



ST. XAVIER'S COLLEGE, MAPUSA GOA

Report of Activity conducted in the Academic Year 2024-25

Name of Activity	Field Trip to Goa College of Agriculture for T. Y. Microbiology students
Date/ Duration	17 th March, 2025 / 1 day
Venue	Goa College of Agriculture, Old Goa
Name of organizing Department/Cell	The Department of Microbiology, St. Xavier's College, Mapusa
In collaboration with	
Name/s of Faculty Co ordinator	Dr. Trelita de Sousa, Dr. Nadine de Souza, Dr. Valerie Gonsalves and Ms. Linette de Souza
Stratum of Event	College
Name & details of Resource Person/s if any	Ms. Saloni Patil, lecturer at Goa College of Agriculture
Report	<p>The Department of Microbiology organized a Field Trip as part of the curriculum for 56 students of TY Microbiology on 17th March, 2025 at Goa College of Agriculture, Old Goa. Ms. Saloni Patil, a lecturer at Goa College of Agriculture, gave a guided tour of the facilities. The field trip included a visit to the vermicomposting unit, mushroom cultivation unit, apiary and soil testing laboratory. The fourth year Agriculture students explained the overall process of vermicomposting, providing valuable insights into the process of converting organic waste into nutrient-rich fertilizer, followed by explaining the importance of layering coconut husk, the optimal duration for composting which is approximately three months, and the crucial role of earthworms, with 4 kg being used in the process. A comparison was shown between a compost that was partially ready and a compost that was completely ready.</p> <p>A demonstration of oyster mushroom cultivation utilizing paddy straw as the substrate was given by another batch of fourth year Agriculture students. The technique involved heat sterilization to eliminate moisture and prevent contamination. The critical stages of mycelial growth, temperature control, and the harvesting process, known as "flushes" was beautifully elucidated. A maximum of 3 flushes can be carried out with one bag of substrate with the yield decreasing significantly after the third flush. Mature mushrooms were harvested, packaged and sold. The student volunteer also informed about the</p>

	<p>various challenges one can encounter in this process with contamination being the most frustrating challenge. He also offered solutions like removal of contaminants, followed by sterilization of infected part with alcohol or separate storage of contaminated samples.</p> <p>At the apiary, the difference between different types of bees, including ones with stingers and those without was pointed out. A detailed look at a beehive showed how bees are organized, with worker bees, a queen bee, and drone bees. An explanation was given how local plants affect honey quality and how different bee species produce different kinds of honey. A demonstration of the brooding honey sample was given.</p> <p>The final visit was to the soil testing laboratory, where soil quality is tested. The expert explained that soil contains tiny but important nutrients that help plants grow. The soil is tested for 12 parameters, some of which include acidity (pH) and its ability to hold water. Key nutrients like nitrogen, phosphorus, and potassium (NPK) which are essential for healthy plant growth are also determined. By understanding these factors, farmers can improve soil fertility and choose the right fertilizer to grow better crops.</p> <p>Overall, the visit Goa College of Agriculture, Old Goa, was an enriching experience that deepened the understanding of sustainable agricultural practices. By witnessing eco-friendly waste management, beekeeping, and soil science in action, theoretical concepts can be related to practical applications. This trip also highlighted the significance of research in modern agriculture, emphasizing the need for sustainable and innovative farming approaches.</p>
Brochure/Poster	-
Photographs	https://xavierscollegegoa.ac.in/wp-content/uploads/2025/04/Apiary.pdf
List of participants with signatures	-
Certificate	-