

ಸಂಸ್ಥೆ ಸ್ಥಾಪನೆ : 1956

Shri Veer Pulikeshi Vidya Vardhak Samstha's

ಕಾಲೇಜು ಸ್ಥಾಪನೆ : 1982



Shri Sidramappa Basappa Mamadapur Arts, Commerce & Science College, Badami - 587201



AISHE CODE : C-10059

College Code : E-82

Dist : Bagalkote)

ACCREDITED WITH GRADE **B⁺⁺** BY NAAC CGPA-2.91

(State : Karnataka

Shri R.S.Mulimani M.Sc
Principal

www.veerpulikeshidegreecollege.in
ssbmbdm10@gmail.com

College : 08357-220116
Mobile : 9241419752 (Principal)

Ref.No:SSBMACSB /

/ /

Date :

FIELD VISIT TO HORTICULTURE UNIVERSITY BAGALKOT BY DEPARTMENT OF BOTANY

FIRST SEMESTER STUDENTS ON 05/02/2024



GPS Map
Camera Lite


5J78+CJ9, Bagalkote, Karnataka 587102, India

Latitude
16.16415497°

Longitude
75.6172452°

Local 01:48:41 PM
GMT 08:18:41 AM

Altitude 541 meters
Monday, 05.02.2024


I.Q.A.C Coordinator
S.S.B.M College
Badami-587 201




Principal
Sri Sidramappa Basappa Mamadapur
Arts, Commerce & Science College
BADAMI - 587 201 Dist: Bagalkot

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/ /

Date :



University of Horticultural Sciences, 5J88+6H8, Bagalkote, Karnataka 587102, India

Latitude
16.16560267°

Longitude
75.61774853°

Local 12:57:58 PM
GMT 07:27:58 AM

Altitude 540 meters
Monday, 05.02.2024



5J89+65M, Bagalkote, Karnataka 587102, India

Latitude
16.16569102°

Longitude
75.61803983°

Local 12:21:35 PM
GMT 06:51:35 AM

Altitude 540 meters
Monday, 05.02.2024

R. S. Mulimani
I.Q.A.C Coordinator
S.S.B.M College
Badami-587 201



S. S. Mulimani
Principal
Sri Sidramappa Basappa Mamadapur
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/ /

Date :



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2024.02.05 13:25




Vivo V11Pro
AI Dual Camera

2024.02.05 13:13



Vivo V11Pro
AI Dual Camera

2024.02.05 13:13


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S.V.P.V.V. SAMSTHA'S
SHRI S.B.MAMADAPUR ARTS, COMMERCE
& SCIENCE COLLEGE BADAMI



DEPARTMENT OF BOTANY
FIELD VIST REPORT



GPS Map
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Badami-587 201

S.V.P.V.V. SAMSTHA'S

SHRI S.B.MAMADAPUR ARTS, COMMERCE

& SCIENCE COLLEGE BADAMI



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College Roll No: 1262m2350031 Examination Seat No: _____

DEPARTMENT OF BOTANY

FIELD VIST REPORT

2023-2024

This is certify that, Mr / MISS Manasa

M. Choukmath as Staisfactorily completed the Field visit in "BOTANY" for Semester BSC- Ist of B.SC as prescribed by the "Bagalkot University, Bagalkot" for the year 2023-2024.

Staff Member In charge

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Principal

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DEPARTMENT OF BOTANY

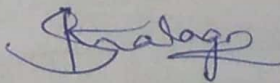
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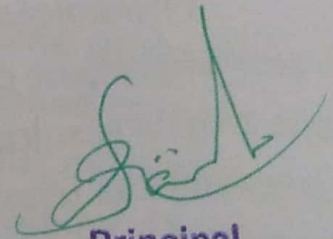
Acknowledgement.

I am 1st semester student of BSC, Very lucky to have a great experience in microbiology lab project, We learned a lot and gained more practical knowledge and happy to know practically . For this wonderful experience of project . I want to convey our sincere respect and regard to our professors PROF. A. A. Topalakatti Miss. A. B. Janali For their guidance and support through out the project work, I am also thankful to our college. Authority for permitting us to visit the microbiology lab.

THANK YOU.



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What is microbiology ?

Micro-organisms and their activities are vitally important to virtually all processes on earth micro organisms matter because they affected every aspects of our life – they are in us, on us and around us.

Microbiology is study of all living organisms that are too small to be visible to our naked eyes. This includes bacteria, virus , fungi, protozoans these microbes play an important role in nutrient cycling ,biodegradation, climate changes, food spoilage the cause and control of disease and biotechnology thanks to their versatality , microbes can be put to work in many ways.

Microbiologists study microbes, and some of the most important discoveries that have underpinned modern society have resulted from the research of famous microbiologist, such as Jenner and his vaccine against smallpox, Fleming and the discovery of penicillin, Marshall and the identification of the link between *Helicobacter pylori* infection and stomach ulcers, and zur Hausen, who identified the link between papilloma virus and cervical cancer.

Microbiology research has been, and continues to be, central to meeting many of the current global aspiration and challenges, such as *maintaining food water and energy*

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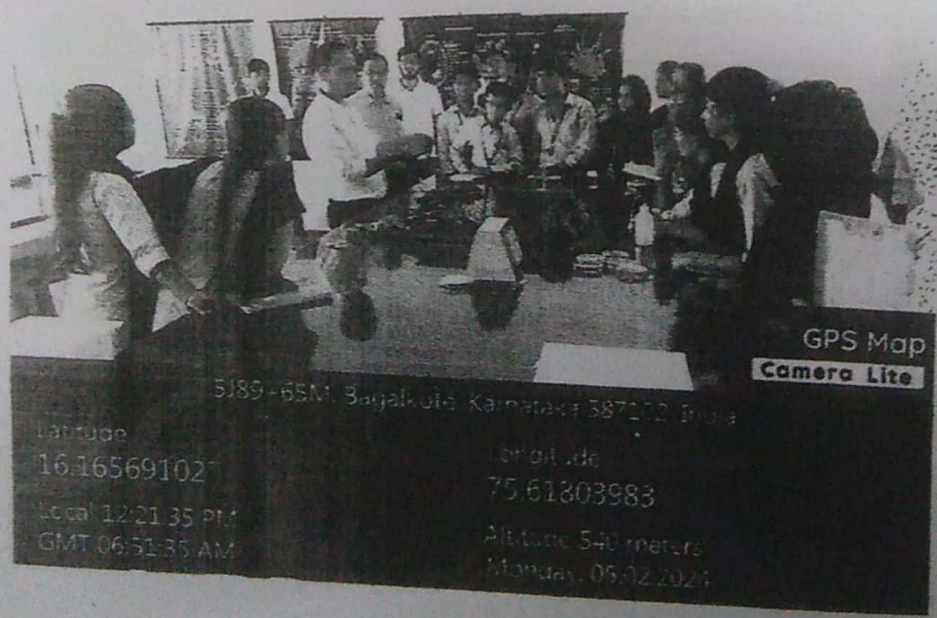
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Introduction

We all have visit to university of horticulture science at Bagalkot for the study the microbiology laboratory aspects and study about the plant tissue culture and laboratory study purpose. Labland is DBT-recognized national training centre in plant culture in microbiology, seed technology and all aspects of science and all plant production. It has well equipped material and commercial laboratory at Bagalkot, India. The company has team of experienced professionals and expert in each the specified area labland is recognized as research by the university of Bagalkot. In this project I wrote microbiology microbiology laboratory and material equipements what is plant tissue culture what we saw and studied in lab and microbiology lab runs and what are the opportunities are there and many more aspects and comment add in this project.



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such as 'how diverse is life on earth?' , and 'dose life exist elsewhere in the Universe?'

A microbiology laboratory is a laboratory devoted to the culting , examination, and identification of microorganisms including bacteria, fungi, yeasts, etc. The microbiology laboratory has a crucial role in effective prevention and control (IPC)

Role of microbiology laboratory:

- 1.) The isolation and characterization of microorganisms inflicting infections performed by the microbiology laboratory play two important functions.
- 2.) Clinical - Managing the infections on a regular basis
- 3.) Epidemiological - Deep Knowledge of an infective microbe and mode of transmission.

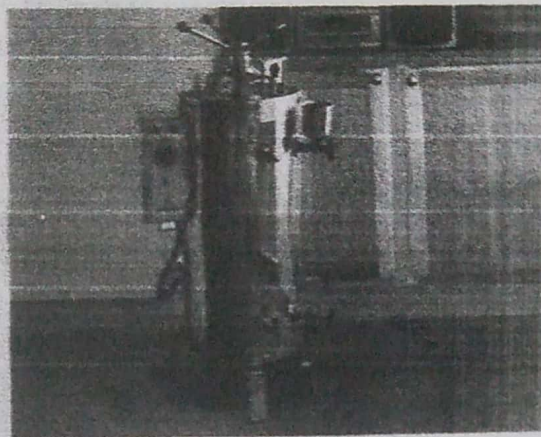
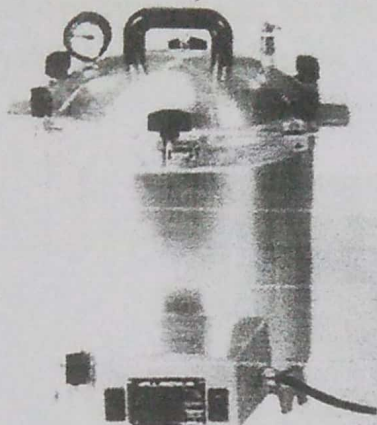


GPS Ma
Camera Lite

keri, 5J9C+25F, Bypass Rd, near horticulture University, Bagalkote, Karnataka
587102, India

Latitude	Longitude
16.81838°	75.6209906°
Time: 11:02:34 AM	Altitude: 539 meters
Date: 05:32:34 AM	Monday, 05.02.2024

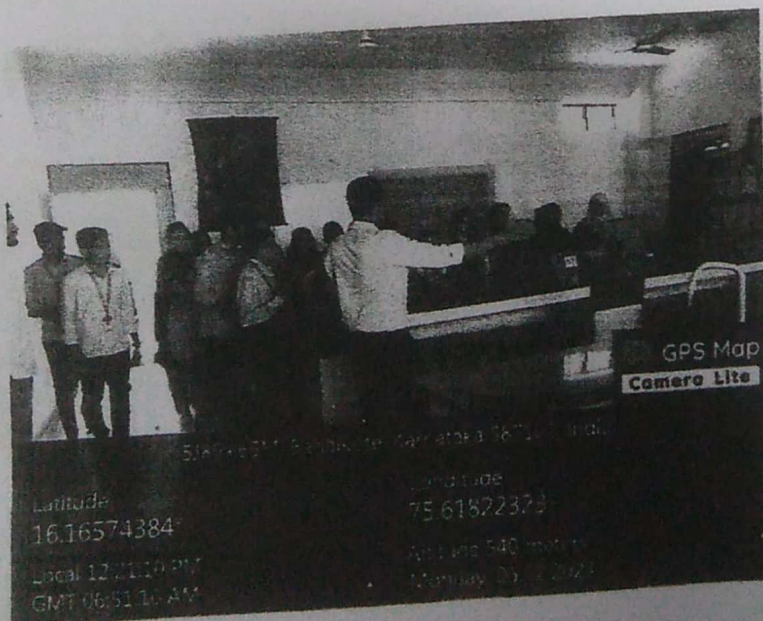
Autoclave

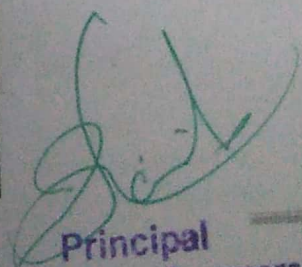


An autoclave is a pressure chamber (apparatus), also referred to as a steam sterilizer or sterilization machine used for health care or industrial application to sterilize equipment at 121°C to 134°C , around 15 to 20 minutes. Autoclave use steam under pressure to kill the harmful virus, spores, bacteria, and fungi of equipments that are stored inside the pressure chamber.

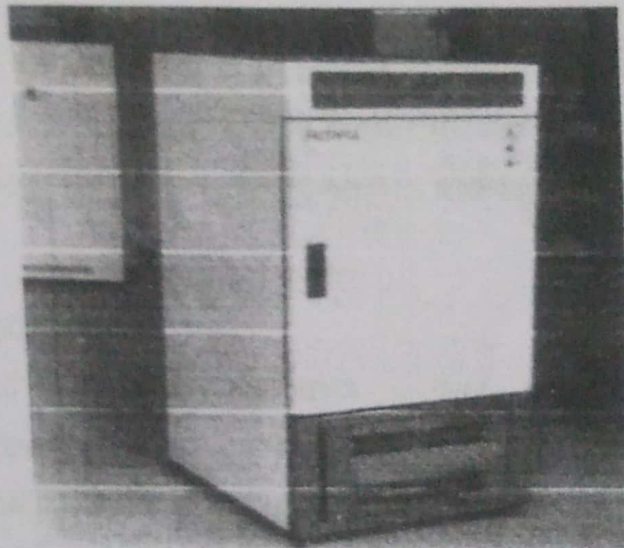
LAMINAR AIRFLOW UNIT,

A Laminar airflow hood/ cabinet is an enclosed workstation that is used to create a contamination-free work environment through filters to capture all the particles entering the cabinet.

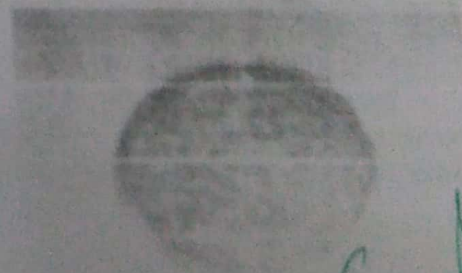
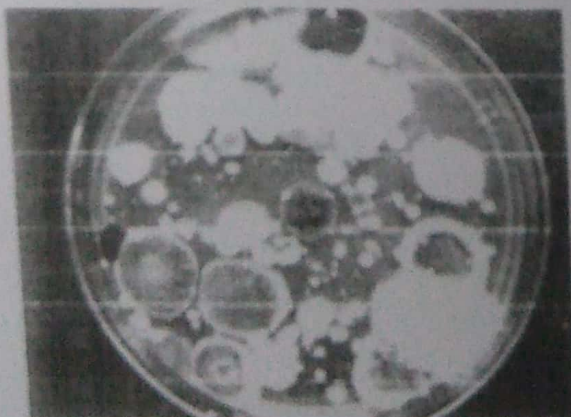


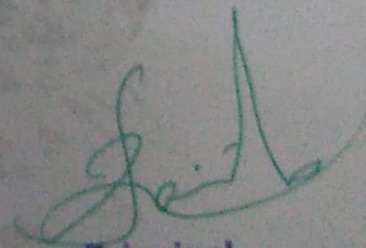

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Incubators are used in modern research laboratories to maintain a stable environment for processes such as growing cells and microbiological cultures.



A shallow, circular, glass or plastic dish with a loose fitting cover over the top and sides, used for culturing bacteria and other microorganism.



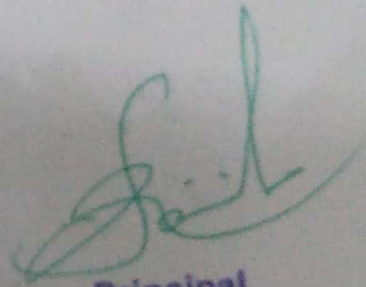

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I. TISSUE CULTURE TECHNIQUES

The culture of plants cell or plant tissues in a synthetic culture medium under controlled aseptic conditions.

The in vitro culture of plant cells or tissue in artificial medium is said to be plant tissue culture. It has many applications in crop improvement, preservation, breeding and in industries. Tissue culture is employed in –

- Micropropagation
- Production of somaclonal variants
- Embryo rescue
- Production of haploid
- Production of artificial seeds
- Production of secondary meta-bolites
- Production of somatic hybrids
- Production of transgenic plants.



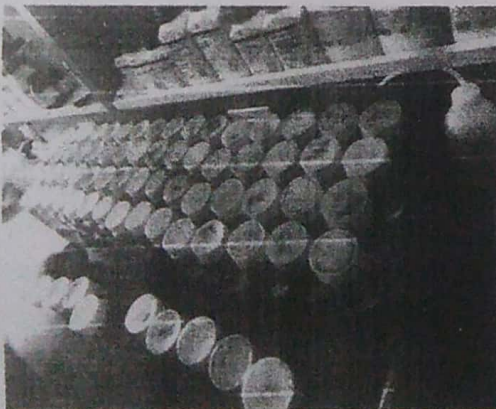
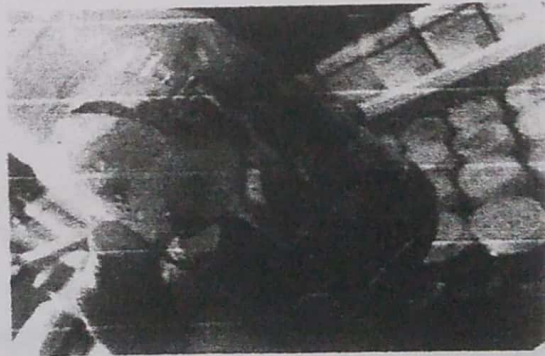
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ROOTING

The regenerated shoots longer than 3 cm with a pair of leaves were transferred to MS without plant growth regulator.

STATISTICAL ANALYSIS

The results are presented as mean values + standard errors. All experiments were repeated four times. The data on callus induction and wet and dry weight were subjected to analysis of SPSS ver 19, with the means separation ($p < 0.05$) by Duncan's multiple range test.



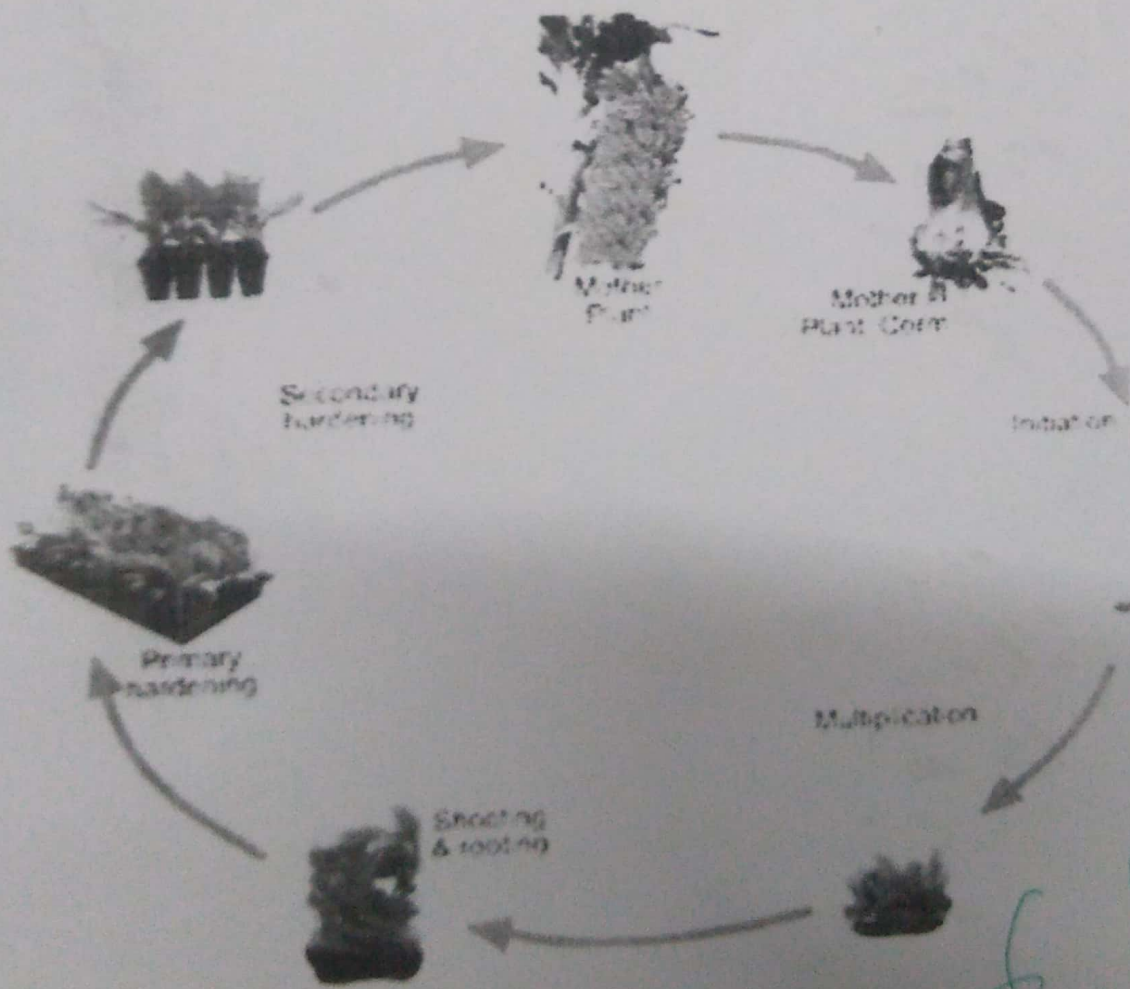
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During the early nineties, a mysterious disease spread in banana fields of Pakistan (Sindh), which occupied more than 60% area, and production declined up to 90% in some of the affected areas. Later on this disease was identified as banana bunchy top disease caused by banana bunchy top virus (BBTV). The vector of this virus is *Pentalonia nigronervosa* and infected plants give typical bunchy top appearance, which is due to loss of flexibility in the leaves, and they stand erect. Due to heavy loss in production, farmers shifted to other crops like sugarcane and cotton but they were unable to get high returns from these crops, which they got from banana. So the efforts were diverted to get disease-free planting material for recultivation of fields, which were destroyed by BBTV. One approach was to import healthy germplasm from abroad, but imported germplasm could not acclimatize with the local soil and environment. The other way was to clean the existing germplasm and multiply at a much higher rate, so that farmers' requirements may be fulfilled. In vitro multiplication of banana plantlets is an excellent alternative and a number of countries in the world like Israel (Israeli et al, 1994), Cuba and many African countries (Vuytsteke, 1998) are using this technique. Micropropagation of banana has been achieved using shoot tip (Cronaner & Krikorian, 1984) and from male floral apices (Escalant et

The important factor affecting the efficiency of micropropagation system is the rate of multiplication. It has been observed that banana multiplication rate is genotypic dependent as well as variable behaviour have been observed among cultures initiated from banana genotype cultured in vitro (Israeli et al., 1995; Mendes et al., 1995). The present work was planned to study the multiplication rates of banana shoot tips derived from different sucker under in vitro condition during successive sub-culture of cv. Basrai.



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