# Feed The Future India Triangular Training Program (FTF ITT)

# On

# Production and Processing Technology for Tuber Crops

**Date: 04 – 18th April 2017 | Venue: ICAR – CTCRI**


**ICAR- Central Tuber Crops Research Institute, Sreekariyam, Thiruvananthapuram, Kerala, India**
http://www.ctcri.org/

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| **Title** | Production and Processing Technology for Tuber Crops |
| **Date & venue** | ICAR-Central Tuber Crops Research Institute, Thiruvananthapuram |
| **Duration** | 4-18th April 2017 |
| **Programme coordinator** | Dr P. Sethuraman Sivakumar, ICAR-Central Tuber Crops Research Institute, Thiruvananthapuram |

## Introduction

The tropical tuber crops, including cassava, sweet potato, yams, taro, elephant foot yam and other minor tuber crops play a crucial role in providing food security for about 2.2 billion people in the World besides contributing to animal feeds and industry. With a global per capita consumption of 110kg in a year, these crops occupy a significant place in the food basket of developing nations. Among total World production, about 45% of root and tuber crop production are consumed as food, with the rest converted into animal feed or industrial products. The tropical tuber crops widely regarded as "food security" foods owing to their ability to provide sustainable yields even under adverse climatic and soil conditions, low input requirement, and ability to withstand natural calamities to provide "life-saving" foods to people during and after disasters.

The ICAR - Central Tuber Crops Research Institute (ICAR - CTCRI), Thiruvananthapuram, a premier institute under the Indian Council of Agricultural Research, New Delhi is the only institution in the world dedicated exclusively to research on tropical root and tuber crops. Since its inception, ICAR - CTCRI has developed 53 varieties of all tropical tuber crops (Cassava -16; Sweet potato – 16; Yams – 12; Taro – 6; Elephant foot yam – 2 and Chinese Potato – 1); standardized agro-techniques of various tuber crops in different agro-ecosystems in India including North-Eastern region; nine resource conservation technologies including in vivo and in vitro protocols for quality planting material production; eleven Integrated management packages for tuber crops pests and diseases; eight value-added food and industrial products from tuber crops and seven computer simulation models/ information systems for crop management. The Institute has a strong out-reach programme for transferring tuber crops technologies for the various user group. Owing to its good work conducted in the last five decades, ICAR-CTCRI has received several recognitions at the national and international level.

## Training Objectives:

1. To introduce production system-specific technological advances of tropical tuber crops
2. To build capacities of participants on cultivating tuber crops in a profitable and sustainable way using improved technologies
3. To sensitise the participants on diversified applications of tropical tuber crops to improve economic security of farmers
4. To equip participants to identify and use potential value added tuber crops technologies to develop sustainable businesses

## Key Focus Areas of the Training Module

1. Developing tuber crops varieties for food security and industrial use
2. Production of quality planting materials of tuber crops
3. Agro-techniques for profitable cultivation of cassava, sweet potato, yams, aroids and minor tuber crops
4. Site-Specific Nutrient Management and customised fertiliser applications for tuber crop production
5. Tuber crops based farming systems
6. Organic farming of tuber crops
7. Technologies for developing bio-intensive pest and disease management
8. Primary and secondary processing equipment for processing of tuber crops
9. Extrusion processing of tuber crop starches/flour
10. Bio-chemical analysis of tuber cops and their products
11. Functional foods from tuber crops
12. Industrial products from tuber crops
13. Production and potential uses of cassava starch
14. Ready to eat bakery products from tuber crops
15. Technologies for production of high-quality cassava flour (HQCF)
16. Strategies for increasing shelf-life of tuber crops
17. Technology incubation for entrepreneurship development
18. Participatory tuber crops technology development
19. Essential Business planning skills for creating tuber crops-based enterprises


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