

# NOTICE

All students of B.Sc. Botany are informed that a tour of Ankur Seeds Biotechnology Lab, Nagpur, will be conducted for the academic year 2021-22. The visit will showcase innovative research in plant breeding, molecular biology, and biotechnology. Interested students can contact coordinator Dr Punita Tiwari.

Date: 04/04/2024

Venue: Department of Botany

Head, Dept of Botany

Prof. R.N. Deshmukh DEPARTMENT OF BOTANY SHRI SHIVAJI EDUCATION SOCIETY AMRAVATI'S SCIENCE COLLEGE CONGRESS NAGAR, NAGPUR

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# Coordinator

Prof. P. S. Tiwari

# Tour Report Ankur Seeds Biotechnology Lab, Nagpur Academic Year: 2021-22

#### **Introduction to Ankur Seeds:**

Ankur Seeds stands as a beacon of innovation and excellence in the field of plant breeding and biotechnology. With its sprawling 300-acre research farms and cutting-edge facilities, Ankur Seeds is at the forefront of developing sustainable agricultural solutions. The company's commitment to research and development is evident in its dedicated poly-houses, net-houses, and the 60,000 sq ft Breeding Support Centre located in Neri, near Nagpur.

#### **Research and Development Initiatives:**

Ankur Seeds boasts a team of around 200 highly skilled plant breeders and technicians who are engaged in groundbreaking research across various domains. The company's research endeavors span Molecular Biology, Plant Tissue Culture, Entomology, Pathology, Plant Physiology, and Biochemistry divisions. Notably, Ankur Seeds conducts transgenic research in cotton, rice, and vegetable crops to enhance insect resistance, abiotic stress tolerance, and virus resistance. The identification of germplasm with resistance to prevalent pests and diseases underscores the company's commitment to addressing the challenges faced by farmers.

#### **Description of Facilities:**

#### • Pathology Lab:

The Pathology Lab serves as a hub for studying plant diseases, pathogens, and their management strategies. Researchers meticulously analyze disease symptoms, identify causal agents, and devise effective control measures to safeguard crop health.

#### • Fiber Testing Lab:

In the Fiber Testing Lab, researchers assess the quality and properties of fibers produced by different crop varieties. This facility plays a pivotal role in ensuring the quality standards of fiber-based products and facilitating industrial applications.

#### Biochemistry Lab:

The Biochemistry Lab is dedicated to unravelling the biochemical intricacies of plant metabolism and physiological processes. Researchers delve into enzyme kinetics, metabolic pathways, and biochemical signalling to gain insights into plant growth and development.

#### • Entomology Lab:

The Entomology Lab serves as a hub for studying insect pests and their impact on crops. Researchers conduct in-depth studies on insect behaviour, population dynamics, and ecological interactions to devise integrated pest management strategies for sustainable crop protection.

### • Plant Tissue Culture Lab:

The Plant Tissue Culture Lab is equipped with state-of-the-art facilities for the propagation of plants under controlled conditions. Through tissue culture techniques, researchers achieve rapid multiplication of elite plant varieties, preservation of genetic resources, and production of disease-free planting material.

## • Molecular Biology Lab:

The Molecular Biology Lab houses advanced equipment for studying plant genetics, gene expression, and DNA manipulation. Researchers harness molecular techniques such as PCR, gene cloning, and genetic transformation to unravel the genetic basis of traits and engineer crops with desirable characteristics.

## **Conclusion:**

The visit to Ankur Seeds Biotechnology Lab provided a firsthand insight into the pivotal role played by research and technology in modern agriculture. We extend our heartfelt gratitude to Dr. R.N. Deshmukh and Dr. Punita S. Tiwari for their impeccable coordination and to Ankur Seeds for opening their doors and sharing their expertise. This enriching experience has undoubtedly broadened our horizons and inspired us to strive for excellence in the field of botanical sciences.





Exploring the forefront of agricultural innovation with our dedicated students and esteemed faculty member in front of Ankur Seeds Biotechnology Lab

# <u>Student list</u>

Sr. No.	Roll No.		Name Of Student	Ciana ta
1		Ku	ANAND AKANKSHA SANKET	Signature
2		Ku	ATRAM HIMANSHI SANJAY	akarkshadmand
3		Ku	BHANGE ASTHA RAMESH	Alton
4		Ku	BHATKULKAR SHAMAL DILIP	Athy
5			BHONGADE VEDANT SUDHIR	Strauffullin
6		Ku	DAHAYAT ISHA RAJENDRA	dag give
7		Ku	DEKAPURKWAR SHIVAM ATUL	Fine
8		Ku		Quies
9		Ku	DHENGE KIRAN SUNIL	ferrar hence
10		Ku	GALBALE DIKSHITA RAMDAS	Calbele
11		Ku	JADHAO EKTA LOKCHAND	Gadhaw
12		Ku	JADHAV ASHLESHA AVINATH	A
13		Ku	KALAMKAR SNEHAL SURESH	Jakine
14			KALOSHIYA DEVYANI DHARAM	Ballinges
15		Ku	KAYARKAR JANHVI HEMANT	thank
16			KHADE MOHIT RAMNATH	Schade
17		Ku	LONARE ISHA LAXMAN	das.
		Ku	MENDHULE KASTURI PRAKASH	Chitwe
18		Ku	MOREY AKSHADA SATISHRAO	T.
19		Ku	NASARE GAURI PRADIP	Gauss
20		Ku	PATIL SANJEEVINI DIWAKAR	what'
21			RAI AYUSHI ADHIKESH	Nuther
22		Ku	RAMTEKE PREKSHA PRAKASH	ANTES-
23		Ku	SHAHU BHAGYASHREE DILIP	the second
24		Ku	SHAH RAGINI RADHESHYAM	Ridhau
25		Ku	SALVE NIKITA MANOHAR	Raus
26		Ku	THAKUR APURVA ASHOKSINGH	Querug



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Coordinator Prof. P. S. Tiwari

# Action Taken Report

The visit to Ankur Seeds Biotechnology Lab offered a comprehensive glimpse into the cuttingedge research and facilities dedicated to advancing agricultural biotechnology. With its extensive 300-acre research farms and specialized labs, including Pathology, Fiber Testing, Biochemistry, Entomology, Plant Tissue Culture, and Molecular Biology, Ankur Seeds is a leader in developing sustainable solutions. The company's commitment to transgenic research and pest-resistant germplasm highlights its role in addressing critical agricultural challenges. We sincerely thank Dr. R.N. Deshmukh and Dr. Punita S. Tiwari for their excellent coordination and Ankur Seeds for their insightful and hospitable engagement, which has greatly enriched our understanding and inspired us to strive for excellence in botanical sciences.

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Sr.No.	Question	Response		
-//	151	Good	Better	Average
1)	How would you rate the relevance of the research and facilities observed at Ankur Seeds to your field of study?	N	F	B
2)	Did the visit provide valuable insights into the application of biotechnology in agriculture?		0	
3)	How effectively did the visit meet your expectations in terms of learning and practical exposure?		7	
4)	How likely are you to recommend similar visits to peers for educational purposes?		4	

