

replication. A rubber dehusker was used to dehull the grain.

The HKRs (husk weight divided by kernel weight) of a variety in transplanted aman and boro seasons were similar but numerically higher than those in

transplanted aus, which had comparatively lower spikelet fills.

Clear HKR differences occurred in the five varieties. HKR variation was wide and environmental coefficient of variability was low in all seasons, indicating that HKR

is less responsive to environmental factors. Heritability for HKR was high; genetic advance was more or less similar in the three seasons. HKR may be a nearly stable indicator in screening for cultivars with lower husk content. □

Lectins in living organisms interact with silicon

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An unspecified interaction of lectins with silicon compounds exists in the tissues of silicophiles, both in living organisms and in histological preparations. Scientists need to consider this phenomenon when they use lectins, immunochemicals, and their dyes in silicophile studies.

Lectin preparations (including stains) were previously considered to interact specifically with sugars or their residues.



Silica structures of the rice husk of Krasnodarsky 424. Microspodography × 20

We have shown that during rice husk microspodography the lectins interact actively with silicon compounds that are present in large amounts in silicophile tissues (see figure). Silica can comprise up to 20% of some rice tissue dry matter.

Attention to this may prevent erroneous conclusions that interactions were with sugars rather than with silicon compounds. □

Grain quality

Grain quality of F1 rice hybrids

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Nine rice hybrids developed at RARS and check cultivar Jaya were evaluated for physicochemical and cooked rice characteristics. Standard methods were used to analyze dried grain with about 12% moisture content. Recovery varied from 78 to 80% for hulling and from 72.5 to 75.5% for milling. Five of the hybrids

showed significantly higher head rice recovery than Jaya (RHR1, RHR4, RHR6, RHR7, and RHR9). The rest (except RHR5) were statistically at par with Jaya (see table). Head rice recovery was very high, which suggests undermilling of rice by a Kett Polisher (model TP 20).

Physicochemical characters of F1 rice hybrids<sup>a</sup> at RARS, R. S. Pura, India.

Hybrid or variety	Cross combination	Hulling (%)	Milling (%)	Head rice (%)	Length (mm)	Width (mm)	L/W ratio	Abdominal white <sup>b</sup>	Alkali spreading value	Water uptake (%)	Volume expansion ratio	Elongation ratio	Amylose (%)
RHR1	Zhen Shan 97 A/IR3 1868	80.0	75.0	73.5	5.60	2.27	2.47	OP	2.0	165	3.7	1.7	19.2
RHR2	V20 A/IR31802	78.0	73.0	68.5	6.65	2.26	2.94	Present	2.0	160	4.0	1.5	17.0
RHR3	Zhen Shan 97 A/IR8585	78.0	72.5	70.0	5.84	2.41	2.42	Present	4.0	170	3.7	1.6	17.0
RHR4	Zhen Shan 97 A/IR31802	78.5	75.5	72.0	5.67	2.36	2.40	Absent	2.0	150	3.7	1.7	17.0
RHR5	Zhen Shan 97 A/IET1410	78.0	73.5	68.0	6.98	1.99	3.51	Absent	6.0	350	3.7	1.5	20.3
RHR6	Zhen Shan 97 A/VL 15	79.5	74.5	70.5	5.66	2.71	2.09	Present	3.0	200	3.7	1.4	20.9
RHR7	VA20 A/IR3 1851	79.5	74.0	71.0	6.59	2.34	2.82	Present	3.0	140	3.7	1.5	17.5
RHR8	IR48483 A/IR83619	78.0	73.0	69.5	6.14	2.39	2.57	OP	3.0	150	3.7	1.6	16.0
RHR9	IR46830 A/IR36	79.0	74.0	71.0	6.62	2.09	3.17	Absent	2.0	140	3.7	1.5	19.2
Jaya	Check	79.0	74.5	69.0	6.37	2.57	2.48	Present	7.0	350	4.0	1.7	29.6
	LSD (0.05)	0.5	0.7	1.2	0.36	0.14	—	—	1.3	59	0.7	0.1	2.70

<sup>a</sup>Av of 2 replications. <sup>b</sup>OP = occasionally present.