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NEW CROP VARIETIES

1. RICE CO 51

Special features
- Shorter duration
- High yielding semi dwarf rice variety
- Moderately resistant to Blast, Brown Plant Hopper and Green Leaf hopper
- White medium slender rice with high milling (69%) and head rice recovery (63%)
- Intermediate amylose content (22%), gelatinization temperature and soft gel consistency

Parentage                       ADT 43 / RR 272 – 1745
Duration                          105 -110 days
Season                           June-July / September-October
Grain yield 6623 kg/ha (11% increase over ADT 43)
Highest yield obtained 11,377 Kg/ha at Nallampalli of Dharmapuri District
Recommended districts Suitable for cultivation as transplanted rice throughout Tamil Nadu except Nilgiris district.

Scientists involved in the release
2. RAGI CO 15

Special features
- Long duration, bold grain, non shattering, non lodging, blast resistant with preferable grain quality with nutritious fodder characteristics
- Rich in protein (11.8%)

![Image of Ragi CO 15 plant]

<table>
<thead>
<tr>
<th>Parentage</th>
<th>CO11 x PR 202</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duration</td>
<td>125 days</td>
</tr>
</tbody>
</table>
| Season      | Rainfed: June-July / September-October  
              Irrigated: January-February / April-May |
| Yield       | Rainfed - Grain - 2950kg/ha; Fodder - 5030 kg/ha  
              Irrigated - Grain - 3461kg/ha; Fodder - 6698kg/ha  
              Increased yield over  
              CO (Ra) 14 (2739 Kg/ha) - 17%  
              GPU 28 (2643 Kg/ha) - 21%  
              Paiyur (Ra) 2 (2769 Kg/ha) - 16% |
| Highest yield obtained | Irrigated - Grain - 6775kg/ha 
Fodder - 10125kg/ha |
| Area of adoption | Rainfed - Erode, Salem Dharmapuri and Krishnagiri 
Irrigated - Thiruvannamalai and Vellore |

Scientists involved in the release
A. Nirmalakumari, A.Subramanian, P.Veerabadhiran, K.Thiyagarajan, S.Manoharan, T.Raguchander and C.Priyadharshini
3. GREENGRAM CO 8

Special features
- Short duration
- Determinate plant type with synchronized maturity, suitable for single/mechanical harvest
- Resistant to yellow mosaic disease, stem necrosis and moderately resistant to root rot
- Moderately resistant to aphids and stem fly
- Suitable for intercropping in maize and in redgram (drip irrigation)

<table>
<thead>
<tr>
<th>Parentage</th>
<th>COGG 923 X VC 6040A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duration</td>
<td>55 – 60 days</td>
</tr>
<tr>
<td>Season</td>
<td>June – July / September – October</td>
</tr>
<tr>
<td>Yield</td>
<td>845 kg/ha (20% over CO (Gg) 7)</td>
</tr>
<tr>
<td>Highest yield obtained</td>
<td>1310 kg/ha – Pattukottai</td>
</tr>
<tr>
<td>Area of adoption</td>
<td>All greengram growing districts of Tamil Nadu</td>
</tr>
</tbody>
</table>

Scientists involved in the release
P. Jayamani, AR. Muthiah, C. Durairaj, S. Pazhanivelan, A. Kamalakanan and K. Thiyagarajan
4. GROUNDNUT CO 7

Special features
- Tolerant to drought
- Moderately resistant to rust and late leaf spot
- Shelling outturn 71%
- Oil content 51%
- Acceptable pod traits

Parentage
Derivative of the cross ICGV 87290 x ICGV 87846

Duration
100-105 days

Season
Rainfed: April-May / June –July / Sep-Oct
Irrigated: Dec-Jan / Feb-Mar / June -July

Yield
Rainfed: 2300 kg/ha - 14% over VRI (Gn 6)
Irrigated: 2806 kg/ha - 17% over VRI (Gn 6)

Highest yield obtained
5632 kg/ha under irrigated condition

Area of adoption
Except Kanyakumari and Nilgiris

Scientists involved in the release
S.N.Nigam, P.Vindhiyavarman, M.Vaidhyalingan, N.Manivannan, S.Saravanan, B.Meenakumari, C.Gopalakrishnan, J.S.Kennedy and K.Thiyagarajan
5. **LUCERNE CO 2**

**Special features**
- Higher green fodder yield (130 t/ha/year)
- More number of stems per crown with soft and dark green leaves
- High crude protein content (24%) and dry matter yield (22 t/ha/yr)
- Profuse flowering leading to enhanced seed yield
- Superior ratooning ability and early flowering - 14 harvests per year
- Highly palatable, preferred by milch cattle, goat, sheep and horses
- First harvest at 60-65 days; subsequent harvest in 20-25 days interval

**Parentage**
- Poly cross derivative of CO 1

**Duration**
- Perennial

**Season**
- Throughout the year under irrigated condition

**Green fodder yield**
- 130 t/ha/year
- 26% over CO 1

**Highest yield obtained**
- 146 t/ha/year

**Area of adoption**
- Coimbatore, Tiruppur, Erode and Krishnagiri districts
- (Not suitable for hot and humid areas)

**Scientists involved in the release**
6. DAVANA PKM 1

Special features
- The accession AP. 7 has high herbage (16.78 t/ha) and oil yield (20.32 kg/ha) with medium duration
- Foliage distinctly silvery green in colour
- Profuse branching from the base of the plant
- Highly fragrant in nature
- First harvest by 40 days after transplanting
- Field tolerance to aphids and damping off

<table>
<thead>
<tr>
<th>Parentage</th>
<th>Acc. No. AP. 7 is a mass selection from the local type (Chinnamanur)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duration</td>
<td>145 to 150 days</td>
</tr>
<tr>
<td>Season</td>
<td>June-July / November-December</td>
</tr>
<tr>
<td>Yield</td>
<td>Herbage - 17 t/ha</td>
</tr>
<tr>
<td></td>
<td>28% over Nilakottai local</td>
</tr>
<tr>
<td>Highest yield obtained</td>
<td>Herbage - 17.45 t/ha</td>
</tr>
<tr>
<td>Area adoption</td>
<td>Theni, Dindigul, Madurai, Salem, Kanyakumari and Virudhunagar districts.</td>
</tr>
</tbody>
</table>
7. TAPIOCA YETHAPUR 1

Special features
- Erect, tall growing and non branching
- Shorter inter nodal length, bigger leaves
- Long and cylindrical tubers
- Brown outer skin, light cream rind and white flesh
- Starch content - 25 to 27 %

<table>
<thead>
<tr>
<th>Parentage</th>
<th>Selection from Thondamuthur local of Coimbatore district, Tamil Nadu</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duration</td>
<td>270-300 days</td>
</tr>
<tr>
<td>Season</td>
<td>Irrigated: November – January</td>
</tr>
<tr>
<td></td>
<td>Rainfed: April – May</td>
</tr>
<tr>
<td>Yield</td>
<td>50 t/ha</td>
</tr>
<tr>
<td></td>
<td>35% over CO(TP)4 and 58% over H 226</td>
</tr>
<tr>
<td>Highest yield</td>
<td>57 t/ha</td>
</tr>
<tr>
<td>Area of adoption</td>
<td>Salem, Namakkal, Erode, Perambalur, Dharmapuri and Cuddalore districts</td>
</tr>
</tbody>
</table>

Scientists involved in the release
8. TURMERIC CO 2

Special features
- Fresh rhizome yield 43 t/ha
- Curcumin content 4.14%
- Moderately resistant to leaf blotch and leaf spot
- Highly resistant to rhizome rot
- Field tolerance to thrips, shoot borer, leaf folder and scale insect

Parentage | Selection from Bhavanisagar local
Duration | 250 – 260 days
Season | May – June
Yield | 43 t/ha (fresh rhizomes)
      | 27% of rhizome and 18% of Curcumin content over BSR-2
Highest yield obtained | 45 t/ha of fresh rhizomes
Area of adoption | Coimbatore, Erode and Salem Districts

Scientists involved in the release
N.Shoba, P.Muthulakshmi, S.Subramanian, P.Paramaguru, P.Jansirani,
K.Rajamani, G.Balakrishnamoorthy, N.Kumar and E.Rajeswari
9. SWEET POTATO CO 5

Special features
- Tubers with attractive orange flesh and pink skin
- **β**-carotene 20.02 μg/g
- Tuber dry matter 18%
- Harvest index 44%
- Good flavour acceptance
- Dextrose sugar 7.5mg/g
- Organoleptic score of 9/10 for overall acceptability

Parentage
- Clonal selection from the culture CIP 440038

Duration
- 100-110 days

Season
- Irrigated: June-July / October-November

Yield
- 29 t/ha
- 38% over CO 3

Highest yield obtained
- 33 t/ha

Area of adoption
- Coimbatore, Salem, Namakkal, Erode and Tirupur districts

Scientists involved in the release
**10. COLEUS CO 1**

**Special features**
- Dry tuber yield of 2.0 t/ha
- Forskohlin content 23%
- Moderately resistant to root rot and wilt diseases
- Field tolerance to nematode and mealy bug infestation

**Parentage**
Clonal selection from Periyakulam local

**Duration**
160-180 days

**Season**
August - September

**Yield (dry tubers)**
2.0 t/ha
33% increase over local

**Highest yield (dry tubers)**
2.5 t/ha

**Area of adoption**
Except Nilgiris all parts of Tamil Nadu, specifically suited to Salem, Erode, Namakkal, Coimbatore, Dindigul, Theni, Thiruvannamalai and Vellore districts

**Scientists involved in the release**
11. AMARANTHUS PLR 1

Special features
- Short duration 20-21 days with yield of 9 t greens and 200 kg of seeds/ha
- Moderately resistant to white rust, *Cercospora* leaf spot and leaf webber
- Rich in antioxidants and contain nutrients like iron, calcium & vitamins
- Highly preferred due to the green colour of the entire plant
- Suitable for different types of culinary preparations

Parentage | Selection from Thiruvannamalai local
--- | ---
Duration | 20-21 days for greens
| 50-55 days for seed to seed
Season | Suitable for all seasons except during heavy rain
Yield (Greens) | 8984 kg/ha
| 16% over A9-local type
Highest yield obtained (Greens) | 11.7 kg/ha
Area of adoption | Suitable for growing in North Eastern Zone of Tamilnadu comprising of Cuddalore, Villupuram, Kanchipuram, Thiruvannamalai, Vellore and Ariyalur districts.

**Scientists involved in the release**
12. **EUCALYPTUS MTP 1**

**Special features**
- Large, fast growing multipurpose industrial wood species
- Suitable for pulp, paper, biomass, energy and plywood industries
- Propagated predominantly through clonal propagation using shoot bud cuttings
- Wood yield of 130 t/ha in 5 years under irrigated condition
- Harvested between 3 and 5 years depending on the need
- Suitable for both irrigated and rainfed cultivation
- Pulp yield 48% with 19.30 kappa
- Calorific value of 4300 kcal/kg
- Maintainable for 3 rotations

<table>
<thead>
<tr>
<th>Parentage</th>
<th>Selection &amp; evaluation from the seed sources introduced from CSIRO, Australia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duration</td>
<td>3 Years for Biomass</td>
</tr>
<tr>
<td></td>
<td>5 Years for Pulp and Paper</td>
</tr>
<tr>
<td>Season</td>
<td>Monsoon planting</td>
</tr>
<tr>
<td>Yield</td>
<td>130 t/ha</td>
</tr>
<tr>
<td></td>
<td>33% over local</td>
</tr>
<tr>
<td>Highest yield obtained</td>
<td>150 t/ha</td>
</tr>
<tr>
<td>Area of adoption</td>
<td>All districts. Suited for all soils except clay and waterlogged condition</td>
</tr>
</tbody>
</table>

**Scientists involved in the release**
13. Tamarind Huller

Special features

- Portable and continuous type unit with feed hopper, beater assembly, sieve and outlet
- Reduces the drudgery involved in manual hulling and to make the process hygienic
- Operated by 1 hp single phase motor

Capacity of the equipment : 100 kg/h
Hulling efficiency : 94%
Cost of the equipment : Rs.22,000/-
Cost of operation : Rs.0.70/kg
Scientists involved for release : T.Pandiarajan and A.Tajuddin
14. MULTI CROP MULTI ROW WEEDER

- Suitable for weeding in garden land crops viz., cotton, tapioca, maize, blackgram, greengram and also rice
- Operated with 2.7 HP diesel engine
- Adjustable weeding blades and depth wheel to alter the interspace and depth to suit the crop geometry and requirement
- Engine modulation with control fixed in the handle
- Cost of implement: Rs.63,000/-
- Weeding efficiency and cost of operation

<table>
<thead>
<tr>
<th>Land type</th>
<th>Efficiency (ha/h)</th>
<th>Cost (Rs./ha)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wetland</td>
<td>0.08</td>
<td>3100/-</td>
</tr>
<tr>
<td>Garden land</td>
<td>0.18</td>
<td>2300/-</td>
</tr>
</tbody>
</table>

Scientists involved for release: A.Tajuddin and R.Thiyagarajan
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