

# LATEST NEWS ABOUT AGRICULTURE

The Indian Council of Agricultural Research (ICAR) continues to pioneer agricultural innovation across biotechnology, crop improvement, fisheries, and mechanization. Here are the most recent scientific breakthroughs and developments from ICAR institutions nationwide:



## SEAWEED FARMING POTENTIAL MAPPED USING ArcGIS

ICAR–Central Marine Fisheries Research Institute (CMFRI), Kochi has developed a Web-based ArcGIS Application to map the potential zones for seaweed cultivation along the Indian coastline. This tool aids policymakers and farmers in identifying ecologically suitable and economically viable locations for seaweed farming—a sustainable livelihood for coastal communities.



## POLLINATOR HABITAT RESTORATION KIT LAUNCHED

ICAR–Directorate of Floricultural Research (DFR), Pune introduced the first-of-its-kind Pollinator Habitat Restoration Kit, designed to enhance farmland biodiversity by attracting natural pollinators. The kit includes a curated mix of floral species and management guidelines, supporting pollination services essential for crop productivity and ecosystem health.



## MINI-SPINNING JUTE MACHINERY DEVELOPED

ICAR–National Institute of Natural Fibre Engineering and Technology (NINFET), Kolkata has developed a mini-spinning unit capable of producing 100–300 kg of jute yarn per day. This compact and efficient machinery addresses the fiber processing needs of small-scale entrepreneurs and enhances rural employment opportunities in jute-growing areas.



## RAW MATERIAL BANK FOR JUNE INNOVATION DRIVE INAUGURATED

A Raw Material Bank was inaugurated at ICAR–NINFET, Kolkata to support the JuNe (Jute and Natural Fibre Ecosystem) Innovation Drive. The facility aims to ensure consistent supply of raw materials for startups and innovators working on sustainable fiber-based products, enhancing agri-value chain resilience.

## Ammol Apple 🍏🍎

**Crossbreed:** CITH–Ambri-1 x Mollies  
Delicious

### Key Features:

- Improved Ambri Cultivar
- Early Maturity
- Longer Shelf Life
- Enhanced Aroma & Color

Developed by: **ICAR–Central Institute of Temperate Horticulture, Srinagar**



## 'ANMOL' APPLE VARIETY RELEASED

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## TWO NEW FISH SPECIES DISCOVERED FROM WESTERN GHATS

ICAR–National Bureau of Fish Genetic Resources (NBFGR), Lucknow has identified two novel freshwater fish species from the ecologically rich Western Ghats region. The discovery contributes to biodiversity documentation and supports conservation planning for India's endangered aquatic fauna.



## NANO-ANTIBACTERIAL TECHNOLOGY TO COMBAT POULTRY MDR

A novel green nano-antibacterial formulation has been developed to tackle multi-drug resistance (MDR) in poultry pathogens. The eco-safe, residue-free technology shows high efficacy against resistant bacterial strains and holds significant promise in ensuring safer poultry products and better animal health.

## LATEST ICAR PATENTS

### 1. Volatile Attractant Formulation for Beneficial Insects

ICAR scientists patented a bacterial-based volatile attractant designed to draw pollinators and natural enemies of crop pests. This biocompatible innovation reduces pesticide use and strengthens natural pest control in agroecosystems.

**Novel Bacterial-based Volatile Attractant Formulation for Attraction of Beneficial insects and Natural enemies.**  
**Patent No. 546146**

Alternative ecofriendly, cost-effective pest management options

Sustainable strategy to enhance beneficial insects in ecosystem

Reduces pest resurgence, environmental pollution and cost on pesticides

Enhances yield and farm income  
Scope for expansion to manage pests of other agricultural crops



## 2. Rapid Anthrax Detection Kit (LFA)

ICAR–National Meat Research Institute, Hyderabad developed a Lateral Flow Assay (LFA) Kit for rapid field-level detection of *Bacillus anthracis* spores in soil and feed. The patent-protected kit ensures timely identification and prevention of anthrax outbreaks in livestock.

## 3. Device for Early Detection of Banana Diseases

A patent was granted for an innovative sensor-based diagnostic device that detects bunchy top and leaf spot diseases in banana plants at early stages. This device enables precision management and minimizes economic losses in banana cultivation.



## A System, Device and Method for Plant Disease Detection and Alert

A novel and efficient compressed sensing inbuilt plant disease detection device is developed to detect and classify two of the major banana diseases such as bunchy top and leaf spot.

It is a patented technology (Patent Granted No:430222)

Alert to reduce the complexity of the implementation in the device without compromising the accuracy

Real time monitoring of field for diseases

Highly useful for precision banana farming



# LATEST VARIETIES RELEASED

## VELVET BEAN 'ARKA DAKSHA'

Developed by ICAR–Indian Institute of Horticultural Research (IIHR), Bengaluru, 'Arka Daksha' is a velvet bean variety rich in L-Dopa (3.5–4.5%), a precursor to dopamine used in Parkinson's treatment. It offers excellent potential in both nutritional and pharmaceutical sectors.



### VELVET BEAN **Arka Daksha**



🕒 Ready in 150–160 days after sowing (medium duration)

🌿 Non-itchy pods – safe and easy to handle

🌾 High yield: 1.6 to 2 tons per hectare

🍌 Rich in L-Dopa: 3.5% to 4.5%

🔬 Developed by: ICAR–Indian Institute of Horticultural Research, Bengaluru, Karnataka

## CASHEW 'NETHRA JUMBO-1'

ICAR–Directorate of Cashew Research, Puttur, Karnataka released 'Nethra Jumbo-1', a high-yielding cashew variety suited for rainfed conditions. Known for its large nut size and high kernel recovery, it is ideal for commercialization in marginal lands.

- 🌱 Specially suited for rainfed areas.
- 🌰 Produces jumbo nuts (~12 g each) and premium quality kernels (W130 grade).
- 💰 Fetches 10% higher price than Bhaskara and NRCC Selection-2.
- 📈 Higher yield and reduces harvesting labor.
- 🌿 Cluster-bearing: 5-6 fruits per bunch.
- 🍌 Uniform, bold nuts, easy to peel.
- ⚖️ Average kernel weight: 3.4 g.
- 🔬 Developed by:  
ICAR- Directorate of Cashew Research, Puttur, Karnataka.



### Cashew Nethra Jumbo-1

