## **Technologies available at ICAR-IISR for Commercialization**

#### **Plant varieties**

#### **Black pepper**

- 1. IISR Thevam
- 2. IISR Girimunda
- 3. IISR Shakthi
- 4. IISR Malabar Excel
- 5. IISR Chandra

<u>Turmeric</u>

- <u>1</u>. IISR Prathibha
- 2. IISR Prabha
- 3. IISR Alleppey Supreme
- 4. IISR Kedaram
- 5. IISR Pragati

### <u>Ginger</u>

- 1. IISR Varada
- 2. IISR Rejatha
- 3. IISR Mahima
- 4. IISR Vajra

### <u>Nutmeg</u>

- 1. IISR Viswashree
- 2. IISR Keralashree

## Small Cardamom

- 1. Appangala-1
- 2. Appangala-2
- 3. IISR-Avinash
- 4. IISR-Vijetha

## **Crops Specific Micronutrient Mixtures**

<u>1.</u> A micronutrient composition for ginger and a process for its preparation (for soils with pH above seven) Patent No. 314133

2. A micronutrient composition for ginger and a process for its preparation (for soils with pH below seven) Patent No. 318672

3. A micronutrient composition for turmeric and a process for its preparation (for soils with pH above seven)

4. A micronutrient composition for turmeric and a process for its preparation (for soils with pH below seven) Patent No320502

5. A micronutrient composition for black pepper and a process for its preparation Patent No. 367654

6. A micronutrient composition for cardamom and a process for its preparation Patent Appn No1681/CHE/2015

# A novel method of storing and delivering PGPR/Microbes through Biocapsules Patent No 361021

## A seed coating composition and a process for its preparation Patent No350698

## **Bioagents**

<u>1.</u>*Trichoderma harzianum*, a biocontrol agent against *Phytophthora* foot rot-Talc formulation

- 2. Pochonia chlamydosporia, a biocontrol agent against nematodes- Talc formulation
- 3. Pochonia chlamydosporia a biocontrol agent against nematodes- liquid formulation
- 4. PGPR microbial consortium for growth promotion in black pepper
- 5. PGPR talc formulation for ginger
- 6. PGPR talc formation for seed spices

## Food Processing

A spice mix as adjuvant in milk and milk products

# Technologies developed at ICAR-IISR

## Images



Turmeric-IISR Prathibha



Turmeric-IISR Prabha



Turmeric-IISR Alleppey Supreme



Turmeric-IISR Kedaram



Turmeric-IISR Pragati





Ginger-IISR Varada

Ginger-IISR Rejatha



Ginger-IISR Mahima



Black pepper-IISR Thevam



Black pepper-IISR Shakthi



Black pepper-IISR Girimunda



Black pepper-IISR Malabar Excel



Nutmeg- IISR Viswashree



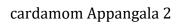
Nutmeg- IISR Keralashree



Cardamom-Appangala 1



Cardamom-IISR Avinash





Cardamom-IISR Vijetha

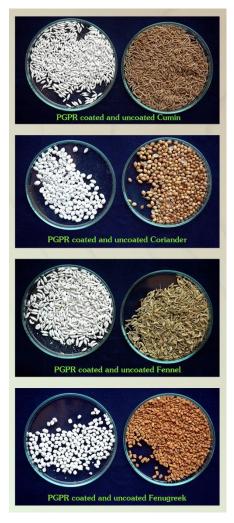
#### **Crops Specific Micronutrient Mixtures**



A novel method of storing and delivering PGPR/Microbes through Biocapsules



A seed coating composition and a process for its preparation



PGPR microbial consortium for growth promotion in black pepper



PGPR Talc formulation for ginger



# Healthy planting material production-Protray



Rapid multiplication of disease free planting material in ginger-Plug trays



Rapid multiplication of disease free planting material in turmeric-Plug trays



Diagnostics for viruses infecting black pepper and cardamom







M A B C D E F G

1500 bp 1000 bp 500 bp