SRR & CVR GOVT. DEGREE COLLEGE (A) VIJAYAWADA

DEPARTMENT OF MICROBIOLOGY

Field Visit (Bio fertilizer Unit: *Azolla*)

Krishi Vigyan Kendra, Ghantasala, Krishna (Dist.)

07th March 2022

Field Visit to Bio fertilizer Unit, Krishi Vigyan Kendra, Ghantasala, Krishna (Dist.)

SRR & CVR GOVT DEGREE COLLEGE (a), VIJAYAWADA
DEPARTMENT OF MICROBIOLOGY

To

The Principal

SRR & CVR Govt. Degree College (A)

Vijayawada

Machavaram

Andhra Pradesh

Respected Madam,

Sub: - Department of Microbiology- Student Internship/Training programme - KVK, Ghantasala- Permission –Request – Regarding.

I submit to inform that the department of Microbiology has been planned 7 days student training programme /Internship on "Scientific Beekeeping" in association with Krishi Vigyan Kendra, Ghantasala, Krishna (Dist.), is one of the best organizations under National Bee Board (NBB) of Ministry of Agriculture, Hyderabad to be scheduled from 28th to 7 th March 2022. Since our students have industrial production, sources of Food spoilage and Food Preservation in their syllabus in the Course "Food and Industrial Microbiology" and field visit is a part of curriculum. I further inform that the host institute will provide TA, DA and Certification to the participants. Hence I request you to kindly permit 20 BSc (III & II MBC & MBF) students to attend training programme and teaching staff of Dr. D. Jyothi and Dr .K. Aruna, Department of Microbiology and kindly consider my absence as on-duty.

22.2.2022

Thanking you Madam,

Yours Sincerely

1. Dr. D. Jyothi 22/02/2022

2. (Dr. K. ARUNA) 22/2/2022

List of Enclosures:

1. List of Students

SRR & CVR GOVT. DEGREE COLLEGE (A), VIJAYAWADA

DEPARTMENT OF MICROBIOLOGY

Field Visit - Bio fertilizer Unit: *Azolla*

Krishi Vigyan Kendra, Ghantasala, Krishna

7th March 2022

LIST OF STUDENTS ATTENDED:

S.NO	Name of the Student	Class	Signature
1	J. Chandini Priya	III BSc MBC	J. Chandini Priya
2	P. Sadhvika	III BSc MBC	P. Sadhvika
3	V. Rameswar Reddy	III BSc MBC	V. Rameswar Reddy
4	T. Durga Amal Prasad	III BSc MBC	T. Durga Amal Prasad
5	P. Ravi Teja	III BSc MBC	P. Ravi Teja
6	J. Venkateswaralu	III BSc MBC	J. Venkateswaralu.
7	K. Kinnera	III BSc MBC	K. Kinnera
8	G. Gopal Rao	III BSc MBC	G. Gopal Rao
9	K. Vagdhan Babu	III BSc MBC	K. Vagdhan Babu.
10	B. Aaron Wesly Paul	III BSc MBC	B. Aaron Wesly Paul.
11	Ch. Ramdevu	III BSc MBC	Ch. Ramdevu
12	T. Bharathi	III BSc MBC	T. Bharathi
13	T. Teja	III BSc MBC	T. Teja
14	V. Vasanth Srinivas	II BSc MBF	

FACULTY ATTENDING:

1	Dr. D. Jyothi	IN-CHARGE , DEPT. OF MICROBIOLOGY
2	Dr. Kopuri Aruna	LECTURER IN MICROBIOLOGY

PRINCIPAL

SRR & CVR GOVT. DEGREE COLLEGE (A) Vijayawada

Department of Microbiology

Activity Register 2021-2022

Date	**07-03-2022**
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 Unit, **Krishi Vigyan Kendra, Ghantasala, Krishna (Dist.)**
Name of theDepartment/Committee	Department of Microbiology
No. of students participated	13 III BSc MBC
Brief Report on the activity	The Department of Microbiology has Organized Field Visit to Bio fertilizer Unit, **Krishi Vigyan Kendra, Ghantasala, Krishna (Dist.)** for III BSC MBC on March 7th 2022. Azolla is Bio fertilizer to Improve Soil Fertility. Most of the nitrogen fixed becomes available to rice only after the azolla has decomposed, although a small amount of ammonium is released into the water by azolla during growth. During decomposition, organic nitrogen is mineralized rapidly during the first two weeks and then at a more gradual rate Nitrogen is released mainly in the form of ammonium. The participants understood significance of biological nitrogen fixation under field conditions. Dr .D .Jyothi, In Charge Dept of Microbiology and Dr. Kopuri Aruna, Dept of Microbiology accompany the students.
Name of the Lecturers who Planned & conducted the activity	Dr .D .Jyothi and Dr. Kopuri Aruna
Signature of the In- Charge	D. Jyothi
Signature of the Principal	

Azolla's cultivation, III BSc (MBC) March 07th 2022

- Nitrogen is one of the most essential elements needed by plants for their growth and azolla's high nitrogen content makes it an ideal biofertilizer.
- Although nitrogen is abundant in the earth's atmosphere, few plants are able to assimilate nitrogen directly from the atmosphere and most plants obtain their nitrogen from complex compounds in the soil.
- In order to feed the world's population we are locked into an artificial chemical process that has numerous detrimental effects on the Earth System.
- Less than half of the nitrogen provided by chemical fertilizers are utilized by plants and the remaining nitrogen leaches into the soil and freshwater bodes where causes enormous damage to wildlife.
- Runoff into the oceans also causes marine plankton to multiply in enormous quantities resulting in 'blooms' and 'red tides', but the billions of plankton deplete the oxygen, causing mass mortality of the plankton and other marine life. T
- Chemical fertilizers also contribute to greenhouse gases as the unabsorbed nitrogen fertilizer volatizes as nitrous oxide – a greenhouse gas that is 200 to 300 times more effective in trapping heat than carbon dioxide.

- Indian agriculture has become chemical agriculture in which numerous chemicals like insecticides, herbicides, and commercial fertilizers are being used for producing crops. Due to these major microbial populations eliminated from soil and rhizosphere is getting polluted. Biofertilizers play an important role in improving soil fertility and boosting crop yields.

- Azolla's traditional cultivation as a bio-fertilizer for wetland paddy (due to its ability to fix nitrogen), Azolla is finding increasing use for sustainable production of livestock feed. Azolla is rich in proteins, essential amino acids, vitamins, and minerals.

- It is a fast-growing **aquatic pteridophyte** that forms a symbiotic relationship with the Blue-Green Algae Anabaena azollae to fix atmospheric nitrogen. Azolla is a nitrogen-fixing plant.

ACKNOWLEDGEMENTS

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

We wish to express my sincere thanks to Dr. K. Jhansi, Programme Coordinator, KVK, Ghantasala to visit the Bio fertilizer (*Azolla*) Unit.

D. Jyothi

PRINCIPAL

III BSc Microbiology, 2021-22

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