BIOFORTIFIED CROPS

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Context:

Recently, the Prime Minister of India released 109 high yielding, climate resilient and biofortified varieties of crops at India Agricultural Research Institute, New Delhi

Background:

The launch of these varieties represents a significant advancement in the government's effort to strengthen and future-proof Indian agriculture.

About Biofortification:

1. Biofortification is the process of improving the nutritional quality of food crops. This can be achieved through two main methods:
2. Conventional Breeding: This involves selecting and crossbreeding plants that naturally have higher levels of certain nutrients. Over time, this process enhances the nutrient content of the crops.
3. Genetic Engineering: This method involves directly modifying the plant's genes to increase the levels of specific nutrients.
4. It aimed at developing and disseminating crops that are naturally rich in essential micronutrients, containing higher levels of vitamins, minerals, and other nutrients.

Benefits:

1. Improved Nutrition: Helps combat micronutrient deficiencies, especially in low and middle-income countries.
2. Accessibility: Provides essential nutrients to rural populations who may not have access to commercially fortified foods.

Examples:

1. Golden Rice: Enhanced with beta-carotene to address vitamin A deficiency.
2. Iron and Zinc-Enriched Wheat: Developed through radiation breeding to improve iron and zinc content.