



## ST. XAVIER'S COLLEGE, MAPUSA GOA

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<b>Nature of Event</b> (Workshop, Guest Lecture, Add-on Course, Seminar, etc.)	Field Trip
<b>Name of Department</b>	Biotechnology
<b>Faculty In-Charge</b>	Ms. Jocelyn Fernandes, Ms. Swaroopa Naik.
<b>Stratum of Event</b> (College, State, Regional, National)	State
<b>Title of Event</b>	Goa Dairy
<b>Date of Event</b>	27 <sup>th</sup> September 2023
<b>Venue</b>	Goa Dairy, Ponda-Goa
<b>Objective/ Scope of Event</b>	To provide practical knowledge & exposure about the manufacturing & processing of dairy products.
<b>Particulars of Event</b>	<p>On 27<sup>th</sup> September 2023, the students of T.Y.B.Sc Biotechnology accompanied by Ms. Jocelyn Fernandes &amp; Ms. Swaroopa Naik visited the Goa Dairy, Ponda-Goa. The visit aimed to provide practical knowledge &amp; exposure about the manufacturing &amp; processing of dairy products.</p> <p>Students were welcomed by staff member, who introduced Goa state Cooperative Milk Producers Union Limited i.e. "Goa Dairy" having 117 rural dairy cooperative societies allover Goa. Goa dairy manufactures 3% fat Toned milk, 4.5% fat standard milk, 3.5% fat cow milk, 6% fat High fat milk and various milk products such as curd, ice cream &amp; lassi, producing around 50,000-53,000 milk packets per day. Nearly 7000 milk farms deliver milk to these societies where each batch of the milk is tested for its purity by using lactometer device. The milk is collected from the farmers from society which has a code in which the name of the farmers, milk quality, date &amp; time, cow number, liters of milk collected are recorded. There are 22 routes for milk collection from societies, where every route is connected to 10-12 societies. Upon collection, organoleptic analysis is done to check for the milk spoilage. Milk is then passed through process of pasteurization where the milk is heated &amp; then quickly cooled at a particular temperature. The chemical analysis of the milk is</p>

	<p>done to check the presence of adulterants such as urea, sugar, starch etc, followed by packing &amp; storage at 4°C.</p> <p>Later we entered the laboratory where the laboratory in charge informed us about the various physical &amp; chemical test performed in the laboratory. One such physical test demonstrated to us was Clot on boiling Test (COB), where the 5ml of milk is boiled in a test tube and discarded on smooth surface to check for the presence of flakes formation. If flakes are present the milk is considered not safe for consumption. Chemical test such as methylene blue reduction test &amp; Phosphate test was also demonstrated. After the laboratory visit, the staff member explained the working of Milkoscan FTI machine which shows the details of milk contents such as fats composition, water, proteins &amp; can also detect the presence of 25 adulterants.</p> <p>The field visit was an excellent experience for us to understand the practical aspects of dairy processing &amp; manufacturing of milk-based products.</p>
<b>Outcome of Event</b>	Students acquired in depth knowledge of the steps involved in dairy processing & manufacturing of milk-based products.
<b>Feedback</b>	The field trip was enriching, informative and provided a valuable insight in manufacturing of milk-based products.
<b>Total No. of Participants</b>	18

Photographs

