# Koneru Lakshmaiah Education Foundation



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## KL COLLEGE OF AGRICULTURE KLEF, VADDESWARAM

Ref: KLEF/KLCOA/IQAC/AQ11

Date: 17-08-2024

### Report

### Workshop details

**Title:** National Workshop on Biofortification: Plant Breeding for Nutritional Security.

Date: 28-08-2024

**Time:**10.00 AM to 01:00 PM

Location: Sunflower Hall, C-Block, Ground floor, KLEF, Vaddeswaram campus.

**Speakers:** 

 Sri Mohan Satyakar Rao Nalabolu, Junior Breeder – Rice (R&D-FC & Cotton), JK Agri Genetics Ltd.

Participants: Faculty, Students, Entrepreneurs, and Agri-Biotech Enthusiast

Introduction:

KL College of Agriculture hosted a National Workshop on Biofortification: Plant Breeding for Nutritional Security to provide insights into Biofortification is an innovative and sustainable agricultural approach aimed at improving the nutritional quality of food crops through plant breeding. It focuses on increasing the density of essential nutrients—such as vitamins, minerals, and proteins—in commonly consumed staple crops like rice, wheat, maize, and legumes. Given the growing global concerns about malnutrition, especially micronutrient deficiencies (hidden hunger), biofortification offers a strategic solution to enhance the nutritional profile of food and improve public health, particularly in regions where diets are dominated by staple crops.

#### Objectives:

- ❖ To provide a comprehensive understanding of biofortification and its role in achieving nutritional security.
- ❖ To discuss recent advancements in plant breeding for biofortification, highlighting key crops and micronutrients.
- ❖ To examine the challenges and opportunities in scaling up biofortification efforts globally.

### **Keynote Addresses:**

1. Sri Mohan Satyakar Rao Nalabolu, Junior Breeder – Rice (R&D-FC & Cotton), JK Agri Genetics Ltd.

Mr. Sri Mohan Satyakar Rao Nalabolu speech focused on the The keynote speaker will be a leading expert in Plant Breeding, with vast experience in crop biofortification. The address will focus on the following key areas:

The Role of Biofortification in Combating Malnutrition: An overview of global malnutrition challenges and the potential impact of biofortified crops in addressing these issues.

**Advances in Plant Breeding Technologies**: Insights into the cutting-edge breeding techniques, such as marker-assisted selection and genetic modification, that are being used to enhance the nutrient content of crops.

**Success Stories and Case Studies**: Examples of successful biofortification programs, including crops like iron-enriched beans, zinc-enriched wheat, and vitamin A-enriched sweet potatoes, which have been deployed in various countries.

#### **Outcomes:**

Enhanced awareness and knowledge about the potential of biofortification as a tool for improving public health and food security. Identification of priority crops and nutrients for biofortification efforts in different regions, particularly in developing countries. Development of actionable strategies and collaborations for promoting biofortified crops at the national and international levels.

Recommendations for integrating biofortification into agricultural policies and nutrition programs. Strengthening of partnerships between researchers, NGOs, and governments to support large-scale biofortification initiatives.

#### **Conclusion:**

The workshop will conclude with a call to action for stakeholders to work together to make biofortification a mainstream solution for nutritional security. Participants will be encouraged to continue dialogue and collaboration to ensure the successful implementation of biofortification programs worldwide. The growing need for nutrient-rich crops in an era of food insecurity, climate change, and population growth makes biofortification an essential strategy in the fight against malnutrition.

By the end of the workshop, attendees will have a clear roadmap for advancing biofortification efforts, alongside practical insights for translating research into practice for the benefit of communities in need.

