

**NAME OF THE PROGRAMME: FIELD TRIP CUM STUDENTS' TRAINING
PROGRAM ON "INTEGRATED FARMING"**

DATE : APRIL 23-26, 2024

OBJECTIVES: Field trips are integral components of a comprehensive educational system as they bridge the gap between theoretical knowledge and its real-world application. Efficient educational tours provide students with tangible experiences, make learning more engaging and relevant, promote critical thinking, enhance observational skills, nurture a sense of curiosity, and wonder and refresh their minds after days with pens and papers. The students training on "Integrated Farming" provided the students with an in-depth knowledge on Livestock, poultry farming, food processing, Apiculture and the different methods of farming.

Recognising the importance of Field trips, the Department of Zoology, Lady Keane College had organised a Field Trip cum Students' Training Program on "Integrated Farming" for the Sixth Semester Zoology Honours students from April 23 -26 , 2024. With the objective centralised on the importance of integrated farming and economic zoology, twenty six students along with two teachers began their journey to the Rural Resource and Training Centre (RRTC).

Situated at the NH 40, Umran, Meghalaya, the Rural Resource and Training Centre (RRTC) is a hub for training and extension programmes on integrated farming, floriculture and horticulture, vermicompost production, integrated fertilizer management (IFM), integrated pest management (IFM), livestock and fishery, bee keeping, mushroom cultivation, food processing (fruit, meat, milk etc), rain water harvesting and so on.

The trip began on the morning of April 23 where the team rode to RRTC. On reaching the centre, a brief orientation was given by the Director of RRTC, Fr Kenny Pakma on the various activities and sessions the trainees would undergo in the following 4 days.

The various sessions included the following:

Day 1

Topic: Livestock

Resource Person: Mr Wilfred Dkhar

Objective: To create awareness for trainees on livestock production, challenges, and possible mitigation options.

At the onset of the training, Mr W. Dkhar who served as lead trainer livestock Department, RRTC, delivered training guides on housing, breed selection, feeding, pest and diseases control and records keeping of various livestock like Poultry, Piggery and Dairy farming. The practical sessions continued with a field visit to the Poultry Farm and the Dairy Farm. The session looked at the importance of breed selection suitable for a particular region and for purpose. RRTC housed Broilers and Kuroilers for meat production and Layers for eggs. While at the Dairy Farm, two cattle breeds, Holstein Friesian and Jersey were farmed for milk. Interestingly, the by-product from the dairy farm-cow urine and cowdung were used as chief ingredients in manure production. Participants were also taken through feeding of chicken and cattle for improved productivity. Routine health management as well as hygiene and sanitation were other areas that were emphasized during the training.

Record keeping which is another required task in livestock farming was also discussed during the training. The trainer highlighted on the importance of farm records, benefits of keeping records, types of farm records to be kept and how to develop different simple farm records such as health records, vaccination records and inventory records.

Day 2

Session 1

Topic: Bee Keeping

Resource Person: Mr Joseph Basumatary

Objective: To encourage trainees to engage in bee keeping as an enterprise by adopting Scientific bee keeping methods.

The theoretical lessons included the life cycle of bees, maintaining bee colony, beehive construction and mounting procedures, honey extraction and processing procedures and quality of Flora required for successful Bee Keeping. Participants were also given practical demonstration on installation of a modern bee hive and inspection and monitoring for pest

and diseases. Hands-on activities included honey harvesting where the student participant engage in smoking of the hive, removing of honey frames from the hive, uncapping the honey frames and finally spinning the frame to extract honey.

There are about 200 modern-day Langstroth beehives in RRTC campus, rearing mainly *Apis cerana*. On an average, each beehive box produces 8 to 10 kg of honey annually, thus generating good income.

Session 2

Topic : Mushroom Cultivation

Resource Person: Mr Joseph Basumatary

Objective: To provide technical knowhow of cultivation and entrepreneurship development of Oyster mushroom

In this session, the participants were taken to the cultivation shed. Mr Basumatary underlined the importance of three facet for a successful cultivation of mushroom, viz, good compost, reliable spawn and right temperature during growing period. Further, emphasis were made on the pre-requisites to start up a mushroom farm, infrastructure and tools required, hygienic mushroom maintenance and scientific methods. All the participants were taught to perform mushroom cultivation independently, starting from bag filling and layering, spawning, controlling humidity and temperature requirements, and harvesting.

Day 3

Session 1

Topic: Agriculture and Composting

Resource Person: Mr Kulendra Sarania

Objective: to educate students to grow quality crops, maintain long term soil fertility and reduce the cost of input.

During his presentation, Mr K. Sarania highlighted on important aspects of agriculture like choice of crops and varieties, site selection, land preparation, irrigation, nursery preparation, transplanting, weed management, mulching, crop rotation and fertilizer application.

The technical session included a visit to the nursery and the strawberry garden.

Day 4

Session 1

Topic: Food Processing

Resource Person: Miss Eusebia Chyne

Objective: Food processing has certain objectives, such as it boosts the shelf life of food products, it prevents food contamination during food storage and Transportation, it turns raw food materials into attractive marketable products.

During this session the participants were given practical hands on training on the different Food Processing Methods. Participants were taught to process wild apples using the following steps:

1. Peeling off the outer layer of the raw materials.
2. Chopping or slicing
3. Mincing
4. Liquefaction
5. Emulsification
6. Fermentation
7. Cooking
8. Mixing
9. Proofing
10. Spray drying
11. Pasteurization
12. Packaging





Name of the Students participated

1. Eltymoreen Rani
2. Gyati Ankha
3. Gayatri Saharia
4. Susmita Bhaumik
5. Jilina Debbarma
6. Lapynsuk Khongwar
7. Marqui Vyana Syiemlieh
8. Nemi Grecia Nongkseh
9. Prithisa Koch
10. Philapynbiang Hoojon
11. Andralin Suting
12. Barisuk Syiemlieh
13. Akanksha R Sangma
14. Saphi Bantei Nam Laloo
15. Mitinam Ratan
16. Kastury Kashyap
17. Banora Pyngrope
18. Ebarmon Lyngdoh Tongkhar
19. Lamdaphi Wankhar
20. Mary Happiness Mawlein Wahlang
21. Amsimchi Sangma
22. Spainlangki Suna
23. Pinkysarawar Pakem
24. Aidakamon Kharwanlang
25. Muskaan Gupta
26. Daphi Banbet Kharphuli