

# Arsenic-resistant Rice

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**Context:** Arsenic-resistant rice cultivated in West Bengal

- Arsenic from groundwater and the soil can enter the food chain through paddy
- **West Bengal is among the States with the highest concentration of arsenic in groundwater**, with as many as 83 blocks across seven districts having higher arsenic levels than permissible limits.
- The new rice variety, Muktoshri – also called IET 21845 –, was developed jointly by the Rice Research Station at Chinsurah coming under West Bengal's Agriculture Department and the National Botanical Research Institute, Lucknow
- This variety uptakes very less amount of arsenic from soil and water in comparison to other varieties of rice.
- **According to the World Health Organization,**
  - long-term exposure to arsenic, mainly through drinking water and food, can lead to poisoning.
  - Skin lesions and skin cancer are the most characteristic effects.
  - provisional guideline value for arsenic in drinking water is 0.01 mg/l (10 µg/l). The permissible limit of arsenic in India in the absence of an alternative source is 0.05 mg/l (50 µg/l).