

generation, Mouride was yield tested in Senegal from 1986 through 1991 under the designation IS86-275. Tests were conducted at as many as four experiment-station sites per year, and from 1989 through 1991 at as many as 35 on-farm sites per year. During the on-farm tests, it was discovered that Mouride may have substantial resistance to the parasitic weed *Striga gesnerioides* (Willd.) Vatke. This resistance was confirmed by tests over 2 yr in nurseries in fields heavily infested with *Striga*. It was shown that IT81D-1137 also has resistance to the Senegalese biotype of *Striga*, whereas 58-57 does not.

Under well-watered conditions during the rainy season in northern Senegal, Mouride produces its first flower 33 d after sowing and reaches physiological maturity at 65 d, whereas 58-57 begins flowering 41 d after sowing and reaches maturity at 75 d. Mouride is semierect with an indeterminate growth habit, whereas 58-57 has a greater capacity to spread during the last half of the growing season. Seed of Mouride are cream colored with a brown eye. In Senegal, the seed of Mouride are of medium size (16 g 100 seed⁻¹), and larger than those of 58-57 (12 g 100 seed⁻¹). In multilocation yield trials in Senegal, Mouride has consistently produced 18% more grain but 17% less forage yield than 58-57, and much greater grain yields than other traditional cultivars. Mouride has substantial resistance to bacterial blight, CABMV, and *Striga*, and has partial resistance to cowpea weevil. In the summer of 1993, seeds of Mouride were distributed to ≈ 1000 farmers in 300 villages in northern Senegal by World Vision International, BP 51 Thies, Senegal. Estimated on-farm yields of Mouride in field-scale solecrops were ≈ 1000 kg ha⁻¹, which is about three times the national average yield for solecropped cowpea in Senegal.

Breeders seed can be obtained from either ISRA at the Centre National de Recherches Agronomiques, BP 53 Bambey, Senegal or the corresponding author.

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Registration of 'ICMV 88908' Pearl Millet

'ICMV 88908' pearl millet [*Pennisetum glaucum* (L.) R. Br.] (Reg. no. CV-10, PI 583800), a grain cultivar, was developed by the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), Patancheru, AP, India, and was released in Namibia in May 1990. ICMV 88908 was selected from the ICRISAT Bold Seeded Early Composite (BSEC). It was released in Namibia under the designation 'Okashana 1' replacing 'ICTP 8203' as the breeder seed source used in multiplication of this cultivar (2). In India, ICMV 88908 is under seed multiplication in the private sector. The experimental designation of ICMV 88908 was MP 208.

In the 1985 dry season, three parents of BSEC that were all derived from Togo germplasm were intermated: a cultivar ICTP 8203, a selected population ICTP 8202, and a group of

progenies closely related to them. In the second intermating, two parents were added: ICGP 8501, a population derived from germplasm from Ghana, and EGP H8401, a population selected from the ICRISAT Early Composite, which had Indian and African parents. In the third random mating, EC II, a composite made from a diverse range of parents from India and Africa, was included as a pollen parent. In each generation of intermating, selection was aided and inbreeding avoided by the maintenance of maternal ancestry. Selection was applied for early flowering under artificially extended daylength and for improved panicle exertion and size, grain size, and resistance to downy mildew [caused by *Sclerospora graminicola* (Sacc.) J. Schröt.]. Because of this selection, the first three intermated generations were designated as the C₁ to C₃ cycles. During intermating to produce the C₃ cycle, plants were selfed, and a two-location, replicated, S₁ progeny test was conducted in the 1986 rainy season. Of the 450 progenies tested, 65 were recombined in the 1987 dry season to produce the C₄ bulk.

During the 1987 rainy season, the C₄ bulk and ICMV 87901, the highest yielding selected population from the C₃ cycle, were intermated. In this cycle, mass selection for later flowering was applied. Later plants tended to be taller, with more biomass and larger panicles. In the next generation, gridded mass selection for yield and later flowering time was applied in an isolated plot in the 1988 dry season. In the 1988 rainy season, another cycle of mass selection was applied in an isolated plot, and the bulk harvest was used to constitute the cultivar ICMV 88908, which was the product of nine generations of plant breeding over 4 yr.

The first trial of ICMV 88908 was in the 1988 rainy season. In a two-location replicated trial, it yielded 3.13 ± 0.6 t ha⁻¹, which was 17% more than ICTP 8203 (2.68 ± 0.3 t ha⁻¹). ICMV 88908 was tested by the All India Coordinated Pearl Millet Project (AICPMIP) in 75 replicated trials conducted over 3 yr (1989 to 1991). ICMV 88908 yielded 1.92 t ha⁻¹ of grain, 4.1% more than 'WC-C75' (1). In 29 replicated trials conducted by ICRISAT from 1989 to 1991, ICMV 88908 yielded 2.45 t ha⁻¹, 16.8% more than ICTP 8203. ICMV 88908 flowered in 48 d, the same as ICTP 8203, and was 4 d earlier than WC-C75.

In 1989, foundation seed of ICMV 88908 was sent to Muzarabani, Zimbabwe, for off-season multiplication at the special request of the Government of Namibia. In 1990, Okashana 1 (now ICMV 88908) was officially released in Namibia, and by the 1991-1992 rainy season the extent of its adoption in Namibia was $\approx 25\%$.

ICMV 88908 is 10 to 20 cm taller than ICTP 8203 and 10 to 15 cm shorter than WC-C75. Panicles are thick in girth, semicompact to compact, and lanceolate to cylindrical with slight tapering towards the tip. Seeds are round and large (>13 g 1000 grain⁻¹). Other morphological features closely resemble those of ICTP 8203. ICMV 88908 has good resistance to downy mildew, with 3.3% incidence over 3 yr of screening in the AICPMIP disease nurseries, compared with 5.6% for WC-C75 and 85.7% for HB 3.

Seed of ICMV 88908 is maintained by the Genetic Enhancement Division, ICRISAT, and can be supplied to public and private seed agencies.

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Registration of 'Jodon' Rice

'Jodon' (*Oryza sativa* L.) (Reg. no. CV-99, PI 583831) is a high yielding, very early-maturing long-grain cultivar developed at the Rice Research Station at Crowley, LA, by the Louisiana Agricultural Experiment Station, Louisiana State University Agricultural Center, in cooperation with the USDA-ARS, the Arkansas Agricultural Experiment Station, the Florida Agricultural Experiment Station, the Mississippi Agricultural and Forestry Experiment Station, and the Texas Agricultural Experiment Station. Jodon was officially released on 1 Feb. 1994.

Jodon was named in memory of Dr. Nelson E. Jodon, a prominent USDA-ARS rice breeder and geneticist located at the Rice Research Station at Crowley, LA, from 1933 to 1983.

Jodon originated from the cross 'L-202'/'Lemont' made at the Rice Research Station in 1983. The L-202 (3) parent is an early-maturing semidwarf long-grain cultivar developed by the California Cooperative Rice Research Foundation at the Rice Experiment Station, Biggs, CA. Lemont (1) is an early-maturing semidwarf long-grain cultivar developed by the USDA-ARS in conjunction with the Texas Agricultural Experiment Station at the Texas AM University Agricultural Research and Extension Center, Beaumont. Jodon is an F_6 bulk of a single progeny row in the breeding nursery at Crowley in 1987, selection 8713958. It was evaluated in the preliminary yield nursery (experimental designation 8802506) in 1988 and entered in the Cooperative Uniform Regional Rice Nurseries (URRN) in 1989 with the designation RU8902031.

Jodon has a semidwarf plant type and is similar in height to 'Cypress', Lemont, and 'Maybelle' (2). In the URRN grown in Louisiana, Arkansas, Mississippi, and Texas from 1989 to 1993, the average height of each of these cultivars was 97 cm. The flag leaf of Jodon is relatively narrow, remains erect through physiological maturity, and tends to droop as plants approach harvest maturity. Days to 50% heading averaged 81 for Jodon, 86 for Cypress, 86 for Lemont, and 74 for Maybelle (URRN, 1989-1993).

The leaves, lemma, and palea of Jodon are glabrous. The spikelet is straw-colored and may be awned or awnless. The apiculus is purple at heading, but the color fades as the grain approaches maturity. The grain is nonaromatic and nonglutinous and has a light brown pericarp. The overall average yield of Jodon in the URRN in the four major rice producing states in the southern USA in 1989 to 1993 was 8038 kg ha⁻¹, compared with 8290 for Cypress, 7554 for Lemont, and 7699 for Maybelle. In the Louisiana Advanced Yield Tests (five locations) from 1990 to 1993, Jodon averaged overall yields of 8746 kg ha⁻¹, compared with 8502 for Cypress. In the Louisiana Commercial Cultivar Tests (four locations) from 1991 to 1993, Jodon averaged 8082 kg ha⁻¹ yields, compared with 7564, 7063, and 6572 for Cypress, Lemont, and Maybelle, respectively. Jodon has displayed excellent ratoon-crop yields. In 12 experiments (1989-1993) from which ratoon data were obtained, Jodon averaged grain yields of 2878 kg ha⁻¹, compared with 2835 for Cypress. Ratoon-crop production is important in the rice production areas of southwest Louisiana and southeast Texas.

Table 1. Paddy, brown, and milled grain dimensions and weight of Jodon, Cypress, Lemont, and Maybelle rice grown at Crowley, LA, in 1993.

Cultivar	Length (L)	Width (W)	Thickness	L/W ratio	Weight
	mm				mg
Paddy rice					
Jodon	9.59	2.51	1.93	3.82	25.0
Cypress	9.47	2.49	2.01	3.80	24.8
Lemont	9.41	2.82	1.99	3.34	26.8
Maybelle	9.25	2.46	1.95	3.76	24.2
Brown rice					
Jodon	7.71	2.32	1.81	3.32	21.1
Cypress	7.42	2.29	1.81	3.24	21.0
Lemont	7.79	2.46	1.79	3.16	23.2
Maybelle	7.32	2.12	1.74	3.45	21.6
Milled rice					
Jodon	7.12	2.22	1.72	3.21	17.8
Cypress	7.10	2.21	1.69	3.21	17.9
Lemont	7.10	2.31	1.65	3.07	20.5
Maybelle	6.98	2.09	1.68	3.33	17.3

Milling yields (mg g⁻¹ whole kernel/mg g⁻¹ total milled rice) at 120 mg g⁻¹ moisture (1989-1993 URRN average) were 586:700 (59:70%) for Jodon, 638:712 (64:71%) for Cypress, 604:720 (60:72%) for Lemont, and 582:720 (58:72%) for Maybelle. Individual kernel dimensions for Jodon, Cypress, Lemont, and Maybelle are shown in Table 1.

Results from the Cooperative Regional Rice Quality Laboratory at Beaumont indicate that Jodon has an average starch amylose content of 248 g kg⁻¹, which is about 25 to 30 g kg⁻¹ higher than the amylose content of currently grown southern long grains. Jodon has an intermediate gelatinization temperature (70-75°C), as indicated by an average alkali spreading reaction of 3.6 (17 g kg⁻¹ KOH) (4). The amylographic viscosity (peak paste, hot paste, and cool paste) profile of Jodon has significantly lower viscosity values than that of conventional southern long-grain varieties. The amylographic profile of Jodon is comparable with that of the L-202 variety. Jodon is characterized as a high amylose, intermediate gelatinization temperature, soft amylographic profile type. The specific cooking characteristics of Jodon may make it less desirable for canning processes.

Jodon is moderately susceptible to rice blast [caused by *Pyricularia grisea* (Cooke) Sacc.; syn. *Pyricularia oryzae* Cavara] races IG-I, IC-17, and IB-49, the predominant blast races in the southern USA. It is susceptible to sheath blight (*Rhizoctonia solani* Kühn), highly resistant to narrow brown leaf spot (*Cercospora oryzae* Miyake), and susceptible to the physiological disorder straighthead.

Variants observed and removed from increase fields of Jodon included any combinations of the following: taller, shorter, pubescent, earlier, later, intermediate grain type, and medium grain type. The total number of variants numbered fewer than 1 per 5000 plants.

Breeder and foundation seed of Jodon will be maintained by the Louisiana State University Agricultural Center, Louisiana Agricultural Experiment Station, Rice Research Station, P.O. Box 1429, Crowley, LA 70527-1429. Limited quantities of seed are available upon request to the corresponding author.

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