accelerate cold tolerance breeding for high-elevation and high-latitude areas where only 1 rice crop/year is possible.

Bulk seeds of F_3 to F_5 RGA populations of photoperiod-sensitive materials and cold-tolerant crosses will be available for distribution early in 1980. Scientists may obtain a list of the materials by writing to the authors. It is hoped that plant breeders will take advantage of this IRRI service.

Two new rice varieties released in Bihar, India

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Two new rice varieties, Rajendra Dhan 201 and Rajendra Dhan 202, were recently named by Rajendra Agricultural University and released for cultivation in Bihar.

Rajendra Dhan 201 (from the cross IR8/Tadukan) has intermediate growth duration (135 days) and is suitable for irrigated transplanted areas. It has yielded 5 t/ha. It has medium-slender grain and disease resistance. Before its release, Rajendra Dhan 201 was tested for 6 years in experimental plots, and 3 years in minikits in farmers' fields.

Rajendra Dhan 202 (from the cross IR8/W1251) was previously known by its line number, RP9-4. It is suitable for gall midge-endemic areas of Chhotanagpur. It was tested through the All-India Coordinated Rice Improvement Program and in minikits in farmers' fields. The variety matures in 125 days and has long, bold grains. Its yields average 4.4 t/ha. When gall midge attack is severe, Rajendra Dhan 202 yields 70 to 80% higher than Jaya or IR8.

Isolation of single cells from rice

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A new method to isolate single cells from rice leaves was developed using the varieties Taichung 65 and Tainan 5. The method consists of mechanically pregrinding the leaf blades and macerating the leaf fragments in pectinase. The isolated single cells, as seen through a phase contrast microscope, were columnar and lobed. Their number varied with the age of the leaves used and the time of maceration. About 10^5 to 10^6 cells/g of fresh leaves were isolated in 3 hours' maceration. Leaf tissues from the same variety yielded more single cells when used at 34 days old than at 101 days. The number of single cells isolated did not differ significantly between the two varieties.

Screening of rice cultivars against bird damage

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Two thousand rice cultivars, maintained at the germplasm center, Baronda, were field screened against bird damage during 1978 kharif. Each cultivar was sown in 3 rows spaced 20 cm apart.

Scoring was based on the percentage of damaged grains. No cultivar escaped bird damage; 13 had as much as 10% damage and 1,987 had more than 60%. Cultivars damaged least were Ajan, Ajwaine, Barhi, Danwar, Dawar, Koliar, Lakhokuwar, Manjhaligurmatia, Nunji, Parhi, Ratna, Surjajota, and Surmatia. Cultivars with brown- to black-husked grain showed less bird damage. ■

SR26BM, an EMS-induced mutant variety that is insensitive to photoperiod

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The variety SR26B is well adapted to saline soils in the irrigated tract of Karnataka, India. But its photoperiod sensitivity limits its cultivation to the wet season.

Hybridization of SR26B with Waner 1 gave fine-grained lines with early maturity, but the yield potential and the puffing quality of the grain were lost. Therefore, a study to obtain an isogenic mutant of SR26B with photoperiod insensitivity was initiated in 1972 at the Regional Research Station, Mandya, in collaboration with the Plant., Breeding Department, Agricultural College, Bangalore.

After presoaking in tap water for 10 hours, 200 g of SR26B seed was soaked in 1% EMS solution without buffer for 14 hours. The EMS had been prepared in double distilled water; the volume of solution used was three times that of the seed. The seeds in the solution were constantly shaken and maintained at a room temperature of about 21 °C. Both treated and control seeds were then washed with tap water 20 times. Twenty-five-day-old seedlings were transplanted at 1 seedling/hill in January 1973 at Bangalore to grow during the dry season. In May, a plant with normal panicle exsertion and flowering that resembled the original SR26B in spikelet and other plant characters was noticed in the treated plot. No other plant, treated or control, flowered at that time. But photoperiod-insensitive varieties planted at about the same time in a performance test flowered. Thus, the plant under consideration could only be a mutant of SR26B. It was seeded at Mandya in the 1973 wet season. Because all the plants looked alike they were bulk harvested and the mutant was designated SR26BM. It bred true when raised at Mandya in the 1974 dry season.

Since the variant appeared in the M_1 and bred true in subsequent generations, it could only be a homozygous recessive mutant. Reports of such mutants appearing in *Lycopersicon* in the M_1 were published in 1968. In such cases, the M_1 mutant seedlings arise from simultaneous mutation of the locus concerned in both homozygous chromosomes because the mutagen is highly

Grain yield performance of SR26BM in Salt Tolerant Variety Trials in Karnataka, India, 1977.

Season	Location	Yield (t/ha)	
		SR26BM	SR26B
Dry	Hiriyur	6.1	–
Wet	Hiriyur	2.8	3.5
Wet	Mandya	2.1	2.1
Wet	Gangavathi	5.7	5.3