

## TECHNICAL PROGRAMME FOR 2011-2012

### 1. GERMPLASM

- 1.1 Collection, conservation, characterization, cataloguing of different types/cultivars as genetic resources of root and tubers in their respective regions.

Centres: *Kalyani, Ranchi, Raipur/Jagdalpur, Dapoli, Port Blair, Rajendranagar/Kovvur/Peddapuram, Dholi, Faizabad, Navsari, Jorhat, Coimbatore/Yethapur, Shillong, Udaipur, Imphal and Dharwad.*

### 2. CROP IMPROVEMENT

#### 2.1 Cassava

- 2.1.1 Seedling evaluation programme

*Centres: Yethapur, Peddapuram, Jagdalpur, Dapoli, Jorhat*

- 2.1.2 IET on Short duration Cassava varieties (IET SD Ca 09)

Centres : *Imphal, Udaipur*

Entries : *Ci- 848, Sree Prakash, Ci-732, Sree Jaya, Sree Vijaya, Vellayani Hraswa, H-165, H-119*

- 2.1.3 IET on Cassava Mosaic Resistant Varieties (IET Ca MR 09)

Centres : *Udaipur, Imphal, Peddapuram*

Entries : *CMR-1, CMR-8, CMR-42, CMR-58, CMR-15, CMR-16, CMR-17, CMR-21, 99/14, 4/20; PDP-5, PDP-6, PDP-7, PDP-8, MNga-1, Sree Rekh (Control)*

- 2.1.4 IET on Cassava Mosaic Resistant Varieties (IET Ca MR 11)

Centres : *Thiruvananthapuram, Peddapuram, Yethapur, Dapoli*

Entries : *TCMS-1, TCMS-2, TCMS-3, TCMS-4, TCMS-5, TCMS-6, TCMS-7, TCMS-8, TCMS-9, TCMS-10, TCMS-11, TCMU-12, TCMU-13, TCMU-14, TCMU-15, PDP9, PDP 10*

- 2.1.5 URT on Cassava (URT Ca 09)

Centres : *Yethapur, Peddapuram, Navsari, Dapoli, Thiruvananthapuram*

Entries : *Ci-823, Ci-800, CM-6901, 4-2, PDP-1, 5-3, CM-69-1, CE-142, CM-6905, CM-9966, IGT-4, IGT-5, MNga-1, IGT-6, ME-833, CE-185, CM-9905, CE-775, Sree Prabha (Control) and local control*

- 2.1.6 URT on Cassava mosaic resistant varieties (URT Ca MR 09)

Centres : *Thiruvananthapuram, Yethapur*

Entries : *Mnga1, CMR-1, CMR-11, CMR-13, 5-3 and PDP-5*

#### 2.2 Sweet potato

- 2.2.1 Improvement through poly cross method of breeding for making site specific selections of sweet potato

*Centres : Bhubaneswar, Dholi, Kalyani, Raipur, Thiruvananthapuram*

- 2.2.2 IET on Orange fleshed Sweet potato (IET Sp Or 09)

Centres : *Bagalkot, Navsari, Shillong, Udaipur*

Entries : S-61, S-594, S-1156, S-1281, SV-98, 362-7, IGSP-C-15, CiP SWA -2, 187017-1, 440038, 440127, 420027, ST-14, Kamalasundari, CARI SP-1.

### 2.2.3 URT on Sweet potato (URT Sp 09)

Centres : *Dholi, Imphal, Port Blair, Udaipur*

Entries : S-1-60, Co-3-4, SV-71, ST-10, RS-47, RS-92, 440038, Sree Bhadra, DOP 92-93, IGSP-18, Ci, SV-286, IGSP-13, IGSP-14, ST-10, CARI SP-1, CARI SP-2, Sree Arun (Check) and local check

### 2.2.4 URT on Orange fleshed Sweet potato (URT Sp Or 09)

Centres : *Faizabad, Imphal*

Entries : SV-98, S-1156, 187017-1, NDSP-65, ST-14, SV-362, IGSP-15, CiPSWA-2, NFSP-1, Gouri (check) and local check

### 2.2.5 MLT on Sweet potato (MLT Sp 09)

Centres : *Navsari, Shillong*

Entries : Co 3-4, S1-60, ST-10, S-107, Kokrajhar local, Kokrajhar red, Sree Retna/Sree Bhadra (check) and local check

### 2.2.6 MLT on Orange fleshed Sweet Potato (MLT Sp Or 09)

Centres : *Dapoli, Dholi, Jorhat, Kalyani*

Entries : CiPSWA-2, 440127, 90/101, 362-7, SV-98, 44038, ST-14, S-1156, Gouri, Kamala Sundari (check) and local check

## 2.3 Yams

### 2.3.1 IET on greater yam (IET Da 09)

Centres : *Imphal, Jorhat, Navsari, Raipur, Udaipur*

Entries : AAU Da-2, AAU Da-8, AAU Da-9, AAU Da-10, AAU Da-17, NAU Da-01, NAU Da-02, NDBG-1, NDBG-2, NDBG-3, IGDa-2, IGDa-3, IGDa-4, TRC-Greater yam, Da-25, Da-11, Da-199, IG Da-1 and Sree Roopa (Std. Check).

### 2.3.2 IET on Lesser yam (IET De 09)

Centres : *Ranchi, Jorhat, Thiruvananthapuram, Bagalkot*

Entries : RAU-1, RAU-2, RAU-3, RAU-4, RAU-5, RAU-6, De-38, De-96, De-156, Sree Latha, Sree Kala, Konkan Kanchan, Adamoa and a local check.

### 2.3.3 URT on greater yam (URT Da 09)

Centres : *Jorhat, Navsari, Bagalkot, Imphal*

Entries : Da-199, TRC Da, Da-25, AAU Da-8, AAU Da-17, IGDa-2, IGDa-3, IGDa-4

### 2.3.4 URT on Lesser yam (URT De 09)

Centres : *Dholi, Jorhat, Ranchi, Thiruvananthapuram*

Entries : DE-11, DE-17, DE-96, DPL-1, RAU-1, RAU-2, RAU-3, RAU-4, Adamoa, DE-38, DE-156, Sree Latha (Check), Sree Kala (Check)

### 2.3.5 MLT on Greater yam (MLT Da 09)

Centres : *Bhubaneswar, Dapoli, Jagdalpur, Thiruvananthapuram*

Entries : Da-11, Da-25, Da-168, Da-68, Konkan Gorkhand, Sree Karthika, SreeRoopa (Check)

## **2.4 Colocasia**

### **2.4.1 IET on Colocasia (Bunda) (IET Co 09)**

Centres : *Faizabad, Kalyani, Raipur*

Entries : IGB-1, IGB-2, IGB-3, IGB-5, IGB-6, BCCB-1, BCCB-2, BCCB-3, BCCB-4, NDB-21, NDB-3. Check entries: NDB-1, NDB-3, Bidhan Chaitanya, Sree Reshmi and Sree Kiran and local check.

### **2.4.2 URT on Colocasia (Taro) (URT Co 09)**

Centres : *Dholi, Jorhat, Raipur, Barapani*

Entries : AAU Col-32, AAUCol-38, AAU Col-46, AAU Col-35, IGCole-E-8, IGCole-E-9, Halkesu, AAUCol-5. Sree Reshmi and Sree Kiran, and local check

### **2.4.3 MLT on Colocasia (Taro) (MLT Co 09)**

Centres : *Kovvur, Rajendranagar, Shillong*

Entries : ML-1, ML-2, ML-9, Megh-1, KCS-3, Jagtial local, IGCole-E-8, KCS -3, KCS – 2, RNCA-1/Bidhan Chaitanya (Check), Satamukhi (Local check)

## **2.5 Elephant foot yam**

### **2.5.1 URT of Elephant foot yam (URT Am 09)**

Centres : *Coimbatore, Kovvur, Raipur, Ranchi*

Entries : Sree Padma, BCA-3, Bidhan Kusum, Gajendra, TRC Badama, Appakudal, 1GAM-1, IGAM-2, IGAM-8, AC-14, AC-28, NDA-2, Sree Athira, TRC Badama, BCA-1 (Bidhan Kusum), BAM-1, Gajendra (check) and local

### **2.5.2 MLT on Elephant foot yam (MLT Am 09)**

Centres : *Kalyani, Thiruvananthapuram*

Entries : AM-62, H-75, BCA-2, BCA-3, Bidhan Kusum (Std. check), local check Sree Padma (Control), Gajendra (check)

## **2.6 Xanthosoma**

### **2.6.1 MLT on Xanthosoma (MLT Xa 09)**

Centres : *Rajendranagar*

Entries : KKV-Xa-1, KKV-Xa-3, KKV-Xa-4

## **2.7 Yam Bean**

### **2.7.1 Improvement programme on Yam bean through breeding**

Centres : *Bhubaneswar, Dholi, Kalyani*

Entries : EC 100546, L- 19, L- No.3, 8x9

### **2.7.2 MLT on Yam bean (MLT Yb 09)**

Centres : *Dapoli, Kalyani, Raipur, Ranchi*

Entries : DPH -9, DPH-70, DPH-88, DPH-101, DPH -5, DPH-78, W.Fx deshi and RM – 1 (Check)

### **3 CROP PRODUCTION**

#### **3.1 Cassava**

##### 3.1.1 Effect of pruning on tuber yield of cassava

Centres: *Peddapuram, Thiruvananthapuram, Yethapur*

##### 3.1.2 Integrated nutrient management in cassava

Centres: *Dapoli, Jagdalpur, Peddapuram, Udaipur, Yethapur*

##### 3.1.3 Use of cassava leaves for eri-silk worm rearing for production of eri-silk

Centres: *Jorhat, Jagdalpur, Peddapuram*

##### 3.1.4 Standardization of fertigation through micro irrigation for cassava

Centres: *Peddapuram, Yethapur*

##### 3.1.5 Low input technology for cassava production

Centres: *Jagdalpur, Jorhat, Peddapuram, Yethapur*

##### 3.1.6 Integrated weed management in cassava

Centres: *Bhubaneswar, Jagdalpur, Peddapuram, Yethapur*

#### **3.2 Sweet potato**

##### 3.2.1 Organic production of sweet potato

Centres: *Bagalkot, Faizabad, Imphal, Kalyani, Rajendranagar, Udaipur*

#### **3.3 Taro**

##### 3.3.1 Integrated nutrient management on Taro

Centres: *Coimbatore, Faizabad, Kalyani, Barapani*

##### 3.3.2 Standardization of storage techniques for taro seed tubers

Centres: *Dholi, Jorhat, Kalyani, Kovvur, Barapani*

#### **3.4 Elephant foot yam**

##### 3.4.1 Effect of INM on yield and quality of elephant foot yam

Centres: *Coimbatore, Kovvur, Jorhat*

##### 3.4.2 Standardization of fertigation through micro irrigation for elephant foot yam

Centres: *Coimbatore, Kovvur*

##### 3.4.3 Organic production of Elephant foot yam

Centres: *Coimbatore, Faizabad, Kalyani, Kovvur, Ranchi*

#### **3.5 Intercropping of tuber crops based cropping systems**

##### 3.5.1 Intercropping tuber crops in sapota/amla/mango orchards

Centres: *Bagalkot, Coimbatore, Dapoli, Faizabad, Kalyani, Navsari, Rajendranagar, Ranchi, Udaipur*

##### 3.5.2 Intercropping spice crops in elephant foot yam

Centres: *Bhubaneswar, Dholi, Faizabad, Kalyani, Kovvur, Ranchi*

##### 3.5.3 Identification of suitable intercrops in taro/arvi

Centres: *Imphal, Raipur*

3.5.4 Production techniques for sweet potato in rice based cropping system

Centres: *Bhubaneswar, Imphal*

**4. CROP PROTECTION**

4.1 Evaluation of cassava lines for mosaic tolerance/ resistance

Centres : *Dapoli, Jagdalpur, Peddapuram, Yethapur*

4.2 Management of sweet potato weevil through barrier crops (yam bean and marigold)

Centres : *Bagalkot, Dapoli, Kalyani, Rajendranagar*

4.3 Management of sweet potato weevil through biopesticides/microbial agents Centres :  
*Dapoli, Kalyani, Rajendranagar*

4.4 Management of sweet potato weevil through intercrops

Centres: *Dapoli, Dholi, Kalyani, Rajendranagar*

4.5 Screening of anthocyanin sweet potato entries against sweet potato weevil

Centres : *Dapoli, Dholi, Kalyani, Rajendranagar*

4.6 Screening of orange fleshed sweet potato entries against Sweet potato weevil and termite

Centres : *Dholi*

4.7 Evaluation of *Colocasia* entries for *Phytophthora* leaf blight resistance/tolerance.

Centres : *Dapoli, Dholi, Kalyani, Rajendranagar*

4.8 Integrated disease management in taro

Centres: *Dholi, Kalyani, Rajendranagar*

4.9 Biointensive management of taro leaf blight

Centres : *Dapoli, Raipur, Rajendranagar, Kalyani*

4.10 Integrated disease management in elephant foot yam

Centres : *Dapoli, Raipur, Rajendranagar, Kalyani*

4.11 Management of yam bean pod borer

Centres : *Dapoli, Dholi, Kalyani*

4.12 Screening of yam bean entries against yam bean seed borer

Centre : *Dholi*

4.13 Screening of yam bean genotypes against mosaic

Centre : *Dholi*

4.14 Evaluation of tuber crops based biopesticides against pests of national importance

Centre : *Dapoli, Dholi, Kalyani, Rajendranagar*

4.15 Survey and surveillance of pests and diseases of root and tuber crops

All Centres

**5. Distribution of quality planting materials of improved varieties and dissemination of technical knowhow for higher productivity of tuber crops to the farmers and Seed Production Program**

**6. Farmers participatory technology demonstration trials**