

SRR & CVR GOVT. DEGREE COLLEGE (A) VIJAYAWADA

DEPARTMENT OF MICROBIOLOGY

2018-2019



Field/Laboratory Visit

To



**Biofertilizer Laboratory, ARS, ANGRAU, Amaravati,
Guntur, Andhra Pradesh.**

February 21st 2019



SRR & CVR GOVT. DEGREE COLLEGE

(Autonomous)

NAAC accredited with 'B+' Grade

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Dr. Velaga Joshi, Principal

M.A.(Phil), M.A.(His), M.A. (M.C.J.), B.L., M.Phil., Ph.D.

To

The Director,
ARS, ANGRAU,
Amaravati
Guntur
Andhra Pradesh
PIN-522302

10.02.19

Sir,

Sub: Request for permission of our Microbiology students to visit your reputed company – regd.,

With reference to above subject, as part of Degree course curriculum, the students of our college who are studying Microbiology need to Biofertilizer Production Unit as a part of the curriculum. Hence I request you kindly permit 20 students of our college to visit your reputed company in your convenient date and time.

Your kind permission to visit Biofertilizer Laboratory is more useful to upgrade knowledge & skill of student community.

Thanking You.



Yours Truly,


Principal-

SRR & CVR GOVT. DEGREE COLLEGE (A) Vijayawada

Department of Microbiology

Activity Register 2018-2019

Date	21-02-2019
Conducted through (DRC/JKC/ELF/NCC/NSS/Departments etc.)	Department of Microbiology
Nature of Activity(Seminar/Workshop/Extn. Lecture etc.,)	Field Visit
Title of the Activity	Field Visit to Bio fertilizer Laboratory, ARS, ANGRAU, Amaravati, Guntur, Andhra Pradesh.
Name of the Department/Committee	Department of Microbiology
No. of students participated	17 II BSc MBC
Brief Report on the activity	The Department of Microbiology has Organized Field Visit to Bio fertilizer Laboratory, ARS, ANGRAU, Amaravati, Guntur, Andhra Pradesh, for II BSC MBC on 21-02-2019 . This laboratory produces different types of biofertilizer for increasing crop production level, to improve soil fertility status to minimize human health hazards problems, to minimize the use of chemical fertilizers to provide organic forming/ organic agriculture and to minimize environmental pollution and to conserve natural eco systems in an eco-friendly way.
Name of the Lecturers who Planned & conducted the activity	Dr .D .Jyothi and Mrs Dorcas Anand
Signature of the In- Charge	
Signature of the Principal	

Report

Field trip to Biofertilizer Laboratory, ARS, ANGRAU, Amaravati, Guntur, Andhra Pradesh.

As a part of the curriculum, students of **II B.Sc (MBC)** Microbiology visited Biofertilizer Laboratory ARS, ANGRAU, Amaravathi, and Guntur on 21/02/2019. It is one of the most important producers of biofertilizers in the State under the Department of the Agriculture with a capacity to produce 20 to 25 metric tons of different types of Biofertilizers annually to supplement the use of chemical fertilizers considerably.

Aim and Objectives of the Laboratory:

Realization of the adverse effect caused by using excessive and continuous use of chemical fertilizers and other synthetic agricultural inputs that which leads to depletion or degradation of soil fertility status, environmental pollution, human health hazards at the same time destruction of natural ecosystem.

Dr K Lakshmi pathy , Senior Scientist , In charge Biofertilizer laboratory guided us to learn the aim and objectives of the laboratory . Different types of Biofertilizers produced in the lab and benefits and usage of Biofertilizers. Sir explained about isolation and mass multiplication of various biofertilizers viz *Rhizobium*, *Azotobacter*, *Azospirillum*, YAM and Phosphate solubilizing bacteria

Biofertilizers:

Biofertilizers are carrier-based preparation containing live or latent cells of effective strains of bacteria or fungi. They help in fixing or solubilizing the nutrients present in air or in the soil which is then made available to the plants.

Different types of biofertilizers produced in the laboratory

1. **Rhizobium:** It is a Nitrogen fixer. It uses for legume crops like pulses and oil seed crops like soya beans and groundnut. Rhizobium is crop specific.
2. **Azotobacter:** It uses for cereal crops vegetables crops, oil seed crops, plantation crops, fruit crop and flowers.
3. **Azospirillum:** It uses for cereal crops vegetables crops, oil seed crops, plantation crops, fruit crop and flowers.
4. **Phosphate Solubilizing Microorganisms:** It uses in all crops, along with nitrogenous biofertilizers

Benefits of biofertilizers:

1. Biofertilizers reduce the use of synthetic fertilizers and pesticides
2. Biofertilizers provide protection against drought and some soil borne diseases.
3. Biofertilizers also promote healthy soil, leading to greater farming sustainability.

Outcome of the trip:

We understand that Biofertilizers are living organisms of bacteria, fungi and algal origin, which can help plants to absorb nutrients, fix atmospheric nitrogen in the soil and solubilize the insoluble forms of phosphates into available form and mineralization.



Dr K Lakshmipathy, Senior Scientist, ARS, ANGRAU, Amaravati, Guntur Addressing the Students dated 21-02-2019



Biofertilizer Laboratory, ARS, ANGRAU, Amaravati, Guntur, Andhra Pradesh

ACKNOWLEDGEMENTS

We express our deep sense of gratitude to Dr. Velaga. Joshi, Principal SRR & CVR Govt. Degree College Autonomous, Vijayawada for his support and constant encouragement to upgrade the knowledge and skills of students

WE indebted to **Biofertilizer Laboratory, ARS, ANGRAU, Amaravati, Guntur, Andhra Pradesh** for permitting the students III BSc (MBC), **SRR & CVR GOVT.** Degree College Autonomous, **VIJAYAWADA**

We wish to express my sincere thanks to **Dr K Lakshmipathy, Senior Scientist, ARS, ANGRAU, Amaravati, Guntur** guided students to learn the aim and objectives of the laboratory. Different types of Biofertilizers produced in the lab, benefits and usage.

In Charge Dept of Microbiology

D. Jyothi



Principal

SRR and CVR Govt Degree College (A), Vijayawada

Department of Microbiology

Students Attended

Title of the Activity: Field visit- to Biofertilizer Laboratory, ARS
ANGRAU, Amaraavathi, Guntur, AP

Class: II Bsc MBC

Date: 21-02-2019

S No	Name of the Student	Signature
1	Puppalla. Lavanya	Lavanya
2	Gundu. Sai	Sai
3	Matta. Naveen	N. Naveen
4	Boliseti. Teja Naga Sai	Teja Naga Sai
5	Munipalli. Ravi Teja	Ravi Teja
6	Miriyala Vyshnavi	Vyshnavi
7	Gunturu Bhanu Durga Prasad	Bhanu Durga Prasad
8	Guttigunde. Pavithra	Pavithra
9	Gogulamudi. Surya Prakash	Surya Prakash
10	Periseti. Revanth	Revanth
11	Puppala. Lalitha	Lalitha
12	Burugu. Viswas	Viswas
13	Kesampalli. Pavani	Pavani
14	Dasari. Chandrika	Chandrika
15	Guruvelli. Neeraja	Neeraja
16	Dasari. Keerthi	Keerthi
17	Gummapu. Rohit Nanda	Rohit