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CALIFORNIA RICE VARIETIES

DESCRIPTION AND PERFORMANCE SUMMARY OF THE 2023 AND MULTI-YEAR STATEWIDE RICE VARIETY TESTS IN CALIFORNIA

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University of California Cooperative Extension rice variety evaluation tests were conducted in the Sacramento Valley in 2023. This program, a cooperative effort involving the California Cooperative Rice Research Foundation, Inc. (CCRRF) and the United States Department of Agriculture (USDA), compares advanced breeding lines with commercially available rice varieties, and evaluates preliminary breeding lines to determine their adaptation to the principal rice growing areas of California. Entries in the tests include lines and varieties developed by CCRRF rice breeders. The Rice Research Board provides funding and cooperating growers provide land for this program. Variety names and brief descriptions of the current publicly developed varieties are listed in Table 1.

California rice acres increased in 2023 with a total of 515,000 acres planted and 512,000 acres harvested when compared to 2022 with 254,000 acres planted and 252,000 acres harvested. The estimated statewide yield was 8,590 lbs./acre, a decrease from 2022 (8,770 lbs./acre).

EXPERIMENTAL PROCEDURE

Cultivars and Locations

Field experiments were conducted at nine locations, eight farm locations throughout the rice growing region of California and one location at the Rice Experiment Station. Three classes of tests were conducted at each site: 1) Three-replication advanced tests consisting of advanced breeding lines and commercial varieties; 2) Two-replication advance test consisting of advance breeding lines and commercial varieties; and 3) Two-replication preliminary tests consisting of new lines to be evaluated on a statewide basis.

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All variety tests were conducted in three zones, Zone 1, Zone 2, and Zone 3 for a total of nine statewide tests. The three-replication advanced tests were arranged in randomized complete block designs, the two-replication advance test was arranged in randomized complete block designs, and the two-replication preliminary was planted in randomized complete block designs. Seed for the tests was provided by the RES. Groups, test locations, and commercial standards in each test were as follows:

Zone 1

Sixteen commercial varieties and twelve advanced breeding lines were evaluated in two three-replication advanced tests at each location listed below.

		Date Planted	Date Harvested
*	Colusa County (Dennis)	05/26	10/16
*	Glenn County (Wylie)	05/18	10/21

Two commercial and twelve breeding lines were evaluated in two two-replication advance tests. The two-replication preliminary tests evaluated three commercial varieties and eleven preliminary lines. Commercial varieties at the Colusa and Glenn locations included S102, S202, CA201, CH203, CM101, CM203, M105, M206, M209, M210, M211, M521, A202, CJ201, CT202, L207, and L208.

Zone 2

Sixteen commercial varieties and twelve advanced breeding lines were evaluated in the three-replication advanced tests at each of the following locations.

		Date Planted	Date Harvested
*	Butte County (RES)	05/24	10/07
*	North Butte County (Larrabee)	05/19	10/11
*	South Butte County (Schohr)	05/09	09/23

Two commercial varieties and twelve breeding lines were compared in three two-replication advance tests. The two-replication preliminary tests evaluated three commercial varieties and eleven preliminary lines at each location. Commercial varieties at each location included S102, S202, CA201, CH203, CM101, CM203, M105, M206, M209, M210, M211, M521, A202, CJ201, CT202, L207, and L208.

Zone 3

Sixteen commercial varieties and twelve advanced breeding lines were evaluated in the three-replication advanced test at each of the following locations.

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*	Sutter County (Lauppe)	05/25	10/28
*	San Joaquin (Del Rio)	04/27	10/12
*	North Yolo (Gallagher)	05/18	10/19
		Date Planted	Date Harvested

* Yuba County (Rue) 05/24 10/30

Two commercial varieties and twelve breeding lines were compared in four two-replication advance tests. The two-replication preliminary tests evaluated three commercial varieties and eleven preliminary lines at each location. Commercial varieties at each location included S102, S202, CA201, CH203, CM101, CM203, M105, M206, M209, M210, M211, M521, A202, CJ201, CT202, L207, and L208.

Planting and Harvesting

Individual plots were water-seeded by hand at a planting rate of 150 lbs./acre at most locations with the trial located in San Joaquin being drill seeded at a rate of 150 lbs./acre. Agronomic characteristics measured for each entry were seedling vigor, days to 50% heading, plant height, lodging at harvest, grain moisture at harvest, and grain yield at 14% moisture. Seedling vigor was rated subjectively by visual observation on a scale of 1 (poor) to 5 (excellent) at three to four weeks after planting. Scores were based on plant health and stand of crop emergence through water. Days to 50% heading was measured as the number of days from planting to when 50% of the heads were free from the boot. Plant height was measured at harvest as the distance from the soil surface to the tip of the panicle. Plant lodging was rated visually at time of harvest on a scale of 0 (no lodging) to 100 (all plants completely lodged).

Variety trial harvest was completed in late October. The University of California, Davis' ALMACO combine harvested seven trials, the Rice Experiment Station's ALMACO combine harvested the trial at the Butte County (RES) location, and a hand harvest was performed at the San Joaquin trial. Harvested areas were 151ft² (UCD ALMACO), 140ft² (RES ALMACO), and 15ft² (Hand Harvest). Grain moisture was assessed at harvest and yields were adjusted to 14% moisture.

SUMMARY OF ZONE 1 RICE VARIETY TESTS

Yields in the three-replication advanced line test averaged 8,470 lbs./ac at Colusa (Table 4) and 8,140 lbs./ac at Glenn (Table 5). In the three-replication advanced tests short grain S202 was the highest yielding commercial variety ranking first overall at Glenn and second overall at Colusa. The long grain entry 20Y1008 was the highest yielding advanced entry at the Colusa location with 9,5020 lbs./ac. The short grain 20Y2001 was the highest yielding advance breeding line at Glenn with 10,070 lbs./ac. Average days to 50% heading was 80 days. Medium grain M211 was the latest variety at 84 days to reach 50% heading.

SUMMARY OF ZONE 2 RICE VARIETY TESTS

Yields in the three-replication advanced line tests averaged 8,520 lbs./ac overall, 8,000 lbs./ac at the RES/Biggs, 8,590 lbs./ac at North Butte, and 8,970 lbs./ac at South Butte (Tables 6-8). Short grain S202 was the highest yielding entry at North Butte and South Butte locations with 10,130 lbs./ac and 10,720 lbs./ac. Advance breeding line long grain 20Y1029 was the highest yielding

variety at the RES location. Average days to 50% heading was 82 days. The commercial standard M206 averaged 81 days to 50% heading over the three locations.

SUMMARY OF ZONE 3 RICE VARIETY TESTS

Grain yields in the three-replication advanced tests averaged 8,910 lbs./ac overall, 9,460 lbs./ac at North Yolo, 9,520 lbs./ac at San Joaquin, 8,740 lbs./ac at Suter, and 7,930 lbs./ac at Yuba (Tables 9-12). The South Yolo test was abandoned at seeding because of field seed contamination. The highest yielding advance breeding lines at each location were 19Y1018 at North Yolo and Sutter (10,990 lbs./ac and 10,270 lbs./ac), 89Y235 (10,750lbs./ac) at San Joaquin, and 20Y2001 (9,570 lbs./ac) at Yuba. The average grain moisture at harvest was 15.3%, average lodging 60%, average days to 50% heading 92 days, average seedling vigor 4.8, and average plant height 105 cm.

A nine-location combined yield and agronomic performance summary is given in Table 3. Entries are ranked by grain yield with the highest yielding entry appearing first. A 5-year yield summary of selected commercial rice varieties by location and year (2019-2023) is presented in Table 13.

Comparing the commercial standard medium grain entries over a 5-year period and across locations M211, M105, and M210 were the three highest yielding varieties (Table 13).

ACKNOWLEDGEMENTS

The authors and the RES plant breeders are indebted to the Rice Research Board for funding of this program, and to the rice growers who cooperated in this on-farm research.

III pro- (result)Number (result)Number (result)Number (result)Number (result)Number (result)5 101°Very lady 'ad' (type lady')1095.64.3Very lady jeld potential. Code resultnee to blading with a very large print. Norgh Lanes and hult, gain form down reguldy dring righting, throngen the server.5 208°**Very Early (type lady')20104.84.2New relation, exciting tables and table yield governal. Code resultnee to b 15.22M 106 ⁶¹ Very Early (type lady)20104.84.2New relation, exciting right and Adopted to form right area. Comparable to new early no 5:114.2. The yield potential of 36:115 in loss than 37.206 in generer than 36:114.33 206°*Very Early (type lady)20104.84.2New relation, exciting right and 36:306 in genere relation. This simulation relations to bladge all number of addition of addition to the 250 in an isolated in the sections to b 250 in addition in the 250 in a standard of addition of addition to be positing right and 32:300°*M 206 ⁶¹ Early 201020134.8Early, halp yielding, section and charge and addition to be 250 in additi	- T		Year Seed Widely	Stem Rot	Seedling	Comments
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Surg Very hary jop i.s. (*)	a		1000			
s_200^{c1} Very Early2019	8-102	Very Early	1998	5.6	4.3	Very high yield potential. Good resistance to blanking with a very large grain. Kough leaves and hulls, grain dries down rapidly during ripening. Susceptible to stem rot.
	S-202 ^{6,7}	Very Early to Early	2019	3.0	4.8	Early, glabrous, and high yielding short grain variety. S-202 is an alternative to S-102
A. Ref.Yey Fay Fay Fay Fay Fay Fay Fay Fay Fay Fa	ium Grains					
A 200°Very Tey International ControlSet of the set of	M-105 ^{6,7}	Very Early	2013	4.8	4.2	New release, earlier maturing than M-206 but not as early as M-104. The yield potential of M-105 is less than M-206 but greater than M-104.
h 200°Each	M-206^{6,7}	Very Early to Early	2005	4.8	4.3	Very high yield potential. Adapted to entire rice area. Comparable to other medium grains. Improved resistance to blanking and improved milling yield.
$h 210^{h^2}$ $h 20$ <	M-209 ^{6,7}	Early	2015	4.9	4.9	Very high yield potential. Heads 5-6 days later than M-206. Has improved stem rot and aggregate sheath spot compared to M-206 and M-208. Judged to be superior in grain quality. Production practices comparable to M-206. Avoid late planting and cool production areas to reduce blanking.
M 211°End2023.74.8Buy jujiding, seni-showf, high quiding senis wirely developed as an iterative to 4.90 and ar quideness for 4.90 and and ar quideness for 4.9	M-210 ^{6,7}	Early	2019	5.3	4.8	Early, high yielding, blast disease resistant Calrose-type medium. It has similar attributes to M-206 and is adapted in areas where M-206 is grown.
g Grains 1.207 ⁴⁷⁻¹ Endy 2018 4.8 Is alsown significant advantages over 1-206 in yield potential and milling. Tuller plants and head four days later than 1-206. 1.208 ⁴⁵⁻¹ Endy 2019 3.0 4.8 Entry high jelding, glaberena long grain writery. 1-206 is an alternitive to 1-207. mium Quality International Control of the Source and the Soure	M-211 ^{6,7}	Early	2022	3.7	4.8	Early, high yielding, semi-dwarf, high quality medium grain variety developed as an alternative to M-209 and a replacement for M-205
1.90^{47} EarlyEarly 10 4.0 <td>g Grains</td> <td></td> <td></td> <td></td> <td></td> <td></td>	g Grains					
L200 ⁵⁰⁷ EndEnd 3.0 <th< td=""><td>L-207^{6,7}</td><td>Early</td><td>2018</td><td>4.8</td><td>4.6</td><td>It has shown significant advantages over L-206 in yield potential and milling. Taller plants and head four days later than L-206.</td></th<>	L-207 ^{6,7}	Early	2018	4.8	4.6	It has shown significant advantages over L-206 in yield potential and milling. Taller plants and head four days later than L-206.
mim Quality M 401 Lale 1983 5.1 4.3 Penninn quality medium grain rice with large kernels. Good yield potential but susceptible to blacking, lodging and damage from premature drainage. Use 20-25% less Cahklart-201 ^{4,57} Early 201 6.0 5.0 Penninn quality short grain developed for the Japanese premium abort-grain market. Has very good seedling viger. A semidovar with much greater yield potential and resistance to lodging than Japanese varieties. Rough lerves and halls. Cold delays matrixy and increases blacking. Use low introgen to matrinic market quality. Cahklart-202 ^{4,57} Early 201 4.8 4.8 Penninn quality short grain developed for the Japanese premium short-grain market. Similar to CH-201 in mode characteristics but as higher grain and heads resistance to lodging than Japanese varieties. Rough lerves and halls. Cold delays matrixy and increases blacking. Use low nitrogen to maximice market quality. Cahklart-202 ^{4,57} Early 2023 3.0 4.8 Penninn quality short grain developed for the Japanese premium short-grain market. Similar to CH-201 in mode characteristics bash higher grain and heads resistence to lodging than Japanese varieties. Rough lerves and halls. Cold delays matrixy and increases blacking. Use low nitrogen to maximize market quality. Cahklart-202 ^{4,57} Early 1987 5.3 Cahaocti-203 ^{4,57} Early 2015 5.3 4.2 Gharioon (veeet, waxy) rice. Excellent blacking resistance. Has rough lerves and hulls, no awns. Grain dries down rupidly during ripening. Cahaocti-203 ^{4,57} Early 201 5.3 4.5 Gharioon (veeet, waxy) rice. Excellent blacking resistance than CA-101. Has glabroous (uncooth) hulls, shape. Yield significantly higher, has larger seed and matures larer fam. Cahaocti-203 ^{4,57} Early 201 5.3 4.5 5 Cahaocti-203 ^{4,57} Early 201 5.4 5 5 Cahaocti-203 ^{4,57} Early 201 5.5 5 5 6 6 6 7 6 7 6 7 6 7 6 7 6 7 6 7 7 7 7	L-208 ^{6,7}	Early	2019	3.0	4.8	Early, high yielding, glabrous long grain variety. L-208 is an alterative to L-207.
$A.401$ Lae $10s$ 5.0 4.0 Province unduly needing main rice with large learners. Good yield potential but susceptible to blanking, lodging and damage from prename drainage. Use 20-59 kess $Chikari 201^{4.7}$ Early 001 6.0 6.0 Province unduly information of grain developed for the Japanese prenimus alort-grain market. Has very good seedling vigor. A semidy with much greater yield potential and metage over both CH-201 in more characteristics but has lighter grain and head rice yields. $Chikari 202^{4.7}$ Early 022 $a.0$ $a.0$ Province quality thort grain developed for the Japanese prenimus alort-grain market. Similar to H2-020 has yield advantage over both CH-201 and CH-202 $Chikari 202^{4.7}$ Early 2.02 $a.0$ $a.0$ Province quality soft grain developed for the Japanese prenimus alort-grain market. CH-200 has yield advantage over both CH-201 and CH-202 $Chikari 202^{4.7}$ Early $a.0$ $a.0$ Province quality soft grain developed for the Japanese prenium alort-grain market. CH-200 has yield advantage over both CH-201 and CH-202 $Chikari 202^{4.7}$ Early $a.0$ $a.0$ $a.0$ Province quality soft grain developed for the Japanese prenium alort-grain market. Single prevince and the quality. $Charce 30^{4.7}$ Early $a.0$ $a.0$ $a.0$ Province quality soft grain developed for the Japanese prenium alort-grain market. Single prevince and prevince an	nium Quality					
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Cabilitari-205 ^{84,7} Early 2023 3.0 4.8 Promum quality short grain developed for the Japanese premium short-grain market, CH-203 has a yield advantage over both CH-201 and CH-202 cities steres Calmochi-101 ⁴ Very Early ^{3,4} 1987 5.3 4.2 Glatinous (sweet, waxy) rice. Excellent blanking resistance. Has rough leaves and hulls, no awns. Grain dries down rapidly during ripening. Calmochi-205 ^{84,7} Early 2015 5.3 4.2 Glatinous (sweet, waxy) rice. Excellent blanking resistance than CA-101. Has glabrous (smooth) hulls, shape. Yields significantly higher, has larger seed and matures later than CA-101. Not adapted to cool temperature areas. Calmochi-205 ^{84,7} Early 2018 6.0 4.4 Absamit type long grain. with improved cooking quality and more slender grain. Excellent seedling vigor. Yield potential is 10% lower than CT-201. Pubescent leaves and hull. Calmon-205 ^{84,7} Early 2019 3.5 4.8 Jasamie type long grain. Calaroma has quality attributes that can compete with improved seedling vigor. Yield potential is 10% lower than CT-201. Pubescent leaves and hull. Calmochi-205 ^{84,7} Early 2019 3.5 4.8 Jasamie type long grain. Calaroma has quality attributes that can compete with improved seedling vigor. Tields significantly higher, thas larger seed and matures later stere with a grain moisture. Restore arrite grain grain fields and should not b	Calhikari-202 ^{5,6,7}	Early	2012	4.8	4.8	Premium quality short grain developed for the Japanese premium short-grain market. Similar to CH-201 in most characteristics but has higher grain and head rice yields and improved milling quality. Not recommended for cold locations. Cold temperatures delay maturity and increases blanking. Use low nitrogen to maximize market quality.
cially Rices ⁵ Calmochi-101 ⁵ Very Early ^{3,4} 1987 5.3 4.2 Glutinous (sweet, waxy) rice. Excellent blanking resistance. Has rough leaves and hulls, no awns. Grain dries down rapidly during ripening. Calmochi-203 ^{54,67} Early ⁴ 2015 5.3 4.9 Glutinous (sweet, waxy) rice. Less blanking resistance than CA-101. Has glabrous (amooth) hulls. shape. Yields significantly higher, has larger seed and matures later than CA-101. Not adapted to cool temperature areas. Calmochi-203 ^{54,67} Early ⁴ 2008 6.0 4.4 A basmit type long grain with improved cooking quality and more slender grain. Excellent seedling vigor. Yield potential is 10% lower than CT-201. Pubescent leaves and hull. Average milling yield 58 - 60 %. Susceptible to blanking and should not be grown in cool areas. Avoid excessive nitrogen. Harvest at 17-18% grain moisture. Calaroma-201 ^{54,7} Early 2014 4.6 4.7 An aromatic smooth hulled long grain with very high yield potential and high head rice yield. Improved seedling vigor and similar lodging compared to A-301. Susceptible to blanking and should not be grown in cool areas. Is a replacement for A-301 and is well adapted for organic production systems. verage stem rot score over last five vers: 0 = no disease and 10 = severe disease. 5 These varieties are considered varieties of Commercial Impact (Ther 1) and are subject to production regulations. 6 bighter the rating of 1-5 where 1 = poor and 5 = excellent seedilent verare int	Calhikari-203 ^{5,6,7}	Early	2023	3.0	4.8	Premium quality short grain developed for the Japanese premium short-grain market. CH-203 has a yield advantage over both CH-201 and CH-202 Cold temperatures delay maturity and increases blanking. Use low nitrogen to maximize market quality.
Calmochi-101 ⁴ Very Early ^{3,4} 1987 5.3 4.2 Glatinous (sweet, waxy) rice. Excellent blanking resistance. Has rough leaves and hulls, no awns. Grain dries down rapidly during ripening. Calmochi-203 ^{5,6,7} Early ⁴ 2015 5.3 4.9 Glatinous (sweet, waxy) rice. Less blanking resistance than CA-101. Has glabrous (smooth) hulls. shape. Yields significantly higher, has larger seed and matures later than CA-101. Not adapted to col temperature areas. Calmoti-202 ^{5,6,7} Early ⁴ 2008 6.0 4.4 A basmati type long grain with improved cooking quality and more slender grain. Excellent seedling vigor. Yield potential is 10% lower than CT-201. Pubescent leaves and hull. Average milling yield 58 - 60%. Susceptible to blanking and should not be grown in cool areas. Avoid excessive nitrogen. Harvest at 17-18% grain moisture. Calarona-201 ^{5,6,7} Early 2019 3.5 4.8 Jasmine type long grain. Calarona has quality attributes that can compete with improved seedling vigor and sinial rodging compared to A-301. Susceptible to blanking and should not be grown in cool areas. Avoid excessive nitrogen. Harvest at 17-18% grain moisture. Very Early ⁴ 2014 4.6 4.7 A aromatic smooth hulled long grain with very high yield potential and high head rice yield. Improved seedling vigor and sinial rodging compared to A-301. Susceptible to blanking and should not be grown in cool areas. Is a replacement for A-301 and is well adapted for organic production regulations. Very Early ⁴ 201	ialty Rices ⁵					
Calmochi-203 ^{56,7} Early ⁴ 2015 5.3 4.9 Glutinous (sweet, waxy) rice. Less blanking resistance than CA-101. Has glabrous (smooth) hulls. shape. Yields significantly higher, has larger seed and matures later than CA-101. Not adapted to cool temperature areas. Calmati-202 ^{56,7} Early ⁴ 2008 6.0 4.4 A basmati type long grain with improved cooking quality and more slender grain. Excellent seedling vigor. Yield potential is 10% lower than CT-201. Pubescent leaves and hull. Average milling yield 58 - 60 %. Susceptible to blanking and should not be grown in cool areas. Avoid excessive nitrogen. Harvest at 17-18% grain moisture. Calaroma-201 ^{56,7} Early ⁴ 2019 3.5 4.8 Jamine type long grain. Calaroma has quality attributes that can compete with improved seedling vigor and similar lodging compared to A-301. A-202 ^{6,7} Early ⁴ 2014 4.6 4.7 An aromatic smooth hulled long grain with very high yield potential and high head rice yield. Improved seedling vigor and similar lodging compared to A-301. Verges stem rot score over last five years. 0 = not steases. 5 These varieties are considered varieties of Commercial Impact (Tier 1) and are subject to production regulations. 6 Protected under the Plant Variety Protection Act and only to be sold as a class of certified seed. 7 Utility Patent	Calmochi-101 ⁵	Very Early ^{3,4}	1987	5.3	4.2	Glutinous (sweet, waxy) rice. Excellent blanking resistance. Has rough leaves and hulls, no awns. Grain dries down rapidly during ripening.
Calmati-202 ^{5,6,7} Early ⁴ 2008 6.0 4.4 A basinative pologiga in with improved cooking quality and more slender grain. Excellent seedling vigor. Yield potential is 10% lower than CT-201. Pubescent leaves and hull. Average milling yield 58 - 60 %. Susceptible to blanking and should not be grown in cool areas. Avoid excessive nitrogen. Harvest at 17-18% grain moisture. Calaroma-201 ^{5,6,7} Early 2019 3.5 4.8 Jasmine type long grain. Calaroma has quality attributes that can compete with importe Jasmine varieties. A-202 ^{6,7} Early ⁴ 0.10 4.6 4.7 An aromatic smooth hulled long grain with very high yield potential and high head rice yield. Improved seedling vigor and similar lodging compared to A-301. verge stem rot score over last five y-site stem stem stem stem stem stem stem st	Calmochi-203 ^{5,6,7}	Early^4	2015	5.3	4.9	Glutinous (sweet, waxy) rice. Less blanking resistance than CA-101. Has glabrous (smooth) hulls. shape. Yields significantly higher, has larger seed and matures later than CA-101. Not adapted to cool temperature areas.
Calaroma-201 ^{5,6,7} Early 2019 3.5 4.8 Jamine type long grain. Calaroma has quality attributes that can compete with imports Jasmine varieties. A-202 ^{6,7} Early ⁴ 2014 4.6 4.7 An aromatic smooth hulled long grain. With very high yield potential and high head rice yield. Improved seedling vigor and similar lodging compared to A-301. Susceptible to blanking and should not be grown in cool areas. Is a replacement for A-301 and is well adapted for organic production systems. verge stem rot score over last five years: 0 = no disease and 10 = severe stemses. 5 These varieties are considered varieties of Commercial Impact (Tier 1) and are subject to production regulations. 6 Protected under the Plant Variety Protection Act and only to be sold as a class of certified seed. 7 Utily Pater Varieties should not be grown interverse stemse stemses stemse	Calmati-202 ^{5,6,7}	Early^4	2008	6.0	4.4	A basmati type long grain with improved cooking quality and more slender grain. Excellent seedling vigor. Yield potential is 10% lower than CT-201. Pubescent leaves and hull. Average milling yield 58 - 60 %. Susceptible to blanking and should not be grown in cool areas. Avoid excessive nitrogen. Harvest at 17-18% grain moisture.
A-202 ⁶⁷ Early ⁴ 2014 4.6 4.7 An aromatic smooth hulled long train with very high yield potential and high head rice yield. Improved seedling vigor and similar lodging compared to A-301. Susceptible to blanking and should not be grown in cool areas. Is a replacement for A-301 and is well adapted for organic production systems. verge stem rot score over last five years: 0 = no dise as and 10 = sever disease. 5 These varieties are considered varieties of Commercial Impact (Tier 1) and are subject to production regulations. biget tive rating of 1-5 where 1 = poor and 5 = excellent seeding vigor. 5 These varieties are considered varieties of Commercial Impact (Tier 1) and are subject to production regulations. biget tive rating of 1-5 where 1 = poor and 5 = excellent seeding vigor. 5 These varieties are considered varieties of Commercial Impact (Tier 1) and are subject to production regulations. big duality and yield may be reduced by early planting in warmer areas. 5 These varieties are considered varieties of Commercial Impact (Tier 1) and are subject to production regulations. cality varieties should not be grown in term of the set	Calaroma-201 ^{5,6,7}	Early	2019	3.5	4.8	Jasmine type long grain. Calaroma has quality attributes that can compete with imports Jasmine varieties.
rerage stem rot score over last five years: 0 = no disease and 10 = severe disease. 5 These varieties are considered varieties of Commercial Impact (Tier 1) and are subject to production regulations. bjective rating of 1-5 where 1 = poor and 5 = excellent seedling vigor. 6 Protected under the Plant Variety Protection Act and only to be sold as a class of certified seed. ulling quality and yield may be reduced by early planting in warmer areas. 7 Utility Patent scialty varieties should not be grown unless arrangements have first been made with a marketing agency. Jan-23	A-202 ^{6,7}	Early^4	2014	4.6	4.7	An aromatic smooth hulled long grain with very high yield potential and high head rice yield. Improved seedling vigor and similar lodging compared to A-301. Susceptible to blanking and should not be grown in cool areas. Is a replacement for A-301 and is well adapted for organic production systems.
ecialty varieties should not be grown unless arrangements have first been made with a marketing agency. Jan-23	erage stem rot score over lass Spective rating of 1-5 where 1 Iling quality and yield may be	t five years: 0 = no diseas = poor and 5 = excellent e reduced by early plantin	se and 10 = se t seedling vigo ng in warmer a	vere disease r. reas.	2.	5 These varieties are considered varieties of Commercial Impact (Tier 1)and are subject to production regulations. 6 Protected under the Plant Variety Protection Act and only to be sold as a class of certified seed. 7 Utility Patent
	cialty varieties should not be	grown unless arrangeme	nts have first l	been made w	ith a mark	Jan-23

CHADA CTEDISTICS OF DUDI IC CALIFORNIA DICE VADIETIES 2022

	Colusa	(IZ)	Glenn	(Z1)	North Butte	(Z2)	South Butte	(Z2)	San Joaquin (Z3)	Sutter	(Z3)	North Yolo	(Z3)	South Yolo	(Z3)	Yuba	(Z3)		Clousa	(IZ)	Glenn	(Z1)	North Butte	(Z2)	South Butte (Z2)	San Joaquin (Z3)	Sutter	(Z3)	North Yolo	(Z3)	South Yolo		Yuba (Z3)	
-	nim	max	min	max	nin	max	min	max	min max	nim	max	nim	max	mim	max	mim	max		nin	max	nin	max	nin	max	min max	min max	min	max	min	max	nim		mim	
1-Apr 2-Apr 3-Apr 4-Apr 5-Apr 6-Apr 7-Apr 8-Apr	1		1		1	**	1	**		T		1		1	73	1		1-May 2-May 3-May 4-May 5-May 6-May 7-May 8-May	T		1	~	1			49 59 45 63 41 61 40 66 45 66 47 66 44 69 43 68	r			~		-		-
3-Apr 10-Apr 11-Apr 12-Apr 13-Apr 14-Apr 15-Apr 16-Apr 17-Apr 18-Apr 19-Apr 20-Apr 21-Apr 21-Apr 22-Apr																		^{9-мау} 10-Мау 11-Мау 12-Мау 13-Мау 14-Мау 16-Мау 16-Мау 17-Мау 19-Мау 20-Мау 20-Мау 21-Мау 22-Мау 23-Мау			75 5 65 8 60 8 66 8 63 8	90 89 86 87 89 83	64 62 60 66 65	87 84 85 89 82	51 74 51 75 49 79 55 90 61 93 63 93 61 88 56 91 62 93 61 91 62 91 61 87 56 86 63 90 63 82	43 /1 48 68 43 76 45 84 48 95 53 88 50 82 44 90 48 87 46 83 50 81 53 76 48 85 51 90 50 75			67 9 56 9 55 8 53 9 57 9 57 9	95 91 88 90 91 83				
24-Apr 25-Apr 26-Apr 26-Apr 28-Apr 29-Apr 30-Apr									48 92 48 87 48 83 50 73									24-May 25-May 26-May 27-May 28-May 29-May 30-May 31-May	64 56 60 57 57 55	97 80 80 81 79 79	57 5 56 5 56 8 61 8 58 8 57 7 55 7	79 79 79 80 81 81 78 79	57 57 56 57 61 58 57 58 57 57	- 78 78 78 80 80 80 78 79	56 78 56 77 56 78 56 79 59 80 58 79 56 78 56 79	47 73 49 71 52 70 53 75 54 73 52 72 52 71 50 76	58 54 57 55 56 55	72 74 76 75 74 74 77	53 7 53 8 53 8 54 8 57 8 55 8 55 8 55 8 54 8	79 81 80 82 80 83 80 81			64 76 55 76 56 76 56 78 58 78 56 77 57 77 55 78	
1-Jun 2-Jun 3-Jun 4-Jun 5-Jun 6-Jun 7-Jun 8-Jun 9-Jun	56 59 66 68 70 61 59 61 58	82 86 89 92 92 75 78 80 81	57 58 62 65 69 61 59 60 58	81 84 88 90 93 76 77 78 80	58 61 65 68 72 60 59 61 60	82 86 87 91 92 74 77 80 81	57 59 64 65 69 60 58 61 58	82 88 82 92 91 75 77 80 81	43 78 49 83 49 89 48 92 53 76 57 73 55 72 54 77 54 74	55 56 59 65 62 59 57 60 57	79 86 90 92 84 72 74 79 77	54 56 60 63 64 59 58 59 56	82 87 92 93 93 76 78 81 82	63 55 57 58 59 57 57 57 57 57	86 91 92 81 72 74 79 77	57 59 64 66 68 60 58 61 59	81 86 88 91 88 74 76 80 80	1-Jul 2-Jul 3-Jul 4-Jul 5-Jul 6-Jul 7-Jul 8-Jul 9-Jul	71 73 68 62 60 58 58 58 58 58	96 95 90 85 83 83 82 82 78	70 9 70 9 67 8 62 8 61 8 58 8 58 8 58 8 55 7	94 94 89 84 83 82 80 81 77	68 70 68 64 61 59 59 60 56	96 96 91 85 84 83 81 82 77	71 97 71 99 69 91 62 86 61 84 57 82 58 81 60 84 55 78	62 103 62 98 60 88 56 87 55 81 55 79 55 79 52 79 49 74 50 88	67 65 58 57 55 56 56 56 54	101 104 89 84 82 80 80 81 75	71 9 69 9 63 9 58 8 57 8 55 8 56 8 56 8 56 8 53 7	97 97 91 87 85 84 83 83 83 83	65 10 63 10 62 90 55 84 55 81 54 81 56 81 54 80 53 76	00 01 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	69 99 69 98 68 91 62 84 60 83 58 82 58 80 58 82 55 76	
10-Jun 11-Jun 12-Jun 13-Jun 14-Jun 15-Jun 16-Jun 17-Jun 18-Jun 19-Jun	57 63 59 61 64 66 66 62 63 54	81 84 78 82 85 90 94 84 81 74	57 64 60 61 63 65 65 65 61 62 52	80 83 78 82 83 88 91 83 80 73	59 63 60 62 64 66 66 66 64 62 54	79 83 77 82 84 87 89 85 81 73	56 62 59 60 63 66 68 63 61 53	80 83 77 82 85 91 90 84 83 75	51 77 49 78 56 76 56 77 54 83 50 85 55 84 55 83 56 82 52 74	54 57 58 59 60 60 59 61 53	80 81 77 81 84 90 92 83 82 74	54 58 59 59 61 64 58 60 54	85 85 80 84 86 87 93 88 88 84 75	52 54 58 57 55 55 55 56 57 56 58 58 51	77 80 83 80 83 80 83 80 87 82 82 82	56 61 59 60 63 64 65 62 61 55	80 82 77 83 84 89 91 84 82 73	10-Jul 11-Jul 12-Jul 13-Jul 14-Jul 15-Jul 16-Jul 17-Jul 18-Jul 19-Jul	58 65 62 63 68 69 72 70 66 63	84 87 91 93 98 96 92 89 88	57 8 62 8 61 8 62 8 64 9 66 9 68 9 68 9 68 9 63 8 63 8 61 8	55 86 87 91 94 94 92 87 87	58 63 64 64 67 69 71 71 67 67 63	85 88 94 92 100 97 93 89 88	5788 6189 6391 6292 6598 6899 70102 7196 6488 6189	50 88 49 95 51 89 57 93 53 99 55 102 59 104 62 96 54 88 53 90	54 61 62 65 70 70 64 57	80 94 85 93 97 96 97 94 84 91	54 8 60 8 59 8 63 9 67 9 71 9 70 9 63 8 59 8	55 39 38 39 44 96 96 93 38 39	51 85 58 90 56 80 58 89 59 94 61 97 67 98 69 91 61 85 56 89	, ; ; ; ; ;	56 87 58 89 62 88 61 94 63 92 68 102 69 100 70 94 65 88 61 90	2
20-Jun 21-Jun 22-Jun 23-Jun 24-Jun 24-Jun 26-Jun 27-Jun 28-Jun	52 56 58 55 56 56 56 56 56	75 81 76 77 79 79 82 82 82	48 52 56 54 56 54 56 54 56 58	73 79 76 76 78 78 80 81	51 52 59 55 56 55 56 60 60	77 80 76 77 79 81 80 82	51 55 58 56 56 55 56 58 60	76 83 78 77 80 80 80 82 83	45 79 43 83 46 74 50 75 54 78 54 75 48 82 51 82 51 82 52 82	53 54 53 55 56 55 54 54 54	76 81 77 76 80 77 84 83	52 54 55 54 56 54 54 54 55 55	77 83 80 79 83 81 84 85	53 52 52 52 56 54 55 53 55 55	76 33 76 77 31 76 32 32	51 52 58 57 57 56 56 56 58	77 81 78 77 80 79 81 83	20-Jul 21-Jul 22-Jul 23-Jul 24-Jul 25-Jul 26-Jul 27-Jul 28-Jul	65 68 69 70 60 62 63 61	92 94 97 91 86 90 88 85 85	64 9 65 9 66 9 67 9 59 8 61 8 62 8 60 8	91 94 94 90 84 87 87 85	65 66 68 69 61 62 62 62 62	95 95 96 93 86 89 91 85	62 98 64 98 68 97 68 93 62 86 61 93 62 88 60 85 60 85	53 96 56 100 56 99 63 93 59 89 50 94 55 90 53 86 52 80	61 65 67 67 60 61 62 59	97 99 103 92 86 93 88 85 92	60 9 68 9 67 9 68 9 59 8 61 8 62 8 59 8	01 05 05 02 35 38 38 38 35 36	56 92 63 96 63 96 62 90 57 85 58 90 60 86 57 82 57 82	2 5 5) 5) 5	61 99 62 101 66 97 67 93 60 87 59 93 61 89 60 86 50 90	I
29-Jun 29-Jun 30-Jun	62 65 70	95 93	61 64 65	85 94 91	62 64 67	86 95 92	60 64 70	88 95 94	53 82 55 92 60 98	56 57 64	85 93 100	57 59 66	87 98 95	56 9 60 9	91 97	64 67	85 96 95	28-Jul 29-Jul 30-Jul 31-Jul	58 58 59	86 90 88	59 8 57 8 56 8 57 8	84 86 86	59 59 59 58	88 85 88 90	50 86 59 87 58 87 58 89	52 89 55 93 48 95 51 96	58 58 58 58	92 88 92 95	58 8 58 8 57 8 57 9	36 38 90	56 82 55 85 54 88 57 89	, ; ; ; ; ; ; ;	59 89 57 88 57 94 5 96	

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	usa (ш (th Butte)	th Butte	Joaquin)	er	th Yolo)	th Yolo)	a (usa (ц	th Butte	th Butte	Joaquin)	er (th Yolo)	th Yolo)	а (
	Coli x (Z1)	Glei K (Z1)	Nor X (Z2)	1 Sou k (Z2)	n San k (Z3)	x (Z3)	Nor k (Z3)	x (Z3)	1 Yub x (Z3)		Coli X (Z1)	Gle	Nor X (Z2)	x (Z2)	x (Z3)	x (Z3)	A (Z3)	x (Z3)	1 Yub x (Z3)
	mir	mir may	mir	mir	mir	mir	mir	mir	mir	1.0	mir	ii ii	nir max	mir	mir	mir	in as	mir max	nir max
1-Aug 2-Aug	57 83	59 84 57 81	59 92 57 84	59 86 56 83	49 89 54 85	59 88 56 82	59 88 56 84	56 83 56 80	58 87 56 83	1-Sep 2-Sep	59 76 55 77	59 74 55 76	59 72 56 74	58 73 57 75	57 75	58 75 58 74	58 75 56 76	59 74 57 75	58 74 58 73
3-Aug	58 83 60 87	57 81 58 85	57 83 59 88	57 82 59 86	49 83	57 82 59 94	56 84 59 88	55 80 57 87	57 83 58 90	3-Sep	60 78 56 83	60 77 56 82	60 77 56 83	58 78 55 86	57 81 50 87	59 78 57 86	62 79 57 83	59 77 56 83	60 79 56 86
5-Aug	64 96	62 96	63 94	63 95	53 98	62 97	62 96	58 91	62 93	5-Sep	57 85	50 82 57 83	57 85	57 90	50 92	57 86	57 85	56 89	56 88
6-Aug 7-Aug	64 96 65 99	63 95 63 99	62 94 63 94	65 93 63 92	57 102 57 100	65 91 64 98	65 96 65 94	62 94 62 94	63 93 60 98	6-Sep 7-Sep	57 86 55 85	58 84 55 83	56 84 55 84	54 87 54 86	51 86 52 89	56 85 56 88	54 86 55 85	56 84 55 85	56 87 55 87
8-Aug	61 84	59 82	62 83	61 84	52 86	60 82	59 87	58 81	60 85	8-Sep	53 86	54 85	54 87	55 89	49 92	56 88	53 87	56 88	55 89
9-Aug 10-Aug	60 84 60 86	60 82 60 84	60 84 60 86	59 87 60 87	52 88 51 92	59 88 60 92	59 87 60 89	57 86 56 89	59 89 59 94	9-Sep 10-Sep	53 87 53 89	54 85 53 89	53 87 53 90	52 91 51 92	49 92 46 95	55 90 52 88	52 86 50 88	55 90 53 89	54 90 51 89
11-Aug	60 85	59 83	60 84	60 85	55 89	59 87	59 88	59 88	59 89	11-Sep	52 89	52 87	51 88	49 93	47 93	52 89	50 89	54 89	50 91
12-Aug 13-Aug	63 90 65 93	63 87 64 90	62 87 64 90	62 91 64 93	57 96 59 96	62 95 64 96	62 92 64 94	58 94 61 98	61 93 63 95	12-Sep 13-Sep	55 87 55 90	55 85 56 89	53 86 54 86	51 88 54 90	48 89 49 92	54 89 54 91	52 85 53 92	55 87 55 88	51 89 52 89
14-Aug	68 87	67 86	67 88	67 90	64 99	67 95	67 93	66 103	66 91	14-Sep	56 91	57 91	56 89	57 91	53 91	55 87	56 88	57 89	54 89
15-Aug 16-Aug	66 98 68 98	65 97 67 95	66 99 68 97	66 100 67 102	62 99 60 104	67 101 66 101	67 99 68 101	65 102 63 104	65 100 66 101	15-Sep 16-Sep	57 88 59 87	56 86 59 86	56 87 60 84	57 91 59 87	59 86 60 78	58 86 58 81	55 86 58 84	57 86 57 81	54 89 56 87
17-Aug	72 96	73 94	72 96	72 98	63 101	67 96	72 96	65 96	70 97	17-Sep	57 82	57 80	57 81	56 83	60 78	58 79	55 82	57 80	55 83
18-Aug 19-Aug	65 89	64 87	65 89	65 89	55 92	62 92	62 89	60 93	63 91	18-Sep 19-Sep	54 82	55 81	53 79 54 81	54 82 52 83	59 85 58 83	55 83	53 82 53 82	55 82	53 84
20-Aug	66 83 65 76	65 84 65 75	67 81 66 78	67 82 65 81	65 90 64 83	66 80 65 79	67 83 65 81	65 81 64 78	66 83 65 81	20-Sep	55 83 52 80	55 82 53 78	55 82 52 79	54 84 50 82	50 82	53 80 52 79	53 83 50 79	55 79 54 80	52 85 50 81
22-Aug	64 84	63 83	63 84	63 86	58 91	64 88	63 86	62 93	64 88	22-Sep	47 79	48 79	47 80	46 82	48 83	51 80	47 79	52 79	46 82
23-Aug 24-Aug	63 93 62 91	63 89 61 89	63 90 61 93	63 89 61 95	57 97 56 95	64 88 63 92	64 90 63 91	62 97 63 97	61 91 61 93	23-Sep 24-Sep	46 80 47 81	47 79 49 79	48 79 48 78	48 92	46 79 44 78	49 79 49 78	44 81 44 82	50 78 51 77	47 84 47 82
25-Aug	59 86	58 84	61 85	61 86	55 88	60 86	59 87	58 84	61 89	25-Sep	50 77	48 77	54 75		45 79	51 76	48 77	52 76	52 77
26-Aug 27-Aug	58 88 57 88	57 86 56 87	58 88 57 91	57 88 55 91	49 93 50 94	58 91 56 90	57 88 55 90	56 88 54 89	57 91 56 90	26-Sep 27-Sep	51 79 49 82	52 79 49 81	52 79 48 84		54 82 46 85	55 79 48 80	56 81 50 83	56 81 52 84	52 82 48 83
28-Aug	57 91	57 89	57 91	55 91	52 98	57 96	57 90	57 91	55 92	28-Sep	48 84	48 83	48 82		48 87	48 80	49 82	52 80	48 81
29-Aug 30-Aug	57 88 60 91	57 88 64 90	56 89 60 91	56 86 60 90	55 93 55 98	57 86 56 93	55 87 58 93	55 87 59 89	55 87 55 90	29-Sep 30-Sep	47 76 56 70	48 77 57 71	46 75 56 68		50 79 57 75	49 77 56 68	46 79 57 70	51 77 56 67	46 78 57 66
31-Aug	58 86	57 83	58 86	56 88	51 92	57 88	57 88	59 87	56 89						,	,			,
1.0-4	40 70	61 76	47/75	I	52 70	40/72	17 75	50 70	50 75										
2-Oct	48 76 46 80	46 79	47 78		52 78 44 83	49 73	47 75 46 79	52 73 47 77	46 78										
3-Oct	48 83 59 89	47 82	48 82 58 87		47 87	47 79	46 82	49 80 53 86	49 80 48 86										
5-Oct	51 91	50 90	49 91		52 94	51 87	50 90	53 88	49 87										
6-Oct 7-Oct	52 91 52 93	52 91 53 91	49 92 51 94		52 96 51 97	49 88 51 89	50 91 49 94	53 88 53 90	52 88 51 89										
8-Oct	52 91	52 89	51 89		52 94	51 90	52 92	54 90	51 90										
9-Oct 10-Oct	53 76 48 76	52 75 49 75	57 74 57 74		56 72 57 75	52 72 54 73	50 74 50 74	53 71 54 72	54 71 54 71										
11-Oct	44 75	42 74	43 84		47 75	48 72	45 74	46 71	49 72										
12-Oct 13-Oct	47 80 42 72	51 80 42 72			44 80	40 78 43 76	47 79 43 74	48 77 45 76	46 79 45 75										
14-Oct	54 76	55 77				52 78	53 78	53 80	52 82										
15-Oct 16-Oct	48 85 45 86	49 83				48 84 46 82	49 83	49 84 47 80	48 80 47 83										
17-Oct		51 87				48 84	49 85	50 82	47 83										
19-Oct		46 92				47 90	53 53	50 88	46 88										
20-Oct 21-Oct		49 87 50 84				47 87 54 80		49 85 51 76	49 86 51 79										
22-Oct						54 66		52 68	56 66										
23-Oct 24-Oct						53 77 49 76		54 75 47 76	53 78 48 76										
25-Oct						46 64		51 68	47 60										
26-Oct 27-Oct						38 69 33 68		39 68 34 69	38 68 34 71										
28-Oct						33 72		36 66	32 67										
29-Oct 30-Oct								40 74 34 74	36 75 31 76										
31-Oct								35 72											

J Rep Advar	iceu Lin	ies unu	varieti	00								Singl	e Loca	tion Yie	elds						
		Over A	ll Ave																		
		Grain	Yield																		
		At I Mois	ture	Colu	isa	Gler	n	Biggs/	'RES	North E	Butte	South I	Butte	North	Yolo	Sutt	er	San Joa	auin	Yub	Ja
	Grain																				
Variety	Туре	Yield	Rank	Yield	Rank	Yield	Rank	Yield	Rank	Yield	Rank	Yield	Rank	Yield	Rank	Yield	Rank	Yield	Rank	Yield	Rank
L-208	L	9780	1	9040	8	9680	3	8950	3	10000	3	10640	2	10830	2	10460	1	11570	1	8500	6
S-202	5	9690	2	9520	2	10570	1	8670	10	10130	1	10720	1	10400	2	9890	4	10280	12	9110	2
1971018	3	9510	4	8750	12	8940	5	8940	6	9760	4	10410	4	10990	1	10270	2	10180	9	8420	7
20Y1029	L	9450	5	8930	9	8760	12	9410	1	9560	5	9940	7	10190	8	9840	5	9820	13	8700	3
L-207	L	9330	6	9250	4	8400	14	8890	7	9380	8	10220	5	10250	7	9170	10	10710	4	8600	4
20Y1008	L	9060	7	9520	1	8850	7	8410	14	9470	6	10130	6	9820	12	8680	18	10210	8	7760	20
CM-203	S	8950	8	8610	14	8840	10	8200	16	9450	7	9730	8	10190	9	9340	8	9710	14	7970	17
M-211	м	8920	9	8470	16	8850	8	9030	2	8500	17	9100	13	9880	11	9110	12	9500	16	7580	21
M-209	M	8830	10	8760	11	8820	11	8940	5	8360	20	8960	15	9670	16	8870	14	8900	22	7980	16
1973035	M	8700	12	8780	10	8840	10	8/90	0 13	8810	12	9300 8410	21	9130	20	8830	15	9550 8510	13	8210	14
20Y2124	S	8700	13	8320	20	7360	23	8950	4	7820	23	9570	9	8920	21	8790	16	10170	10	7850	19
16Y2028	s	8630	14	9170	5	7520	21	7760	20	8300	21	8860	17	10490	4	9740	6	10480	5	7080	24
18Y3102	м	8630	15	8320	19	8850	6	8090	18	8430	19	9280	11	9480	18	9020	13	9140	20	8120	15
M-206	Μ	8600	16	7920	23	7950	17	8150	17	9080	10	8890	16	10010	10	8450	22	9490	17	8320	9
CJ-201	L	8590	17	9150	6	7560	20	8620	11	8610	15	8560	19	9700	14	8690	17	8050	25	8270	11
M-521	м	8530	18	8470	17	7730	19	8520	12	9000	11	8410	22	9500	17	9140	11	7670	26	8410	8
M-105	M	8530	19	8390	18	8210	15	/910	19	8530	16	9000	14	9690	15	9400	10	8360	24	8520	5
207/033	N/	8500	20	8640	∠⊥ 13	7890	10	0320 7280	72	0480 9080	19	034U 9770	∠3 17	943U 8770	73 TA	8580	20 TA	9370 10170	11	8220	10
A-202	1	8330	22	8510	15	8510	13	6400	25	8750	14	8420	20	10310	6	9250	20	10750	2	7900	18
S-102	S	7900	23	7930	22	6730	25	7620	21	7940	22	8780	18	8390	24	7400	24	9550	15	7300	23
18Y2070	M	7790	24	7770	24	7400	22	7420	22	7290	25	7880	24	8390	23	7260	26	10420	6	6990	25
CM-101	S	7360	25	7770	25	6760	24	6460	24	7540	24	7370	26	8000	25	7600	23	8940	21	7550	22
89Y235	м	7160	26	7420	26	6650	26	6030	26	6870	27	7680	25	7700	27	6990	27	10740	3	6600	26
CA-201	S	6600	27	7120	27	6360	27	5370	28	6990	26	6950	27	7880	26	7290	25	7480	27	6440	27
CT-202	L	5820	28	6100	28	4880	28	5640	27	5650	28	5860	28	6570	28	5360	28	7160	28	5540	28
MEAN		8530		8470		8140		8000		8590		8970		9460		8740		9520		7930	
5%LSD		493		738		1103		973		860		901		774		577		1295		719	
CV		12		5		8		13		6		6		5		4		8		6	
2 Rep Advar	nced Lin	nes and	Varieti	es																	
20Y2008	S	9728	1	9310	1	10320	1	8960	1	9590	2	10480	1	10230	2	9720	2	11520	1	8970	1
21Y2031	M	9639	2	8720	6	9970	2		13	10120	1	9480	4	11580	1	9620	3	10790	3	6820	12
221071	L	8977	3	8340	10	7550	10	8780	3	8630	/	9640	2	9940	4	10530	1	9350	2	8420	3
1973128	M	8715	5	8820	5	8520 7610	9	8850	2	8590	8	9070	2	9320 8750	11	9310	6	8970	10	7750	9
22Y2119	1	8653	6	8930	3	8620	5	7450	11	9320	4	8290	11	9450	7	9370	4	10320	4	8520	2
19Y3105	M	8618	7	8970	2	7980	7	8400	6	8470	9	8850	8	9680	5	8340	9	9410	6	7910	6
CH-203	S	8528	8	8490	8	8810	3	7520	10	9310	5	8900	7	9190	8	9320	5	9270	8	7990	4
M-521	Μ	8431	9	8900	4	8790	4	8110	7	6820	14	8340	10	10100	3	7040	12	7970	12	7980	5
19Y4048	S	8243	10	8050	12	7770	8	8590	5	8270	10	8250	12	9030	10	8700	7	7680	13	7140	11
22Y3087	S	8191	11	8350	9	6280	13	7620	8	7770	12	8950	6	9050	9	8440	8	9660	5	7170	10
2214182	M	7861	12	8140	11	6990	12	7610	9	9280	6	8430	9	8660	12	8140	10	7560	14	7790	8
22Y1103	1	6776	13	7040	14	7180	11	5480	12	7570	13	7960	13	8100	13	6410	13	9030	9	4810	14
2211107	-	0,70		7040	14	/100		5400	12	1510	15	1500	15	0100	13	0410	15	5656	<i>.</i>	4010	14
MEAN		8370		8440		8000		7790		8650		8840		9370		8490		9320		7530	
5%LSD		685		801		1813		1198		1405		1046		1266		1787		1724		1767	
CV		13		4		11		13		8		6		6		10		9		11	
2 Kep Prelin	ninary L	10020	1 a varie	10200	1	9220	6	0270	5	10010	2	10920	1	11520	2	10200	1	10120	1	8000	2
S-202	S	9890	2	9590	3	10480	1	9120	7	11500	1	10820	2	10780	4	10230	2	10120	6	9130	2
22Y1018	Ĺ	9800	3	10020	2	9410	4	9390	4	9890	5	10490	5	12000	1	10010	3	10470	2	8530	6
20Y1009	L	9620	4	9060	5	9350	5	10970	1	9660	6	10760	3	10640	5	9410	6	10180	3	8660	4
20Y2072	S	9620	5	8870	7	9490	2	9020	8	9990	4	10380	6	10370	7	9450	5	11560	1	8350	7
22Y1028	L	9560	6	9320	4	8950	8	8040	18	10020	2	10750	4	11580	2	9560	4	9000	10	9820	1
22Y3178	Μ	9210	7	_	-	_	_	8250	15	8990	10	9530	8	_	_	_	-	_	_	_	-
22131/3	M €	9170	8	8950	0	8650	10	9530 7800	3	9500	/ 。	9330	10	10480	<u>_</u>	0120	-	10000		8620	
2272017	5	8960	9 10	8850	ð	8050	10	7890 8500	∠⊥ 11	9410	ð	9960	/	10330	8	9130	/ 8	0360 10080	о О	8040	5 10
2213017	M	8950	11	9050	6	9190	7	8750	10	-	-	-	-	10320	0	9110	0	3300	9	8040	10
22Y3195	M	8930	12	8100	13	8110	11	9660	2	-	-	-	-	-	-	-	-	-	-	-	-
22Y3136	м	8810	13	8480	11	9490	3	8470	12	_	_	_	_	_	_	_		_	-	_	_
22Y3073	м	8790	14	_	_	_	_	9220	6	8980	11	8950	12	_	_	_	_	_	_	_	_
M-211	м	8690	15	_	_	_	_	7880	22	8610	13	9410	9	_	_	_		_	-		_
22Y3111	M	8680	16	7900	14		-	8260	14	—	-	_	-	8940	12	8930	10	10020	7	7960	11
101-210	N/1	8470	17 18	8650	14 Q	8840 7410	9 1/1	8080	9 17	-	-	-	-	9210	11	8940	Э	9490	ø	6350	ð
22Y3192	M	8410	19	3030		7410	7.4	8030	19	9010	9	8850	13	_	-	-	-	-	-	_	-
22Y2159	S	8400	20	8480	10	7590	13	8330	13	8000	14	9310	11	8240	14	7980	13	8580	12	8230	9
22Y3130	м	8360	21	_	_	_	_	8030	20	_	_	_	_	10320	9	8010	12	7940	13	7550	12
22Y3144	м	8090	22	_	_	_	_	7570	23	_	_	_	_	9560	10	8070	11	8810	11	7380	13
22P4074	М	7950	23	8190	12	8020	12	7350	25		_		_	-	_	-	_	-	_	-	-
22Y3162	M	7870	24	-	-	-	-	8250 7440	16	8890	12	8/10	14	8850	12	6920	14	7630	14	5520	1.4
2213170	141	0	23	-	-	—	-	7440	24	_	-	_	-	0000	10	0520	14	1030	14	5530	14
MEAN		9000		8920		8870		8590		9460		9860		10220		9000		9520		8360	
5%LSD		746		644		1408		1630		867		1122		1242		1149		1479		1290	
CV		12	1	3		7		9		4		5		6		6		7		7	
э = short; М	i = med	num; L	= iong.																		

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		Grain Y 14% M Ibs	′ield at oisture /ac					
				Grain				
	Grain			Moisture at Harvest	Seedling Vigor	Days to 50%	Lodging	Plant Height
Variety	Туре	Yield	Rank	(%)	(1-5)	Heading	(0-100)	(cm)
20Y1008	L	9520	1	16.3	4.8	78	12	109
S-202	S	9520	2	16.5	4.8	76	33	96
2012001	5	9270	3	10.1	4.8	75 77	2	94
16Y2028	S	9170	5	16.5	4.8	78	77	108
CJ-201	Ľ	9150	6	15.6	4.8	79	0	99
18Y3018	М	9100	7	17.1	4.8	78	7	106
L-208	L	9040	8	15.2	4.9	74	0	91
20Y1029	L	8930	9	16.2	4.8	77	35	107
19Y3035	M	8780	10	16./	4.8	73	0	101
19Y1018		8750	12	16.0	4.8	78	2	99
20Y4033	M	8640	13	17.3	4.7	74	63	98
CM-203	S	8610	14	18.2	4.7	77	37	104
A-202	L	8510	15	16.4	4.8	78	2	102
M-211	М	8470	16	16.6	4.8	79	2	109
M-521	M	8470	17	16.4	4.8	74	13	103
INI-105		8390	18	10.7	4.8	73	0	98
20Y2174	S	8320	20	17.0	4.7	74	2 10	108
M-210	M	8220	21	16.7	4.8	73	0	99
S-102	S	7930	22	16.1	4.7	73	7	103
M-206	Μ	7920	23	16.9	4.8	74	3	100
18Y2070	М	7770	24	17.4	4.9	77	20	114
CM-101	S	7770	25	16.5	4.5	77	2	104
89YZ35 CA 201	IVI S	7420	26	10.8	4.7	76	27	104
CT-201	5	6100	27	14.0	4.7	70	8	102
0. 202	-	0100	20	1010				102
MEAN		8470		16.4	4.8	76	16	102
5%LSD		738		0.8	0.1	3	30	6
CV		5		3.0	1.2	2	117	4
2 Kep Aavan	s s	9310	1eties	16.3	49	73	0	106
19Y3105	M	8970	2	17.2	4.7	80	50	114
22Y2119	L	8930	3	16.1	4.8	75	0	97
M-521	М	8900	4	16.5	4.8	73	0	103
19Y3128	М	8820	5	16.7	4.7	79	30	99
21Y2031	M	8720	6	15.9	4.8	74	0	96
CH-203	IVI S	8/190	8	15.3	4.8	80 76	30	95
22Y3087	S	8350	9	16.7	4.8	70	50	113
22Y1071	L	8340	10	16.5	4.8	77	65	115
22Y4182	М	8140	11	16.5	4.8	74	0	101
19Y4048	S	8050	12	16.6	4.8	77	20	104
22Y1109	L	7580	13	13.3	4.8	79	8	111
22Y1107	L	/040	14	16.6	4.9	11	98	107
MEAN		8440		16.2	4.8	76	25	105
5%LSD		801		1.1	0.1	3	53	9
CV		4		3.2	0.9	2	98	4
2 Rep Prelim	inary Lin	es and V	arieties	45.5			6	
20Y1010	L	10300	1	15.9	4.8	74	0	99 107
5-202	L S	9590	2 २	16.0	4.8 4.8	75	٥ 0	98
22Y1028	L	9320	4	15.6	4.8	76	0	103
20Y1009	L	9060	5	14.1	4.8	74	0	103
22Y3124	М	9050	6	17.4	4.8	76	0	105
20Y2072	S	8870	7	16.8	4.8	78	25	109
CM-203	S	8850	8	17.6	4.7	76	0	111
2213043	IVI c	8050 8490	9 10	16.5	4.8	78 76	0	08 T0A
2212139	M	8480 8480	11	17.1	4.0	79	35	
22P4074	M	8190	12	16.3	4.8	73	0	100
22Y3195	М	8100	13	17.3	4.7	78	20	110
M-210	Μ	7860	14	16.8	4.9	73	0	101
MEAN		8020		16.5	1 9	75	6	104
5%I SD		644		10.5	4.0 0.1	3	36	7
CV		3		2.7	1.2	2	257	3

		Grain Y	'ield at					
		14% Mo	oisture					
		lbs/	/ac	Casta				
				Grain	Soodling	Dave to		Plant
	Grain			at Harvest	Vigor	50%	Lodging	Height
Variety	Type	Yield	Rank	(%)	(1-5)	Heading	(0-100)	(cm)
S-202	S	10570	1	15.3	4.7	81	87	95
20Y2001	S	10070	2	16.0	4.8	80	98	98
L-208	L	9680	3	12.4	4.8	80	2	91
20Y4033	М	8990	4	16.6	4.8	82	98	105
19Y1018	L	8940	5	12.9	4.8	80	0	93
18Y3102	M	8850	6	15.0	4.8	83	3	103
2011008	L	8850	/	13.1	4.8	82	25	103
10/2025		8850	8	13.8	4.8	88 82	18	105
CM-203	S	8840	10	15.3	4.8	81	85	104
M-209	M	8820	11	14.4	4.8	88	3	101
20Y1029	L	8760	12	13.2	4.8	80	0	100
A-202	L	8510	13	15.0	4.8	83	10	99
L-207	L	8400	14	12.6	4.9	82	10	101
M-105	Μ	8210	15	13.1	4.8	80	23	102
18Y3018	Μ	8060	16	17.0	4.8	88	65	108
M-206	М	7950	17	14.4	4.8	83	57	105
M-210	M	7890	18	14.5	4.9	82	70	99
M-521	M	//30	19	15.6	4.9	82	85	99
CJ-201	L	7560	20	13.2	4.8	88	5	92
1872020	5	7520	21	13.4 16.4	4.8 1 9	86 86	02	112
202010	S	7360	22	16.5	4.0	83	98 98	106
CM-101	s	6760	23	14.4	4.8	80	95	95
S-102	s	6730	25	14.4	4.8	82	67	104
89Y235	M	6650	26	12.9	4.7	80	95	103
CA-201	S	6360	27	12.6	4.8	81	85	93
CT-202	L	4880	28	13.4	4.8	88	0	90
MEAN		8140		14.4	4.8	83	51	101
5%LSD		1103		2.2	0.1	2	30	6
CV		8		9.5	0.9	2	37	4
2 Rep Advand	ced Lines	and Var	ieties	10.0	4.0	01	100	101
2012008	5 M	10320	1	10.0	4.9	81 91	100	101
CH-203	S	8810	2	16.6	4.9	84	98	91
M-521	M	8790	4	14.4	4.8	82	50	101
22Y2119	L	8620	5	15.4	4.8	83	90	92
22Y1057	М	8520	6	11.0	4.8	83	0	110
19Y3105	М	7980	7	15.0	4.8	89	25	120
19Y4048	S	7770	8	11.6	4.8	84	5	100
19Y3128	М	7610	9	15.7	4.8	87	10	108
22Y1071	L	7550	10	12.0	4.8	82	3	107
22Y1107	L	7180	11	17.3	5.0	85	98	107
22Y4182	M	6990	12	14.4	4.8	82	35	103
2213087	5	5620	14	7 1	4.8	83	5	115
2211103	L	5020	14	·.1	7.2	05	0	105
MEAN		8000		13.9	4.8	83	44	104
5%LSD		1813		3.2	0.1	1	39	7
CV		11		10.8	0.5	1	41	3
2 Rep Prelim	inary Lin	es and V	arieties					
S-202	S	10480	1	15.5	4.7	81	93	97
20Y2072	S	9490	2	16.5	4.9	85	95	110
22Y3136	M	9490	3	17.1	4.8	90	93	113
2211018	L	9410	4	12.9	4.8	82	5	108
2011009	L	9350	5	13.1	4.9	80	U	98
2011010	L M	9100	7	17.4	4.0	86	80	90 107
22Y1028	1	8950	8	14.0	4.7	80	0	99
M-210	M	8840	9	15.0	4.8	82	45	99
CM-203	S	8650	10	15.5	4.8	82	78	107
22Y3195	M	8110	11	16.8	4.8	87	3	113
22P4074	M	8020	12	12.0	4.8	80	50	100
22Y2159	S	7590	13	13.9	4.9	84	70	110
22Y3043	М	7410	14	12.7	4.8	85	20	114
MEAN		8870		14.7	4.8	83	45	105
5%LSD		1408		2.8	0.1	1	42	7
CV		/		8.9	0.9	1	43	3

 CV
 7
 8.9
 0.9
 1
 43

 5 = short; M = medium; L = long.
 Subjective rating of 1-5 where 1 = poor and 5 = excellent seedling emergence.
 Subjective rating of 0-100 where 0 = none and 100 = completely lodged.
 Subjective rating of 0-100 where 0 = none and 100 = completely lodged.

Grain Yield at 14% Moisture Ibs/ac

			,	Grain				
				Moisture	Seedling	Days to		Plant
	Grain			at Harvest	Vigor	50%	Lodging	Height
Variety	Туре	Yield	Rank	(%)	(1-5)	Heading	(0-100)	(cm)
2011029 M-211	M	9410	2	22.5	4.9	84	20	114
20Y2124	S	8950	4	20.4	4.9	80	52	110
L-208	Ľ	8950	3	19.4	4.8	78	3	106
19Y1018	L	8940	6	18.7	5.0	77	12	108
M-209	М	8940	5	22.0	4.8	84	0	107
L-207	L	8890	7	18.1	4.9	81	14	119
18Y3018	М	8730	8	22.7	4.8	82	7	106
20Y2001	S	8730	9	20.1	5.0	77	29	103
S-202	s	8670	10	19.6	4.9	76	16	99
CJ-201	L	8620	11	16.9	5.0	82	2	107
10/3035	M	8490	12	20.8	4.9	76	28	108
2011008	1	8490	13	18.4	4.5	80	20	117
M-210	M	8320	15	20.8	4.9	77	33	106
CM-203	S	8200	16	20.1	4.9	77	28	111
M-206	м	8150	17	21.0	4.9	77	38	107
18Y3102	м	8090	18	19.7	4.9	79	20	107
M-105	М	7910	19	20.5	4.8	75	31	109
16Y2028	S	7760	20	18.8	5.0	78	81	114
S-102	S	7620	21	14.4	4.9	73	41	105
18Y2070	M	7420	22	21.8	5.0	83	27	119
20Y4033	M	7280	23	23.6	4.9	77	71	109
CM-101	S	6460	24	16.8	4.9	75	43	98
A-202	L	6400	25	20.7	4.9	81	83 07	118
091235 CT-202	IVI J	5640	20 27	19.3	4.9	78 80	97 10	102
C1-202	L C	5270	27	16.2	1.0	79	27	102
CA-201	3	5570	20	10.1	4.5	78	27	33
MEAN		8000		19.5	4.9	79	31	108
5%LSD		973		1.7	0.1	1	25	4
2 Ren Advani	ed lines	13 and Var	rieties	9.1	1.2	2	85	4
20Y2008	S	8960	1	19.7	5.0	75	48	103
19Y3128	M	8850	2	21.5	4.9	84	8	113
22Y1071	L	8780	3	20.6	5.0	82	51	121
22Y1057	L	8700	4	18.0	5.0	82	1	121
19Y4048	м	8590	5	22.0	4.9	80	14	104
19Y3105	м	8400	6	21.9	4.9	83	15	120
M-521	м	8110	7	22.1	4.9	77	40	108
22Y3087	м	7620	8	19.7	4.9	78	26	114
22Y4182	М	7610	9	20.6	4.8	77	33	106
S-102	S	7580	10	15.7	5.0	73	42	103
CH-203	S	7520	11	19.7	5.0	81	8	103
22Y2119	S	7450	12	18.5	5.0	81	27	94
22Y1107	L	5480	13	21.5	5.0	82	75	109
CT-202	L	5330	14	16.5	5.0	81	12	109
MEAN		7790		19.9	4.9	80	29	109
5%LSD		1198		2.1	0.1	2	34	6
CV		13		9.4	1.2	2	105	5
2 Rep Prelim	inary Line	es and V	arieties					
20Y1009	L	10970	1	17.0	4.8	//	35	112
2293195	M	9660	2	22.0	4.8	83	0	114
22Y31/3	M	9530	3	20.7	4.8	85	0	113
2211018	L I	9390	4	18.6	4.9	8U 77	20	119
2011010	M	9220	6	24.0	4.9	83	0	116
S-202	s	9120	7	20.7	4.9	79	õ	96
20Y2072	ŝ	9020	8	20.4	5.0	84	0	103
M-210	м	8920	9	20.1	4.8	77	15	108
22Y3124	м	8750	10	22.1	4.8	80	0	114
22Y3017	м	8500	11	20.1	4.8	79	30	111
22Y3136	м	8470	12	22.7	4.8	85	0	110
22Y2159	S	8330	13	20.2	4.8	79	20	113
22Y3111	м	8260	14	20.9	4.8	77	15	109
22Y3178	м	8250	15	24.1	4.8	82	0	111
22Y3162	м	8250	16	21.1	4.8	75	35	109
22Y3043	M	8080	17	18.8	4.8	81	0	108
22Y1028	L	8040	18	17.5	4.9	79	20	107
2213192	M	8030	19	18.0	4.8	77	65	109
CM. 202	c IVI	7800	∠U 21	10./	4.9	77	0	112
M_211	M	7880	21	22.4	4.9	84	0	115
22Y3144	M	7570	23	20.4	4.9	78	75	114
22Y3198	M	7440	24	21.5	4.9	81	20	115
22P4074	м	7350	25	18.9	4.8	77	50	109
MEAN		8590 1620		20.3	4.8	79	17	110
J70LSD CV		1030 Q		2.5	0.1	2 1	160	2
				0.1	0.0	T	100	٤.

S = short; M = medium; L = long. Subjective rating of 1-5 where 1 = poor and 5 = excellent seedling emergence. Subjective rating of 0-100 where 0 = none and 100 = completely lodged.

		Grain Y	'ield at					
		14% Mo	oisture					
		lbs,	ac	Grain				
				Moisture	Seedling	Days to		Plant
	Grain			at Harvest	Vigor	50%	Lodging	Height
Variety	Туре	Yield	Rank	(%)	(1-5)	Heading	(0-100)	(cm)
S-202	S	10130	1	17.3	4.8	80	100	95
20Y2001	S	10080	2	17.5	4.8	80	93	93
1971018	L 1	9760	3	10.3	4.8	80 79	2	99
20Y1029	L	9560	5	15.4	4.8	80	2	107
20Y1008	L	9470	6	16.7	4.7	83	93	104
CM-203	S	9450	7	17.4	4.8	80	100	104
L-207	L	9380	8	16.3	4.9	82	5	111
20Y4033	M	9080	9	17.7	4.8	82	100	99
IVI-206 M 521		9080	10	17.3	4.7	82	38	98
19Y3035	M	8810	12	17.2	4.8	82	13	100
18Y3018	M	8750	13	18.6	4.8	88	5	105
A-202	L	8750	14	16.9	4.8	86	13	104
CJ-201	L	8610	15	15.0	4.8	86	37	95
M-105	М	8530	16	16.9	4.8	80	80	100
M-211	M	8500	17	17.9	4.8	88	23	104
M-210		8480	18	17.2	4.8	83	/8 E	98
M-209	M	8360	20	17.4	4.8	63 88	23	102
16Y2028	S	8300	21	16.8	4.8	83	70	107
S-102	S	7940	22	14.6	4.8	78	95	96
20Y2124	S	7820	23	17.1	4.9	82	100	102
CM-101	S	7540	24	15.3	4.8	79	98	97
18Y2070	M	7290	25	18.1	4.8	86	78	112
CA-201	S	6990	26	14.4	4.8	82	100	94
691235 CT-202		5650	27	15.5	4.7	86	8	98
C1-202	L .	5050	20	15.5	4.5	80	0	54
MEAN		8590		16.7	4.8	83	54	101
5%LSD		860		0.9	0.1	1	34	5
CV		6		3.3	1.3	1	39	3
2 Rep Advan	ced Lines	and Var	ieties					
21Y2031	M	10120	1	17.1	4.9	80	88	94
2012008	5	9590	2	17.2	4.8	81	75	99
2212113	S	9320	4	16.7	4.8	83	35	110
M-521	M	9310	5	16.9	4.8	82	25	96
CH-203	S	9280	6	17.4	4.9	85	35	93
22Y1071	L	8630	7	15.7	4.9	83	3	109
19Y3128	М	8590	8	17.7	4.8	88	50	108
19Y3105	M	8470	9	17.5	4.8	87	20	108
1914048	5	8270	10	17.1	4.8	80	0	95 105
2211037	M	7770	12	17.2	4.7	82	45	99
22Y1107	L	7570	13	16.9	5.0	85	100	104
22Y1109	L	6820	14	11.9	4.8	80	0	103
MEAN		8650		16.6	4.8	83	38	101
5%LSD		1405		0.6	0.1	2	43	6
2 Rep Prelim	inary Lin	o es and V	arieties	1.8	1.0	1	54	3
S-202	S	11500	1	17.0	4.8	80	75	96
22Y1028	L	10020	2	16.4	4.8	78	0	96
20Y1010	L	10010	3	15.6	4.8	79	10	96
20Y2072	S	9990	4	17.4	4.8	84	70	101
22Y1018	L	9890	5	15.8	4.8	82	28	109
20Y1009	L	9660	6	15.2	4.8	79	5	95
ZZY31/3	IVI د	9500	/ 0	18.2	4.8	88	0	103
203 2272192	5 M	9010	ð Q	16.0	4.8 4.8	80 84	98 95	100
22Y3178	M	8990	10	18.7	4.8	83	15	103
22Y3073	M	8980	11	18.0	4.8	88	0	104
22Y3162	M	8890	12	17.5	4.8	81	100	97
M-211	М	8610	13	17.5	4.9	86	0	101
22Y2159	S	8000	14	17.1	4.7	83	50	100
		0450		17.0	4.9	02	20	100
S%ISD		9460 867		11	4.8 0.1	82 3	39	8 100
CV		4		3.0	1.0	2	42	4

4

S = short; M = medium; L = long. Subjective rating of 1-5 where 1 = poor and 5 = excellent seedling emergence. Subjective rating of 0-100 where 0 = none and 100 = completely lodged.

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		Grain Y	'ield at					
		14% Mo	oisture					
		lbs,	ac	Crain				
				Moisture	Seedling	Days to		Plant
	Grain			at Harvest	Vigor	50%	Lodging	Height
Variety	Туре	Yield	Rank	(%)	(1-5)	Heading	(0-100)	(cm)
S-202	S	10720	1	16.7	4.6	83	8	105
L-208	L	10640	2	17.1	4.8	83	0	92
2022001	S	10400	3 4	17.8	4.0	82 83	28	90
L-207	Ĺ	10220	5	17.0	4.9	87	13	106
20Y1008	L	10130	6	17.8	4.7	85	20	107
20Y1029	L	9940	7	16.8	4.8	83	0	103
CM-203	S	9730	8	18.4	4.8	85	13	104
20Y2124	S	9570	9	18.8	4.7	85	/8	108
18Y3102	M	9280	11	19.0	4.7	90 86	0	105
20Y4033	M	9220	12	19.1	4.8	86	7	102
M-211	М	9100	13	18.5	4.8	91	0	101
M-105	М	9000	14	18.5	4.8	83	0	100
M-209	M	8960	15	19.2	4.7	91	0	96
M-206	M s	8890	16 17	18.8	4.8	84	0 52	103
S-102	S	8780	18	14.8	4.8	80 80	20	96
CJ-201	Ľ	8560	19	16.7	4.8	91	0	90
A-202	L	8420	20	17.0	4.8	84	0	101
19Y3035	М	8410	21	19.4	4.7	85	20	102
M-521	М	8410	22	19.1	4.8	84	0	99
M-210	M	8340	23	19.0	4.9	85	0	96
1812070 89V235	M	7680	24	19.1	4.7	89	77	115
CM-101	S	7370	26	16.3	4.8	82	67	97
CA-201	S	6950	27	17.0	4.8	88	63	95
CT-202	L	5860	28	15.9	5.0	88	0	92
MEAN		8970		17.9	4.8	85	17	100
5%LSD		901		1.1	0.1	2	29	3
2 Rep Advan	ced Lines	and Var	ieties	5.0	1.0	1	104	5
20Y2008	S	10480	1	16.5	4.8	83	10	106
22Y1071	L	9640	2	16.7	4.9	85	0	112
19Y3128	М	9500	3	19.2	4.8	91	5	103
21Y2031	M	9480	4	17.4	4.9	83	25	100
2271037	S	8950	5	17.8	4.9	04 86	0	103
CH-203	S	8900	7	18.0	4.8	87	13	94
19Y3105	М	8850	8	18.5	4.8	92	0	106
22Y4182	М	8430	9	18.7	4.8	86	0	102
M-521	M	8340	10	18.1	4.8	84	0	92
2272119	L	8290	11	17.4	4.8	88	0	97
22Y1107	3	7960	13	17.2	4.8	86	48	96
22Y1109	L	7690	14	11.7	5.0	82	0	98
MEAV		8840		17.3	4.8	86	7	101
5%LSD		1046		1.3	0.1	2	29	8
2 Rep Prelim	inary Lin	o es and V	arieties	3.5	0.9	1	191	4
20Y1010	L	10820	1	16.9	4.8	80	0	94
S-202	S	10820	2	18.2	4.8	81	3	107
20Y1009	L	10760	3	16.9	4.9	79	0	97
22Y1028	L	10750	4	17.0	4.8	83	0	102
2211018	L C	10380	5	17.6	4.9	84 80	U 40	101
CM-2012	S	9960	7	18.8	4.0	83	40	101
22Y3178	M	9530	8	19.4	4.8	92	10	104
M-211	М	9410	9	19.0	4.9	90	0	102
22Y3173	Μ	9330	10	19.5	4.8	92	0	101
22Y2159	S	9310	11	16.8	4.7	87	95	106
22130/3	M	8950	12	19.2	4.8	92	U	108
2213192 22Y3162	M	8710	13 14	18.6	4.9	60 80	0	100
22,0102		0,10	14	10.0	1.0	00	<u> </u>	100
MEAN		9860		18.0	4.8	85	11	103
5%LSD		1122		1.0	0.1	2	33	8
CV		5		2.6	1.3	1	145	4

		Grain	· ·					
		14% Mo	oisture ,					
		IDS/	ac	Grain				
				Moisture	Seedling	Days to		Plant
	Grain			at Harvest	Vigor	50%	Lodging	Height
Variety	Type	Yield	Rank	(%)	(1-5)	Heading	(0-100)	(cm)
19Y1018	L	10990	1	16.3	4.8	87	37	108
L-208	L	10830	2	16.6	4.8	86	3	106
20Y2001	S	10590	3	15.9	4.8	83	100	107
16Y2028	S	10490	4	16.6	4.8	87	100	120
S-202	S	10400	5	12.8	4.7	83	100	109
A-202	L	10310	6	16.9	4.7	87	3	117
L-207	L	10250	7	16.5	4.8	88	30	121
20Y1029	L	10190	8	16.3	4.7	86	7	117
CM-203	S	10190	9	17.3	4.8	87	97	116
M-206	M	10010	10	16.4	4./	8/	100	113
IVI-211	IVI	9880	11	14.7	4.8	91	100	118
10/2025	L	9820	12	16.9	4.7	80	90	480
CI-201	1	9700	14	14.8	4.7	91	5	103
M-105	M	9690	15	14.0	4.8	86	100	111
M-209	M	9670	16	13.9	4.7	92	97	111
M-521	М	9500	17	16.6	4.8	87	100	115
18Y3102	М	9480	18	17.0	4.7	86	17	111
M-210	М	9430	19	16.8	4.8	87	98	115
18Y3018	М	9130	20	16.6	4.8	92	98	112
20Y2124	S	8920	21	12.4	4.8	89	98	116
20Y4033	М	8770	22	15.1	4.8	88	100	117
18Y2070	М	8390	23	16.7	4.8	87	97	125
S-102	S	8390	24	14.3	4.8	82	28	106
CM-101	S	8000	25	16.0	4.8	82	97	107
CA-201	S	7880	26	15.1	4.8	85	68	108
89Y235	M	7700	27	15.8	4.8	84	100	115
CT-202	L	6570	28	13.7	4.8	88	13	112
MEAN		0460		15.6	4.0	07	71	100
		9460		15.0	4.8	8/	71	120
5%LSD		5		1.5	1.2	1	27	197
CV.		9		5.5	1.2	1	24	55
2 Ren Advan	red Lines	and Var	ieties					
2 Rep Advand 21Y2031	ced Lines M	and Var 11580	ieties 1	16.2	4.9	83	100	113
2 Rep Advand 21Y2031 20Y2008	ced Lines M S	<i>and Var</i> 11580 10230	ieties 1 2	16.2 14.2	4.9 4.8	83 85	100 100	113 109
2 Rep Advand 21Y2031 20Y2008 M-521	ced Lines M S M	and Var 11580 10230 10100	ieties 1 2 3	16.2 14.2 15.9	4.9 4.8 4.8	83 85 87	100 100 100	113 109 116
2 Rep Advand 21Y2031 20Y2008 M-521 22Y1071	<u>ced Lines</u> M S M L	and Var 11580 10230 10100 9940	ieties 1 2 3 4	16.2 14.2 15.9 16.9	4.9 4.8 4.8 4.7	83 85 87 89	100 100 100 95	113 109 116 76
2 Rep Advand 21Y2031 20Y2008 M-521 22Y1071 19Y3105	<u>ced Lines</u> M S M L M	and Var 11580 10230 10100 9940 9680	ieties 1 2 3 4 5	16.2 14.2 15.9 16.9 14.1	4.9 4.8 4.8 4.7 4.8	83 85 87 89 93	100 100 100 95 98	113 109 116 76 121
2 Rep Advand 21Y2031 20Y2008 M-521 22Y1071 19Y3105 22Y1057	<u>ced Lines</u> M S M L M M	and Var 11580 10230 10100 9940 9680 9520	<u>ieties</u> 1 2 3 4 5 6	16.2 14.2 15.9 16.9 14.1 15.2	4.9 4.8 4.8 4.7 4.8 4.8 4.8	83 85 87 89 93 87	100 100 95 98 0	113 109 116 76 121 122
2 Rep Advand 21Y2031 20Y2008 M-521 22Y1071 19Y3105 22Y1057 22Y2119	<u>ced Lines</u> M S M L M M L	and Var 11580 10230 10100 9940 9680 9520 9450	<u>ieties</u> 1 2 3 4 5 6 7	16.2 14.2 15.9 16.9 14.1 15.2 16.0	4.9 4.8 4.8 4.7 4.8 4.8 4.8 4.9	83 85 87 89 93 87 85	100 100 95 98 0 100	113 109 116 76 121 122 104
2 Rep Advand 21Y2031 20Y2008 M-521 22Y1071 19Y3105 22Y1057 22Y2119 CH-203	Ced Lines M S M L M M L S	and Var 11580 10230 10100 9940 9680 9520 9450 9190	<u>ieties</u> 1 2 3 4 5 6 7 8	16.2 14.2 15.9 16.9 14.1 15.2 16.0 17.1	4.9 4.8 4.7 4.8 4.7 4.8 4.8 4.9 4.8	83 85 87 89 93 87 85 86	100 100 95 98 0 100 98	113 109 116 76 121 122 104 103
2 Rep Advant 21Y2031 20Y2008 M-521 22Y1071 19Y3105 22Y1057 22Y2119 CH-203 22Y3087	Ced Lines M S M L M M L S S	and Var 11580 10230 10100 9940 9680 9520 9450 9190 9050	ieties 1 2 3 4 5 6 7 8 9	16.2 14.2 15.9 16.9 14.1 15.2 16.0 17.1 17.4	4.9 4.8 4.8 4.7 4.8 4.8 4.8 4.9 4.8 4.8	83 85 87 89 93 87 85 86 88	100 100 95 98 0 100 98 65	113 109 116 76 121 122 104 103 127
2 Rep Advant 21Y2031 20Y2008 M-521 22Y1071 19Y3105 22Y1057 22Y2119 CH-203 22Y3087 19Y4048	med Lines M S M L M L S S S S	and Var 11580 10230 10100 9940 9680 9520 9450 9190 9050 9030 2750	ieties 1 2 3 4 5 6 7 8 9 10	16.2 14.2 15.9 16.9 14.1 15.2 16.0 17.1 17.4 15.7	4.9 4.8 4.8 4.7 4.8 4.8 4.9 4.8 4.8 4.8 4.8 4.8	83 85 87 89 93 87 85 86 88 92	100 100 95 98 0 100 98 65 100	113 109 116 76 121 122 104 103 127 109
2 Rep Advant 21Y2031 20Y2008 M-521 22Y1071 19Y3105 22Y1057 22Y2119 CH-203 22Y3087 19Y4048 19Y3128	med Lines M S M L M M L S S S S S M	and Var 11580 10230 10100 9940 9680 9520 9450 9190 9050 9050 8750 8750	ieties 1 2 3 4 5 6 7 8 9 10 11 12	16.2 14.2 15.9 16.9 14.1 15.2 16.0 17.1 17.4 15.7 16.2 16.2	4.9 4.8 4.7 4.8 4.8 4.8 4.9 4.8 4.8 4.8 4.8 4.8	83 85 87 89 93 87 85 86 88 92 92 92	100 100 95 98 0 100 98 65 100 100	113 109 116 76 121 122 104 103 127 109 113
2 Rep Advant 21Y2031 20Y2008 M-521 22Y1071 19Y3105 22Y1057 22Y2119 CH-203 22Y3087 19Y4048 19Y3128 22Y4182 22Y4182	ced Lines M S M L M M L S S S S M M	and Var 11580 10230 10100 9940 9680 9520 9450 9190 9050 9030 8750 8660 8100	ieties 1 2 3 4 5 6 7 8 9 10 11 12 12	16.2 14.2 15.9 16.9 14.1 15.2 16.0 17.1 17.4 15.7 16.2 16.3 16.2	4.9 4.8 4.7 4.8 4.8 4.8 4.9 4.8 4.8 4.8 4.8 4.8 4.8	83 85 87 89 93 87 85 86 88 92 92 92 88	100 100 95 98 0 100 98 65 100 100 100	113 109 116 76 121 122 104 103 127 109 113 114
2 Rep Advant 21/2031 20/2008 M-521 22/1071 19/3105 22/1057 22/2119 CH-203 22/3087 19/4048 19/3128 22/4182 22/1109	ned Lines M S M L M L S S S S M M L L	and Var 11580 10230 10100 9940 9680 9520 9450 9190 9050 9030 8750 8600 8100 7920	ieties 1 2 3 4 5 6 7 8 9 10 11 12 13 14	16.2 14.2 15.9 16.9 14.1 15.2 16.0 17.1 17.4 15.7 16.2 16.3 16.3 12.3	4.9 4.8 4.7 4.8 4.7 4.8 4.8 4.8 4.8 4.8 4.8 4.8 4.8 4.8 4.8	83 85 87 93 87 85 86 88 92 92 88 88 89 82	100 100 95 98 0 100 98 65 100 100 100 100 100 25	113 109 116 76 121 122 104 103 127 109 113 114 124 116
2 Rep Advant 21Y2031 20Y2008 M-521 22Y1071 19Y3105 22Y1057 22Y21057 22Y2105 22Y3087 19Y4048 19Y3128 22Y4182 22Y4182 22Y1107 22Y1109	med Lines M S M L M L S S S S M M L L L	and Var 11580 10230 10100 9940 9520 9450 9450 9450 9050 9030 8750 8660 8100 7920	ieties 1 2 3 4 5 6 7 8 9 10 11 12 13 14	$\begin{array}{c} 16.2 \\ 14.2 \\ 15.9 \\ 16.9 \\ 14.1 \\ 15.2 \\ 16.0 \\ 17.1 \\ 17.4 \\ 15.7 \\ 16.2 \\ 16.3 \\ 16.3 \\ 12.3 \end{array}$	4.9 4.8 4.7 4.8 4.7 4.8 4.9 4.8 4.8 4.8 4.8 4.8 4.8 4.8 4.8 4.8	83 85 87 89 93 87 85 86 88 92 92 88 89 89 86	100 100 95 98 0 100 98 65 100 100 100 100 25	113 109 116 76 121 122 104 103 127 109 113 114 124 116
2 Rep Advant 21/2031 20/2008 M-521 22/1071 19/3105 22/21057 22/2119 CH-203 22/3087 19/4048 19/3128 22/4182 22/1107 22/21109 MEAN	med Lines M S M L M L S S S S M M L L	and Var 11580 10230 10100 9940 9520 9450 9450 9450 9050 9030 8750 8660 8100 7920 9370	ieties 1 2 3 4 5 6 7 8 9 10 11 12 13 14	16.2 14.2 15.9 16.9 14.1 15.2 16.0 17.1 17.4 15.7 16.2 16.3 16.3 12.3	4.9 4.8 4.7 4.8 4.7 4.8 4.8 4.8 4.8 4.8 4.8 4.8 4.8 4.8 4.8	83 85 87 89 93 87 85 86 88 92 92 88 88 89 86 88	100 100 95 98 0 100 98 65 100 100 100 100 25 84	113 109 116 76 121 122 104 103 127 109 113 114 124 116 112
2 Rep Advant 21Y2031 20Y2008 M-521 22Y1071 19Y3105 22Y1057 22Y2119 CH-203 22Y3087 19Y4048 19Y3128 22Y4182 22Y1107 22Y1109 MEAN 5%LSD	med Lines M S M L M L S S S S M M L L L	and Var 11580 10230 10100 9940 9680 9520 9450 9190 9030 8750 8660 8100 7920 9370 1266	ieties 1 2 3 4 5 6 7 8 9 10 11 12 13 14	16.2 14.2 15.9 16.9 14.1 15.2 16.0 17.1 17.4 15.7 16.2 16.3 16.3 12.3 15.7 2.1	4.9 4.8 4.8 4.7 4.8 4.8 4.8 4.8 4.8 4.8 4.8 4.8 4.8 4.8	83 85 87 89 93 87 85 86 88 92 92 88 89 86 88 89 86 88 82	100 100 95 98 0 100 98 65 100 100 100 100 25 84 7	113 109 116 76 121 122 104 103 127 109 113 114 124 116 112 42
2 Rep Advant 21Y2031 20Y2008 M-521 22Y1071 19Y3105 22Y1057 22Y2119 CH-203 22Y3087 19Y4048 19Y3128 22Y4182 22Y1107 22Y1109 MEAN 5%LSD CV	nt s M S M L M M L S S S M M L L	and Var 11580 10230 10100 9940 9680 9520 9450 9190 9050 9030 8750 8660 8100 7920 9370 1266 6	ieties 1 2 3 4 5 6 7 8 9 10 11 12 13 14	16.2 14.2 15.9 16.9 14.1 15.2 16.0 17.1 17.4 15.7 16.2 16.3 12.3 15.7 2.1 6.3	4.9 4.8 4.7 4.8 4.7 4.8 4.9 4.8 4.8 4.8 4.8 4.8 4.8 4.8 4.8 4.8 4.8	83 85 87 89 93 87 85 86 88 92 92 88 89 86 88 89 86 2 1	100 100 95 98 0 100 98 65 100 100 100 100 100 25 84 7 4	113 109 116 76 121 122 104 103 127 109 113 114 124 116 112 42 17
2 Rep Advant 21Y2031 20Y2008 M-521 22Y1071 19Y3105 22Y2119 CH-203 22Y2119 CH-203 22Y3087 19Y4048 19Y3128 22Y4182 22Y1109 MEAN 5%LSD CV 2 Rep Prelim	red Lines M S M L M L S S S M L L L	and Var 11580 10230 10100 9940 9680 9520 9450 9190 9050 9050 9030 8750 8660 8100 9370 1266 6 es and Var	ieties 1 2 3 4 5 6 7 8 9 10 11 12 13 14 arrieties	$\begin{array}{c} 16.2 \\ 14.2 \\ 15.9 \\ 16.9 \\ 14.1 \\ 15.2 \\ 16.0 \\ 17.1 \\ 17.4 \\ 15.7 \\ 16.2 \\ 16.3 \\ 12.3 \\ 15.7 \\ 2.1 \\ 6.3 \end{array}$	4.9 4.8 4.7 4.8 4.9 4.8 4.8 4.8 4.8 4.8 4.8 4.8 4.8 4.8 4.8	83 85 87 89 93 87 85 86 88 92 92 88 89 86 88 82 1	100 100 95 98 0 100 98 65 100 100 100 100 25 84 7 4	113 109 116 76 121 122 104 103 127 109 113 114 124 116 112 42 17
2 Rep Advant 21Y2031 20Y2008 M-521 22Y1071 19Y3105 22Y1057 22Y1057 22Y1057 22Y1057 22Y1057 22Y1057 22Y1057 22Y1057 22Y1057 22Y1017 22Y107 22Y107 22Y1109 MEAN 5%LSD CV 2 Rep Prelim 22Y1018	inary Line inary Line	and Var 11580 10230 9940 9940 9940 9950 9450 9190 9050 9050 8750 8660 8100 7920 9370 1266 <u>6</u> es and V. 12000	ieties 1 2 3 4 5 6 7 8 9 10 11 12 13 14 arieties 1	16.2 14.2 15.9 16.9 14.1 15.2 16.0 17.1 17.4 15.7 16.2 16.3 16.3 12.3 15.7 2.1 6.3	4.9 4.8 4.7 4.8 4.7 4.8 4.8 4.8 4.8 4.8 4.8 4.8 4.8 4.8 4.8	83 85 87 89 93 87 85 86 88 92 92 88 89 86 88 88 2 1 88 88 2 5 88	100 100 95 98 0 100 98 65 100 100 100 100 25 84 7 4 40	113 109 116 76 121 122 104 103 127 109 113 114 124 116 112 42 17 128
2 Rep Advant 21Y2031 20Y2008 M-521 22Y1071 19Y3105 22Y1057 22Y2109 CH-203 22Y3087 19Y4048 19Y3128 22Y4182 22Y1107 22Y1109 MEAN 5%LSD CV 2 Rep Prelim 22Y1018 22Y1018 22Y1028	eed Lines M S M L M L S S S S M M L L L	and Var 11580 10230 9940 9940 9940 9950 9450 9190 9050 9050 8750 8660 8100 7920 9370 1266 6 es and Var 12000 11580	ieties 1 2 3 4 5 6 7 8 9 10 11 12 13 14 arieties 1 2	16.2 14.2 15.9 16.9 14.1 15.2 16.0 17.1 17.4 15.7 16.2 16.3 16.3 12.3 15.7 2.1 6.3 17.4 14.0	4.9 4.8 4.7 4.8 4.7 4.8 4.8 4.8 4.8 4.8 4.8 4.8 4.8 4.8 4.8	83 85 87 89 93 87 85 86 88 92 92 88 89 86 88 89 86 88 2 1 1 88 88 2 88 88 88 2 1	100 100 95 98 0 100 98 65 100 100 100 100 25 84 7 4 4 7 4	113 109 116 76 121 122 104 103 127 109 113 114 124 116 112 42 17 128 108
2 Rep Advant 21Y2031 20Y2008 M-521 22Y1071 19Y3105 22Y1057 22Y1057 22Y3087 19Y4048 19Y3128 22Y4182 22Y1107 22Y1109 MEAN 5%LSD CV 2 Rep Prelim 22Y1028 20Y1010	eed Lines M S M L S S S S M L L L L L	and Var 11580 10230 9940 9940 9520 9450 9450 9450 9450 9450 9450 9450 8460 8100 7920 9370 1266 6 es and Var 12000 11580 11530	ieties 1 1 2 3 4 5 6 7 8 9 10 11 12 13 14 arietiess 1 2 3	16.2 14.2 15.9 16.9 14.1 15.2 16.0 17.1 17.4 15.7 16.3 16.3 15.7 2.1 6.3 17.4 14.0 16.3	4.9 4.8 4.7 4.8 4.7 4.8 4.8 4.8 4.8 4.8 4.8 4.8 4.8 4.8 4.8	83 85 87 89 93 87 85 86 88 92 92 88 89 86 88 89 86 88 2 1 1 88 88 2 5	100 100 95 98 0 100 98 65 100 100 100 100 100 25 84 7 4 4 40 5 8	113 109 116 76 121 122 104 103 127 109 113 114 124 116 112 42 17 128 108 109
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		lbs,	ac	Casia				
				Moisture	Seedling	Days to		Plant
	Grain			at Harvest	Vigor	50%	Lodging	Height
Variety	Type	Yield	Rank	(%)	(1-5)	Heading	(0-100)	(cm)
L-208	Ĺ	10460	1	14.2	4.7	83	95	95
19Y1018	L	10270	2	14.3	4.8	85	95	96
20Y2001	S	10020	3	14.0	4.8	86	100	97
S-202	S	9890	4	13.5	4.8	85	98	102
20Y1029	L	9840	5	15.0	4.8	85	97	103
1642028	S	9740	6	14.9	4.8	86	100	106
IVI-105	IVI	9400	/	14.7	4.7	84	100	101
A 202	3	9340	0	15.6	4.0	00 97	05	106
1-202	i	9170	10	15.0	4.8	90	95	105
M-521	M	9140	11	13.7	4.8	87	95	98
M-211	М	9110	12	14.5	4.8	91	100	99
18Y3102	М	9020	13	15.9	4.8	86	47	96
M-209	М	8870	14	15.7	4.8	91	100	97
19Y3035	М	8830	15	14.1	4.8	86	100	100
20Y2124	S	8790	16	14.4	4.8	88	100	107
CJ-201	L	8690	17	12.5	4.8	94	63	86
20Y1008	L	8680	18	14.4	4.7	88	98	107
M-210	M	8670	19	14.9	4.9	87	98	101
2014033	IVI	8580	20	13.4	4.8	88	100	105
1813018		8470	21	15.1	4.8	92	98	101
CM-101	S	7600	22	12.7	4.0	83	100	96
S-102	s	7400	23	13.0	4.8	82	100	103
CA-201	S	7290	25	14.5	4.8	85	97	97
18Y2070	M	7260	26	14.2	4.8	91	100	110
89Y235	М	6990	27	13.4	4.7	87	100	103
CT-202	L	5360	28	13.3	4.9	93	3	91
MEAN		8740		14.3	4.8	87	92	101
5%LSD		577		1.9	0.1	2	12	5
CV		4		8.1	0.9	1	8	3
2 Rep Advand	ed Lines	and Var	ieties	45.6	10	07	02	442
2211071	L	10530	1	15.6	4.8	8/	93	112
2012008	М	9720	2	14.0	4.9	0/ 9/	100	99
2272031	1	9370	4	13.8	4.0	87	95	93
CH-203	s	9320	5	15.9	4.9	91	98	96
19Y3128	М	9310	6	14.1	4.8	93	100	104
19Y4048	S	8700	7	15.0	4.7	91	98	94
22Y3087	S	8440	8	16.3	4.8	87	95	116
19Y3105	М	8340	9	13.4	4.8	92	95	105
22Y4182	М	8140	10	14.2	4.8	87	98	97
22Y1057	М	7580	11	14.2	4.8	89	25	106
M-521	M	7040	12	15.6	4.8	87	95	98
22Y1107	L	6410	13	16.9	4.9	90	98	112
2211109	L	0380	14	12.5	4.8	91	93	109
ΜΕΔΥ		8490		14 7	4 8	88	91	102
5%I SD		1787		1.5	0.1	3	21	7
CV		10		4.6	1.1	2	11	3
2 Rep Prelimi	inary Lin	es and V	arieties					
20Y1010	L	10290	1	13.3	4.8	85	98	98
S-202	S	10220	2	14.3	4.8	85	98	97
22Y1018	L	10010	3	14.1	4.8	89	98	112
22Y1028	L	9560	4	14.1	4.8	87	100	98
20Y2072	s ·	9450	5	15.4	4.9	93	100	106
ZUY1009	L c	9410	6 7	16.0	4.8	84	100	95
CIVI-203	5	9130	/ 9	16.2	4.8	87 80	100	109
ZZT3U17	IVI N/	8010	٥ ۵	13.6	4.ð ∕I 9	88	100	700
22772111	M	8940	9 10	14.8	4.0 1 8	00 88	100	22 105
2273111	M	8070	11	16.4	4.0	89	100	108
22Y3130	M	8010	12	16.4	4.8	86	98	106
22Y2159	S	7980	13	13.7	4.8	89	100	105
22Y3198	M	6920	14	16.6	4.9	92	98	110
MEAN		9000		15.0	4.8	88	99	104
5%LSD		1149		2.0	0.1	3	4	4
CV		6		6.2	1.1	2	2	2

		Grain Y	'ield at					
		14% Mo	oisture					
		lbs,	/ac					
				Grain	C	Davis		Disert
	Grain			Moisture	Vigor	Days to	Lodging	Plant
Variety	Type	Vield	Rank	(%)	(1-5)	Heading	(0-100)	(cm)
1-208	1	11570	1	17.7	4.9	108	0	90
A-202	Ē	10750	2	15.9	5.0	114	0	103
89Y235	М	10740	3	18.1	5.0	109	0	97
L-207	L	10710	4	15.9	5.0	114	0	99
16Y2028	S	10480	5	18.1	5.0	113	0	97
18Y2070	М	10420	6	20.4	5.0	111	0	106
S-202	S	10280	7	19.9	4.9	112	0	98
201008	L	10210	8	16.8	4.9	111	0	98
1911018	L	10180	9	17.6	5.0	112	0	97
2012124	M	10170	10	25.4 19.9	5.0	110	0	98
2014033	S	10000	12	18.8	49	111	0	94
20Y1029	Ľ	9820	13	16.4	4.9	111	0	94
CM-203	s	9710	14	20.1	4.9	111	0	97
S-102	S	9550	15	16.3	4.9	107	0	91
M-211	М	9500	16	18.9	5.0	113	0	96
M-206	М	9490	17	18.0	4.9	109	0	95
M-210	М	9370	18	19.3	5.0	109	0	92
18Y3018	М	9330	19	19.6	4.9	113	0	107
18Y3102	м	9140	20	22.1	4.9	109	0	100
CM-101	S	8940	21	16.4	4.9	109	0	97
IVI-209		8900	22	19.2	5.0	114	0	97
1913035 M 105	N	8360 9310	25	18.7	4.9	109	0	90
CI-201	1	8050	24	19.0	5.0	117	0	94
M-521	M	7670	26	17.3	5.0	110	0	88
CA-201	S	7480	27	17.1	4.9	110	0	101
CT-202	L	7160	28	15.9	4.9	112	0	96
MEAN		9520		18.4	4.9	111	0	97
5%LSD		1295		1.3	0.1	2	0	9
CV		8		4.2	1.1	1	0	6
2 Rep Advand	ed Lines	and Var	ieties	47.0	5.0	100	0	
2012008	5	11520	1	17.8	5.0	109	0	99
2211037	M	10700	2	16.5	5.0	108	0	100
2272031	1	10320	4	17.0	5.0	111	0	95
22Y3087	S	9660	5	18.3	5.0	110	0	104
19Y3105	м	9410	6	18.8	4.9	113	0	100
22Y1071	L	9350	7	17.1	5.0	114	0	98
CH-203	S	9270	8	17.6	4.9	114	0	95
22Y1107	L	9030	9	19.5	5.0	115	0	99
19Y3128	М	8970	10	17.8	5.0	113	0	98
22Y1109	L	8080	11	17.2	5.0	115	0	105
M-521	M	7970	12	1/./	5.0	109	0	94
1914048	5	7680	13	18.2	5.0	113	0	91
2214102	141	/ 500	14	10.9	4.3	111	0	50
MEAN		9320		17.7	5.0	112	0	97
5%LSD		1724		2.0	0.1	2	0	11
CV		9		5.4	1.1	1	0	5
2 Rep Prelimi	inary Lin	es and V	arieties					
20Y2072	S	11560	1	22.9	5.0	116	0	97
22Y1018	L	10470	2	16.9	5.0	109	0	95
20Y1009	L	10180	3	16.5	5.0	111	0	93
20Y1010	L	10120	4	16.8	5.0	111	0	89
CIVI-203	5	10070	5	10 1	5.0	110	U	00
3-202 2272111	5	10070	7	10.1	4.9	110	0	103
M-210	M	9490	8	18.8	5.0	112	0	97
22Y3017	M	9360	9	17.8	5.0	111	0	95
22Y1028	L	9000	10	16.7	5.0	113	0	88
22Y3144	м	8810	11	18.7	5.0	112	0	98
22Y2159	S	8580	12	21.4	5.0	113	0	106
22Y3130	М	7940	13	18.9	5.0	109	0	99
22Y3198	Μ	7630	14	21.9	5.0	115	0	100
		0500		46.5	5.0		c	06
IVIEAN		9520		18.8	5.0	111	U	96 11
CV		7		4.5	0.9	2	0	5
						-	-	

S = short; M = medium; L = long. Subjective rating of 1-5 where 1 = poor and 5 = excellent seedling emergence. Subjective rating of 0-100 where 0 = none and 100 = completely lodged.

		Grain \	/ield at					
		14% M	oisture /ac					
		IDS	/ac	Grain				
				Moisture	Seedling	Days to		Plant
	Grain			at Harvest	Vigor	50%	Lodging	Height
Variety	Туре	Yield	Rank	(%)	(1-5)	Heading	(0-100)	(cm)
20Y2001	S	9560	1	13.3	4.8	84	100	92
5-202 20V1029	5	9110 8700	2	12.5	4.8	84 83	38	88 101
1-207	i i	8600	4	13.1	4.8	84	50	101
M-105	M	8520	5	13.4	4.8	79	98	89
L-208	L	8500	6	13.2	4.8	84	20	88
19Y1018	L	8420	7	12.4	4.8	85	30	86
M-521	М	8410	8	12.2	4.8	80	100	92
M-206	M	8320	9	14.6	4.8	80	93	96
M-210	IVI I	8300	10	13.7	4.8	81	93	91
2074033	M	8270	12	13.8	4.0	79	100	92
19Y3035	M	8210	13	13.8	4.8	81	87	93
18Y3018	м	8130	14	14.3	4.8	84	92	99
18Y3102	М	8120	15	14.3	4.8	83	83	94
M-209	М	7980	16	14.0	4.8	85	78	95
CM-203	S	7970	17	14.5	4.8	86	90	102
A-202	L	7900	18	14.2	4.8	84	70	92
20Y2124	S	7850	19	12.6	4.8	85	100	91
201008	L	7760	20	13.8	4./	84	98	105
CM 101	IVI S	7550	21	10.0	4.9	83	85 100	90
S-102	S	7300	22	10.0	4.8	80	98	94
16Y2028	s	7080	24	12.7	4.9	84	100	97
18Y2070	M	6990	25	13.7	4.8	85	100	108
89Y235	М	6600	26	11.9	4.8	83	98	101
CA-201	S	6440	27	10.3	4.7	85	100	88
CT-202	L	5540	28	11.6	4.9	86	35	93
		7000		40.0				05
MEAN		7930		12.9	4.8	83	81	95
5%LSD		/19		2.1	0.1	1	32	7
2 Rep Advan	ced Lines	and Va	ieties	5.7	1.0	1	24	
20Y2008	S	8970	1	14.2	4.8	86	85	87
22Y2119	L	8520	2	12.6	4.8	84	60	92
22Y1071	L	8420	3	13.3	4.8	86	60	112
CH-203	S	7990	4	15.2	4.8	84	35	92
M-521	М	7980	5	14.0	4.8	81	39	94
19Y3105	M	7910	6	13.9	4.8	85	95	103
2211057	IVI N4	7910	/	13.1	4.8	86	0	109
2214182	IVI M	7750	0	14.8	4.8	04 85	75	95 101
22Y3087	S	7170	10	13.5	4.8	84	50	107
19Y4048	S	7140	11	14.6	4.8	84	30	95
21Y2031	м	6820	12	11.6	5.0	84	95	97
22Y1109	L	6790	13	9.1	4.9	83	55	105
22Y1107	L	4810	14	13.6	4.9	83	93	95
		7500		10.5			62	00
MEAV		1767		13.5	4.8	84	62	99
5%LSD CV		11		3.5 11 Q	0.1	1	01 46	11 5
2 Rep Prelim	inary Lin	es and V	arieties		0.0	-	10	
22Y1028	L	9820	1	12.0	4.8	83	15	97
S-202	S	9130	2	12.8	4.8	84	100	93
20Y1010	L	8990	3	12.3	4.9	84	75	95
20Y1009	L	8660	4	12.4	4.8	84	20	89
CM-203	S	8620	5	16.5	4.8	86	60	103
22Y1018	L	8530	6	16.0	4.8	83	/5	108
20Y2072	5	8350	/	12.0	4.9	86	200	99
1VI-210 22V2150	IVI C	635U 8720	0	12.9	4.9	84	35 100	95 102
2212139	M	8040	, 10	14.1	4.0 1 8	8/1	55	100
22Y3111	M	7960	11	15.8	4.8	84	75	107
22Y3130	M	7550	12	15.2	4.8	83	35	103
22Y3144	М	7380	13	14.2	4.8	83	65	96
22Y3198	М	5530	14	16.3	4.8	85	95	101
								0.5
MEAN		8360		14.0	4.8	84	65	99
5%LSD CV		1290		2.U 5 a	0.1	2	02 44	13
				5.5	0.7	*		~

Table 13. Grain Yield	(lb./acre	@14% mois	ture) Summ	nary Rice Va	rieties by L	ocation and	Year (2019-2023)
Location	Year	M105	M206	M209	M210	M211	M521
N. Dutto	2010	0820	0520	0260	10020	10060	0200
N. Dutte	2019	10200	9520	10200	20020	10570	9530
	2020	7620	7420	20390 8460	0040 9970	0200	9070
	2021	9040	7940	8060	8200	9200	9120
	2022	8530	9080	8360	8480	8500	9000
	2025	0550	5000	0500	0400	0500	5000
Location Mean		9042	8686	9086	8882	9518	8906
S. Butte	2019	9220	9120	8740	9820	8930	9200
	2020	9640	9490	9630	9660	9910	9350
	2021	9460	9260	9050	9510	8420	9010
	2022	9090	9460	9180	9330	9050	8970
	2023	9010	8890	8960	8340	9100	8410
Location Mean		9284	9244	9112	9332	9082	8988
Colusa	2019	9430	9320	8960	9100	9830	9070
	2020	8850	8820	9040	8950	8760	8490
	2021	10470	9690	10180	9480	9400	9440
	2023	8390	7920	8760	8220	8470	8470
Location Mean		9285	8938	9235	8938	9115	8868
Glenn	2019	9940	9310	10080	9490	9460	9680
	2020	9170	9500	9550	10240	8660	8840
	2021	9670	9570	8340	9780	9630	9260
	2022	7170	8600	9530	8440	8740	7770
	2023	8210	7950	8820	7890	8850	7730
Location Mean		8832	8986	9264	9168	9068	8656
Suttor	2010	0770	0270	0200	0200	10160	0460
Sutter	2019	9770	9570	9500	9500	0440	9400
	2020	9550	9560	8930	9450	9440	8000
	2021	8730	9010	0400 0120	9430	9100	8520
	2022	040	8450	0220 8870	8670	0110	9140
	2023	5400	8430	8870	8070	5110	5140
Location Mean		9178	9094	8748	9130	9368	8826
North Yolo	2019	9720	9120	9290	9050	10100	8440
	2020	10990	9550	10010	9150	10110	9280
	2021	9350	9520	9620	9330	9930	9090
	2023	9690	10010	9670	9430	9880	9500
Location Mean		9938	9550	9648	9240	10005	9078
		5550	5550	5040	5240	10005	5070
South Yolo	2019	8590	7780	7730	8740	8220	8760
	2023	8110	8010	8020	7660	8380	7400
Location Moon		8250	7805	7975	8200	8300	8080
Location Wear		8330	7895	1815	8200	8300	8080
Yuba	2019	7170	6990	6650	7450	7070	7370
	2020	7820	7920	7630	7800	8580	7990
	2021	6500	7050	7640	6550	6560	5720
	2022	8530	8710	8390	8350	8250	8260
	2023	8520	8320	7980	8300	7580	8410
Location Mean		7708	7798	7658	7690	7608	7550
San loaguin	2021	10700	10000	8500	0050	0040	10710
san Joaquin	2021	10/00	10090	8090 7000	9920	9940 7010	10110
	2022	8360	9490	8900	9060	9500	8990 7670
	2023	0000	5.50	0,00	5070	5500	
Location Mean		9377	9577	8230	9460	9083	9123
Loc/Years Mean		8999	8863	8762	8893	9016	8675

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