Precision Production Technology for Marigold

Technology Description

Precision production technology was standardized for African marigold (Tagetes erecta Linn.) which involves adoption of improved technologies viz., raising seedlings in protrays, seedling dip with Pseudomonas fluorescens, intensive field preparation, application of fertilizers through drip and fertigation system, spraying of biostimulants and micronutrients and adoption of eco-friendly pest and disease management practices for major pests and diseases. Adoption of this technology resulted an increase in 42% flower yield and 38% xanthophyll content. Following are the key technologies to be followed under this system.

- **Seedlings raised in protrays**
- **Seedling dip: Pseudomonas fluorescens 0.5%**
- **Field preparation - chisel, disc plough, cultivator and rotavator**
- **Fertigation - 75% RDF at weekly intervals (90:90:75 kg NPK/ha)**
- **Microelements: 0.1% FeSO4 and ZnSO4**
- **Biostimulants: 0.2% Humic acid**

Country Context

India

Scalability

At Sathyamangalam region in Tamil Nadu the area under cultivation has increased from 2000 ha (2008) to 6000 ha (2012)

Benefits / Utility

- Increase in flower yield by 42.27% (15.74 t/ha against 25.12 t/ha)
- Increase in flower xanthophyll content by 38.19% (1.99 g/kg of fresh flowers against 1.44 g/kg)
- Procurement price to the farmers increased from Rs. 2750/t to Rs.6000/t
- Incidence of thrips was reduced to 3.68% from 45.51%, mites to 10.02% from 70.10%, caterpillars to 7.30% from 40.29% and leaf spot to 24.50%

Social impact of the technology

- Increase in flower yield by 42.27% (35.74 t/ha against 25.12 t/ha)
- Increase in flower xanthophyll content by 38.19% (1.99 g/kg against 1.44 g/kg)
- Procurement price to the farmers increased from Rs. 2750/t to Rs.6000/t

Limiting factors for large scale commercialization

- Socio-economic status of the farming community can be increased
- Marketing of the end product: Lack of awareness of this technology

Potential investors to this technical innovation

Xanthophyll extraction units Xanthophyll exporters

Potential Clients: Farmers

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Name Of institute:
Dept of Floriculture and landscaping, HC & RE, TNAU
Stage of development:
Ready for Commercialization
Patent status: No
Scientific Experts:
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