



SAARTHI - सारथी

करियर मार्गदर्शन पोर्टल · Career Guidance Portal

"सही मार्गदर्शन, उज्ज्वल भविष्य।"

करियर शीट · CAREER SHEET

पादप ऊतक संवर्धन विशेषज्ञ

A plant tissue culturist grows thousands of healthy, disease-free plants from tiny plant tissues in the lab. This technique powers nurseries for banana, date, pomegranate and medicinal plants, and the biotech industry.



Scan for everything on this career

Salary, exams, colleges, the routes in and the steps after — all on the portal.

career.gsssjethantri.in/#/career/plant-tissue-culturist

राजकीय उच्च माध्यमिक विद्यालय, जेठन्तरी

Govt. Sr. Sec. School, Jethantri · ब्लॉक समदड़ी · बालोतरा (Block Samdari · Balotra)

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सुशील कुमार शर्मा

प्रधानाचार्य, रा.उ.मा.वि. जेठन्तरी · मास्टर ट्रेनर
Principal, GSSS Jethantri · Master Trainer



श्री चेनाराम चौधरी

प्रधानाचार्य, डाइट बाड़मेर
Principal, DIET Barmer



श्रीमती संघमित्रा

वरिष्ठ व्याख्याता, डाइट बाड़मेर (सहयोग)
Sr. Lecturer, DIET Barmer (Support)



भरत चौधरी

अभिकल्पना व विकास · व्याख्याता (इतिहास)
Designed & developed · Lecturer (History)

विशेष धन्यवाद · SPECIAL THANKS



सुरेन्द्र सिंह राठौड़

व्याख्याता (इतिहास) · रा.उ.मा.वि. कानाना



सुरेश कुमार सैन

व्याख्याता (भूगोल) · रा.उ.मा.वि. रामसीन मूंगड़ा



वनिता कुमारी

व्याख्याता (इतिहास) · रा.उ.मा.वि. रामसीन मूंगड़ा



कमलेश चौधरी

व्याख्याता (राजनीति विज्ञान) · रा.उ.मा.वि. टापरा

करियर मार्गदर्शन कार्यशाला, डाइट बाड़मेर (14-17 जुलाई 2026) में विकसित व लोकार्पित
Developed & unveiled at the Career Guidance Workshop, DIET Barmer (14-17 July 2026)

यह एक स्वतंत्र परियोजना है, जो सरकार की आधिकारिक करियर-मार्गदर्शन सामग्री पर आधारित है। · An independent project based on the Government's official career-guidance content.

1 About this career

A plant tissue culturist grows thousands of healthy, disease-free plants from tiny plant tissues in the lab. This technique powers nurseries for banana, date, pomegranate and medicinal plants, and the biotech industry.

2 At a glance

Stream	Science (Bio/Agri)
Minimum qualification	B.Sc Biotech/Botany/Agriculture
Selection exam	ICAR AIEEA / JET / CUET
Starting salary	₹20,000–35,000/month

3 What you need

INTERESTS

- Interest in the lab and biotech
- Creating new designs and techniques
- Plant growth and propagation

ABILITIES

- Very precise, steady hands
- Problem-solving ability
- Keeping things organised

KEY SKILLS

- Sterile aseptic working technique
- Explant selection and subculturing
- Operating lab equipment
- Record keeping and quality checks
- Media preparation and micropropagation
- Hardening and plant transfer
- Disease and contamination control

4 How to get there

- 1 Pass Class 12 Science (Biology/Agriculture)
- 2 Appear for JET/ICAR AIEEA/CUET entrance
- 3 Complete B.Sc Biotech/Botany/Agriculture
- 4 Do a tissue culture/micropropagation diploma or M.Sc
- 5 Get training/experience in a tissue culture lab
- 6 Or start your own tissue culture nursery/lab

MAIN EXAMS

- Rajasthan Joint Entrance Test (JET)
- ICAR AIEEA (UG and PG)
- CUET undergraduate entrance
- GATE Biotechnology (higher studies)

5 Where to study

GOVERNMENT INSTITUTES

- MPUAT — Udaipur (<https://www.mpuat.ac.in/>)
- SKN Agriculture University — Jobner, Jaipur (<https://www.sknau.ac.in/>)
- SKRAU — Bikaner (<https://www.raubikaner.org/>)
- CAZRI — Jodhpur
- Central University of Rajasthan (Biotech) — Kishangarh, Ajmer

PRIVATE INSTITUTES

- Banasthali Vidyapith (women only) — Niwai, Tonk
- Suresh Gyan Vihar University — Jaipur

ONLINE

- SWAYAM — Online
- IGNOU — Online
- VMOU Kota — Online

FEES

B.Sc/M.Sc costs about ₹15,000–60,000 per year at govt universities; ₹40,000–3 lakh per year at private institutes.

SCHOLARSHIPS

- ICAR National Talent Scholarship (<https://icar.org.in/>)
- DBT Biotechnology Scholarships
- National Scholarship Portal (<https://scholarships.gov.in/>)

6 What the work is like

WHERE YOU WORK

Tissue culture labs, biotech companies, agri universities, research centres and commercial nurseries.

WORK CULTURE

Mostly research and technical work in clean, air-conditioned labs. Usually 6 days a week, 6–8 hours a day; overtime possible.

WHO HIRES

- | | |
|--|---|
| • Biotech and tissue culture companies | • Agri universities and ICAR institutes |
| • Commercial nurseries and plant companies | • Seed and medicinal plant companies |
| • Research and development labs | • Self-employment (tissue culture unit) |

DEMAND (2026)

Growing demand for disease-free banana, date, pomegranate and medicinal plants is fast raising demand for tissue culture experts; Rajasthan has big scope in date palm and khejri.

7 Career growth

- 1 Tissue culture technician
- 2 Lab manager / Research associate
- 3 Agricultural research scientist
- 4 Biotechnology consultant / Professor

EARNINGS

Starting	₹20,000–35,000/माह
Mid level	₹40,000–65,000/माह
Senior level	₹90,000+/माह

Around ₹2.5–7.5 lakh per year initially; ₹10 lakh or more with experience and expertise. Successful lab entrepreneurs earn more.

8 The good parts · The challenges

The good parts

- Link to biotech and modern technology
- Clean, air-conditioned work environment
- Scope for nursery/lab entrepreneurship

The challenges

- Risk of losing whole batches to contamination
- Demands high precision and hygiene
- High capital to set up a lab

9 Real-life journeys

Prof. Narpal S. Shekhawat

Plant biotechnology scientist, Jai Narain Vyas University, Jodhpur

Prof. Narpal S. Shekhawat developed successful in-vitro tissue culture of khejri and several endangered, medicinal Thar-desert plants. His research gave new direction to conserving desert trees and to nursery propagation.

Google Scholar profile · <https://scholar.google.co.in/citations?user=qB41UCUAAAAJ&hl=en>

Bindhya

Tissue culture lab entrepreneur, Vellangallur, Thrissur

Overcoming self-doubt and villagers' cynicism, Bindhya set up a tissue culture lab in her village and stunned everyone by growing plantain saplings in bottles. Today her disease-free saplings are popular and she is a role model for women.

Onmanorama · <https://www.onmanorama.com/lifestyle/women/2018/03/30/bindhya-thrissur-tissue-culture-lab.html>

10 Sources & further reading

1. Rajasthan Career Guidance: Plant Tissue Culturist — <https://cg.rajasthan.gov.in/careerguidance/>
2. ICAR AIEEA entrance — <https://icar.org.in/>
3. MPUAT Udaipur — <https://www.mpuat.ac.in/>



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