

COURSE CONTENT

1. Introduction to different types of concentration
2. Concept of Basal Media
3. Preparation of stock solution of MS basal medium
4. Preparation of stock solution of different auxin
5. Preparation of stock solution of different cytokinin
6. Preparation of full-strength MS basal media
7. Preparation of half strength MS basal media
8. Preparation of MS media of a given composition
9. Sterilization techniques for glasswares and plastic wares
10. Sterilization techniques for stock solution and media
11. Sterilization techniques for explant
12. Techniques of inoculation of a culture
13. Techniques of incubation of a culture

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Hands on training in PLANT TISSUE CULTURE: FOUNDATION COURSE

Date: 3rd - 7th August 2026

Organized by
**Department of Agricultural Biotechnology
and Molecular Biology**
College of Basic Sciences and Humanities
**Dr. Rajendra Prasad Central Agricultural
University, Pusa**





About RPCAU

Dr. Rajendra Prasad Central Agricultural University (RPCAU), Pusa, was established on 7 October 2016 by upgrading the erstwhile Rajendra Agricultural University, which was founded in 1970. Located at Pusa in Samastipur district of Bihar, the University occupies a unique place in the history of agricultural education and research in India. Today, RPCAU stands as a premier institution dedicated to excellence in agricultural education, research, and extension. The University offers multidisciplinary academic programmes and conducts cutting-edge research in agriculture and allied sciences to address emerging challenges in food security, climate resilience, natural resource management, and rural livelihoods. Through its strong outreach and extension network, RPCAU continues to contribute significantly to the sustainable development of agriculture and the welfare of farming communities across Bihar and the nation.

About training programme

Hands on training in Plant Tissue Culture: Foundation Course focusses on the philosophy “*Mastering the environment before mastering the plant.*”. It is a part of the Training Series, which aims to equip students, researchers, farmers, and entrepreneurs with industrial and entrepreneurial competencies in plant biotechnology. It is the introductory module and will serve as the vital entry point into the world of sterile plant *in vitro* culture. It focuses entirely on developing foundational technical literacy, precision pipetting, concentration calculations, and the chemistry behind media formulation. Participants will transition from theoretical biological concepts to hands-on manipulation of standard Murashige and Skoog (MS) matrices, sterile clean-bench handling, and multi-tier sterilization protocols. It is specially designed to welcome raw enthusiasts—including 10+2 students, early undergraduates, and local farmers—while standardizing the technical habits of laboratory technicians and scientists seeking a structured refresher in aseptic validation. The course can be taken in series or as a standalone, to gain insight into the fascinating world of plant tissue culture.

Focus:

- Introduction to different types of concentration and calculations.
- Concept of Basal Media and preparation of stock solutions (MS basal medium, Auxins, and Cytokinins).
- Preparation of full-strength, half-strength, and custom-composition MS media.
- Sterilization techniques: Glassware, plasticware, stock solutions, media, and explants.
- Inoculation and incubation techniques of a culture.

Number of seats: 30

Eligibility: 10+2 students, UG students, faculty, scientists, lab technicians, entrepreneurs, farmers

Training fee: 3000 for students, 5000 for faculty/ scientists/ entrepreneurs, farmers

Click on the following link for registration

<https://forms.gle/EVYTNvDknTT6pHwM6>

Last date for filling the application form: 31.07.2026

The training fee can be transferred through NEFT, UPI, Net banking to the following account

Account Number: **4512002100000287**

Name of Account holder: **FBSH, RPCAU**

Name of Bank and Branch: **PNB, RAU, Pusa**

IFSC code: **PUNB0451200**

Note: The training fee does not include the accommodation and food charges. The participants from other institutions will be provided accommodation in Kisan Ghar on payment basis.