was involved in the planting, sampling and harvesting of more than 14 trial sites throughout the rice growing areas. This project also was also involved in several educational activities including the winter rice grower meetings, update of UCCE rice website, rice field days, and promoting work through fact sheets and publications.

## Figures and Tables



Figure 1. Volumetric soil moisture content over time for aerobically grown rice.

Table 1. 2011 Very Early Rice Variety Tests - Two Location Summary

| Variety | Grain Type | Over All Ave Grain Yield at 14\% Moisture lbs/acre | Single Location Yields |  | Grain |  | $\begin{gathered} \text { Days to } \\ 50 \% \\ \text { Heading } \end{gathered}$ | Lodging$(1-99)$ | Plant Height (in) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Moisture | Seedling |  |  |  |
|  |  |  | Yolo | San Joaquin | (\%) | (1-5) |  |  |  |
| 06Y575 | L | 10600 ( 1) | 11360 ( 2) | 9830 (1) | 19.0 (8) | 4.9 (12) | 102 (17) | 1 (1) | 40 (18) |
| $09 Y 2141$ | S | 10580 ( 2) | 11580 (1) | 9580 ( 2) | 20.5 (4) | 5.0 (1) | 99 (12) | 1 (1) | 40 (17) |
| $08 Y 3076$ | M | 9890 (3) | 10460 (4) | 9330 (4) | 20.7 (3) | 5.0 (8) | 100 (15) | 2 (16) | 37 (13) |
| M206 | M | 9780 (4) | 10230 (9) | 9330 (3) | 20.7 (2) | 5.0 (1) | 96 (10) | 1 (1) | 38 (14) |
| $09 Y 2036$ | S | 9670 (5) | 10380 (6) | 8970 (7) | 19.0 (9) | 4.9 (14) | 97 (11) | 1 (1) | 38 (16) |
| 08 Y 2049 | S | 9650 (6) | 10500 ( 3) | 8800 (10) | 19.8 (7) | 4.9 (14) | 96 (8) | 1 (1) | 35 (3) |
| 07 Y 43 | M | 9610 (7) | 10250 ( 8) | 8960 (8) | 21.6 (1) | 5.0 (10) | 94 (5) | 1 (1) | 37 (11) |
| M105 | M | 9500 (8) | 10290 (7) | 8720 (11) | 19.9 (6) | 4.9 (11) | 93 (4) | 1 (1) | 37 (12) |
| 08 Y 3016 | M | 9490 (9) | 9840 (13) | 9150 ( 5) | 18.9 (10) | 4.8 (17) | 92 (2) | 1 (1) | 35 (5) |
| M104 | M | 9410 (10) | 10020 (11) | 8800 (9) | 18.6 (12) | 5.0 (1) | 91 (1) | 1 (1) | 36 (7) |
| 08 Y 3080 | M | 9370 (11) | 9630 (14) | 9100 (6) | 18.6 (13) | 5.0 (1) | 94 (5) | 1 (1) | 38 (15) |
| 09 Y 1079 | L | 9310 (12) | 10060 (10) | 8560 (12) | 18.7 (11) | 5.0 (1) | 103 (18) | 1 (1) | 35 (4) |
| CH201 | S | 9130 (13) | 9910 (12) | 8360 (14) | 16.0 (16) | 5.0 (8) | 99 (14) | 26 (18) | 35 ( 2) |
| 04 Y 177 | S | 9080 (14) | 10440 (5) | 7720 (18) | 18.2 (14) | 4.3 (18) | 99 (13) | 25 (17) | 36 ( 8) |
| $09 Y 3024$ | M | 9060 (15) | 9570 (15) | 8550 (13) | 19.9 (5) | 4.9 (12) | 96 (8) | 1 (1) | 36 (6) |
| L206 | L | 8920 (16) | 9490 (16) | 8340 (15) | 16.2 (15) | 5.0 (1) | 100 (15) | 1 (1) | 33 (1) |
| S102 | S | 8410 (17) | 9050 (17) | 7760 (17) | 15.3 (18) | 5.0 (1) | 93 (3) | 1 (1) | 36 (9) |
| CM101 | S | 8090 (18) | 8320 (18) | 7850 (16) | 15.6 (17) | 4.8 (16) | 95 (7) | 1 (1) | 36 (10) |
| MEAN |  | 9420 | 10080 | 8760 | 18.7 | 4.9 | 96 | 4 | 37 |
| CV |  | 4.6 | 4.5 | 4.6 | 5.3 | 4.6 | 2.2 | 233.8 | 3.5 |
| LSD (.05) |  | 430 | 650 | 580 | 1 | 0.2 | 2 | 9 | 1 |
| Preliminary Lines and Varieties |  |  |  |  |  |  |  |  |  |
| 10Y2043 | S | 9960 ( 1) | 11660 ( 1) | 8260 (26) | 17.6 (23) | 4.7 (28) | 100 (26) | 1 ( 1) | 36 ( 4) |
| $10 Y 3282$ | M | 9920 (2) | 10450 (5) | 9390 (4) | 17.6 (24) | 5.0 (1) | 91 (3) | 3 (28) | 36 (8) |
| $10 Y 3286$ | M | 9840 (3) | 10700 (3) | 8980 (10) | 18.9 (11) | 4.7 (28) | 96 (17) | 1 (1) | 37 (11) |
| $09 Y 3059$ | M | 9830 (4) | 10260 (8) | 9390 ( 2) | 18.4 (13) | 5.0 (1) | 96 (16) | 1 (1) | 37 (10) |
| $09 Y 3078$ | M | 9810 (5) | 10240 (10) | 9390 (3) | 17.8 (21) | 4.8 (24) | 92 ( 5) | 1 (1) | 39 (24) |
| $09 Y 2063$ | SWX | 9800 (6) | 10050 (16) | 9540 (1) | 18.0 (18) | 4.9 (14) | 97 (22) | 1 (1) | 38 (21) |
| 09 Y 3225 | M | 9770 (7) | 10820 ( 2) | 8730 (16) | 19.0 (10) | 5.0 (1) | 97 (21) | 1 (1) | 39 (30) |
| 10 Y 3290 | M | 9750 (8) | 10560 ( 4) | 8940 (13) | 18.6 (12) | 4.9 (14) | 98 (23) | 1 (1) | 38 (18) |
| 10 Y 2158 | SWX | 9730 (9) | 10140 (14) | 9320 (6) | 20.6 (2) | 4.8 (24) | 103 (30) | 1 (1) | 38 (16) |
| $09 Y 3268$ | M | 9630 (10) | 10280 (6) | 8990 (9) | 18.3 (14) | 4.9 (14) | 96 (18) | 1 (1) | 38 (17) |
| $09 Y 3272$ | M | 9630 (11) | 10000 (17) | 9250 (7) | 18.3 (15) | 5.0 (1) | 94 (12) | 1 (1) | 38 (20) |
| $09 Y 3277$ | M | 9620 (12) | 9890 (19) | 9340 (5) | 19.4 (7) | 5.0 (1) | 94 (11) | 1 (1) | 36 (6) |
| $09 Y 3176$ | M | 9580 (13) | 10190 (11) | 8970 (11) | 18.2 (16) | 4.9 (20) | 93 (9) | 1 (1) | 36 (5) |
| $09 Y 3538$ | M | 9560 (14) | 10160 (12) | 8960 (12) | 19.1 (9) | 5.0 (13) | 95 (13) | 1 (1) | 37 (9) |
| 10Y2049 | SPQ | 9430 (15) | 10260 (9) | 8610 (20) | 17.8 (20) | 4.8 (24) | 95 (15) | 1 (1) | 35 (3) |
| $10 Y 3261$ | M | 9430 (16) | 10270 (7) | 8580 (21) | 19.6 (4) | 4.9 (14) | 97 (20) | 1 (1) | 39 (27) |
| $09 Y 3043$ | M | 9410 (17) | 9980 (18) | 8840 (14) | 17.2 (26) | 4.9 (20) | 93 (6) | 1 (1) | 39 (25) |
| M202 | M | 9340 (18) | 9590 (25) | 9090 (8) | 19.5 (6) | 5.0 (1) | 99 (24) | 1 (1) | 40 (31) |
| 10 Y 1008 | LSR | 9280 (19) | 9890 (20) | 8670 (17) | 17.9 (19) | 4.9 (14) | 102 (29) | 1 (1) | 38 (19) |
| 10 Y 1178 | L | 9270 (20) | 9740 (24) | 8800 (15) | 20.2 (3) | 4.3 (31) | 109 (32) | 1 (1) | 39 (26) |
| $09 Y 3270$ | M | 9210 (21) | 9800 (23) | 8620 (18) | 17.5 (25) | 5.0 (1) | 91 (3) | 1 (1) | 38 (22) |
| $09 Y 3273$ | M | 9200 (22) | 9870 (21) | 8530 (23) | 17.7 (22) | 5.0 (1) | 93 (6) | 1 (1) | 39 (28) |
| 10Y2123 | MPQ | 9190 (23) | 10070 (15) | 8320 (25) | 21.5 (1) | 4.4 (30) | 102 (28) | 33 (31) | 39 (29) |
| 10Y2031 | SLA | 9100 (24) | 10140 (13) | 8060 (30) | 14.4 (32) | 5.0 (1) | 93 (8) | 5 (29) | 35 (2) |
| $10 Y 3227$ | M | 9080 (25) | 9540 (26) | 8610 (19) | 19.5 (5) | 5.0 (1) | 94 (10) | 1 (1) | 38 (15) |
| 10 Y 2115 | SLA | 9000 (26) | 9520 (27) | 8480 (24) | 15.0 (31) | 4.9 (20) | 95 (13) | 5 (29) | 37 (12) |
| $09 Y 3048$ | M | 8970 (27) | 9810 (22) | 8130 (29) | 17.2 (27) | 5.0 (1) | 90 (2) | 1 (1) | 37 (14) |
| $09 Y 3256$ | M | 8760 (28) | 9300 (28) | 8230 (27) | 19.1 (8) | 4.8 (24) | 96 (19) | 1 (1) | 38 (23) |
| 06 Y 513 | L | 8730 (29) | 8930 (29) | 8530 (22) | 16.3 (29) | 4.9 (20) | 105 (31) | 1 (1) | 36 (7) |
| $10 Y 3305$ | M | 8430 (30) | 8840 (30) | 8030 (31) | 17.1 (28) | 5.0 (1) | 89 (1) | 1 (1) | 34 (1) |
| $09 Y 2060$ | SWX | 8290 (31) | 8440 (31) | 8150 (28) | 15.5 (30) | 4.9 (14) | 100 (25) | 1 (1) | 37 (13) |
| AKITA | SPQ | 5940 (32) | 7050 (32) | 4820 (32) | 18.1 (17) | 3.7 (32) | 100 (27) | 48 (32) | 40 (32) |
| MEAN |  | 9270 | 9890 | 8640 | 18.2 | 4.8 | 96 | 4 | 38 |
| CV |  | 4 | 3.5 | 4.5 | 5.2 | 4.9 | 1.9 | 125.6 | 3.1 |
| LSD (.05) |  | 520 | 710 | 800 | 1.3 | 0.3 | 3 | 7 | 2 |

$\mathrm{S}=$ short; $\mathrm{M}=$ medium; $\mathrm{L}=$ long; $\mathrm{PQ}=$ premium quality; $\mathrm{WX}=$ waxy; $\mathrm{R}=\mathrm{Newrex;} \mathrm{SR}=$ stem rot resistant; $\mathrm{LA}=$ Low Amalose.
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.

* Biggs and Sutter locations excluded from overall summary due to excessively high cvs.

Table 2. 2011 Very Early Rice Variety Trial - Biggs

| Variety | Grain Type | Grain Yield <br> at 14\% <br> Moisture lbs/acre | Grain Moisture at Harvest (\%) | Seedling Vigor (1-5) | $\begin{aligned} & \text { Days to } \\ & 50 \% \\ & \text { Heading } \\ & \hline \end{aligned}$ | $\begin{gathered} \text { Lodging } \\ (1-99) \\ \hline \end{gathered}$ | Plant Height (in) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 08Y3076 | M | 9440 (1) | 19.0 (3) | 4.7 (9) | 90 (15) | 1 (1) | 36 (9) |
| $08 Y 3016$ | M | 9160 (2) | 18.6 (6) | 4.7 (9) | 85 (4) | 1 (1) | 38 (13) |
| M105 | M | 9020 (3) | 18.7 (5) | 4.8 ( 4) | 84 ( 2) | 1 (1) | 38 (12) |
| $09 Y 2141$ | SWX | 8850 ( 4) | 17.7 (9) | 4.7 (17) | 89 (13) | 1 (1) | 40 (17) |
| S102 | S | 8780 (5) | 15.9 (18) | 4.7 (9) | 84 (3) | 1 (1) | 36 (5) |
| M206 | M | 8660 (6) | 19.1 (1) | 4.8 (6) | 87 (9) | 1 (1) | 39 (15) |
| 07 Y 843 | M | 8620 (7) | 19.0 (2) | 4.8 (7) | 85 (4) | 1 (1) | 36 (7) |
| M104 | M | 8570 (8) | 17.8 (7) | 4.9 (2) | 83 (1) | 1 (1) | 36 (8) |
| $09 Y 2036$ | S | 8530 (9) | 16.8 (12) | 4.7 (12) | 88 (11) | 1 (1) | 39 (16) |
| L206 | L | 8290 (10) | 16.7 (13) | 4.7 (12) | 88 (11) | 1 (1) | 35 (4) |
| 09 Y 3024 | M | 8070 (11) | 19.0 (4) | 4.7 (14) | 86 ( 8) | 1 (1) | 38 (13) |
| 09 Y 1079 | L | 8060 (12) | 17.1 (11) | 4.9 (2) | 91 (16) | 1 (1) | 36 (6) |
| CM101 | SWX | 7990 (13) | 16.6 (17) | 4.8 (7) | 87 (10) | 1 (1) | 37 (10) |
| 08Y2049 | SSR | 7860 (14) | 16.7 (14) | 4.6 (18) | 85 (6) | 1 (1) | 33 (1) |
| 06 Y 575 | LR | 7790 (15) | 17.7 (10) | 4.8 ( 4) | 94 (18) | 1 (1) | 42 (18) |
| $04 Y 177$ | SPQ | 7430 (16) | 16.6 (15) | 4.7 (14) | 89 (13) | 1 (1) | 35 (3) |
| 08Y3080 | M | 7420 (17) | 17.8 (8) | 4.7 (14) | 85 (6) | 1 (1) | 38 (11) |
| CH201 | SPQ | 7190 (18) | 16.6 (16) | 4.9 (1) | 92 (17) | 1 (1) | 34 ( 2) |
| MEAN |  | 8320 | 17.6 | 4.7 | 87 | 1 | 37 |
| CV |  | 9.2 | 2.6 | 1.6 | 1.3 |  | 4.4 |
| LSD (.05) |  | 1090 | 0.7 | 0.1 | 2 |  | 2 |
| Preliminary Lines and Varieties |  |  |  |  |  |  |  |
| $10 Y 3286$ | M | 8360 (1) | 18.7 (3) | 4.8 (12) | 83 (5) | 1 (1) | 38 (27) |
| 10 Y 3282 | M | 7770 (2) | 18.7 (5) | 4.9 ( 4) | 84 (8) | 1 (1) | 37 (17) |
| $09 Y 3059$ | M | 7660 (3) | 18.8 ( 2) | 4.8 (12) | 84 ( 8) | 1 (1) | 38 (27) |
| $10 Y 2049$ | SPQ | 7630 (4) | 16.6 (29) | 4.8 (12) | 84 (13) | 1 (1) | 33 (2) |
| 10Y3261 | M | 7490 (5) | 18.8 (1) | 5.0 (1) | 85 (16) | 1 (1) | 39 (30) |
| $09 Y 3272$ | M | 7490 (6) | 17.1 (23) | 4.8 (12) | 84 (8) | 1 (1) | 35 (8) |
| 09 Y 3225 | M | 7490 (7) | 18.4 (7) | 4.7 (28) | 87 (21) | 1 (1) | 37 (21) |
| 10 Y 3227 | M | 7480 (8) | 17.4 (20) | 4.9 ( 2) | 83 (4) | 1 (1) | 37 (21) |
| 09 Y 3268 | M | 7340 (9) | 17.8 (16) | 4.8 (12) | 84 ( 8) | 1 (1) | 37 (21) |
| $09 Y 3078$ | M | 7320 (10) | 18.7 (3) | 4.8 (24) | 83 (5) | 1 (1) | 38 (29) |
| 10 Y 1008 | LSR | 7310 (11) | 16.6 (31) | 4.9 ( 4) | 90 (30) | 1 (1) | 37 (24) |
| 10 Y 2158 | SWX | 7310 (12) | 17.4 (22) | 4.8 (24) | 90 (29) | 1 (1) | 36 (14) |
| 10 Y 2043 | S | 7300 (13) | 16.8 (27) | 4.7 (28) | 89 (27) | 1 (1) | 35 (4) |
| 10 Y 3290 | M | 7210 (14) | 18.1 (11) | 4.9 ( 4) | 85 (16) | 1 (1) | 36 (10) |
| $09 Y 3277$ | M | 7040 (15) | 18.0 (12) | 4.8 (12) | 84 ( 8) | 1 (1) | 35 (8) |
| 10 Y 2115 | SLA | 7020 (16) | 17.1 (24) | 4.7 (28) | 86 (20) | 1 (1) | 35 (6) |
| $09 Y 3048$ | M | 7010 (17) | 18.6 (6) | 4.8 (12) | 81 ( 2) | 1 (1) | 37 (18) |
| $09 Y 3176$ | M | 6990 (18) | 17.6 (17) | 4.8 (12) | 84 (13) | 1 (1) | 35 (4) |
| 10 Y 2123 | MPQ | 6930 (19) | 18.4 (8) | 4.8 (12) | 85 (16) | 1 (1) | 36 (11) |
| $09 Y 3270$ | M | 6820 (20) | 17.4 (21) | 4.9 (4) | 82 (3) | 1 (1) | 36 (16) |
| 06 Y 513 | L | 6820 (21) | 16.7 (28) | 4.9 ( 4) | 93 (31) | 1 (1) | 37 (24) |
| 10 Y 1178 | L | 6730 (22) | 17.5 (18) | 4.8 (23) | 96 (32) | 1 (1) | 36 (13) |
| $09 Y 3538$ | M | 6670 (23) | 17.9 (15) | 4.9 (4) | 85 (16) | 1 (1) | 37 (18) |
| 09 Y 3043 | M | 6660 (24) | 18.2 (10) | 4.9 ( 4) | 83 (5) | 1 (1) | 39 (31) |
| 09 Y 3273 | M | 6500 (25) | 17.5 (19) | 4.8 (12) | 84 (13) | 1 (1) | 36 (12) |
| 09 Y 2060 | SWX | 6500 (26) | 15.8 (32) | 4.9 ( 4) | 88 (22) | 1 (1) | 36 (14) |
| 09 Y 2063 | SWX | 6460 (27) | 16.6 (30) | 4.8 (24) | 88 (22) | 1 (1) | 35 (6) |
| $10 Y 3305$ | M | 6400 (28) | 16.9 (25) | 4.9 (2) | 80 (1) | 1 (1) | 34 (3) |
| 10Y2031 | SLA | 6330 (29) | 16.9 (26) | 4.6 (31) | 88 (24) | 1 (1) | 32 (1) |
| M202 | M | 6300 (30) | 17.9 (14) | 4.8 (12) | 88 (24) | 1 (1) | 37 (26) |
| $09 Y 3256$ | M | 5850 (31) | 18.3 (9) | 4.8 (24) | 89 (28) | 1 (1) | 37 (18) |
| AKITA | SPQ | 5310 (32) | 18.0 (13) | 4.2 (32) | 88 (24) | 1 (1) | 40 (32) |
| MEAN |  | 6980 | 17.7 | 4.8 | 86 | 1 | 36 |
| CV |  | 10.2 | 2.6 | 1.5 | 1.1 |  | 5 |
| LSD (.05) |  |  | 0.9 | 0.1 | 2 |  |  |

$\mathrm{S}=$ short; $\mathrm{M}=$ medium; $\mathrm{L}=$ long; $\mathrm{PQ}=$ premium quality; $\mathrm{WX}=$ waxy; $\mathrm{R}=$ Newrex; $\mathrm{SR}=$ stem rot resistant; LA = Low Amalose.
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. 2011 Very Early Rice Variety Trial - Sutter

| Variety | $\begin{aligned} & \text { Grain } \\ & \text { Type } \\ & \hline \end{aligned}$ | Grain Yield <br> at 14\% <br> Moisture <br> lbs/acre | Grain Moisture at Harvest (\%) | Seedling Vigor (1-5) | $\begin{aligned} & \text { Days to } \\ & 50 \% \\ & \text { Heading } \\ & \hline \end{aligned}$ | Lodging $(1-99)$ | Plant Height <br> (in) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $06 Y 575$ | LR | 10560 ( 1) | 18.5 (12) | 5.0 (1) | 94 (16) | 1 (1) | 38 (13) |
| 09 Y 1079 | L | 10300 ( 2) | 18.0 (13) | 5.0 (1) | 95 (17) | 1 (1) | 34 ( 2) |
| M104 | M | 10300 ( 3) | 19.9 (9) | 5.0 (1) | 84 (3) | 74 (17) | 37 (10) |
| $08 Y 3080$ | M | 10260 ( 4) | 18.9 (11) | 5.0 (1) | 89 (11) | 45 (11) | 40 (18) |
| 07 Y 843 | M | 10120 ( 5) | 22.1 ( 2) | 5.0 (1) | 88 (9) | 3 (6) | 37 ( 8) |
| CH201 | SPQ | 9750 (6) | 17.0 (17) | 5.0 (1) | 96 (18) | 48 (12) | 37 (10) |
| 08 Y 3016 | M | 9610 (7) | 20.7 (5) | 5.0 (1) | 85 (4) | 81 (18) | 37 (7) |
| L206 | L | 9520 (8) | 17.3 (16) | 5.0 (1) | 91 (14) | 1 (1) | 32 (1) |
| M206 | M | 9350 (9) | 18.9 (10) | 5.0 (1) | 90 (13) | 1 (1) | 38 (14) |
| 08 Y 3076 | M | 9110 (10) | 23.2 (1) | 5.0 (1) | 94 (15) | 60 (14) | 39 (16) |
| 08 Y 2049 | SSR | 9040 (11) | 20.4 (6) | 5.0 (1) | 89 (12) | 6 (8) | 35 (4) |
| 09 Y 2141 | SWX | 9030 (12) | 19.9 ( 8) | 5.0 (1) | 88 ( 7) | 1 (1) | 39 (17) |
| 04 Y 177 | SPQ | 8760 (13) | 17.5 (15) | 5.0 (1) | 88 (9) | 53 (13) | 35 (3) |
| $09 Y 2036$ | S | 8500 (14) | 20.3 (7) | 5.0 (1) | 87 ( 6) | 63 (15) | 38 (12) |
| S102 | S | 8440 (15) | 16.3 (18) | 5.0 (1) | 84 (1) | 28 (10) | 36 ( 5) |
| M105 | M | 8030 (16) | 22.1 (2) | 5.0 (1) | 87 (5) | 4 (7) | 38 (15) |
| $09 Y 3024$ | M | 7780 (17) | 20.7 (4) | 5.0 (1) | 88 ( 8) | 17 (9) | 37 (8) |
| CM101 | SWX | 7410 (18) | 17.6 (14) | 5.0 (1) | 84 ( 1) | 71 (16) | 37 (6) |
| MEAN |  | 9210 | 19.4 | 5.0 | 89 | 31 | 37 |
| CV |  | 10.6 | 9.1 |  | 0.6 | 68.6 | 3.3 |
| LSD (.05) |  | 1390 | 2.5 |  | 1 | 30 | 2 |
| Preliminary Lines and Varieties |  |  |  |  |  |  |  |
| 10 Y 1178 | L | 10870 ( 1) | 20.6 (15) | 5.0 (1) | 98 (32) | 1 (1) | 36 ( 4) |
| $09 Y 3043$ | M | 10790 ( 2) | 19.8 (25) | 5.0 (1) | 86 ( 8) | 1 (1) | 41 (31) |
| 10 Y 3290 | M | 10690 ( 3) | 19.8 (24) | 5.0 (1) | 91 (25) | 26 (18) | 37 (6) |
| 10 Y 2043 | S | 10490 ( 4) | 19.7 (27) | 5.0 (1) | 88 (15) | 38 (23) | 36 (2) |
| 10 Y 2158 | SWX | 10400 ( 5) | 21.5 (9) | 5.0 (1) | 92 (27) | 8 (15) | 38 (18) |
| 10Y2049 | SPQ | 10330 (6) | 20.5 (20) | 5.0 (1) | 88 (20) | 46 (25) | 36 (3) |
| M202 | M | 10330 ( 7) | 21.3 (10) | 5.0 (1) | 94 (30) | 1 (1) | 37 (6) |
| $09 Y 3538$ | M | 10000 ( 8) | 21.1 (11) | 5.0 (1) | 88 (15) | 65 (27) | 38 (13) |
| 09 Y 2063 | SWX | 9970 (9) | 20.8 (13) | 5.0 (1) | 90 (22) | 13 (16) | 39 (28) |
| 09 Y 3059 | M | 9910 (10) | 19.8 (25) | 5.0 (1) | 88 (15) | 6 (12) | 39 (22) |
| $09 Y 3225$ | M | 9780 (11) | 22.6 (3) | 5.0 (1) | 91 (23) | 40 (24) | 38 (13) |
| 10 Y 3286 | M | 9660 (12) | 20.7 (14) | 5.0 (1) | 86 (8) | 6 (12) | 37 (6) |
| 10 Y 3227 | M | 9560 (13) | 22.3 (5) | 5.0 (1) | 85 (5) | 85 (29) | 38 (13) |
| 10 Y 3282 | M | 9510 (14) | 22.1 (6) | 5.0 (1) | 85 (6) | 85 (29) | 39 (21) |
| 10 Y 3305 | M | 9460 (15) | 20.5 (19) | 5.0 (1) | 84 (3) | 1 (1) | 37 (9) |
| 10 Y 1008 | LSR | 9430 (16) | 19.4 (28) | 5.0 (1) | 92 (27) | 48 (26) | 38 (16) |
| $09 Y 3273$ | M | 9370 (17) | 20.5 (16) | 5.0 (1) | 87 (13) | 31 (20) | 38 (20) |
| $09 Y 3176$ | M | 9280 (18) | 20.1 (23) | 5.0 (1) | 87 (13) | 21 (17) | 38 (16) |
| 10 Y 2123 | MPQ | 9260 (19) | 21.6 (7) | 5.0 (1) | 91 (23) | 26 (18) | 41 (30) |
| $09 Y 3270$ | M | 9250 (20) | 23.5 (2) | 5.0 (1) | 84 ( 3) | 33 (21) | 39 (27) |
| $09 Y 3272$ | M | 9250 (21) | 20.5 (16) | 5.0 (1) | 85 (6) | 3 (11) | 41 (31) |
| 10 Y 3261 | M | 9200 (22) | 20.5 (16) | 5.0 (1) | 88 (15) | 1 (1) | 40 (29) |
| 09 Y 3048 | M | 9180 (23) | 20.4 (21) | 5.0 (1) | 82 (1) | 65 (27) | 37 (5) |
| 09 Y 3268 | M | 8920 (24) | 20.2 (22) | 5.0 (1) | 87 (11) | 1 (1) | 37 (10) |
| $09 Y 3277$ | M | 8830 (25) | 23.6 (1) | 5.0 (1) | 88 (15) | 85 (29) | 38 (18) |
| 10 Y 2031 | SLA | 8710 (26) | 17.9 (31) | 5.0 (1) | 88 (20) | 1 (1) | 37 (10) |
| $09 Y 3256$ | M | 8510 (27) | 21.5 (8) | 5.0 (1) | 92 (27) | 1 (1) | 39 (22) |
| 06 Y 513 | L | 8440 (28) | 18.5 (30) | 5.0 (1) | 95 (31) | 1 (1) | 36 (1) |
| 10 Y 2115 | SLA | 8380 (29) | 18.7 (29) | 5.0 (1) | 91 (25) | 1 (1) | 39 (25) |
| $09 Y 2060$ | SWX | 7910 (30) | 17.5 (32) | 5.0 (1) | 87 (11) | 6 (12) | 39 (22) |
| $09 Y 3078$ | M | 7850 (31) | 21.1 (11) | 5.0 (1) | 84 ( 2) | 36 (22) | 39 (25) |
| AKITA | SPQ | 4570 (32) | 22.5 (4) | 4.5 (32) | 86 ( 8) | 93 (32) | 38 (12) |
| MEAN |  | 9310 | 20.7 | 5 | 88 | 27 | 38 |
| CV |  | 8.7 | 4.8 |  | 1.1 | 89.2 | 2.9 |
| LSD (.05) |  | 1650 | 2 |  | 2 | 49 | 2 |
| $\mathrm{S}=$ short; $\mathrm{M}=$ medium; $\mathrm{L}=$ long; $\mathrm{PQ}=$ premium quality; $\mathrm{WX}=$ waxy; $\mathrm{R}=\mathrm{Newrex} ; \mathrm{SR}$ = stem rot resis Subjective rating of $1-5$ where $1=$ poor and $5=$ excellent seedling emergence. <br> Subjective rating of 1-99 where $1=$ none and $99=$ completely lodged. <br> Numbers in parentheses indicate relative rank in column. |  |  |  |  |  |  |  |

Table 4. 2011 Very Early Rice Variety Trial - Yolo
Advanced Lines and Varieties

| Variety | Grain Type | Grain Yield <br> at 14\% <br> Moisture <br> lbs/acre | Grain Moisture at Harvest (\%) | Seedling Vigor (1-5) | $\begin{gathered} \text { Days to } \\ 50 \% \\ \text { Heading } \\ \hline \end{gathered}$ | Lodging (1-99) | Plant Height (in) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 09Y2141 | SWX | 11580 ( 1) | 21.2 ( 5) | 5.0 (1) | 91 (14) | 1 (1) | 44 (18) |
| 06 Y 575 | LR | 11360 ( 2) | 18.5 (12) | 4.8 (13) | 94 (17) | 1 (1) | 44 (17) |
| 08Y2049 | SSR | 10500 (3) | 19.9 (7) | 4.8 (15) | 90 (11) | 1 (1) | 40 (8) |
| $08 Y 3076$ | M | 10460 ( 4) | 20.9 (6) | 5.0 (9) | 92 (15) | 2 (16) | 40 (13) |
| 04 Y 177 | SPQ | 10440 (5) | 18.1 (13) | 4.7 (17) | 88 (10) | 50 (17) | 40 ( 8) |
| $09 Y 2036$ | S | 10380 (6) | 19.8 (8) | 4.8 (15) | 90 (13) | 1 (1) | 41 (16) |
| M105 | M | 10290 (7) | 21.8 (3) | 4.9 (12) | 87 (6) | 1 (1) | 41 (14) |
| 07 Y 843 | M | 10250 ( 8) | 22.4 (1) | 4.9 (11) | 87 ( 7) | 1 (1) | 41 (14) |
| M206 | M | 10230 (9) | 21.9 ( 2) | 5.0 (1) | 87 ( 8) | 1 (1) | 40 (11) |
| $09 Y 1079$ | L | 10060 (10) | 17.8 (14) | 5.0 (1) | 96 (18) | 1 (1) | 38 ( 2) |
| M104 | M | 10020 (11) | 18.8 (10) | 5.0 (1) | 84 (2) | 1 (1) | 39 (5) |
| CH201 | SPQ | 9910 (12) | 16.5 (16) | 5.0 (9) | 90 (12) | 50 (18) | 39 (6) |
| 08 Y 3016 | M | 9840 (13) | 18.6 (11) | 4.5 (18) | 84 (2) | 1 (1) | 38 ( 3) |
| 08 Y 3080 | M | 9630 (14) | 19.0 (9) | 5.0 (1) | 84 ( 2) | 1 (1) | 40 (12) |
| $09 Y 3024$ | M | 9570 (15) | 21.3 (4) | 4.8 (13) | 88 (9) | 1 (1) | 39 (4) |
| L206 | L | 9490 (16) | 16.9 (15) | 5.0 (1) | 93 (16) | 1 (1) | 36 (1) |
| S102 | S | 9050 (17) | 15.1 (18) | 5.0 (1) | 84 (1) | 1 (1) | 39 (7) |
| CM101 | SWX | 8320 (18) | 15.8 (17) | 5.0 (1) | 86 ( 5) | 1 (1) | 40 (10) |
| MEAN |  | 10080 | 19.1 | 4.9 | 88 | 6 | 40 |
| CV |  | 4.5 | 3.5 | 6.1 | 1.5 | 190.8 | 3.8 |
| LSD (.05) |  | 650 | 1 |  | 2 | 18 | 2 |
| Preliminary Lines and Varieties |  |  |  |  |  |  |  |
| 10Y2043 | S | 11660 ( 1) | 17.8 (23) | 4.9 (14) | 94 (28) | 1 (1) | 40 (12) |
| $09 Y 3225$ | M | 10820 ( 2) | 18.6 (14) | 5.0 (1) | 87 (16) | 1 (1) | 43 (28) |
| $10 Y 3286$ | M | 10700 (3) | 19.3 (9) | 4.4 (29) | 87 (16) | 1 (1) | 39 ( 7) |
| $10 Y 3290$ | M | 10560 ( 4) | 19.2 (10) | 4.9 (16) | 91 (24) | 1 (1) | 40 (13) |
| 10Y3282 | M | 10450 ( 5) | 18.7 (13) | 5.0 (1) | 83 (3) | 5 (28) | 40 (13) |
| $09 Y 3268$ | M | 10280 (6) | 19.7 (7) | 4.9 (16) | 90 (22) | 1 (1) | 43 (28) |
| $10 Y 3261$ | M | 10270 (7) | 20.5 (3) | 4.9 (16) | 89 (20) | 1 (1) | 42 (23) |
| 09Y3059 | M | 10260 ( 8) | 19.5 (8) | 5.0 (1) | 89 (20) | 1 (1) | 39 (4) |
| 10Y2049 | SPQ | 10260 (9) | 17.6 (25) | 5.0 (1) | 84 ( 5) | 1 (1) | 37 ( 2) |
| $09 Y 3078$ | M | 10240 (10) | 18.9 (12) | 4.5 (26) | 85 (13) | 1 (1) | 43 (30) |
| $09 Y 3176$ | M | 10190 (11) | 18.0 (22) | 4.8 (22) | 85 ( 8) | 1 (1) | 39 (7) |
| $09 Y 3538$ | M | 10160 (12) | 19.1 (11) | 4.9 (14) | 87 (15) | 1 (1) | 39 (7) |
| 10Y2031 | SLA | 10140 (13) | 14.4 (32) | 5.0 (1) | 83 (3) | 8 (29) | 38 ( 3) |
| $10 Y 2158$ | SWX | 10140 (14) | 20.6 (2) | 4.5 (26) | 94 (30) | 1 (1) | 40 (13) |
| $10 Y 2123$ | MPQ | 10070 (15) | 20.5 (4) | 4.3 (31) | 92 (26) | 65 (31) | 42 (26) |
| $09 Y 2063$ | SWX | 10050 (16) | 18.4 (17) | 4.9 (16) | 89 (19) | 1 (1) | 41 (19) |
| $09 Y 3272$ | M | 10000 (17) | 18.3 (20) | 5.0 (1) | 85 ( 8) | 1 (1) | 39 (7) |
| $09 Y 3043$ | M | 9980 (18) | 17.8 (23) | 4.8 (22) | 85 ( 8) | 1 (1) | 41 (16) |
| $09 Y 3277$ | M | 9890 (19) | 18.5 (15) | 5.0 (1) | 84 (6) | 1 (1) | 39 (4) |
| 10 Y 1008 | LSR | 9890 (20) | 17.5 (26) | 4.9 (16) | 94 (28) | 1 (1) | 41 (16) |
| $09 Y 3273$ | M | 9870 (21) | 18.5 (15) | 5.0 (1) | 85 ( 8) | 1 (1) | 42 (23) |
| $09 Y 3048$ | M | 9810 (22) | 18.2 (21) | 5.0 (1) | 81 ( 2) | 1 (1) | 41 (19) |
| $09 Y 3270$ | M | 9800 (23) | 18.4 (19) | 5.0 (1) | 84 ( 6) | 1 (1) | 41 (16) |
| 10 Y 1178 | L | 9740 (24) | 20.0 (6) | 3.5 (32) | 101 (32) | 1 (1) | 42 (26) |
| M202 | M | 9590 (25) | 20.2 (5) | 5.0 (1) | 90 (22) | 1 (1) | 43 (30) |
| $10 Y 3227$ | M | 9540 (26) | 18.4 (17) | 5.0 (1) | 85 (13) | 1 (1) | 41 (19) |
| 10 Y 2115 | SLA | 9520 (27) | 15.1 (31) | 4.8 (22) | 85 ( 8) | 8 (29) | 39 (4) |
| $09 Y 3256$ | M | 9300 (28) | 20.9 (1) | 4.5 (26) | 88 (18) | 1 (1) | 42 (23) |
| 06 Y 513 | L | 8930 (29) | 16.2 (30) | 4.8 (22) | 97 (31) | 1 (1) | 39 ( 7) |
| $10 Y 3305$ | M | 8840 (30) | 17.1 (28) | 5.0 (1) | 80 (1) | 1 (1) | 36 (1) |
| $09 Y 2060$ | SWX | 8440 (31) | 16.5 (29) | 4.9 (16) | 92 (26) | 1 (1) | 41 (19) |
| AKITA | SPQ | 7050 (32) | 17.1 (27) | 4.4 (30) | 91 (25) | 95 (32) | 44 (32) |
| MEAN |  | 9890 | 18.4 | 4.8 | 88 | 7 | 40 |
| CV |  | 3.5 | 3.8 | 6 | 2.2 | 102.5 | 2.7 |
| LSD (.05) |  | 710 | 1.4 | 0.6 | 4 | 14 | 2 |

$\mathrm{S}=$ short; $\mathrm{M}=$ medium; $\mathrm{L}=$ long; $\mathrm{PQ}=$ premium quality; $\mathrm{WX}=$ waxy; $\mathrm{R}=$ Newrex; $\mathrm{SR}=$ stem rot resistant; LA = Low Amalose.
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. 2011 Very Early Rice Variety Trial - San Joaquin

| Variety | Grain Type | Grain Yield <br> at 14\% <br> Moisture <br> lbs/acre | Grain Moisture at Harvest (\%) | Seedling Vigor (1-5) | $\begin{aligned} & \text { Days to } \\ & 50 \% \\ & \text { Heading } \end{aligned}$ | Lodging $(1-99)$ | Plant Height (in) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 06 Y 575 | LR | 9830 (1) | 19.4 (6) | 5.0 (1) | 109 (16) | 1 (1) | 37 (18) |
| $09 Y 2141$ | SWX | 9580 ( 2) | 19.8 (3) | 5.0 (1) | 107 (14) | 1 (1) | 36 (17) |
| M206 | M | 9330 (3) | 19.4 (7) | 5.0 (1) | 105 (10) | 1 (1) | 35 (15) |
| 08 Y 3076 | M | 9330 (4) | 20.4 (2) | 5.0 (1) | 107 (13) | 1 (1) | 35 (13) |
| 08 Y 3016 | M | 9150 (5) | 19.2 (8) | 5.0 (1) | 100 ( 2) | 1 (1) | 32 (6) |
| 08 Y 3080 | M | 9100 (6) | 18.1 (12) | 5.0 (1) | 104 ( 8) | 1 (1) | 36 (16) |
| $09 Y 2036$ | S | 8970 (7) | 18.1 (13) | 5.0 (1) | 104 (8) | 1 (1) | 35 (14) |
| 07 Y 843 | M | 8960 (8) | 20.8 (1) | 5.0 (1) | 101 (4) | 1 (1) | 33 (9) |
| M104 | M | 8800 (9) | 18.4 (10) | 5.0 (1) | 98 (1) | 1 (1) | 33 (7) |
| $08 Y 2049$ | SSR | 8800 (10) | 19.7 (4) | 5.0 (1) | 101 (5) | 1 (1) | 31 (1) |
| M105 | M | 8720 (11) | 18.0 (14) | 5.0 (1) | 100 (2) | 1 (1) | 34 (12) |
| $09 Y 1079$ | L | 8560 (12) | 19.6 (5) | 5.0 (1) | 110 (17) | 1 (1) | 32 (4) |
| $09 Y 3024$ | M | 8550 (13) | 18.5 (9) | 5.0 (1) | 103 (7) | 1 (1) | 33 (9) |
| CH201 | SPQ | 8360 (14) | 15.4 (17) | 5.0 (1) | 109 (15) | 1 (1) | 31 (3) |
| L206 | L | 8340 (15) | 15.6 (15) | 5.0 (1) | 107 (12) | 1 (1) | 31 (2) |
| CM101 | SWX | 7850 (16) | 15.5 (16) | 4.6 (17) | 105 (10) | 1 (1) | 33 (8) |
| S102 | S | 7760 (17) | 15.4 (18) | 5.0 (1) | 102 (6) | 1 (1) | 33 (9) |
| 04 Y 177 | SPQ | 7720 (18) | 18.3 (11) | 3.8 (18) | 110 (18) | 1 (1) | 32 (5) |
| MEAN |  | 8760 | 18.3 | 4.9 | 105 | 1 | 33 |
| CV |  | 4.6 | 6.7 | 2.3 | 2.6 |  | 3.2 |
| $\underline{\text { LSD (.05) }}$ |  | 580 | 1.7 | 0.2 | 4 |  | 1 |
| Preliminary Lines and Varieties |  |  |  |  |  |  |  |
| $09 Y 2063$ | SWX | 9540 (1) | 17.5 (17) | 5.0 (1) | 106 (21) | 1 (1) | 35 (17) |
| $09 Y 3059$ | M | 9390 (2) | 17.3 (19) | 5.0 (1) | 102 (8) | 1 (1) | 35 (16) |
| $09 Y 3078$ | M | 9390 (3) | 16.7 (24) | 5.0 (1) | 99 (3) | 1 (1) | 34 (12) |
| 10Y3282 | M | 9390 (4) | 16.5 (27) | 5.0 (1) | 99 (3) | 1 (1) | 33 (4) |
| $09 Y 3277$ | M | 9340 (5) | 20.2 (5) | 5.0 (1) | 104 (14) | 1 (1) | 33 (8) |
| 10 Y 2158 | SWX | 9320 (6) | 20.6 (2) | 5.0 (1) | 112 (30) | 1 (1) | 36 (22) |
| $09 Y 3272$ | M | 9250 (7) | 18.3 (14) | 5.0 (1) | 104 (14) | 1 (1) | 37 (32) |
| M202 | M | 9090 (8) | 18.8 (9) | 5.0 (1) | 109 (26) | 1 (1) | 36 (25) |
| $09 Y 3268$ | M | 8990 (9) | 16.9 (23) | 5.0 (1) | 102 ( 8) | 1 (1) | 33 (6) |
| 10 Y 3286 | M | 8980 (10) | 18.6 (11) | 5.0 (1) | 105 (17) | 1 (1) | 34 (14) |
| $09 Y 3176$ | M | 8970 (11) | 18.4 (12) | 5.0 (1) | 102 ( 8) | 1 (1) | 33 (4) |
| $09 Y 3538$ | M | 8960 (12) | 19.1 (8) | 5.0 (1) | 103 (12) | 1 (1) | 34 (13) |
| 10 Y 3290 | M | 8940 (13) | 18.0 (16) | 5.0 (1) | 106 (20) | 1 (1) | 36 (23) |
| $09 Y 3043$ | M | 8840 (14) | 16.6 (26) | 5.0 (1) | 101 (6) | 1 (1) | 37 (30) |
| 10 Y 1178 | L | 8800 (15) | 20.5 (4) | 5.0 (1) | 118 (32) | 1 (1) | 35 (19) |
| $09 Y 3225$ | M | 8730 (16) | 19.5 (6) | 5.0 (1) | 107 (23) | 1 (1) | 36 (26) |
| 10Y1008 | LSR | 8670 (17) | 18.4 (13) | 5.0 (1) | 110 (28) | 1 (1) | 35 (19) |
| $09 Y 3270$ | M | 8620 (18) | 16.7 (25) | 5.0 (1) | 98 (1) | 1 (1) | 36 (23) |
| 10 Y 3227 | M | 8610 (19) | 20.6 (3) | 5.0 (1) | 102 (8) | 1 (1) | 34 (14) |
| 10Y2049 | SPQ | 8610 (20) | 18.1 (15) | 4.5 (29) | 106 (21) | 1 (1) | 33 (6) |
| 10Y3261 | M | 8580 (21) | 18.7 (10) | 5.0 (1) | 104 (14) | 1 (1) | 36 (28) |
| 06 Y 513 | L | 8530 (22) | 16.4 (28) | 5.0 (1) | 112 (31) | 1 (1) | 33 (8) |
| $09 Y 3273$ | M | 8530 (23) | 17.0 (22) | 5.0 (1) | 101 (6) | 1 (1) | 37 (30) |
| 10 Y 2115 | SLA | 8480 (24) | 14.9 (30) | 5.0 (1) | 105 (17) | 1 (1) | 35 (17) |
| 10Y2123 | MPQ | 8320 (25) | 22.6 (1) | 4.5 (29) | 111 (29) | 1 (1) | 36 (26) |
| 10 Y 2043 | S | 8260 (26) | 17.5 (18) | 4.5 (29) | 107 (23) | 1 (1) | 32 (3) |
| $09 Y 3256$ | M | 8230 (27) | 17.3 (19) | 5.0 (1) | 105 (17) | 1 (1) | 35 (19) |
| $09 Y 2060$ | SWX | 8150 (28) | 14.6 (31) | 5.0 (1) | 108 (25) | 1 (1) | 34 (10) |
| $09 Y 3048$ | M | 8130 (29) | 16.1 (29) | 5.0 (1) | 99 (2) | 1 (1) | 34 (10) |
| 10Y2031 | SLA | 8060 (30) | 14.4 (32) | 5.0 (1) | 103 (13) | 1 (1) | 31 (1) |
| $10 Y 3305$ | M | 8030 (31) | 17.1 (21) | 5.0 (1) | 99 (3) | 1 (1) | 32 (2) |
| AKITA | SPQ | 4820 (32) | 19.1 (7) | 3.0 (32) | 110 (27) | 1 (1) | 36 (28) |
| MEAN |  | 8640 | 17.9 | 4.9 | 105 | 1 | 35 |
| CV |  | 4.5 | 6.3 | 3.6 | 1.8 |  | 3.6 |
| LSD (.05) |  | 800 | 2.3 | 0.4 | 4 |  | 3 |

$\frac{1}{\mathrm{~S}}=\mathrm{short} ; \mathrm{M}=$ medium; $\mathrm{L}=$ long; $\mathrm{PQ}=$ premium quality; $\mathrm{WX}=$ waxy; $\mathrm{R}=$ Newrex; $\mathrm{SR}=$ stem rot resistant; LA = Low Amalose.
Subjective rating of $1-5$ where $1=$ poor and $5=$ excellent seedling emergence.
Subjective rating of 1-99 where $1=$ none and $99=$ completely lodged.
Numbers in parentheses indicate relative rank in column.

Table 6. Grain Yield (lb/acre @14\% moisture) Summary of Very Early Rice Varieties by Location and Year (2007-2011)

| Location | Year | Calmochi |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | M-104 | M-202 | M-206 | 101 | S-102 | L-205 | L-206 |
| Biggs (RES) | 2007 | 8930 | 10250 | 11030 | 6740 | 10730 | 9550 | 10360 |
|  | 2008 | 10000 | 10170 | 10900 | 9960 | 10240 | 10010 | 11180 |
|  | 2009 | 7180 | 8080 | 8940 | 7640 | 8230 | 9430 | 9710 |
|  | 2010 | - | 10470 | 11290 | 9470 | 9380 | 10140 | 10200 |
|  | 2011* | - | - | - | - | - | - | - |
| Location Mean |  | 8703 | 9743 | 10540 | 8453 | 9645 | 9783 | 10363 |
| Sutter | 2007 | 10680 | 10740 | 11250 | 11140 | 11100 | 10000 | 10440 |
|  | 2008 | 10100 | 9540 | 9800 | 10010 | 10190 | 9490 | 9840 |
|  | 2009 | 10040 | 9070 | 9390 | 7870 | 8480 | 9070 | 10160 |
|  | 2010 | 8270 | 6520 | 7890 | 9500 | 9360 | 7450 | 8050 |
|  | 2011* | - | - | - | - | - | - | - |
| Location Mean |  | 9773 | 8968 | 9583 | 9630 | 9783 | 9003 | 9623 |
| Yolo | 2007 | 7510 | 7220 | 7350 | 7500 | 7140 | 7010 | 7520 |
|  | 2008 | 9930 | 10140 | 10480 | 9830 | 10340 | 9590 | 10210 |
|  | 2009 | 11770 | 11400 | 12570 | 10760 | 11930 | 11220 | 10880 |
|  | 2010 | 8050 | 7890 | 8210 | 7190 | 7520 | 7390 | 8230 |
|  | 2011 | 10020 | 9590 | 10230 | 9320 | 9050 | - | 9490 |
| Location Mean |  | 9456 | 9248 | 9768 | 8920 | 9196 | 8803 | 9266 |
| San Joaquin | 2007 | 9050 | 6130 | 9380 | 9650 | 10340 | 7430 | 9850 |
|  | 2008 | 9780 | 7770 | 9360 | 9470 | 10000 | 7580 | 8160 |
|  | 2009 | 8530 | 8720 | 8440 | 7650 | 7480 | 6970 | 8120 |
|  | 2010 | 8360 | 7760 | 7560 | 8070 | 7950 | 5970 | 8170 |
|  | 2011 | 8800 | 9090 | 9330 | 7850 | 7760 | - | 8340 |
| Location Mean |  | 8904 | 7894 | 8814 | 8538 | 8706 | 6988 | 8528 |
| Loc/Years Mean |  | 9235 | 8919 | 9633 | 8868 | 9290 | 8644 | 9384 |
| Yield \% M-104 |  | 100.0 | 96.6 | 104.3 | 96.0 | 100.6 | 93.6 | 101.6 |
| Number of Tests |  | 17 | 18 | 18 | 18 | 18 | 16 | 18 |

* Test locations not included in 2011 due to very high yield cvs.

Table 7. 2011 Early Rice Variety Tests - Four Location Advanced and Three Location Preliminary Summary

## Advanced Lines and Varieties

| Variety | Grain <br> Type | Ave Grain Yield at 14\% Moisture Ibs/acre | Single Location Yields |  |  |  | Ave Grain |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  | Moisture | Seedling | Days to |  | Plant |
|  |  |  | Biggs | Butte | Colusa | Yuba | at Harvest (\%) | Vigor <br> (1-5) | $50 \%$ <br> Heading | Lodging (1-99) | Height <br> (in) |
| 09 Y 1122 | L | 10400 ( 1) | 10610 ( 5) | 10300 ( 1) | 9930 ( 7) | 10770 ( 2) | 17.7 (14) | 4.9 (13) | 95 (11) | 1 ( 1) | 39 ( 4) |
| $09 Y 2179$ | S | 10360 ( 2) | 10960 ( 2) | 8980 (7) | 10700 (1) | 10800 ( 1) | 19.1 (9) | 4.9 (9) | 93 (9) | 1 (4) | 42 (15) |
| 08 Y 3269 | M | 10210 (3) | 10870 (3) | 9520 ( 3) | 10210 (5) | 10260 (5) | 20.7 (5) | 5.0 (7) | 96 (12) | 1 (1) | 41 (12) |
| 09 Y 2141 | SWX | 10110 (4) | 11430 (1) | 10280 (2) | 8000 (13) | 10740 ( 3) | 20.7 (4) | 4.9 (10) | 91 (6) | 29 (13) | 43 (17) |
| $06 Y 575$ | LR | 9940 (5) | 10100 (10) | 8760 (9) | 10560 ( 2) | 10320 (4) | 18.4 (10) | 4.9 ( 8) | 99 (16) | 2 (7) | 43 (16) |
| M208 | M | 9820 ( 6) | 10240 ( 8) | 9350 (4) | 10240 (4) | 9450 (10) | 20.4 (7) | 5.0 (2) | 94 (10) | 1 (4) | 42 (13) |
| M205 | M | 9810 (7) | 10610 (4) | 8860 (8) | 9760 ( 8) | 10000 ( 8) | 21.3 (1) | 4.9 (11) | 98 (15) | 1 (4) | 40 ( 8) |
| L206 | L | 9790 (8) | 10020 (12) | 9330 (5) | 9660 (10) | 10160 (7) | 17.0 (17) | 4.9 (12) | 91 (5) | 11 (9) | 38 (1) |
| 08 Y 3126 | M | 9760 ( 9) | 10470 (6) | 9230 (6) | 9730 (9) | 9630 (9) | 20.5 (6) | 5.0 (6) | 90 (4) | 10 ( 8) | 42 (14) |
| M206 | M | 9680 (10) | 10050 (11) | 8520 (10) | 9960 ( 6) | 10190 (6) | 21.0 ( 2) | 5.0 (2) | 90 (3) | 20 (11) | 41 (11) |
| 10 Y 1025 | L | 9480 (11) | 9880 (13) | 8480 (12) | 10370 (3) | 9190 (13) | 18.2 (12) | 4.9 (15) | 97 (14) | 1 (1) | 39 (5) |
| $09 Y 2159$ | SLA | 9160 (12) | 10310 (7) | 8490 (11) | 9060 (12) | 8800 (14) | 18.4 (11) | 4.8 (17) | 99 (17) | 19 (10) | 40 (7) |
| M202 | M | 9120 (13) | 9660 (15) | 8180 (14) | 9350 (11) | 9300 (12) | 20.9 (3) | 5.0 ( 5) | 92 (8) | 27 (12) | 40 (9) |
| S102 | S | 8670 (14) | 10230 (9) | 8280 (13) | 7420 (14) | 8740 (15) | 17.0 (16) | 5.0 (1) | 87 (1) | 45 (14) | 41 (10) |
| 04 Y 177 | SPQ | 8540 (15) | 9840 (14) | 7960 (16) | 6950 (15) | 9420 (11) | 19.6 ( 8) | 4.8 (16) | 92 (7) | 49 (16) | 38 (3) |
| CH201 | SPQ | 7780 (16) | 9210 (16) | 8060 (15) | 6040 (17) | 7800 (16) | 17.7 (15) | 5.0 ( 4) | 97 (13) | 49 (15) | 38 (2) |
| CM101 | SWX | 7630 (17) | 8980 (17) | 7680 (17) | 6510 (16) | 7370 (17) | 18.2 (13) | 4.9 (14) | 90 ( 2) | 49 (16) | 40 (6) |
| MEAN |  | 9430 | 10200 | 8840 | 9090 | 9590 | 19.2 | 4.9 | 94 | 19 | 40 |
| CV |  | 6.5 | 3.4 | 6.6 | 9.3 | 6.0 | 5 | 2.7 | 1.5 | 77.7 | 3.8 |
| LSD (.05) |  | 430 | 490 | 830 | 1200 | 820 | 0.7 | 0.1 | 1 | 10 | 1 |

Preliminary Lines and Varieties (three location summary)

| Variety | Grain <br> Type | Ave Grain Yield at 14\% Moisture Ibs/acre | Butte | Colusa | Yuba | Ave Grain Moisture at Harvest (\%) | $\begin{gathered} \text { Seedling } \\ \text { Vigor } \\ (1-5) \\ \hline \end{gathered}$ | $\begin{gathered} \text { Days to } \\ 50 \% \\ \text { Heading } \\ \hline \end{gathered}$ | Lodging $(1-99)$ | Plant Height (in) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 09Y3805 | M | 9710 ( 1) | 8700 (13) | 10410 ( 3) | 10010 (10) | 22.3 (5) | 5.0 (1) | 95 (17) | 3 (25) | 42 (32) |
| 08Y3239 | M | 9700 ( 2) | 8570 (17) | 10530 (1) | 10000 (11) | 19.5 (25) | 5.0 (1) | 93 (9) | 1 (1) | 38 (6) |
| $09 Y 3517$ | M | 9640 (3) | 9140 (5) | 9600 (10) | 10170 (5) | 20.5 (19) | 5.0 (1) | 92 (5) | 2 (23) | 42 (33) |
| $09 Y 3912$ | M | 9580 ( 4) | 9210 (3) | 9640 (9) | 9880 (13) | 20.9 (14) | 5.0 (1) | 99 (30) | 1 (1) | 41 (29) |
| $09 Y 3708$ | M | 9550 (5) | 9060 (6) | 9900 (6) | 9700 (15) | 23.0 (2) | 5.0 (1) | 102 (35) | 1 (1) | 39 (13) |
| 10 Y 1059 | LJ | 9480 (6) | 8590 (16) | 9640 ( 8) | 10200 (4) | 18.4 (28) | 5.0 (1) | 95 (15) | 1 (1) | 40 (21) |
| 09 Y 1067 | LIM | 9440 ( 7) | 8320 (23) | 10520 (2) | 9480 (18) | 17.5 (35) | 5.0 (1) | 95 (14) | 1 (1) | 42 (34) |
| 09Y3665 | M | 9420 ( 8) | 9010 (7) | 8610 (20) | 10640 ( 1) | 21.3 (11) | 5.0 (1) | 97 (23) | 2 (23) | 39 (11) |
| $10 Y 2094$ | MPQ | 9410 (9) | 9160 ( 4) | 8950 (16) | 10130 (6) | 20.8 (16) | 5.0 (1) | 94 (10) | 30 (30) | 41 (25) |
| $09 Y 3605$ | M | 9380 (10) | 8860 (9) | 9180 (13) | 10110 (7) | 21.5 (10) | 5.0 (1) | 102 (37) | 1 (1) | 39 (16) |
| $09 Y 3523$ | M | 9380 (11) | 8510 (20) | 9180 (14) | 10440 ( 3) | 20.9 (13) | 5.0 (1) | 88 (1) | 10 (27) | 39 (15) |
| $09 Y 3580$ | M | 9350 (12) | 8330 (21) | 10040 (4) | 9700 (16) | 22.3 (4) | 4.9 (31) | 95 (19) | 3 (25) | 40 (19) |
| $09 Y 3671$ | M | 9330 (13) | 8750 (11) | 9160 (15) | 10060 (9) | 21.7 ( 8) | 5.0 (1) | 99 (30) | 1 (1) | 39 (17) |
| 10 Y 1067 | LJ | 9270 (14) | 8560 (18) | 9320 (12) | 9940 (12) | 16.7 (37) | 5.0 (1) | 92 (6) | 1 (1) | 37 (2) |
| $09 Y 3600$ | M | 9260 (15) | 8660 (14) | 8660 (18) | 10470 (2) | 19.8 (21) | 5.0 (1) | 99 (28) | 1 (1) | 40 (20) |
| 09 Y 1079 | L | 9250 (16) | 8770 (10) | 9950 ( 5) | 9040 (22) | 19.6 (23) | 5.0 (1) | 99 (29) | 1 (1) | 39 (12) |
| $09 Y 2184$ | S | 9090 (17) | 8330 (22) | 8860 (17) | 10100 (8) | 21.9 (6) | 5.0 (1) | 102 (34) | 1 (1) | 39 (14) |
| 10 Y 1162 | L | 9000 (18) | 8520 (19) | 9410 (11) | 9070 (21) | 18.0 (31) | 5.0 (1) | 96 (22) | 1 (1) | 38 (6) |
| 10Y1038 | L | 8970 (19) | 8610 (15) | 9700 (7) | 8590 (25) | 17.7 (32) | 5.0 (1) | 96 (20) | 1 (1) | 41 (30) |
| $09 Y 3886$ | M | 8960 (20) | 9920 (1) | 7460 (31) | 9500 (17) | 20.8 (18) | 5.0 (1) | 98 (25) | 1 (1) | 41 (26) |
| M105 | M | 8880 (21) | 9270 ( 2) | 7580 (30) | 9800 (14) | 21.3 (12) | 5.0 (1) | 89 ( 2) | 38 (31) | 41 (28) |
| $10 Y 2086$ | MPQ | 8470 (22) | 8010 (26) | 8250 (24) | 9150 (20) | 20.8 (15) | 4.9 (31) | 95 (13) | 42 (32) | 41 (24) |
| $09 Y 3005$ | M | 8450 (23) | 8040 (24) | 8290 (23) | 9020 (23) | 20.8 (17) | 5.0 (1) | 90 ( 4) | 25 (29) | 41 (27) |
| $09 Y 2171$ | M | 8280 (24) | 7720 (31) | 8650 (19) | 8470 (26) | 21.8 (7) | 5.0 (29) | 94 (12) | 66 (35) | 40 (22) |
| 10 Y 2046 | SPQ | 8240 (25) | 6760 (35) | 8560 (21) | 9400 (19) | 19.1 (26) | 5.0 (1) | 97 (24) | 43 (33) | 39 (17) |
| 10Y2082 | MPQ | 8110 (26) | 8950 ( 8) | 6710 (33) | 8650 (24) | 21.6 (9) | 5.0 (1) | 92 ( 8) | 72 (37) | 41 (23) |
| $10 Y 2126$ | MPQ | 7960 (27) | 7590 (32) | 8420 (22) | 7870 (27) | 23.1 (1) | 5.0 (1) | 95 (15) | 50 (34) | 43 (37) |
| A201 | LA | 7910 (28) | 7860 (29) | 8180 (25) | 7680 (29) | 19.0 (27) | 4.7 (37) | 104 (38) | 1 (1) | 41 (31) |
| 10 Y 1149 | LA | 7860 (29) | 7940 (27) | 8110 (26) | 7520 (31) | 18.4 (29) | 5.0 (1) | 96 (21) | 1 (1) | 38 (8) |
| 10 Y 150 | LJ | 7850 (30) | 7730 (30) | 8040 (27) | 7770 (28) | 17.6 (33) | 5.0 (1) | 94 (10) | 1 (1) | 38 (10) |
| 10 Y 2093 | MPQ | 7340 (31) | 7490 (33) | 6940 (32) | 7600 (30) | 22.4 (3) | 5.0 (1) | 92 (7) | 66 (35) | 42 (35) |
| 08 Y 1115 | LA | 7330 (32) | 7900 (28) | 7800 (28) | 6300 (34) | 18.0 (30) | 4.8 (36) | 100 (33) | 1 (1) | 36 (1) |
| 10 Y 151 | LB | 7320 (33) | 7400 (34) | 7630 (29) | 6910 (33) | 19.7 (22) | 5.0 (30) | 100 (32) | 1 (1) | 38 (4) |
| 10P1433 | LB | 6870 (34) | 8740 (12) | 5830 (34) | 6040 (35) | 19.5 (24) | 4.9 (31) | 98 (25) | 11 (28) | 44 (38) |
| CT202 | LB | 6420 (35) | 8020 (25) | 5210 (35) | 6030 (36) | 17.6 (34) | 4.9 (31) | 102 (36) | 1 (1) | 37 (3) |
| AKITA | SPQ | 5990 (36) | 6410 (36) | 4580 (37) | 6970 (32) | 20.5 (20) | 4.6 (38) | 89 (3) | 93 (38) | 43 (36) |
| 10P1597 | LB | 5360 (37) | 6250 (37) | 4520 (38) | 5290 (37) | 17.0 (36) | 5.0 (1) | 98 (27) | 1 (1) | 38 (5) |
| 10 Y 153 | LB | 4920 (38) | 5090 (38) | 4770 (36) | 4910 (38) | 15.9 (38) | 4.9 (35) | 95 (17) | 1 (1) | 38 (9) |
| MEAN |  | 8440 | 8230 | 8340 | 8750 | 20.0 | 5.0 | 96 | 15 | 40 |
| CV |  | 6.8 | 6.9 | 8.2 | 5 | 6.4 | 2.5 | 1.4 | 97.3 | 3.5 |
| LSD (.05) |  | 650 | 1150 | 1380 | 890 | 1.5 | 0.1 | 2 | 17 | 2 |

$\mathrm{S}=$ short; $\mathrm{M}=$ medium; L = Iong; PQ = premium quality; LA=low amalose; J=Jasmine; $\mathrm{A}=$ aromatic; B=Basmati; $\mathrm{WX}=$ waxy; $\mathrm{R}=\mathrm{Newrex}, \mathrm{SR=stem} \mathrm{rot} \mathrm{resistant;}$
$I M=I M M I$ herbicide 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.

* The Biggs preliminary summary was excluded from the overall summary due to an exceedingly high yield cv.

Table 8. 2011 Early Rice Variety Trial - Biggs

| Variety | $\begin{aligned} & \text { Grain } \\ & \text { Type } \\ & \hline \end{aligned}$ | Grain Yield <br> at 14\% <br> Moisture lbs/acre | Grain Moisture at Harvest (\%) | Seedling Vigor (1-5) | Days to $50 \%$ <br> Heading | Lodging $(1-99)$ | Plant Height (in) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 09 Y 2141 | SWX | 11430 ( 1) | 16.1 (10) | 4.7 (13) | 91 (10) | 1 (1) | 44 (17) |
| $09 Y 2179$ | S | 10960 ( 2) | 15.9 (14) | 4.7 (14) | 87 ( 2) | 1 (1) | 41 (14) |
| $08 Y 3269$ | M | 10870 ( 3) | 17.2 (4) | 4.8 ( 8) | 93 (11) | 1 (1) | 40 (9) |
| M205 | M | 10610 ( 4) | 17.2 (6) | 4.7 (15) | 93 (13) | 1 (1) | 40 (6) |
| 09 Y 1122 | L | 10610 ( 5) | 16.3 (9) | 4.8 (11) | 93 (11) | 1 (1) | 38 (3) |
| $08 Y 3126$ | M | 10470 ( 6) | 17.2 (5) | 4.8 (6) | 88 (5) | 1 (1) | 42 (15) |
| $09 Y 2159$ | SLA | 10310 ( 7) | 15.7 (16) | 4.8 (7) | 95 (15) | 1 (1) | 40 ( 8) |
| M208 | M | 10240 ( 8) | 17.0 (7) | 4.9 ( 2) | 89 ( 7) | 1 (1) | 42 (16) |
| S102 | S | 10230 (9) | 14.9 (17) | 5.0 (1) | 84 (1) | 1 (1) | 40 (10) |
| $06 Y 575$ | LR | 10100 (10) | 17.0 (8) | 4.8 (11) | 98 (17) | 1 (1) | 41 (13) |
| M206 | M | 10050 (11) | 17.6 (1) | 4.9 ( 2) | 88 ( 3) | 1 (1) | 41 (12) |
| L206 | L | 10020 (12) | 16.0 (12) | 4.6 (17) | 88 (5) | 1 (1) | 39 (4) |
| 10 Y 1025 | L | 9880 (13) | 17.5 ( 2) | 4.7 (15) | 96 (16) | 1 (1) | 40 ( 7) |
| 04 Y 177 | SPQ | 9840 (14) | 15.9 (13) | 4.8 (10) | 90 ( 8) | 1 (1) | 37 (1) |
| M202 | M | 9660 (15) | 17.5 (3) | 4.9 (5) | 90 ( 8) | 1 (1) | 41 (11) |
| CH2O1 | SPQ | 9210 (16) | 16.0 (11) | 4.9 (4) | 94 (14) | 1 (1) | 38 ( 2) |
| CM101 | SWX | 8980 (17) | 15.9 (15) | 4.8 ( 8) | 88 ( 3) | 1 (1) | 40 (5) |
| MEAN |  | 10200 | 16.5 | 4.8 | 91 | 1 | 40 |
| CV |  | 3.4 | 4.3 | 2.2 | 1.2 |  | 4.2 |
| LSD (.05) |  | 490 | 1 | 0.2 | 2 |  | 2 |
| Preliminary Lines and Varieties |  |  |  |  |  |  |  |
| 09Y2184 | S | 10140 ( 1) | 16.5 (18) | 4.7 (27) | 94 (28) | 1 (1) | 35 ( 3) |
| $09 Y 3805$ | M | 10100 ( 2) | 17.1 ( 8) | 4.9 ( 8) | 90 (10) | 1 (1) | 42 (32) |
| $09 Y 3665$ | M | 9850 ( 3) | 17.9 (1) | 4.7 (22) | 92 (19) | 1 (1) | 37 (7) |
| 10 Y 2046 | SPQ | 9630 (4) | 15.8 (24) | 4.7 (22) | 93 (24) | 1 (1) | 39 (14) |
| 09 Y 3517 | M | 9600 (5) | 17.9 ( 2) | 3.7 (37) | 90 (13) | 1 (1) | 43 (33) |
| M105 | M | 9490 ( 6) | 16.7 (17) | 4.8 (17) | 86 (1) | 1 (1) | 39 (18) |
| $09 Y 1067$ | LIM | 9350 (7) | 16.1 (23) | 4.8 (15) | 93 (25) | 1 (1) | 41 (29) |
| 09 Y 3600 | M | 9340 (8) | 17.7 ( 3) | 4.7 (22) | 94 (32) | 1 (1) | 38 (12) |
| $09 Y 3671$ | M | 8410 (9) | 16.9 (13) | 4.8 (17) | 92 (20) | 1 (1) | 40 (21) |
| $09 Y 2171$ | M | 8320 (10) | 17.1 (9) | 4.8 (13) | 88 ( 5) | 1 (1) | 41 (30) |
| 08 Y 3239 | M | 8280 (11) | 16.1 (22) | 4.8 (17) | 86 (1) | 1 (1) | 37 ( 7) |
| 09 Y 3912 | M | 8070 (12) | 16.4 (19) | 4.9 ( 8) | 92 (20) | 1 (1) | 39 (14) |
| 10 Y 1067 | LJ | 7840 (13) | 15.2 (29) | 4.6 (30) | 88 ( 4) | 1 (1) | 34 (1) |
| $09 Y 3708$ | M | 7800 (14) | 17.0 (10) | 4.7 (22) | 95 (34) | 1 (1) | 39 (14) |
| 10 Y 2094 | MPQ | 7780 (15) | 16.9 (12) | 4.8 (17) | 90 (13) | 1 (1) | 44 (36) |
| $09 Y 3580$ | M | 7780 (16) | 17.7 ( 3) | 4.9 (5) | 91 (17) | 1 (1) | 41 (26) |
| 10 Y 2126 | MPQ | 7700 (17) | 16.7 (16) | 5.0 (1) | 90 (13) | 1 (1) | 44 (37) |
| $09 Y 3886$ | M | 7670 (18) | 16.4 (20) | 4.9 (5) | 90 (13) | 1 (1) | 41 (23) |
| 10 Y 2086 | MPQ | 7600 (19) | 16.7 (15) | 5.0 (1) | 90 (10) | 1 (1) | 43 (34) |
| $09 Y 3605$ | M | 7550 (20) | 17.2 (6) | 4.8 (13) | 95 (34) | 1 (1) | 39 (18) |
| $09 Y 3005$ | M | 7500 (21) | 16.8 (14) | 5.0 (1) | 86 (1) | 1 (1) | 39 (18) |
| $09 Y 3523$ | M | 7400 (22) | 17.2 (6) | 3.9 (35) | 89 ( 8) | 1 (1) | 38 (10) |
| 10 Y 2082 | MPQ | 7330 (23) | 17.0 (11) | 4.9 ( 8) | 88 ( 5) | 1 (1) | 43 (35) |
| 10 Y 1059 | LJ | 7300 (24) | 15.1 (31) | 4.8 (11) | 91 (18) | 1 (1) | 40 (21) |
| 10 Y 2093 | MPQ | 7300 (24) | 17.4 ( 5) | 4.8 (17) | 89 ( 8) | 1 (1) | 47 (38) |
| AKITA | SPQ | 7010 (26) | 15.8 (25) | 3.6 (38) | 88 (5) | 1 (1) | 41 (25) |
| 09Y1079 | L | 6930 (27) | 15.2 (30) | 4.9 ( 4) | 93 (26) | 1 (1) | 41 (23) |
| 10 Y 1162 | L | 6870 (28) | 15.5 (27) | 4.6 (29) | 94 (28) | 1 (1) | 39 (13) |
| 10 Y 1038 | L | 6770 (29) | 15.5 (28) | 4.6 (31) | 92 (23) | 1 (1) | 41 (26) |
| 10 Y 151 | LB | 6480 (30) | 14.9 (34) | 4.8 (16) | 95 (36) | 1 (1) | 37 ( 5) |
| A201 | LA | 6470 (31) | 15.6 (26) | 4.8 (11) | 99 (38) | 1 (1) | 41 (26) |
| 10 Y 1149 | LA | 6130 (32) | 15.0 (32) | 4.5 (33) | 93 (26) | 1 (1) | 35 ( 3) |
| 10P1433 | LB | 6020 (33) | 16.3 (21) | 3.7 (36) | 96 (37) | 1 (1) | 41 (30) |
| 10 Y 150 | LJ | 6020 (34) | 15.0 (33) | 4.6 (31) | 92 (20) | 1 (1) | 38 (11) |
| $08 Y 1115$ | LA | 5880 (35) | 13.8 (36) | 4.7 (26) | 94 (30) | 1 (1) | 37 (7) |
| CT202 | LB | 5410 (36) | 14.3 (35) | 4.7 (27) | 94 (33) | 1 (1) | 39 (14) |
| 10P1597 | LB | 5160 (37) | 12.4 (38) | 4.9 (5) | 94 (30) | 1 (1) | 35 (2) |
| 10Y153 | LB | 4200 (38) | 13.2 (37) | 4.3 (34) | 90 (10) | 1 (1) | 37 (6) |
| MEAN |  | 7560 | 16.1 | 4.6 | 91 | 1 | 40 |
| CV |  | 14.6 | 4.3 | 9.3 | 1.4 |  | 0.9 |
| LSD (.05) |  | 2240 | 1.4 |  | 3 |  | 1 |

$\mathrm{S}=$ short; $\mathrm{M}=$ medium; L = long; $\mathrm{PQ}=$ premium quality; LA=low amalose; J=Jasmine; $\mathrm{A}=$ aromatic; $\mathrm{B}=$ Basmati;
WX = waxy; R = Newrex, SR=stem rot resistant; IM=IMMI herbicide 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 9. 2011 Early Rice Variety Trial - Butte

| Variety | Grain Type | Grain Yield <br> at 14\% <br> Moisture lbs/acre | Grain Moisture at Harvest (\%) | Seedling Vigor (1-5) | $\begin{gathered} \text { Days to } \\ 50 \% \\ \text { Heading } \\ \hline \end{gathered}$ | Lodging $(1-99)$ | Plant <br> Height <br> (in) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $09 Y 1122$ | L | 10300 ( 1) | 21.3 (14) | 5.0 (1) | 95 (11) | 1 (1) | 39 (6) |
| $09 Y 2141$ | SWX | 10280 ( 2) | 25.4 (3) | 5.0 (1) | 91 ( 4) | 1 (1) | 42 (16) |
| 08 Y 3269 | M | 9520 ( 3) | 26.0 ( 2) | 5.0 (1) | 96 (12) | 1 (1) | 39 (3) |
| M208 | M | 9350 (4) | 24.5 (7) | 5.0 (1) | 92 (6) | 1 (1) | 40 (11) |
| L206 | L | 9330 (5) | 20.2 (16) | 5.0 (1) | 92 (6) | 1 (1) | 37 (1) |
| 08 Y 3126 | M | 9230 (6) | 24.1 (8) | 5.0 (1) | 88 (1) | 1 (1) | 42 (15) |
| $09 Y 2179$ | S | 8980 (7) | 21.9 (11) | 5.0 (1) | 92 (10) | 1 (1) | 42 (14) |
| M205 | M | 8860 (8) | 27.0 (1) | 5.0 (1) | 96 (14) | 1 (1) | 39 (8) |
| $06 Y 575$ | LR | 8760 (9) | 22.5 (9) | 5.0 (1) | 99 (16) | 1 (1) | 43 (17) |
| M206 | M | 8520 (10) | 25.0 (5) | 5.0 (1) | 89 (3) | 1 (1) | 40 (11) |
| 09Y2159 | SLA | 8490 (11) | 25.0 (4) | 5.0 (1) | 100 (17) | 1 (1) | 39 (5) |
| 10Y1025 | L | 8480 (12) | 21.8 (12) | 5.0 (1) | 97 (15) | 1 (1) | 39 (7) |
| S102 | S | 8280 (13) | 19.7 (17) | 5.0 (1) | 89 ( 2) | 1 (1) | 41 (13) |
| M202 | M | 8180 (14) | 24.7 (6) | 5.0 (1) | 91 (5) | 1 (1) | 40 (9) |
| CH201 | SPQ | 8060 (15) | 20.6 (15) | 5.0 (1) | 96 (13) | 1 (1) | 37 ( 2) |
| $04 Y 177$ | SPQ | 7960 (16) | 22.4 (10) | 4.9 (17) | 92 (9) | 1 (1) | 39 (3) |
| CM101 | SWX | 7680 (17) | 21.4 (13) | 5.0 (1) | 92 (8) | 1 (1) | 40 (10) |
| MEAN |  | 8840 | 23.2 | 5.0 | 93 | 1 | 40 |
| CV |  | 6.6 | 4 | 1.2 | 0.8 |  | 2.9 |
| LSD (.05) |  | 830 | 1.3 |  | 1 |  | 2 |
| Preliminary Lines and Varieties |  |  |  |  |  |  |  |
| $09 Y 3886$ | M | 9920 ( 1) | 24.0 (14) | 5.0 ( 1) | 95 (19) | 1 ( 1) | 38 ( 8) |
| M105 | M | 9270 ( 2) | 21.4 (27) | 5.0 (1) | 86 (1) | 1 (1) | 40 (23) |
| $09 Y 3912$ | M | 9210 (3) | 24.4 (11) | 5.0 (1) | 95 (19) | 1 (1) | 40 (23) |
| 10Y2094 | MPQ | 9160 ( 4) | 22.5 (21) | 5.0 (1) | 92 (9) | 1 (1) | 41 (30) |
| $09 Y 3517$ | M | 9140 (5) | 21.9 (24) | 5.0 (1) | 89 (4) | 1 (1) | 41 (29) |
| $09 Y 3708$ | M | 9060 (6) | 27.2 (1) | 5.0 (1) | 98 (30) | 1 (1) | 37 (3) |
| 09Y3665 | M | 9010 (7) | 24.8 (9) | 5.0 (1) | 95 (19) | 1 (1) | 38 (6) |
| 10Y2082 | MPQ | 8950 ( 8) | 22.0 (23) | 5.0 (1) | 91 (7) | 18 (37) | 40 (23) |
| $09 Y 3605$ | M | 8860 (9) | 26.0 (5) | 5.0 (1) | 98 (34) | 1 (1) | 38 (8) |
| 09Y1079 | L | 8770 (10) | 24.0 (12) | 5.0 (1) | 98 (30) | 1 (1) | 38 ( 8) |
| $09 Y 3671$ | M | 8750 (11) | 26.3 (4) | 5.0 (1) | 97 (27) | 1 (1) | 39 (16) |
| 10P1433 | LB | 8740 (12) | 24.0 (13) | 5.0 (1) | 99 (35) | 1 (1) | 45 (38) |
| $09 Y 3805$ | M | 8700 (13) | 26.7 (3) | 5.0 (1) | 92 (9) | 1 (1) | 42 (34) |
| 09Y3600 | M | 8660 (14) | 22.6 (20) | 5.0 (1) | 96 (24) | 1 (1) | 39 (16) |
| 10Y1038 | L | 8610 (15) | 20.9 (29) | 5.0 (1) | 97 (27) | 1 (1) | 42 (34) |
| 10Y1059 | LJ | 8590 (16) | 20.8 (31) | 5.0 (1) | 95 (19) | 1 (1) | 40 (26) |
| 08Y3239 | M | 8570 (17) | 20.8 (30) | 5.0 (1) | 89 (4) | 1 (1) | 36 (1) |
| 10Y1067 | LJ | 8560 (18) | 19.8 (34) | 5.0 (1) | 92 (8) | 1 (1) | 37 (3) |
| 10Y1162 | L | 8520 (19) | 21.6 (26) | 5.0 (1) | 96 (25) | 1 (1) | 36 (1) |
| $09 Y 3523$ | M | 8510 (20) | 22.6 (19) | 5.0 (1) | 88 ( 2) | 1 (1) | 39 (16) |
| $09 Y 3580$ | M | 8330 (21) | 25.0 (8) | 5.0 (1) | 93 (14) | 1 (1) | 39 (13) |
| $09 Y 2184$ | S | 8330 (22) | 27.0 (2) | 5.0 (1) | 97 (27) | 1 (1) | 38 (6) |
| $09 Y 1067$ | LIM | 8320 (23) | 20.3 (32) | 5.0 (1) | 94 (17) | 1 (1) | 41 (30) |
| 09Y3005 | M | 8040 (24) | 22.1 (22) | 5.0 (1) | 88 (3) | 1 (1) | 39 (13) |
| CT202 | LB | 8020 (25) | 17.6 (36) | 5.0 (1) | 103 (38) | 1 (1) | 40 (26) |
| $10 Y 2086$ | MPQ | 8010 (26) | 23.0 (18) | 4.8 (36) | 92 (9) | 1 (1) | 40 (26) |
| 10Y1149 | LA | 7940 (27) | 21.4 (28) | 5.0 (1) | 95 (19) | 1 (1) | 38 (8) |
| 08 Y 1115 | LA | 7900 (28) | 20.0 (33) | 5.0 (1) | 98 (30) | 1 (1) | 37 (3) |
| A201 | LA | 7860 (29) | 21.7 (25) | 4.4 (38) | 102 (37) | 1 (1) | 42 (36) |
| 10 Y 150 | LJ | 7730 (30) | 19.8 (35) | 5.0 (1) | 94 (16) | 1 (1) | 39 (16) |
| 09 Y 2171 | M | 7720 (31) | 23.9 (15) | 4.9 (35) | 92 (9) | 1 (1) | 39 (16) |
| 10Y2126 | MPQ | 7590 (32) | 25.4 (7) | 5.0 (1) | 93 (15) | 1 (1) | 41 (30) |
| 10Y2093 | MPQ | 7490 (33) | 26.0 (6) | 5.0 (1) | 89 ( 4) | 1 (1) | 41 (30) |
| 10 Y 151 | LB | 7400 (34) | 24.6 (10) | 5.0 (1) | 99 (35) | 1 (1) | 39 (16) |
| 10Y2046 | SPQ | 6760 (35) | 23.4 (16) | 5.0 (1) | 98 (30) | 1 (1) | 39 (16) |
| AKITA | SPQ | 6410 (36) | 23.3 (17) | 4.8 (36) | 92 (9) | 83 (38) | 43 (37) |
| 10P1597 | LB | 6250 (37) | 16.6 (37) | 5.0 (1) | 97 (26) | 1 (1) | 39 (13) |
| 10 Y 153 | LB | 5090 (38) | 16.0 (38) | 5.0 (1) | 95 (18) | 1 (1) | 38 (8) |
| MEAN |  | 8230 | 22.7 | 5.0 | 94 | 4 | 39 |
| CV |  | 6.9 | 6.5 | 1.8 | 1.2 | 68.9 | 3.9 |
| LSD (.05) |  | 1150 | 3 | 0.2 | 2 | 5 | 3 |

S = short; M = medium; L = long; PQ = premium quality; WX = waxy; LA=low amalose; J=Jasmine; R = Newrex;
SR=stem rot resistant; A = aromatic; B=Basmati; IM=IMMI herbicide 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. 2011 Early Rice Variety Trial - Colusa

| Variety | $\begin{aligned} & \text { Grain } \\ & \text { Type } \\ & \hline \end{aligned}$ | Grain Yield <br> at 14\% <br> Moisture lbs/acre | Grain Moisture at Harvest (\%) | Seedling Vigor (1-5) | Days to $50 \%$ <br> Heading | Lodging $(1-99)$ | Plant Height <br> (in) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 09Y2179 | S | 10700 ( 1) | 16.0 (7) | 5.0 (1) | 93 (9) | 2 ( 5) | 43 (17) |
| $06 Y 575$ | LR | 10560 ( 2) | 13.3 (15) | 5.0 (1) | 95 (12) | 3 (7) | 42 (16) |
| 10 Y 1025 | L | 10370 ( 3) | 13.5 (14) | 5.0 (1) | 94 (11) | 1 (1) | 38 (5) |
| M208 | M | 10240 ( 4) | 16.0 (8) | 5.0 (1) | 95 (12) | 1 (1) | 41 (15) |
| $08 Y 3269$ | M | 10210 ( 5) | 15.8 (9) | 5.0 (1) | 96 (15) | 1 (1) | 41 (12) |
| M206 | M | 9960 (6) | 17.1 (3) | 5.0 (1) | 89 (3) | 71 (12) | 39 (6) |
| 09 Y 1122 | L | 9930 (7) | 12.7 (17) | 5.0 (1) | 94 (10) | 1 (1) | 38 (4) |
| M205 | M | 9760 ( 8) | 15.2 (12) | 4.9 (17) | 101 (17) | 2 (5) | 40 (9) |
| $08 Y 3126$ | M | 9730 (9) | 16.1 ( 6) | 5.0 (1) | 89 ( 6) | 12 (8) | 41 (13) |
| L206 | L | 9660 (10) | 13.2 (16) | 5.0 (1) | 89 (4) | 40 (9) | 37 (2) |
| M202 | M | 9350 (11) | 16.5 (4) | 5.0 (1) | 91 ( 8) | 69 (11) | 39 (6) |
| $09 Y 2159$ | SLA | 9060 (12) | 14.1 (13) | 5.0 (1) | 98 (16) | 46 (10) | 41 (11) |
| $09 Y 2141$ | SWX | 8000 (13) | 17.3 ( 2) | 5.0 (1) | 89 ( 4) | 97 (14) | 41 (14) |
| S102 | S | 7420 (14) | 15.3 (11) | 5.0 (1) | 85 (1) | 94 (13) | 40 (10) |
| $04 Y 177$ | SPQ | 6950 (15) | 18.8 (1) | 5.0 (1) | 90 ( 7) | 99 (16) | 36 (1) |
| CM101 | SWX | 6510 (16) | 16.2 (5) | 5.0 (1) | 86 ( 2) | 99 (16) | 39 (8) |
| CH201 | SPQ | 6040 (17) | 15.6 (10) | 5.0 (1) | 96 (14) | 97 (14) | 38 (3) |
| MEAN |  | 9090 | 15.5 | 5.0 | 92 | 43 | 40 |
| CV |  | 9.3 | 4.4 | 0.6 | 2.6 | 46.6 | 4.6 |
| LSD (.05) |  | 1200 | 1 | 0 | 3 | 29 | 3 |
| Preliminary Lines and Varieties |  |  |  |  |  |  |  |
| 08Y3239 | M | 10530 ( 1) | 15.2 (20) | 5.0 (1) | 90 ( 5) | 1 (1) | 36 (7) |
| $09 Y 1067$ | LIM | 10520 ( 2) | 12.8 (35) | 5.0 (1) | 92 (11) | 1 (1) | 40 (30) |
| $09 Y 3805$ | M | 10410 ( 3) | 15.7 (16) | 5.0 (1) | 94 (22) | 6 (25) | 41 (34) |
| 09 Y 3580 | M | 10040 ( 4) | 17.0 ( 6) | 5.0 (1) | 95 (25) | 6 (25) | 39 (19) |
| $09 Y 1079$ | L | 9950 (5) | 13.3 (30) | 5.0 (1) | 94 (22) | 1 (1) | 38 (11) |
| 09 Y 3708 | M | 9900 ( 6) | 16.1 ( 8) | 5.0 (1) | 103 (35) | 1 (1) | 38 (11) |
| 10 Y 1038 | L | 9700 (7) | 12.9 (34) | 5.0 (1) | 90 ( 5) | 1 (1) | 40 (23) |
| 10 Y 1059 | LJ | 9640 (8) | 13.3 (31) | 5.0 (1) | 92 (11) | 1 (1) | 39 (22) |
| $09 Y 3912$ | M | 9640 (9) | 14.8 (25) | 5.0 (1) | 100 (34) | 1 (1) | 41 (31) |
| $09 Y 3517$ | M | 9600 (10) | 15.7 (14) | 5.0 (1) | 92 (10) | 3 (24) | 40 (25) |
| 10 Y 1162 | L | 9410 (11) | 12.9 (33) | 5.0 (1) | 94 (19) | 1 (1) | 37 (8) |
| 10 Y 1067 | LJ | 9320 (12) | 12.0 (38) | 5.0 (1) | 90 (5) | 1 (1) | 36 (5) |
| $09 Y 3605$ | M | 9180 (13) | 14.9 (24) | 5.0 (1) | 103 (35) | 1 (1) | 38 (16) |
| $09 Y 3523$ | M | 9180 (14) | 16.1 (11) | 5.0 (1) | 88 ( 3) | 28 (28) | 38 (18) |
| $09 Y 3671$ | M | 9160 (15) | 15.3 (19) | 5.0 (1) | 99 (32) | 1 (1) | 38 (11) |
| 10 Y 2094 | MPQ | 8950 (16) | 15.9 (12) | 5.0 (1) | 93 (14) | 25 (27) | 39 (20) |
| 09 Y 2184 | S | 8860 (17) | 15.3 (17) | 5.0 (1) | 103 (35) | 1 (1) | 38 (17) |
| $09 Y 3600$ | M | 8660 (18) | 15.1 (22) | 5.0 (1) | 100 (33) | 1 (1) | 39 (21) |
| $09 Y 2171$ | M | 8650 (19) | 17.1 ( 5) | 5.0 (1) | 94 (19) | 99 (34) | 40 (29) |
| $09 Y 3665$ | M | 8610 (20) | 14.7 (26) | 5.0 (1) | 97 (28) | 1 (1) | 38 (11) |
| $10 Y 2046$ | SPQ | 8560 (21) | 15.7 (15) | 5.0 (1) | 97 (28) | 80 (32) | 38 (11) |
| 10 Y 2126 | MPQ | 8420 (22) | 17.2 (4) | 5.0 (1) | 93 (14) | 99 (34) | 43 (37) |
| $09 Y 3005$ | M | 8290 (23) | 15.7 (13) | 5.0 (1) | 89 (4) | 53 (30) | 40 (25) |
| 10 Y 2086 | MPQ | 8250 (24) | 16.6 (7) | 5.0 (1) | 93 (14) | 75 (31) | 41 (32) |
| A201 | LA | 8180 (25) | 14.1 (27) | 4.8 (38) | 103 (35) | 1 (1) | 40 (23) |
| 10 Y 1149 | LA | 8110 (26) | 13.2 (32) | 5.0 (1) | 93 (14) | 1 (1) | 37 (10) |
| 10 Y 150 | LJ | 8040 (27) | 12.4 (37) | 5.0 (1) | 91 ( 8) | 1 (1) | 36 (5) |
| $08 Y 1115$ | LA | 7800 (28) | 12.6 (36) | 5.0 (1) | 95 (27) | 1 (1) | 34 (1) |
| 10 Y 151 | LB | 7630 (29) | 13.8 (29) | 5.0 (1) | 94 (22) | 1 (1) | 36 (3) |
| M105 | M | 7580 (30) | 17.5 ( 3) | 5.0 (1) | 87 ( 2) | 97 (33) | 40 (25) |
| $09 Y 3886$ | M | 7460 (31) | 14.0 (28) | 5.0 (1) | 99 (31) | 1 (1) | 40 (25) |
| 10 Y 2093 | MPQ | 6940 (32) | 16.1 (10) | 5.0 (1) | 91 (9) | 99 (34) | 41 (32) |
| 10 Y 2082 | MPQ | 6710 (33) | 17.8 ( 2) | 5.0 (1) | 92 (11) | 99 (34) | 41 (34) |
| 10P1433 | LB | 5830 (34) | 15.3 (18) | 5.0 (1) | 94 (19) | 31 (29) | 45 (38) |
| CT202 | LB | 5210 (35) | 16.1 (9) | 5.0 (1) | 98 (30) | 1 (1) | 36 (3) |
| 10 Y 153 | LB | 4770 (36) | 15.0 (23) | 5.0 (1) | 93 (14) | 1 (1) | 37 (9) |
| AKITA | SPQ | 4580 (37) | 18.8 (1) | 5.0 (1) | 85 (1) | 99 (34) | 42 (36) |
| 10P1597 | LB | 4520 (38) | 15.1 (21) | 5.0 ( 1) | 95 (25) | 1 (1) | 35 (2) |
| MEAN |  | 8340 | 15.1 | 5.0 | 94 | 24 | 39 |
| CV |  | 8.2 | 7.9 | 1.1 | 0.8 | 59.8 | 3 |
| LSD (.05) |  | 1380 | 2.4 |  | 1 | 29 | 2 |

$\frac{1380}{S}=$ short; $\mathrm{M}=$ medium; $\mathrm{L}=$ long; $\mathrm{PQ}=$ premium quality; $\mathrm{WX}=$ waxy; LA=low amalose; J=Jasmine; $\mathrm{R}=$ Newrex;
$S R=$ stem rot resistant; $A=$ aromatic; $B=B a s m a t i ; I M=I M M I$ herbicide 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. 2011 Early Rice Variety Trial - Yuba

| Variety | Grain Type | Grain Yield <br> at $14 \%$ <br> Moisture lbs/acre | Grain Moisture at Harvest (\%) | Seedling Vigor (1-5) | Days to 50\% <br> Heading | Lodging $(1-99)$ | Plant Height <br> (in) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 09Y2179 | S | 10800 ( 1) | 22.7 (8) | 5.0 (1) | 98 (9) | 1 (1) | 43 (13) |
| 09 Y 1122 | L | 10770 ( 2) | 20.8 (11) | 4.8 (13) | 100 (10) | 1 (1) | 40 (3) |
| 09 Y 2141 | SWX | 10740 ( 3) | 24.0 (6) | 4.9 (12) | 95 (6) | 18 (10) | 45 (17) |
| 06 Y 575 | LR | 10320 (4) | 20.8 (10) | 5.0 (1) | 103 (16) | 1 (1) | 44 (16) |
| 08Y3269 | M | 10260 (5) | 23.6 (7) | 5.0 (1) | 101 (12) | 1 (1) | 44 (15) |
| M206 | M | 10190 (6) | 24.2 (4) | 5.0 (1) | 94 (3) | 5 (9) | 43 (9) |
| L206 | L | 10160 ( 7) | 18.6 (14) | 5.0 (1) | 97 (7) | 1 (1) | 39 (2) |
| M205 | M | 10000 (8) | 25.8 (1) | 5.0 (1) | 102 (15) | 1 (1) | 43 (9) |
| 08 Y 3126 | M | 9630 (9) | 24.8 (3) | 5.0 (1) | 94 (3) | 27 (11) | 43 (13) |
| M208 | M | 9450 (10) | 24.1 (5) | 5.0 (1) | 101 (11) | 2 (8) | 43 (12) |
| 04 Y 177 | SPQ | 9420 (11) | 21.2 (9) | 4.7 (15) | 95 (5) | 96 (15) | 40 ( 4) |
| M202 | M | 9300 (12) | 24.9 ( 2) | 5.0 (1) | 97 (8) | 35 (13) | 43 (11) |
| 10Y1025 | L | 9190 (13) | 19.9 (12) | 4.8 (13) | 102 (14) | 1 (1) | 40 (5) |
| 09 Y 2159 | SLA | 8800 (14) | 18.6 (15) | 4.4 (17) | 105 (17) | 29 (12) | 40 (5) |
| S102 | S | 8740 (15) | 18.2 (17) | 5.0 (1) | 90 (1) | 86 (14) | 42 ( 8) |
| CH201 | SPQ | 7800 (16) | 18.3 (16) | 5.0 (1) | 101 (12) | 97 (17) | 38 (1) |
| CM101 | SWX | 7370 (17) | 19.3 (13) | 4.7 (15) | 93 (2) | 96 (15) | 41 (7) |
| MEAN |  | 9590 | 21.7 | 4.9 | 98 | 29 | 42 |
| CV |  | 6.0 | 6.3 | 4.7 | 0.5 | 70.9 | 3.1 |
| LSD (.05) |  | 820 | 1.9 | 0.3 | 1 | 29 | 2 |
| Preliminary Lines and Varieties |  |  |  |  |  |  |  |
| 09 Y 3665 | M | 10640 ( 1) | 24.4 (9) | 5.0 (1) | 98 (13) | 5 (28) | 41 (11) |
| 09 Y 3600 | M | 10470 ( 2) | 21.8 (21) | 5.0 (1) | 101 (25) | 1 (1) | 42 (16) |
| 09 Y 3523 | M | 10440 ( 3) | 24.1 (12) | 5.0 (1) | 88 (1) | 1 (1) | 40 ( 8) |
| 10Y1059 | LJ | 10200 (4) | 21.1 (25) | 5.0 (1) | 98 (14) | 1 (1) | 41 (13) |
| 09 Y 3517 | M | 10170 ( 5) | 23.8 (14) | 5.0 (1) | 94 (4) | 3 (27) | 45 (36) |
| 10Y2094 | MPQ | 10130 (6) | 24.1 (12) | 5.0 (1) | 96 (8) | 63 (34) | 42 (25) |
| $09 Y 3605$ | M | 10110 (7) | 23.6 (15) | 5.0 (1) | 106 (35) | 1 (1) | 42 (23) |
| 09 Y 2184 | S | 10100 ( 8) | 23.4 (17) | 5.0 (1) | 105 (31) | 1 (1) | 42 (20) |
| $09 Y 3671$ | M | 10060 (9) | 23.4 (16) | 5.0 (1) | 101 (25) | 1 (1) | 42 (16) |
| $09 Y 3805$ | M | 10010 (10) | 24.6 (7) | 5.0 (1) | 100 (22) | 1 (1) | 43 (26) |
| 08Y3239 | M | 10000 (11) | 22.5 (20) | 5.0 (1) | 99 (18) | 1 (1) | 41 (13) |
| 10 Y 1067 | LJ | 9940 (12) | 18.1 (37) | 5.0 (1) | 95 (7) | 1 (1) | 38 ( 2) |
| 09 Y 3912 | M | 9880 (13) | 23.4 (18) | 5.0 (1) | 102 (29) | 1 (1) | 44 (31) |
| M105 | M | 9800 (14) | 25.0 (5) | 5.0 (1) | 93 ( 3) | 16 (29) | 43 (30) |
| $09 Y 3708$ | M | 9700 (15) | 25.7 ( 2) | 5.0 (1) | 105 (32) | 1 (1) | 42 (20) |
| 09 Y 3580 | M | 9700 (16) | 25.0 (4) | 4.8 (33) | 99 (18) | 1 (1) | 41 (15) |
| 09 Y 3886 | M | 9500 (17) | 24.4 (10) | 5.0 (1) | 100 (23) | 1 (1) | 44 (34) |
| 09 Y 1067 | LIM | 9480 (18) | 19.5 (29) | 5.0 (1) | 99 (16) | 1 (1) | 45 (35) |
| 10Y2046 | SPQ | 9400 (19) | 18.3 (36) | 5.0 (1) | 96 ( 8) | 48 (31) | 42 (16) |
| 10Y2086 | MPQ | 9150 (20) | 23.0 (19) | 5.0 (1) | 99 (16) | 50 (32) | 42 (16) |
| 10Y1162 | L | 9070 (21) | 19.4 (30) | 5.0 (1) | 99 (18) | 1 (1) | 41 (12) |
| 09 Y 1079 | L | 9040 (22) | 21.5 (23) | 5.0 (1) | 105 (32) | 1 (1) | 40 (8) |
| 09 Y 3005 | M | 9020 (23) | 24.5 (8) | 5.0 (1) | 94 (4) | 21 (30) | 44 (32) |
| 10Y2082 | MPQ | 8650 (24) | 25.0 (5) | 5.0 (1) | 94 (4) | 99 (36) | 42 (20) |
| 10Y1038 | L | 8590 (25) | 19.2 (33) | 5.0 (1) | 101 (25) | 1 (1) | 43 (28) |
| $09 Y 2171$ | M | 8470 (26) | 24.4 (10) | 5.0 (1) | 97 (11) | 99 (36) | 42 (24) |
| 10Y2126 | MPQ | 7870 (27) | 26.7 (1) | 5.0 (1) | 99 (18) | 50 (32) | 45 (38) |
| 10 Y 150 | LJ | 7770 (28) | 20.8 (27) | 5.0 (1) | 97 (11) | 1 (1) | 40 ( 8) |
| A201 | LA | 7680 (29) | 21.3 (24) | 5.0 (1) | 107 (37) | 1 (1) | 43 (26) |
| 10 Y 2093 | MPQ | 7600 (30) | 25.2 (3) | 5.0 (1) | 96 ( 8) | 99 (36) | 45 (36) |
| 10Y1149 | LA | 7520 (31) | 20.4 (28) | 5.0 (1) | 100 (23) | 1 (1) | 38 ( 2) |
| AKITA | SPQ | 6970 (32) | 19.3 (31) | 4.1 (38) | 91 ( 2) | 97 (35) | 44 (33) |
| 10 Y 151 | LB | 6910 (33) | 20.8 (26) | 4.9 (32) | 107 (36) | 1 (1) | 38 (4) |
| 08 Y 1115 | LA | 6300 (34) | 21.6 (22) | 4.5 (37) | 108 (38) | 1 (1) | 39 (5) |
| 10P1433 | LB | 6040 (35) | 19.2 (34) | 4.8 (33) | 101 (25) | 1 (1) | 43 (29) |
| CT202 | LB | 6030 (36) | 19.0 (35) | 4.8 (33) | 105 (32) | 1 (1) | 37 (1) |
| 10P1597 | LB | 5290 (37) | 19.2 (32) | 5.0 (1) | 104 (30) | 1 (1) | 40 (7) |
| 10 Y 153 | LB | 4910 (38) | 16.6 (38) | 4.7 (36) | 98 (14) | 1 (1) | 39 (6) |
| MEAN |  | 8750 | 22.2 | 4.9 | 99 | 18 | 42 |
| CV |  | 5 | 5.1 | 3.7 | 1.9 | 117.9 | 3.4 |
| LSD (.05) |  | 890 | 2.3 | 0.4 | 4 | 42 | 3 |

$\frac{\text { LSD (.05) }}{\mathrm{S}=\text { short; } \mathrm{M}=\text { medium; } \mathrm{L}=\text { long; } \mathrm{PQ}=\text { premium quality; } \mathrm{WX}=\text { waxy; LA=low amalose; J=Jasmine; } \mathrm{R}=\text { Newrex; }}$
$S R=$ stem rot resistant; $A=$ aromatic; $B=B a s m a t i ; I M=I M M I$ herbicide 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 12. Grain Yield (Ib/acre @14\% moisture) Summary of Early Rice Varieties by Location and Year (2007-2011)

| Calhikari |  |  |  |  |  |  | Calmati |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Location | Year | 201 | S-102 | M-202 | M-105 | M-205 | M-206 | 202 | L-206 |
| Biggs (RES) | 2007 | 6230 | 8730 | 6940 | - | 8920 | 9430 | 6080 | 9540 |
|  | 2008 | 9520 | 10950 | 10580 | 10590 | 10800 | 10620 | 7930 | 10820 |
|  | 2009 | 9090 | 9700 | 8940 | 8690 | 9430 | 9080 | 7650 | 10840 |
|  | 2010 | 9390 | 9400 | 10210 | 11530 | 10790 | 10990 | 8730 | 11090 |
|  | 2011 | 9210 | 10230 | 9660 | 9490 | 10610 | 10050 | 5410 | 10020 |
| Location Mean |  | 8688 | 9802 | 9266 | 10075 | 10110 | 10034 | 7160 | 10462 |
| Butte | 2007 | 7430 | 8580 | 7640 | - | 8310 | 8060 | 7160 | 8900 |
|  | 2008 | 6360 | 7470 | 7150 | 8450 | 8220 | 8450 | 7020 | 8700 |
|  | 2009 | 8690 | 7800 | 9690 | 8530 | 9830 | 8170 | 7780 | 9610 |
|  | 2010 | 7900 | 7330 | 8190 | 8530 | 7950 | 8440 | 6770 | 8400 |
|  | 2011 | 8060 | 8280 | 8180 | 9270 | 8860 | 8520 | 8020 | 9330 |
| Location Mean |  | 7688 | 7892 | 8170 | 8695 | 8634 | 8328 | 7350 | 8988 |
| Colusa | 2007 | 8270 | 9040 | 9030 | - | 9630 | 9960 | 6260 | 9100 |
|  | 2008 | 8640 | 9870 | 9950 | 10100 | 10080 | 10080 | 5740 | 9730 |
|  | 2009 | 7350 | 8130 | 8560 | 8880 | 9680 | 8800 | 5510 | 8600 |
|  | $2010$ | 9510 | 10190 | 10910 | 10930 | 11190 | 10560 | 4690 | 10440 |
|  | 2011 | 6040 | 7420 | 9350 | 7580 | 9760 | 9960 | 5210 | 9660 |
| Location Mean |  | 7962 | 8930 | 9560 | 9373 | 10068 | 9872 | 5482 | 9506 |
| Yuba | 2007 | 5910 | 6170 | 7040 | - | 7480 | 7960 | 5800 | 6520 |
|  | 2008 | 8880 | 9830 | 10140 | 10270 | 10500 | 10720 | 6250 | 11000 |
|  | 2009 | 6880 | 7950 | 7940 | 8160 | 8790 | 8530 | 5960 | 9150 |
|  | 2010 | 8350 | 10010 | 10220 | 10040 | 9370 | 10330 | 5470 | 9070 |
|  | 2011 | 7800 | 8740 | 9300 | 9800 | 10000 | 10190 | 6030 | 10160 |
| Location Mean |  | 7564 | 8540 | 8928 | 9568 | 9228 | 9546 | 5902 | 9180 |
| Loc/Years Mean |  | 7976 | 8791 | 8981 | 9428 | 9510 | 9445 | 6474 | 9534 |
| Yield \% M-202 |  | 88.8 | 97.9 | 100 | 105.0 | 105.9 | 105.2 | 72.1 | 106.2 |
| Number of Tests |  | 20 | 20 | 20 | 16 | 20 | 20 | 20 | 20 |

Table 13. 2011 Intermediate/Late Rice Variety Tests - Three Location Summary

| Variety |  | Ave Grain Yield at 14\% | Single Location Yields |  |  | Ave Grain Moisture at Harvest (\%) | Seedling Vigor (1-5) | $\begin{gathered} \text { Days to } \\ 50 \% \\ \text { Heading } \\ \hline \end{gathered}$ | Lodging$(1-99)$ | Plant Height <br> (in) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Grain Type | Moisture Ibs/acre | Biggs | Glenn | Sutter |  |  |  |  |  |
| 06Y575 | LR | 10310 ( 1) | 10390 ( 1) | 10010 ( 1) | 10540 (1) | 15.7 (8) | 4.9 ( 4) | 100 ( 8) | 1 (1) | 42 (9) |
| $08 Y 3310$ | M | 9780 ( 2) | 10230 ( 3) | 9280 ( 4) | 9820 (2) | 20.0 (4) | 4.8 ( 8) | 95 (5) | 1 (1) | 38 (4) |
| M205 | M | 9710 (3) | 10270 ( 2) | 9550 (3) | 9310 (6) | 20.4 (3) | 4.7 (9) | 98 (6) | 1 (3) | 39 (5) |
| $04 Y 177$ | SPQ | 9650 ( 4) | 10140 ( 4) | 9120 (5) | 9690 ( 4) | 17.3 (6) | 4.9 (3) | 91 (1) | 29 (9) | 36 (2) |
| L206 | L | 9560 (5) | 9990 (5) | 8900 (8) | 9780 (3) | 15.3 (9) | 4.9 ( 2) | 93 (2) | 2 (5) | 36 (1) |
| $09 Y 2176$ | MPQ | 9300 (6) | 9220 (7) | 9100 (6) | 9580 (5) | 20.7 (2) | 4.9 (6) | 99 (7) | 4 (6) | 41 (8) |
| M202 | M | 9060 (7) | 9160 (9) | 9030 (7) | 9010 (7) | 19.3 (5) | 4.8 (7) | 93 (3) | 20 (7) | 41 (7) |
| M402 | MPQ | 9000 (8) | 9200 (8) | 9820 ( 2) | 8000 (9) | 21.6 (1) | 4.9 (5) | 109 (9) | 1 (3) | 40 (6) |
| CH2O1 | SPQ | 8850 (9) | 9230 (6) | 8430 (9) | 8900 (8) | 16.8 (7) | 5.0 (1) | 94 (4) | 23 (8) | 37 (3) |
| MEAN |  | 9470 | 9760 | 9250 | 9400 | 18.6 | 4.9 | 97 | 9 | 39 |
| CV |  | 4.7 | 4.1 | 4.2 | 5.7 | 3.5 | 3.5 | 1.3 | 169.5 | 3.3 |
| LSD (.05) |  | 360 | 580 | 560 | 780 | 0.5 | 0.1 | 1 | 13 | 1 |
| Preliminary Lines and Varieties |  |  |  |  |  |  |  |  |  |  |
| 10 Y 1012 | L | 10460 ( 1) | 11170 ( 1) | 9710 ( 6) | 10500 ( 1) | 16.0 (18) | 5.0 (1) | 98 (23) | 1 (1) | 39 (13) |
| $09 Y 1079$ | L | 10250 ( 2) | 10810 (3) | 9520 (8) | 10440 ( 2) | 15.9 (19) | 5.0 (6) | 98 (20) | 1 (1) | 37 (8) |
| $09 Y 3700$ | M | 10170 ( 3) | 11050 ( 2) | 10010 (1) | 9470 (11) | 20.0 (11) | 5.0 (1) | 98 (17) | 1 (1) | 37 (7) |
| $09 Y 3887$ | M | 9970 (4) | 10220 (11) | 9830 (3) | 9850 ( 6) | 21.2 (3) | 4.9 (12) | 97 (13) | 1 (1) | 39 (18) |
| $09 Y 3607$ | M | 9870 (5) | 10540 ( 8) | 8940 (14) | 10110 ( 4) | 20.3 (10) | 4.9 (24) | 97 (15) | 1 (1) | 39 (15) |
| $09 Y 3830$ | M | 9790 ( 6) | 10610 ( 6) | 8860 (15) | 9910 (5) | 20.9 (4) | 4.9 (22) | 97 (15) | 1 (1) | 42 (25) |
| 06 Y 513 | L | 9780 (7) | 9930 (12) | 9780 ( 4) | 9620 (9) | 15.7 (22) | 4.9 (18) | 99 (24) | 4 (21) | 39 (16) |
| $09 Y 3502$ | M | 9680 ( 8) | 9820 (13) | 9700 (7) | 9530 (10) | 20.3 (7) | 5.0 (7) | 97 (11) | 9 (23) | 41 (24) |
| 08 Y 3314 | M | 9680 ( 9) | 10690 ( 4) | 9180 (11) | 9170 (16) | 20.3 (9) | 4.9 (12) | 97 (12) | 1 (1) | 38 (11) |
| $09 Y 3622$ | M | 9670 (10) | 10680 ( 5) | 9280 (9) | 9060 (17) | 21.3 (2) | 4.9 (24) | 98 (18) | 1 (1) | 42 (26) |
| $09 Y 3610$ | M | 9670 (11) | 10370 (9) | 9180 (10) | 9460 (12) | 20.3 (8) | 4.8 (28) | 97 (9) | 1 (1) | 38 (12) |
| 08 Y 2163 | SPQ | 9520 (12) | 9670 (17) | 9710 (5) | 9180 (15) | 18.6 (16) | 4.9 (12) | 96 (5) | 1 (1) | 37 (6) |
| $09 Y 4002$ | M | 9450 (13) | 10310 (10) | 8250 (21) | 9780 ( 7) | 18.0 (17) | 5.0 (7) | 90 (1) | 1 (1) | 39 (14) |
| 10Y2081 | MPQ | 9430 (14) | 9740 (15) | 9150 (12) | 9380 (14) | 20.4 (6) | 4.8 (26) | 94 (3) | 14 (25) | 40 (20) |
| 08 Y 3338 | M | 9220 (15) | 10560 ( 7) | 8330 (20) | 8780 (22) | 18.9 (15) | 4.9 (12) | 97 (13) | 1 (1) | 36 (1) |
| 09 Y 1067 | LJ | 9190 (16) | 9720 (16) | 8140 (22) | 9730 ( 8) | 15.7 (20) | 5.0 (7) | 94 (2) | 1 (1) | 39 (17) |
| $09 Y 2173$ | MPQ | 9150 (17) | 9750 (14) | 8690 (16) | 9010 (18) | 20.8 (5) | 4.8 (27) | 98 (21) | 11 (24) | 40 (22) |
| 10Y2120 | MPQ | 9110 (18) | 9260 (19) | 8640 (17) | 9430 (13) | 19.2 (13) | 4.9 (12) | 96 (7) | 19 (26) | 40 (21) |
| 10Y1059 | LJ | 8990 (19) | 9580 (18) | 8410 (19) | 8990 (19) | 15.4 (23) | 4.9 (18) | 94 (4) | 1 (1) | 39 (19) |
| 10Y1196 | LJ | 8930 (20) | 8200 (22) | 8420 (18) | 10160 ( 3) | 15.4 (24) | 4.9 (20) | 102 (27) | 1 (1) | 38 (9) |
| M401 | MPQ | 8870 (21) | 8910 (20) | 9930 ( 2) | 7780 (25) | 22.7 (1) | 5.0 (1) | 113 (30) | 32 (28) | 44 (29) |
| 09 Y 2174 | MPQ | 8790 (22) | 8430 (21) | 9050 (13) | 8910 (20) | 19.9 (12) | 4.9 (20) | 96 (6) | 37 (29) | 42 (27) |
| 10 Y 150 | LJ | 8180 (23) | 8030 (24) | 7700 (23) | 8820 (21) | 15.7 (21) | 4.9 (12) | 96 (8) | 1 (1) | 36 (4) |
| 10 Y 151 | LB | 7840 (24) | 8150 (23) | 7330 (24) | 8030 (24) | 15.3 (25) | 5.0 (7) | 97 (9) | 1 (1) | 36 (2) |
| 10Y1199 | LB | 7270 (25) | 6780 (25) | 6990 (25) | 8040 (23) | 15.1 (26) | 4.8 (28) | 103 (28) | 24 (27) | 43 (28) |
| CT202 | LB | 6950 (26) | 6640 (27) | 6770 (28) | 7440 (26) | 15.0 (28) | 4.9 (22) | 98 (21) | 1 (1) | 36 (3) |
| 10P1597 | LB | 6640 (27) | 5720 (29) | 6900 (26) | 7310 (27) | 14.7 (29) | 5.0 (4) | 99 (25) | 8 (22) | 36 (5) |
| 10P1610 | LB | 6450 (28) | 6160 (28) | 6780 (27) | 6410 (28) | 14.2 (30) | 5.0 (4) | 101 (26) | 1 (1) | 41 (23) |
| KOSH | SPQ | 6210 (29) | 6760 (26) | 6080 (29) | 5780 (29) | 19.2 (14) | 5.0 (7) | 107 (29) | 65 (30) | 47 (30) |
| 10 Y 153 | LB | 5160 (30) | 5020 (30) | 5520 (30) | 4940 (30) | 15.0 (27) | 4.5 (30) | 98 (18) | 1 (1) | 38 (10) |
| MEAN |  | 8810 | 9110 | 8490 | 8830 | 18 | 4.9 | 98 | 8 | 39 |
| CV |  | 6.1 | 4 | 5.7 | 8.1 | 3.4 | 1.3 | 1 | 110.7 | 3.5 |
| LSD (.05) |  | 620 | 750 | 990 | 1460 | 0.7 | 0.1 | 1 | 10 | 2 |

$\mathrm{S}=$ short; $\mathrm{M}=$ medium; $\mathrm{L}=$ long; $\mathrm{PQ}=$ premium quality; $\mathrm{B}=$ Basmati; $\mathrm{LA}=$ =low amalose; $\mathrm{J}=$ Jasmine; $\mathrm{R}=$ Newrex.
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. 2011 Intermediate/Late Advanced RiceVariety Trial - Biggs
Advanced Lines and Varieties

| Variety | Grain Type | Grain Yield <br> at $14 \%$ <br> Moisture <br> lbs/acre | Grain <br> Moisture at Harvest (\%) | Seedling Vigor (1-5) | Days to $0.5$ <br> Heading | $\begin{aligned} & \text { Lodging } \\ & (1-99) \\ & \hline \end{aligned}$ | Plant Height (in) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 06Y575 | LR | 10390 ( 1) | 12.6 ( 8) | 4.8 ( 6) | 95 (7) | 1 (1) | 40 ( 8) |
| M205 | M | 10270 ( 2) | 15.3 ( 3) | 4.8 (6) | 93 (6) | 1 (1) | 38 (5) |
| 08 Y 3310 | M | 10230 ( 3) | 15.4 ( 2) | 4.8 (6) | 88 (3) | 1 (1) | 37 (4) |
| $04 Y 177$ | SPQ | 10140 ( 4) | 15.0 ( 5) | 4.9 (4) | 88 (2) | 1 (1) | 36 (2) |
| L206 | L | 9990 (5) | 12.5 (9) | 4.8 (6) | 88 (1) | 1 (1) | 35 (1) |
| CH201 | SPQ | 9230 (6) | 14.8 ( 7) | 5.0 (1) | 91 (5) | 1 (1) | 36 (3) |
| $09 Y 2176$ | MPQ | 9220 (7) | 15.8 ( 1) | 4.9 (4) | 95 (8) | 1 (1) | 40 (6) |
| M402 | MPQ | 9200 (8) | 15.2 ( 4) | 4.9 (3) | 103 (9) | 1 (1) | 40 (7) |
| M202 | M | 9160 (9) | 14.9 ( 6) | 5.0 ( 2) | 89 (4) | 1 (1) | 40 (9) |
| MEAN |  | 9760 | 14.6 | 4.9 | 92 | 1 | 38 |
| CV |  | 4.1 | 3.7 | 1.8 | 0.6 |  | 3.7 |
| LSD (.05) |  | 580 | 0.8 | 0.1 | 1 |  | 2 |
| Preliminary Lines and Varieties |  |  |  |  |  |  |  |
| 10 Y 1012 | L | 11170 ( 1) | 12.8 (19) | 5.0 ( 3) | 94 (21) | 1 ( 1) | 38 (13) |
| $09 Y 3700$ | M | 11050 ( 2) | 14.7 (17) | 5.0 (1) | 93 (14) | 1 (1) | 36 (7) |
| 09 Y 1079 | L | 10810 ( 3) | 12.9 (18) | 4.9 ( 4) | 93 (19) | 1 (1) | 37 (11) |
| 08 Y 3314 | M | 10690 ( 4) | 15.1 (10) | 4.8 (15) | 91 (9) | 1 (1) | 37 (9) |
| $09 Y 3622$ | M | 10680 ( 5) | 15.8 ( 3) | 4.8 (15) | 93 (17) | 1 (1) | 42 (26) |
| $09 Y 3830$ | M | 10610 ( 6) | 15.7 ( 4) | 4.8 (15) | 92 (11) | 1 (1) | 42 (27) |
| 08 Y 3338 | M | 10560 ( 7) | 15.0 (11) | 4.8 (15) | 91 (7) | 1 (1) | 36 (4) |
| 09 Y 3607 | M | 10540 ( 8) | 15.3 ( 8) | 4.8 (22) | 93 (14) | 1 (1) | 38 (12) |
| $09 Y 3610$ | M | 10370 (9) | 15.2 ( 9) | 4.8 (15) | 90 (3) | 1 (1) | 38 (15) |
| 09Y4002 | M | 10310 (10) | 14.8 (16) | 4.9 (10) | 85 (1) | 1 (1) | 39 (18) |
| $09 Y 3887$ | M | 10220 (11) | 15.5 (5) | 4.9 ( 4) | 93 (17) | 1 (1) | 38 (15) |
| $06 Y 513$ | L | 9930 (12) | 12.5 (24) | 4.7 (25) | 94 (22) | 1 (1) | 39 (19) |
| $09 Y 3502$ | M | 9820 (13) | 15.4 ( 7) | 4.9 (10) | 91 (9) | 1 (1) | 41 (24) |
| $09 Y 2173$ | MPQ | 9750 (14) | 14.9 (15) | 4.8 (15) | 94 (20) | 1 (1) | 40 (22) |
| 10Y2081 | MPQ | 9740 (15) | 16.3 ( 1) | 4.7 (25) | 91 (7) | 1 (1) | 40 (22) |
| $09 Y 1067$ | LJ | 9720 (16) | 12.5 (23) | 4.8 (13) | 90 (5) | 1 (1) | 39 (17) |
| 08 Y 2163 | SPQ | 9670 (17) | 14.9 (14) | 4.9 ( 4) | 89 ( 2) | 1 (1) | 36 (5) |
| 10 Y 1059 | LJ | 9580 (18) | 12.1 (26) | 4.7 (24) | 92 (11) | 1 (1) | 39 (19) |
| 10 Y 2120 | MPQ | 9260 (19) | 14.9 (13) | 4.9 ( 4) | 92 (11) | 1 (1) | 39 (21) |
| M401 | MPQ | 8910 (20) | 16.3 ( 2) | 5.0 (1) | 106 (30) | 1 (1) | 48 (29) |
| 09 Y 2174 | MPQ | 8430 (21) | 15.0 (12) | 4.8 (15) | 90 (3) | 1 (1) | 42 (25) |
| 10 Y 1196 | LJ | 8200 (22) | 12.7 (21) | 4.7 (28) | 98 (27) | 1 (1) | 37 (10) |
| 10 Y 151 | LB | 8150 (23) | 12.7 (20) | 4.8 (13) | 94 (22) | 1 (1) | 36 (3) |
| 10 Y 150 | LJ | 8030 (24) | 12.7 (22) | 4.8 (22) | 90 (6) | 1 (1) | 35 (2) |
| 10Y1199 | LB | 6780 (25) | 12.0 (28) | 4.7 (25) | 101 (28) | 1 (1) | 42 (28) |
| KOSH | SPQ | 6760 (26) | 15.5 ( 6) | 4.9 (10) | 101 (29) | 1 (1) | 49 (30) |
| CT202 | LB | 6640 (27) | 12.1 (26) | 4.6 (29) | 96 (26) | 1 (1) | 36 (5) |
| 10P1610 | LB | 6160 (28) | 10.3 (30) | 4.9 (4) | 95 (25) | 1 (1) | 38 (14) |
| 10P1597 | LB | 5720 (29) | 11.6 (29) | 4.9 ( 4) | 95 (24) | 1 (1) | 34 (1) |
| 10 Y 153 | LB | 5020 (30) | 12.2 (25) | 4.4 (30) | 93 (14) | 1 (1) | 37 (8) |
| MEAN |  | 9110 | 14 | 4.8 | 93 | 1 | 39 |
| CV |  | 4 | 3.6 | 1.4 | 1 |  | 4 |
| LSD (.05) |  | 750 | 1 | 0.1 | 2 |  | 3 |

S = short; M = medium; L = long; PQ = premium quality; B = Basmati; LA=low amalose; J = Jasmine; R = Newrex.
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. 2011 Intermediate/Late RiceVariety Trial - Glenn
Advanced Lines and Varieties

| Variety | $\begin{aligned} & \text { Grain } \\ & \text { Type } \\ & \hline \end{aligned}$ | Grain Yield <br> at 14\% <br> Moisture lbs/acre | Grain Moisture at Harvest (\%) | Seedling Vigor (1-5) | Days to $50 \%$ Heading | $\begin{gathered} \text { Lodging } \\ (1-99) \end{gathered}$ | Plant Height <br> (in) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 06Y575 | LR | 10010 (1) | 12.3 (8) | 5.0 (1) | 95 (6) | 1 (1) | 41 (9) |
| M402 | MPQ | 9820 ( 2) | 17.0 (1) | 5.0 (1) | 109 (9) | 2 (3) | 39 (6) |
| M205 | M | 9550 ( 3) | 15.6 ( 3) | 4.8 (9) | 98 (8) | 2 (3) | 38 (5) |
| $08 Y 3310$ | M | 9280 ( 4) | 15.6 (3) | 5.0 (1) | 95 (5) | 1 (1) | 37 (4) |
| $04 Y 177$ | SPQ | 9120 (5) | 13.4 (6) | 5.0 (1) | 90 (1) | 51 (7) | 37 (2) |
| $09 Y 2176$ | MPQ | 9100 (6) | 15.2 (5) | 5.0 (1) | 95 (6) | 9 (6) | 40 (7) |
| M202 | M | 9030 (7) | 15.7 ( 2) | 5.0 (1) | 93 (4) | 59 (9) | 40 (8) |
| L206 | L | 8900 (8) | 11.9 (9) | 5.0 (1) | 90 (1) | 3 (5) | 35 (1) |
| CH2O1 | SPQ | 8430 (9) | 12.3 (7) | 5.0 (1) | 93 (3) | 59 (8) | 37 (3) |
| MEAN |  | 9250 | 14.3 | 5.0 | 95 | 21 | 38 |
| CV |  | 4.2 | 3.2 | 1.6 | 1 | 111.7 | 3.4 |
| LSD (.05) |  | 560 | 0.7 | 0.1 | 1 | 34 | 2 |
| Preliminary Lines and Varieties |  |  |  |  |  |  |  |
| 09Y3700 | M | 10010 ( 1) | 15.7 (4) | 5.0 (1) | 98 (22) | 1 (1) | 38 (12) |
| M401 | MPQ | 9930 ( 2) | 17.2 (1) | 5.0 (1) | 113 (30) | 93 (28) | 40 (23) |
| $09 Y 3887$ | M | 9830 (3) | 16.5 (3) | 5.0 (1) | 96 (13) | 1 (1) | 40 (25) |
| $06 Y 513$ | L | 9780 (4) | 12.1 (21) | 5.0 (1) | 96 (13) | 11 (21) | 38 (18) |
| $08 Y 2163$ | SPQ | 9710 (5) | 14.2 (16) | 5.0 (1) | 97 (19) | 1 (1) | 37 (8) |
| 10Y1012 | L | 9710 (6) | 12.5 (18) | 5.0 (1) | 95 (8) | 1 (1) | 38 (16) |
| $09 Y 3502$ | M | 9700 (7) | 15.1 (7) | 5.0 (1) | 96 (13) | 26 (23) | 40 (23) |
| 09 Y 1079 | L | 9520 (8) | 12.2 (19) | 5.0 (1) | 95 (8) | 1 (1) | 37 (6) |
| $09 Y 3622$ | M | 9280 (9) | 16.8 ( 2) | 5.0 (1) | 98 (22) | 1 (1) | 40 (20) |
| $09 Y 3610$ | M | 9180 (10) | 15.4 ( 5) | 5.0 (1) | 97 (19) | 1 (1) | 37 (8) |
| $08 Y 3314$ | M | 9180 (11) | 15.1 (10) | 5.0 (1) | 96 (13) | 1 (1) | 38 (14) |
| 10Y2081 | MPQ | 9150 (12) | 15.0 (11) | 5.0 (1) | 93 (4) | 41 (25) | 37 (10) |
| $09 Y 2174$ | MPQ | 9050 (13) | 15.4 (5) | 5.0 (1) | 95 (11) | 99 (29) | 43 (29) |
| $09 Y 3607$ | M | 8940 (14) | 15.1 (7) | 5.0 (1) | 96 (12) | 1 (1) | 39 (19) |
| $09 Y 3830$ | M | 8860 (15) | 14.6 (13) | 5.0 (1) | 98 (22) | 1 (1) | 40 (20) |
| $09 Y 2173$ | MPQ | 8690 (16) | 15.1 (7) | 5.0 (1) | 96 (13) | 31 (24) | 40 (20) |
| 10Y2120 | MPQ | 8640 (17) | 15.0 (11) | 5.0 (1) | 95 (8) | 55 (26) | 41 (28) |
| 10Y1196 | LJ | 8420 (18) | 12.2 (19) | 5.0 (1) | 98 (25) | 1 (1) | 38 (12) |
| 10Y1059 | LJ | 8410 (19) | 11.6 (23) | 5.0 (1) | 91 (3) | 1 (1) | 38 (16) |
| $08 Y 3338$ | M | 8330 (20) | 14.4 (15) | 5.0 (1) | 97 (21) | 1 (1) | 34 ( 2) |
| $09 Y 4002$ | M | 8250 (21) | 14.4 (14) | 5.0 (1) | 90 (1) | 1 (1) | 37 (10) |
| $09 Y 1067$ | LJ | 8140 (22) | 11.9 (22) | 5.0 (1) | 90 (1) | 1 (1) | 38 (14) |
| 10 Y 150 | LJ | 7700 (23) | 11.6 (23) | 5.0 (1) | 94 (6) | 1 (1) | 36 (4) |
| 10 Y 151 | LB | 7330 (24) | 10.9 (26) | 5.0 (1) | 93 (5) | 1 (1) | 35 (3) |
| 10Y1199 | LB | 6990 (25) | 10.6 (27) | 5.0 (1) | 98 (25) | 70 (27) | 40 (26) |
| 10P1597 | LB | 6900 (26) | 10.2 (29) | 5.0 (1) | 99 (27) | 23 (22) | 37 (6) |
| 10P1610 | LB | 6780 (27) | 9.8 (30) | 5.0 (1) | 100 (28) | 1 (1) | 41 (27) |
| CT202 | LB | 6770 (28) | 11.5 (25) | 5.0 (1) | 94 (6) | 1 (1) | 34 (1) |
| KOSH | SPQ | 6080 (29) | 13.2 (17) | 5.0 (1) | 108 (29) | 99 (29) | 45 (30) |
| 10 Y 153 | LB | 5520 (30) | 10.4 (28) | 4.7 (30) | 96 (13) | 1 (1) | 36 (5) |
| MEAN |  | 8490 | 13.5 | 5.0 | 96 | 19 | 38 |
| CV |  | 5.7 | 4.1 |  | 1.2 | 81.4 | 3.6 |
| LSD (.05) |  | 990 | 1.1 |  | 2 | 31 | 3 |

S = short; M = medium; L = long; PQ = premium quality; B = Basmati; LA=low amalose; J = Jasmine; R = Newrex.
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. 2011 Intermediate/Late RiceVariety Trial - Sutter
Advanced Lines and Varieties

| Variety | $\begin{aligned} & \text { Grain } \\ & \text { Type } \\ & \hline \end{aligned}$ | Grain Yield <br> at 14\% <br> Moisture lbs/acre | Grain Moisture at Harvest (\%) | Seedling Vigor (1-5) | $\begin{aligned} & \text { Days to } \\ & 50 \% \\ & \text { Heading } \\ & \hline \end{aligned}$ | $\begin{gathered} \text { Lodging } \\ (1-99) \\ \hline \end{gathered}$ | Plant Height <br> (in) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 06Y575 | LR | 10540 ( 1) | 22.1 (8) | 5.0 ( 3) | 109 (8) | 1 (1) | 44 (9) |
| 08 Y 3310 | M | 9820 ( 2) | 29.0 (4) | 4.6 (7) | 102 (5) | 1 (1) | 40 (4) |
| L206 | L | 9780 ( 3) | 21.5 (9) | 5.0 (1) | 101 (4) | 1 (1) | 37 (2) |
| 04 Y 177 | SPQ | 9690 ( 4) | 23.5 (6) | 4.9 (4) | 96 (1) | 36 (9) | 37 (1) |
| $09 Y 2176$ | MPQ | 9580 (5) | 31.0 ( 2) | 4.8 (5) | 106 (7) | 1 (1) | 43 (8) |
| M205 | M | 9310 (6) | 30.3 (3) | 4.6 (8) | 103 (6) | 1 (1) | 40 (6) |
| M202 | M | 9010 (7) | 27.2 (5) | 4.5 (9) | 98 (3) | 1 (1) | 41 (7) |
| CH2O1 | SPQ | 8900 ( 8) | 23.3 (7) | 5.0 (1) | 98 (2) | 10 (8) | 39 (3) |
| M402 | MPQ | 8000 (9) | 32.6 (1) | 4.8 (5) | 115 (9) | 1 (1) | 40 (5) |
| MEAN |  | 9400 | 26.7 | 4.8 | 103 | 6 | 40 |
| CV |  | 5.7 | 3.2 | 5.6 | 1.8 | 237.1 | 2.7 |
| LSD (.05) |  | 780 | 1.3 |  | 3 | 20 | 2 |

Preliminary Lines and Varieties

| 10Y1012 | L | 10500 ( 1) | 22.7 (22) | 5.0 (1) | 107 (25) | 1 (1) | 39 (11) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 09Y1079 | L | 10440 ( 2) | 22.5 (24) | 5.0 (1) | 106 (24) | 1 (1) | 38 (6) |
| 10 Y 1196 | LJ | 10160 ( 3) | 21.3 (30) | 5.0 (1) | 109 (27) | 1 (1) | 39 (8) |
| $09 Y 3607$ | M | 10110 ( 4) | 30.3 (9) | 4.8 (24) | 104 (14) | 1 (1) | 39 (11) |
| $09 Y 3830$ | M | 9910 (5) | 32.4 ( 2) | 4.9 (23) | 103 (9) | 1 (1) | 43 (25) |
| 09 Y 3887 | M | 9850 (6) | 31.6 (4) | 4.9 (19) | 102 (7) | 1 (1) | 39 (8) |
| 09Y4002 | M | 9780 (7) | 24.8 (17) | 5.0 (1) | 95 (1) | 1 (1) | 40 (16) |
| 09 Y 1067 | LJ | 9730 (8) | 22.7 (21) | 5.0 (1) | 102 (4) | 1 (1) | 40 (19) |
| 06 Y 513 | L | 9620 (9) | 22.3 (27) | 5.0 (1) | 105 (21) | 1 (1) | 39 (11) |
| $09 Y 3502$ | M | 9530 (10) | 30.4 (7) | 5.0 (1) | 103 (11) | 1 (1) | 43 (24) |
| $09 Y 3700$ | M | 9470 (11) | 29.7 (11) | 5.0 (1) | 103 (11) | 1 (1) | 38 (4) |
| 09 Y 3610 | M | 9460 (12) | 30.4 (8) | 4.6 (29) | 104 (14) | 1 (1) | 39 (11) |
| 10Y2120 | MPQ | 9430 (13) | 27.7 (14) | 4.9 (19) | 102 (4) | 1 (1) | 40 (17) |
| 10Y2081 | MPQ | 9380 (14) | 29.8 (10) | 4.8 (24) | 99 (2) | 1 (1) | 42 (23) |
| 08 Y 2163 | SPQ | 9180 (15) | 26.6 (16) | 4.9 (19) | 102 (4) | 1 (1) | 38 (6) |
| 08 Y 3314 | M | 9170 (16) | 30.7 (6) | 5.0 (1) | 104 (14) | 1 (1) | 39 (15) |
| $09 Y 3622$ | M | 9060 (17) | 31.4 ( 5) | 4.8 (26) | 103 (11) | 1 (1) | 44 (28) |
| 09 Y 2173 | MPQ | 9010 (18) | 32.3 ( 3) | 4.7 (27) | 105 (21) | 1 (1) | 41 (22) |
| 10Y1059 | LJ | 8990 (19) | 22.6 (23) | 5.0 (1) | 100 (3) | 1 (1) | 40 (18) |
| 09 Y 2174 | MPQ | 8910 (20) | 29.5 (12) | 4.9 (19) | 103 (9) | 11 (29) | 41 (20) |
| 10 Y 150 | LJ | 8820 (21) | 22.8 (18) | 5.0 (1) | 104 (18) | 1 (1) | 37 (1) |
| $08 Y 3338$ | M | 8780 (22) | 27.3 (15) | 5.0 (1) | 104 (14) | 1 (1) | 37 (2) |
| 10 Y 1199 | LB | 8040 (23) | 22.7 (19) | 4.7 (27) | 110 (28) | 1 (1) | 45 (29) |
| 10 Y 151 | LB | 8030 (24) | 22.4 (26) | 5.0 (1) | 102 (7) | 1 (1) | 37 (2) |
| M401 | MPQ | 7780 (25) | 34.8 (1) | 5.0 (1) | 121 (30) | 1 (1) | 43 (25) |
| CT202 | LB | 7440 (26) | 21.3 (29) | 5.0 (1) | 105 (21) | 1 (1) | 38 (4) |
| 10P1597 | LB | 7310 (27) | 22.3 (28) | 5.0 (1) | 104 (18) | 1 (1) | 39 (8) |
| 10P1610 | LB | 6410 (28) | 22.7 (20) | 5.0 (1) | 108 (26) | 1 (1) | 43 (25) |
| KOSH | SPQ | 5780 (29) | 28.9 (13) | 5.0 (1) | 111 (29) | 95 (30) | 46 (30) |
| 10 Y 153 | LB | 4940 (30) | 22.4 (25) | 4.5 (30) | 105 (20) | 1 (1) | 41 (20) |
| MEAN |  | 8830 | 26.6 | 4.9 | 104 | 4 | 40 |
| CV |  | 8.1 | 2.9 | 1.8 | 0.9 | 55.1 | 2.9 |
| LSD (.05) |  | 1460 | 1.6 | 0.2 | 2 | 5 | 2 |

$\mathrm{S}=$ short; $\mathrm{M}=$ medium; $\mathrm{L}=$ long; $\mathrm{PQ}=$ premium quality; $\mathrm{B}=$ Basmati; LA=low amalose; J = Jasmine; $\mathrm{R}=$ Newrex.
Subjective rating of 1-5 where $1=$ poor and $5=$ excellent seedling emergence.
Subjective rating of 1-99 where $1=$ none and $99=$ completely lodged.
Numbers in parentheses indicate relative rank in column.

Table 17. Grain Yield (lb/acre @14\% moisture) Summary of Intermediate/ Late Rice Varieties by Location and Year (2007-2011)

| Location | Year | M-205 | M-402 | M-202 | L-205 | L-206 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Biggs (RES) | 2007 | 10080 | 8940 | 8960 | 9430 | 10390 |
|  | 2008 | 10950 | 9220 | 10310 | 9890 | 10740 |
|  | 2009 | 9290 | 9110 | 8300 | 9170 | 9950 |
|  | 2010 | 11030 | 8240 | 10430 | - | 11610 |
|  | 2011 | 10270 | 9200 | 9160 | - | 9990 |
| Location Mean |  | 10324 | 8942 | 9432 | 9497 | 10536 |
| Glenn | 2007 | 10400 | 9080 | 9110 | 9150 | 9670 |
|  | 2008 | 8440 | 7240 | 8300 | 8820 | 8710 |
|  | 2009 | 10120 | 10610 | 9230 | 9910 | 10440 |
|  | 2010 | 9210 | 9360 | 7970 | - | 8340 |
|  | 2011 | 9550 | 9820 | 9030 | - | 8900 |
| Location Mean |  | 9544 | 9222 | 8728 | 9293 | 9212 |
| Sutter | 2007 | 10320 | 8900 | 9800 | 10010 | 9580 |
|  | 2008 | 8430 | 9180 | 8780 | 7760 | 7830 |
|  | 2009 | 8180 | 8010 | 7080 | 6570 | 7470 |
|  | 2010 | 9190 | 9300 | 10500 | - | 9390 |
|  | 2011 | 9310 | 8000 | 9010 | - | 9780 |
| Location Mean |  | 9086 | 8678 | 9034 | 8113 | 8810 |
| Loc/Years Mean |  | 9651 | 8947 | 9065 | 8968 | 9519 |
| Yield \% M-202 |  | 106.5 | 98.7 | 100 | 98.9 | 106.2 |
| Number of Tests |  | 15 | 15 | 15 | 9 | 15 |

Table 18. 2011 Twitchell Island Very Early Large Plot Variety Trial

| Variety | Grain Type | Grain Yield <br> at $14 \%$ <br> Moisture <br> lbs/acre | Grain Moisture at Harvest (\%) | $\begin{aligned} & \text { Days to } \\ & 50 \% \\ & \text { Heading } \end{aligned}$ | Plant Height (in) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| S102 | S | 9310 (1) | 15.6 ( 4) | 107 ( 2) | 31 (2) |
| M104 | M | 9200 ( 2) | 22.5 ( 2) | 105 (1) | 31 (2) |
| M206 | M | 8380 ( 3) | 24.7 (1) | 112 (3) | 32 (4) |
| CM101 | S | 8320 (4) | 17.2 ( 3 ) | 117 ( 4) | 31 (1) |
| MEAN |  | 8800 | 20 | 110 | 31 |
| CV |  | 5.8 | 9.3 | 1.3 | 4 |
| LSD (.05) |  | n.s. | 3.7 | 3 | n.s. |

S = short; $\mathrm{M}=$ medium; $\mathrm{L}=$ long.
Numbers in parentheses indicate relative rank in column.
No lodging.

Table 19. 2011 Twitchell Island Very Early Small Plot Variety Trial

| Variety | Grain Type | Grain Yield <br> at 14\% <br> Moisture <br> lbs/acre | Grain Moisture at Harvest (\%) | Seedling Vigor (1-5) | $\begin{gathered} \text { Days to } \\ 50 \% \\ \text { Heading } \end{gathered}$ | Lodging (1-99) | Plant Height (in) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $06 Y 575$ | LR | 9580 ( 1) | 21.4 (15) | 5 (1) | 121 (10) | 1 (1) | 91 (16) |
| 08 Y 3016 | M | 9470 (2) | 25.8 (11) | 5 (1) | 115 (3) | 1 (1) | 86 (12) |
| 08 Y 3076 | M | 9310 (3) | 29.3 (5) | 5 (1) | 120 (9) | 1 (1) | 83 (7) |
| 08Y3080 | M | 8970 (4) | 28.1 (7) | 5 (1) | 118 (7) | 1 (1) | 87 (13) |
| M105 | M | 8710 (5) | 28.1 ( 8) | 5 (1) | 116 ( 5) | 1 (1) | 88 (15) |
| M104 | M | 8680 (6) | 26.6 ( 9) | 5 (1) | 113 ( 2) | 1 (1) | 83 (9) |
| $06 Y 513$ | L | 8620 (7) | 22.3 (13) | 5 (1) | 122 (12) | 1 (1) | 81 ( 4) |
| 07 Y 843 | M | 8430 (8) | 30.6 ( 4) | 5 (1) | 117 (6) | 1 (1) | 85 (10) |
| $04 Y 177$ | SPQ | 8340 (9) | 23.5 (12) | 5 (1) | 116 (4) | 1 (1) | 74 ( 2) |
| M206 | M | 8190 (10) | 30.9 ( 3) | 5 (1) | 121 (11) | 1 (1) | 87 (14) |
| L206 | L | 7890 (11) | 22.2 (14) | 5 (1) | 119 (8) | 1 (1) | 69 (1) |
| S102 | S | 7210 (12) | 17.9 (16) | 5 (1) | 108 (1) | 1 (1) | 83 (7) |
| CM101 | S | 7040 (13) | 28.2 (6) | 5 (1) | 124 (15) | 1 (1) | 82 (5) |
| 09Y3024 | M | 6900 (14) | 31.6 ( 2) | 5 (1) | 123 (14) | 1 (1) | 82 (5) |
| CH201 | SPQ | 6300 (15) | 26.4 (10) | 5 (1) | 123 (13) | 1 (1) | 76 (3) |
| M202 | M | 5810 (16) | 31.7 ( 1) | 5 (1) | 125 (16) | 1 (1) | 85 (11) |
| MEAN |  | 8090 | 26.5 | 5 | 119 | 1 | 82 |
| CV |  | 11.1 | 5 |  | 2 |  | 5 |
| LSD (.05) |  | 1270 | 1.9 |  | 3 |  | 6 |

S = short; M = medium; L = long.
Subjective rating of 1-5 where $1=$ poor and $5=$ excellent seedling emergence.
Subjective rating of 1-99 where $1=$ none and $99=$ completely lodged.
Numbers in parentheses indicate relative rank in column.

Table 20. 2011 Twitchell Island Planting Method Test

|  | Grain Yield <br> at $14 \%$ | Grain <br> Moisture <br> at Harvest | Days to <br> $50 \%$ <br> Moisture | Plant <br> Height <br> (in) |
| :--- | :---: | :---: | :---: | :---: |
| Planting | Heading <br> (lbs/acre) | (1) |  |  |
| Method | $9880(1)$ | $23.6(2)$ | $114(1)$ | $33(1)$ |
| Water Seeded | $9680(2)$ | $25.0(1)$ | $116(2)$ | $33(2)$ |
| Drill Seeded |  |  |  |  |
|  | 9780 | 24.3 | 115 | 33 |
| MEAN | 4.7 | 12.1 | 3.4 | 1.1 |
| CV |  |  |  |  |

Field variety M-104.
Numbers in parentheses indicate relative rank in column.
No lodging.

