

**CHARACTERISTICS
OF
PUBLIC
CALIFORNIA
RICE
VARIETIES**



2016

**University of California
Cooperative Extension
University of California, Davis
Department of Plant Sciences**

Proper management of varieties to obtain high yields and milling quality includes:

1. Maintain water continuous flood depth of 4 to 6 inches for optimum plant growth and weed control.
2. Obtain an adequate stand of 12-18 plants/ft².
3. Good weed control.
4. Adequate nitrogen fertilization.
5. Water depth at least 8 inches 65 to 70 days after seeding.
6. Drain as late as possible before harvest.
7. Harvest short and medium-grain varieties at 20 to 24% and long-grain varieties at 17 to 19% grain moisture content (16-18% for Newrex types) for maximum head rice and total milling yield.

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CHARACTERISTICS OF PUBLIC CALIFORNIA RICE VARIETIES - 2016

Grain Type	Maturity	Year Seed Widely Available	Stem Rot Score ¹	Seedling Vigor ²	Comments
Short Grain					
S-102 ⁶	Very Early ³	1998	5.6	4.3	Very high yield potential. Good resistance to blanking with a very large grain. Rough leaves and hulls, grain dries down rapidly during ripening. Susceptible to stem rot.
Medium Grains					
M-104 ^{6,7}	Very Early ³	2002	5.4	4.4	Replacement for M-103 in San Joaquin Valley and as an alternative to M-202 in other cool rice areas. Improved seedling vigor, lodging resistance, and yield compared to M-103. Milling yields similar to M-103. Heads 8 to 10 days earlier than M-202. Early planting in warm areas could limit yield and quality.
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. Very high stable milling yields. Not as cold tolerant as M-104 as a choice for cold areas or late plantings.
M-205 ^{6,7}	Early	2002	4.9	4.1	Very high yield potential. Primary adaptation area west of Highway 70 and north of Highway 20. Susceptible to blanking. Matures 4-7 days later than M-202. Improved milling yields and lodging tolerance relative to M-202. Not recommended for Escalon, Delta region or other cool areas.
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. Four days later than M-104 and four days earlier than M-202. Avoid late planting in the Escalon/Delta areas.
M-208 ^{6,7}	Early	2008	6.6	4.3	Calrose cultivar released with IG-1 blast resistance. Released for bast problems areas of Glenn and Colusa Counties. Primarily adapted to north of the Yolo-Colusa County line and west of Hwy 70. Production practices comparable to M-206.
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.
Long Grains					
L-206 ^{6,7}	Very Early to Early	2008	5.5	4.4	Conventional long grain with improved cooking quality. Very high yield potential. Four days earlier than L-205 and M-202. Considerably shorter than L-205 and M-202. Average head rice yield 62%. Adapted to most areas except in coldest and warmest rice growing regions. Harvest at 17 - 18% grain moisture.
Premium Quality					
M-401	Late	1983	5.1	4.3	<i>Premium quality</i> medium grain rice with large kernels. Good yield potential but susceptible to blanking, lodging and damage from premature drainage. Use 20-25% less nitrogen than on other medium grain varieties. Best adapted to warmer areas. Milling yields lower than other medium grain varieties.
M-402 ^{6,7}	Late	2001	4.7	4.2	<i>Premium quality</i> medium grain. Kernel size is smaller than M-401, much higher head rice potential. About 5-7 days earlier than M-401 with better straw strength. Adapted to warmer areas.
Calhikari-201 ^{5,6,7}	Early	2001	6.0	5.0	<i>Premium quality</i> short grain developed for the Japanese premium short-grain market. Has very good seedling vigor. A semidwarf with much greater yield potential and resistance to lodging than Japanese varieties. Rough leaves and hulls. Cold delays maturity and increases blanking. Use low nitrogen to maximize market quality.
Calhikari-202 ^{5,6,7}	Early	2012	4.8	4.8	<i>Premium quality</i> 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.
Specialty Rices⁵					
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 ^{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.
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 ^{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.

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

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

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

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

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