

Drought-Tolerant Rice Varieties To Provide Food Security For Farmers In Bangladesh

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AsianScientist (Oct. 12, 2011) - Farmers in drought-prone regions of Bangladesh can now look forward to a more bountiful rice harvest as the wet season ends and water becomes scarce, with two recently released drought-tolerant rice varieties: BRRi *dhan56* and BRRi *dhan57*.

Drought has been one of the biggest enemies of Bangladeshi farmers, so much so that the country has a record of drought spells with historical significance dating back to the 1700s.

In 1999, Bangladesh suffered the longest drought in 50 years, with more than four months without rain, and, in 2010, the country recorded its lowest rainfall since 1995.

Unlike most rain-dependent rice varieties in Bangladesh planted in the aman monsoon season occurring from July to November, BRRi *dhan56* and BRRi *dhan57* remain healthy under drought, which can occur toward the end of the season, because they take a shorter time to mature than other popular local varieties.

BRRi *dhan56*, developed by International Rice Research Institute (IRRI), is the first drought-tolerant rice variety released in Bangladesh that can provide from 0.8 to 1.2 tons per hectare more yield than the presently cultivated varieties despite three weeks of no rain.

The other variety, BRRi *dhan57*, was developed by the Bangladesh Rice Research Institute (BRRi). This variety also possesses a similar yield advantage despite the absence of rain for two weeks.

“Climate change is likely to increase the occurrence of extreme weather events such as drought,” said Dr. Mohammed Zainul Abedin, representative for the IRRI in Bangladesh.

“Equipping Bangladeshi farmers with rice varieties that can tolerate dry conditions will be vital if we want to help people avoid poor harvests, which can increase the incidence of poverty,” he said.

Both varieties were tested in the drought-prone Rajshahi region and are now being released in the northern districts of the Barind Tract: Rajshahi, Chapai Nawabganj, Natore, and Nougaoon.

The varieties are also of economic significance to other districts that are known drought hot spots – Kushtia, Magura, Chuadanga, and Jessore – where rain seldom occurs and is erratic and uncertain during the last week of September and in October when rice planted in aman needs water.

In a participatory evaluation, farmers’ feedback revealed that they prefer these varieties as they also cater to their local needs.

“Farmers not only from the northern region but also the southern regions of Bangladesh will appreciate BRRI *dhan56* for its colored grain type like Swarna, a popular high-yielding South Asian variety,” said BRRI rice breeder Dr. Tamal Aditya Lata.

“On the other hand, some farmers will also choose BRRI *dhan57* for its long and slender grains. Its high amylose content will make the grains expand and separate more easily – properties popular in Bangladesh – giving it a premium grade and good market value.”

IRRI has had a long history of rice development successes in a number of rice-producing countries, some of which played a crucial role in helping farmers increase their food security.

Other drought-proof varieties that have been recently developed and successfully released by IRRI in other countries are *Sahbhagi dhan* (India), *Sahod Ulan 1* (Philippines), and *Sookha dhan* (Nepal).

Source: [IRRI](#).

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