

## Report

VISIT TO DIRECTORATE OF HORTICULTURE,  
NAVBAHAR SHIMLA -6



DATE-17 SEPT ,2022

A visit to DIRECTORATE OF HORTICULTURE AT NAVBAHAR was organised by the department of Botany for the Students of B.Sc. II On 17<sup>th</sup> September 2022. Dr. Maneesha Kohli and Mrs Deepti Gupta from Botany department accompanied the students. 2 departments food processing department and floriculture department were visited. Students were briefed about:

**Food processing** –apple cider formation apple cider is an alcoholic drink (7-8% alcohol) made by fermenting of apple juice. Cider is an ancient beverage as no one knows the true time of when it was first made but today it is one of the most selling beverage world wide

Major component of apple cider sugar determines the alcoholic content of a cider and can be used to back sweeten acidic cider. Generally 10-17% of sugar contain in juice. Medicinal importance of apple cider contains polyphenol, which are compounds in plants that act as antioxidants. They can help the body to fight free radical and cell damage Also lowers the rate of certain types of cancer, diabetes and heart disease.

Steps involving processing of apple cider-

**Grinding** -the fruit should be grind or milled to a fine pulp, in order to produce the optimum amount of juice. The finer the grind the more will be the juice content.

**Pressing:** after grinding the pulp are fed to the juice press as pressure is applied, the juice flows out pressing is also important so as to get the extract.

**Alcoholic fermentation:** the fermentation process is started after juice extraction. The 2 grams of yeast is added to 5 litre of cider.

Food grade plastic fermenter or stainless steel should be used as a fermenter tank.

**Racking off-** using clean plastic tube the cider is drained off into the second fermenting tank into bottles.

The fermentation readings should be compared with these acid and alcohol levels.

**Filtering:** this step makes the cider crystal clear. It can be done by using a closed filter system to avoid exposure to air in order to prevent acetic bacteria contamination.

Bottling and storage –use sterile bottle for cider. A small amount of sugar may be added to each bottle .to avoid killing the yeast by pasteurization after the addition of sugar.

The bottle should be kept in cool, dark storage place for several months for flavour development.s





**Floriculture** – it is the branch of the horticulture that deals with the cultivation, processing and marketing of flowers, ornamental plants etc.

Largest floriculture cultivators – India – Pune

world – Holland (where in every 6 months produces a new variety)



In Himachal Pradesh –there are 8 Horticulture Nurseries –

Navbhahar

Chhrabara

Mahunag

Shilaru

Parwanoo

Bajaura

Palampur

Diferent types of commercial crop on market value;

1.cut flower: flowers are harvested with stalk (rose,garbera, lilium) uses-preparation of bouquets, flower basket and for decoration.

2.loose flower: flower are plucked from plants without stalk just below the calyx. (marigold, rose, hibiscus) uses- these have greater demand for decoration and for flower basket purpose.

3. Pottedplants: Commercial importance indoor as well as outdoor gardening. (begonia, Lalla, money plant,) uses- these plants are used for decoration at hones ,office and in functions.

4. Nursery:nurseries are used for supply plants in large scale but its require favourable environment condition to grow.











In Shimla- hydrangea is the most cultivated flower it is also a pH indicator.



landscaping: it is the process of making given land by govt. attractive and beautiful by growing different types of flowers.

Uses important for educational institute and supermarket.

Scope:

- 1.floriculture generates employment opportunities for farmers.
- 2.The international demand is about Rs. 90,000 crore per year so it has very great scope for India to become economically strong.
3. It provides India great future by breeding different types of varieties of flower and provide raw material for making new medicine.
- 4.Horticulture in increasing industry of agriculture land for production and marketing of different type of flower and their variety.