

## **Biofortified Potatoes**

## **Source: TH**

The Peru-based <u>International Potato Center (CIP)</u> will introduce <u>iron-rich biofortified potatoes</u> in India to <u>combat iron deficiency anemia</u>.

- Developed at CIP Peru using nutrient-rich germplasm, the potatoes were tested in labs and fields, then adapted by ICAR-CPRI Shimla for seed multiplication and farmer distribution.
- Additionally, CIP will establish its South Asia Regional Centre in Agra, situated in the Indo-Gangetic Plains, the world's largest potato-producing region.

## **Bio-fortified Potatoes**

- About: Bio-fortified potatoes are specially bred potatoes that contain higher levels of micronutrients (iron, zinc, vitamin C) than regular varieties.
  - Biofortified Sweet Potatoes are enriched with Vitamin A through high beta-carotene content & is already cultivated in Odisha, West Bengal, Karnataka, and Assam.
    - Their bright orange flesh indicates high nutritional value, essential for vision, immunity, and child growth, helping prevent night blindness and boosting immunity in children.
    - ICAR-CTCRI's new beta-carotene-rich sweet potato (SP-95/4) promises high yields and improved tribal nutrition.
- Key Advantages: Sweet potatoes have a 2-year shelf life without refrigeration/preservatives, are versatile for cooking (boiled, baked, snacks, confectionery), and suitable for Mid-day Meal and other nutrition programmes.



## **Biofortification**

- Biofortification is the process of increasing nutrient density of food crops through conventional breeding, agronomic practices, or modern biotechnology, while ensuring consumer-preferred traits. Eg:
  - Iron-rich crops: Rice, beans, sweet potato, cassava, legumes.
  - Zinc-enriched crops: Wheat, rice, beans, sweet potato, maize.
  - Provitamin A crops: Sweet potato, maize, cassava.
  - Protein/Amino acid crops: Sorghum, cassava.

Read More: Nitrogen Use Efficiency and Biofortification

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