



Flood Resistant Paddy: Assam

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Why in News

Recently, farmers from **Golaghat district in Assam** have cultivated new **flood resistant paddy varieties** to shift from the traditional ones.

The varieties called **Ranjit Sub1, Swarna Sub1 and Bahadur Sub1** have been used by about 60% farmers of the **West Brahmaputra area**.

Key Points

- Farmers in flood-prone areas of Assam have been harvesting the water-resistant Swarna Sub1, developed by the **Indian Council of Agricultural Research and the Manila-based International Rice Research Institute**, since 2009.
- But the switchover from traditional varieties of paddy has been slow.
 - The flood-resistant varieties including Ranjit Sub-1 were reintroduced in 2018.
- **Significance:**
 - **Resist Submergence:** The new **rice** varieties can resist submergence for **up to two weeks**, and significantly do not get damaged by the heavy flood.
 - However, comparison with the traditional varieties is difficult as they get damaged in the flood.
 - **Greater Yield:** Enriched with the ‘**submergence**’ (sub in short) **gene**, the varieties can yield up to **five tonnes per hectare** on an average.
 - **Reduction in Crop Loss:** Some 1,500 farmers cultivate on about 950 hectares in crop-yielding areas which have been impacted by the regular flood. Therefore, rice varieties can reduce **flood-caused crop loss substantially**.
 - **Regeneration:** These varieties **can get regenerated again** in case damaged by the flood, hence ensure maximum productivity.

Rice

- It is a **kharif crop** which requires **high temperature, (above 25°C)** and **high humidity** with annual **rainfall above 100 cm**.
- About one-fourth of the total cropped area in India is under rice cultivation.
- **Leading Producer States:** West Bengal, Uttar Pradesh, and Punjab.
- **High Yielding States:** Punjab, Tamil Nadu, Haryana, Andhra Pradesh, Telangana, West Bengal and Kerala.
- In West Bengal, farmers grow three crops of rice called **'aus', 'aman' and 'boro'**.
- India contributes **21.6% of rice production in the world** and ranks second after China.

Source: TH