

- L-205 is less resistant than medium grains to cool temperature induced blanking. Water depth should be increased to about 8 inches from panicle initiation (55 to 60 days after planting) to heading to protect panicles from exposure to low temperature during cool nights. L-205 has not performed as well as medium-grain varieties in cooler San Joaquin, Sutter, and Yuba county sites and it may not be suitable for these areas.
- Draining L-205 too early will reduce rice grain and milling yields. Although L-205 dries down faster than short and medium grains, it also requires about 40 to 45 days from 80% heading to harvest for grain moisture contents that favor maximum milling yields (ripening period). L-205 should be drained in reference to this required ripening period to avoid soil moisture deficiency before the optimum harvest time. Maximum total and head rice milling yields are obtained when grain moisture at harvest is 16 to 17% (see table) and the soil remains moist. Caution should be taken to prevent grain moisture from dropping too low before harvest, but harvest should not begin until grain moisture falls below 19% and green grains on the panicles are less than 1%. L-205 is more early thrashed than short and medium grains and the harvester cylinder speed should be reduced to promote maximum head rice yield.

Authors

S.T. Tseng, C.W. Johnson and K.S. McKenzie, Plant Breeders, and D.M. Brandon, Director, Rice Experiment Station, Biggs.

J.E. Hill, Chair and Extension Agronomist, Department of Agronomy and Range Science, UC Davis.

W.M. Canevari, R.G. Mutters, S.C. Scardaci and J.F. Williams, Farm Advisors, UC Cooperative Extension, San Joaquin, Butte, Colusa/Glenn/Yolo, Sutter/Yuba/Sacramento Counties, respectively.

Mention of product name is for convenience of readers and does not constitute an endorsement.

In accordance with applicable State and Federal laws and University policy, the University of California does not discriminate in any of its policies, procedures, or practices on the basis of race, religion, color, national origin, sex, marital status, sexual orientation, age, veteran status, medical condition, or handicap. Inquires regarding this policy may be addressed to the Affirmative Action Director, University of California, Agriculture and Natural Resources, 300 Lakeside Drive, 6th Floor, Oakland, CA 94612-3560. (510) 987-0097.

Agronomy Fact Sheet Series 1999-3

L-205 RICE: DESCRIPTION AND MANAGEMENT GUIDELINES



1999

Department of Agronomy
and Range Science
University of California,
Davis

L-205

Introduction. L-205 is a new superior quality long-grain rice variety released for commercial production in California in 1999. Cooking and processing qualities of L-205 should compare favorably with southern US produced long-grain rices. The following information is intended to assist growers in optimizing the yield and quality of L-205.

Description. L-205 is a photoperiod insensitive, early maturing, semi-dwarf long-grain variety. Seedling vigor of L-205 is weaker than L-204 but adequate for good stand establishment. L-205 is tolerant of thiobencarb and molinate herbicides like current California rice varieties. L-205 is about 2 days later than L-204, requiring about 88 days to 50% heading. Another 40 to 45 days are required from 50% heading to harvest for optimum milling yields. L-205 has green leaves but they are not as dark green or erect as L-204. It is resistant to lodging but is more likely to become very leafy and lodge with excessive nitrogen fertilization. L-205 is susceptible to stem rot and aggregate sheath spot diseases and the IG-1 race of the rice blast disease fungus prevalent in California. L-205 seed is 13% lighter and smaller than L-204.

Performance. L-205 has shown high yield potential approaching that of L-204. Average grain yields of L-205 and L-204 in Statewide Yield Tests in 1995 to 1998 were 8475 lb/acre and 8558 lb/acre, respectively. L-205 has not performed as well in cooler Sutter, San Joaquin, and Yuba County sites based on yield tests conducted by the University of California Cooperative Extension. Average milling yields of L-205 from samples harvested

sequentially at grain moisture contents ranging from about 22 to 15% over 3 years (1996 to 1998) were 58:69%, which is similar to L-204. Maximum head rice and total milling yields were obtained at a grain moisture content of 16 to 17%, which occurred about 40 to 45 days after 80% heading as shown in the following table.

GRAIN MOISTURE AT HARVEST AND MILLING YIELDS OF L-205 AT RES

Sample† Date	Days From 80% Heading	Harvest Moisture	Milling Yields	
			Total	Head
			----- %	
9/3/96	23	22.3	64.0	46.8
9/6/96	26	21.6	64.6	55.8
9/10/96	30	18.9	65.1	57.4
9/13/96	33	20.3	65.0	56.6
9/17/96	37	17.6	67.8	61.9
9/20/96	40	17.9	67.5	62.3
9/24/96	44	17.3	67.4	59.1
9/27/96	47	14.0	68.4	62.2
1996 Mean	--	--	66.2	57.7
8/8/97A	21	21.2	62.6	44.2
8/12/97A	25	19.6	67.2	58.5
8/15/97A	24	18.6	67.9	60.7
8/19/97A	32	17.4	69.1	63.4
8/22/97A	35	15.6	69.4	63.0
8/26/97A	39	14.7	69.4	61.5
8/29/97A	42	13.0	69.4	59.5
1997A Mean	--	--	67.9	58.7
8/15/97B	--	24.5	57.9	41.0
8/19/97B	--	20.1	64.3	53.0
8/22/97B	--	19.5	66.5	59.5
8/26/97B	--	17.7	67.4	62.2
8/29/97B	--	17.0	69.4	65.6
9/3/97B	--	16.4	68.0	62.4
9/6/97B	--	13.8	69.1	59.3
1997B Mean	--	--	66.1	57.6
9/15/98	24	23.5	64.3	53.7
9/18/98	27	21.9	64.7	55.6
9/22/98	31	20.5	66.8	58.2
9/25/98	34	19.9	67.0	60.6
9/29/98	38	17.9	67.4	62.1
10/2/98	41	17.9	68.3	63.1
10/6/98	45	14.4	68.9	64.3
1998 Mean	--	--	66.8	59.7

† Samples harvested twice per week, thrashed, and dried to 12-13% grain moisture for milling yield determination.

Management Guidelines. The following guidelines are based on observation and experience acquired in the development and testing of L-205. Suggested cultural practices are intended to assist in production of optimum yields and quality of L-205.

- Uniform water depth, fertility, seed distribution, and weed control are important because they affect uniformity of heading, harvest moisture, and in turn grain and head rice milling yields.
- Fertilizer rates and management should be like those used for medium-grain varieties. All or most of the N required and all of the P and K required should be incorporated pre-flood into a dry soil. Although L-205 has good lodging resistance like L-204, excessive N is more likely to cause excessive growth of L-205 than L-204 resulting in lodging, delayed maturity, increased disease, and poor grain quality.
- Preferred seeding date is May 1 to 15. Earlier seeding dates increase the risk of stand establishment problems and later seeding dates increase the risk of cool temperature induced blanking. Early season water depth should be maintained uniformly at about 2 to 4 inches for optimum tillering and stand density. L-205 seed is smaller and lighter than L-204 seed and 130 pounds of L-205 seed has a seed count equivalent to about 150 pounds of L-204. Thus, L-205 should be seeded at 130 to 150 lb/acre to establish a stand diversity of 10 to 20 plants/ft².