

Mean grain yield of pure line selections of Jeerakasala at the Horticultural Research Station, Ambalavayal, and in farmers' fields. Wynad, Kerala, India.

	Mean grain yield (t/ha)		Remarks
	Research station	Multilocal trials	
Culture 179	2.2	3.3	Scented, profuse awning
Culture 190	2.3	3.0	Scented, tipping tendency
Culture 534	2.2	2.9	Highly scented, no awns
Ryots' bulk	2.4	3.6	

July when southwest monsoons provide sufficient water. It matures by December. Its total growth duration is 180–200 days (depending on sowing

time). Its yields average 2.2 to 2.8 t/ha under average management and low fertility (40-20-20 kg NPK/ha). Low management costs and high premium

price make Jeerakasala attractive to low-income farmers.

Varietal improvement by pure line selection is in final stages at the KAU Horticultural Research Station, Ambalavayal, Wynad. Three cultures with varying degrees of awning showed different yield potentials at the research station and in farmers' fields. The mean grain yield at the Research Station in experimental plots and the yield obtained in multilocal trials from 1976–77 to 1978–79 are presented in the table. ■

Quality classification of rice

K. R. Bhattacharya, C. M. Sowbhagya, and Y. M. Indudhara Swamy, Discipline of Rice and Pulse Technology, Central Food Technological Research Institute, Mysore – 570013, India

Some physicochemical properties of 177 samples (169 varieties) of rice from various agricultural research stations in India were determined. The samples included 129 traditional tall Indian

varieties (76 high-amylose, 27 scented and 10 nonscented intermediate-amylose, 6 low-amylose, and 10 waxy varieties), 31 modern semidwarf varieties (including 2 medium- and 1 low-amylose), 5 long-grain American rices (including Century Patna 231, a low-amylose type), 4 bulu rices of Indonesia, and 8 low-amylose introductions (4 ponlai, 2 japonica, 2 indica x japonica).

With some minor exceptions, the results follow the pattern shown in the

table. Results of earlier work in this institute also agree with this pattern. We conclude that rice can be tentatively classified into eight quality types.

An interesting point is that high- and intermediate-amylose rices each have three distinct quality types. The distinctions in the first group can be explained on the basis of clear differences in their hot-water-insoluble amylose content, but those in the second need further research. ■

Quality classification of 177 samples (169 varieties) of milled rice, Mysore, India.

Quality type	Examples	Samples (no.)	Amylose (% dry basis)		Alkali reaction type	EMC-S ^d (% wet basis)	BD _r ^b (%)	Cooked rice ^c	
			Total	Hot-water-insoluble				Stickiness	Consistency
I. High-amylose A	IR8, IR22, Jaya	10	>26	>15	B, mixed B	28.5–30	0–5	Very low ↓ ↑ Very high	Very high ↑ ↓ Very low
II. High-amylose B	GEB 24, Slo 13, Co 32	32	>26	12.5–15	A, B ₁	26.5–28.5	16–27		
III. High-amylose C	T 141, Slo 16, Tkm 6	58	>26	≤12.5	A, B ₁	26.5–28.5	31–55		
IV. Intermediate-amylose (scented) A	Basmati 370, T 9, Br 9	26	23–26	7–10	Mixed C	27.5–29	56–81		
V. Intermediate-amylose B	Kuki, Abor red, Tengo	21	23–26	7–10	Mixed C	29.5–31	56–78		
VI. Intermediate-amylose (bulu) C	Baok, Benong 130	4	23–25	7–10	Mixed C	27.5–29	134–157		
VII. Low-amylose	Norin 29, Tainan 3, Phoudum	16	15–22	6–9	C	30–32	111–153		
VIII. Waxy	Asm 44, Purple puttu	10	<5	–	D	34–36	252–333	Very high	Very low

^a Equilibrium moisture content attained by milled rice when soaked in water at room temperature.

^b Relative breakdown (breakdown x 100) in Brabender viscogram. Ranges shown are values interpolated at a peak viscosity of 1,000 Brabender units in total setback about 50 selected samples viscographed at several slurry concentrations each. The remaining samples were viscographed only at about 9% (dry basis) concentration, their BD_r type being read from standard curves.

^c Stickiness of cooked rice by our sieve test, and consistency (hardness) by the Haake consistometer were determined only in about 50 selected samples.

Publication list on rice insects available at IRRI

The IRRI Entomology Department has developed a list of publications on rice insects that were authored by IRRI staff members or were presented at IRRI-supported conferences.

Interested persons are invited to write to the Entomology Department, IRRI, P.O. Box 933, Manila, to receive the list and an order form for requesting reprints. Persons who request the list will automatically be placed on the entomology mailing list to receive future lists and order forms, which will be issued annually.