Training Programme on Micropropagation

Tissue Culture Pilot Plant group at National Chemical laboratory (NCL), Pune is organizing a two-week (2.5.2005 to 13.5.2005) training programme on plant tissue culture. The aim of the programme is to encourage educated unemployed people to take up tissue culture as a viable enterprise and also to train manpower for tissue culture industries. The training programme is mainly targeted for entrepreneurs, extension workers, farmers, teachers, etc. The training programme includes lectures and practicals covering various aspects of plant tissue culture as given below:

Part I: **Training on General Laboratory Techniques**

- Maintenance of aseptic conditions
- Handling of equipments like autoclave, pH meter, glass distillation unit, balances, magnetic stirrers, Laminar airflows, microscopes etc.
- Selection, cleaning and preparation of glassware for the process.
- Sterilization procedures for glassware, media and other basic tools.

Part II : Media formulations

- Formulation of proper medium for the designed pathway of tissue culture by varying macro and micro elements, plant growth regulators, organic compounds, vitamins, complex organics, carbohydrate source, gelling agents.

Media preparations

- Stock solutions
- Plant growth regulators
- Calculations for correct concentration of ingredients and mixing of media
- pH adjustment
- Autoclaving
- Filter sterilization of thermolabile compounds.
- Storage of media

Part III: Demonstrations of tissue culture propagation / micropropagation

- Selection of explant
- Collection, storage and transport
- Surface sterilization methods
- Initiation of cultures
- Establishment of cultures
- Multiplication / proliferation of cultures.
- Rooting in vitro / ex vitro
- Transfer to soil (special training on handling of tissue culture propagules).
- Hardening

Part IV: Quality testing of plants using molecular markers

- Genomic DNA extraction from plants.
- Polymerase chain reaction for amplification of DNA.
- PCR data analysis and separation of amplified products using gel electrophoresis.

Course fee: The course fee is Rs. 3000/- per person. It includes training/ working material and working lunch for 10 working days. The participants will have to make their own arrangements for accommodation and transport.

Apply with following details: (1) Name of the applicant (2) Date of Birth (3) Educational Qualification (4) Languages known (5) Experience (6) How this training programme will be utilized further (7) Address of Communication (8) References (Minimum 2) (9) Telephone No./ E-mail address if any.

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Closing date: 18 April 2005.