

## DEPARTMENT OF ZOOLOGY

### Study Visit To KMF ( Karnataka Milk Federation ) Ltd., Bellary

Since our Vijayanagar Sri Krishna Devaraya University, Bellary has prescribed a compulsory Field study. We have planned to visit KMF situated in Bellary. Accordingly even prior to visit to KMF, I addressed a letter to the Managing Director (MD) KMF Bellary seeking permission to visit the KMF centre by our Zoology faculty & B.Sc 3<sup>rd</sup> sem students. After the receipt of our letter the MD, KMF Ltd pleased to give the permission to us to visit the centre.

Accordingly on 12-09-2014 at about 10AM myself my faculty members Sri. Vedavyasa Sagar, Smt.G.Mamtha, Smt.Arundhati and our students visited the centre.

One Sri.Mallikarjuna.Technical Officer was happy to invite us and to show all the processes at the centre .At the beginning we were shown about the pasteurization technique.Pasteurization technique refers to destruction of microorganisms and preventing a spoilage of milk. The idea of pasteurization was first proposed by Louis Pasteur. There in the centre our students were shown the pasteurization technique was first proposed by Louis Pasteur. There in the centre were shown the pasteurization technique. In this technique, milk is heated at high temperature for a certain time & is immediately brought back to room temperature. He said 62° c temperature is maintained for 30mins. By this not only the bacteria even the bacterial spores are also killed. He said the milk is processed , pasteurized & rendered safe before distributing to the consumers. There are 2 methods of pasteurization namely, Folder method & High Temperature Short Time method. After pasteurization, pasteurized milk is cooled at 65°F.

In the course of visiting to the centre for students were also showed & explained about Homogenizing & Freezing processes.

Our students were happy to see large pasteurization plant at the centre. In the homogenizer process, the liquid milk is pumped to higher pressure, then allowed to pass through a specil valve. This process breaks up the fat globules & further it gives milk a good flavor & taste.

The bulk of the milk is marketed in the raw condition. He said, the milk is collected from Farmers from different villages from, outside the municipal limits.

The final milk is packed in ½ litre & 1 litre packets with different grades like Nandini milk, Shubam milk, Shubam gold & marketed at different prices depending on the amount of fat content in the milk.

Our students were taken to laboratory & there use of Lactometer was explained. Lactometer is an apparatus used to test milk. It is further used to determine the specific gravity (density) of the milk. Lactometer is made of glass consisting of 2 parts namely, stem & bulb. The stem contain scale,the bulb is weighted with mercury. Our students were practically showed the use of lactometer. In that process lactometer is dropped in milk, it floats upright.If the milk level touches the lower reading of the scale, the milk is pure without water. If the level of the milk is in the middle of the scale, the milk contain 50% of water.If the lactometer sinks upto the upper level of the scale, the milk is containing only water. By

this we can measure the amount of water in the milk supplied by the farmers. This helps in fixing the optimal amount giving to the farmers.

Later our students were also visited Ice cream plant. A variety of milk byproducts such as Cheese, Butter, Milk powder, Condensed milk, Curd, Mysore pak, Nandini peda etc., are manufactured in KMF. All the students were given the Peda sample, Badam milk & Ice cream.

As a token of love & affection rendered by Sri. Mallikarjuna, Technical Officer, myself, my faculty members & students decided to honour him by giving a memento. Accordingly we assembled in seminar hall at the centre & honoured him.

Finally, while returning back we all purchased the Dairy products like Peda, Ghee, Butter, Mysore pak, Badam powder etc., at the marketing in concession rates.