

CENTRAL INSTITUTE OF HORTICULTURE
MEDZIPHEMA, NAGALAND

**CERTIFICATE COURSE ON PROTECTED CULTIVATION OF HORTICULTURE
CROPS**

(Three months training course)

INTRODUCTION

Protected cultivation was introduced in India and china in 1980, with the emergence of the industries manufacturing U.V. stabilized Low Density Poly Ethelene (L.D.P.E.) and the development of the indigenous technology for low cost green houses. Indian Petro Chemicals Limited (I.P.C.L) was one of the foremost industries operating in collaboration with the agricultural scientists in this field. In 1985, Indian Agricultural Research Institute (I.A.R.I) designed and set up green house at Leh (J&K). Presently the leading states in protected horticulture are Maharashtra, and Karnataka (cut flower), however other states like H.P., Punjab, Gujarat, Utrakhand, North Eastern State (Mizoram, Sikkim and Nagaland) are also coming up.

Protected cultivation practices can be defined as a cropping technique wherein the micro climate surrounding the plant body is controlled partially/ fully as per the requirement of the plant species grown during their period of growth. With the advancement in agriculture various types of protected cultivation practices suitable for a specific type of agro-climatic zone have emerged. Among these protective cultivation practices, Green house/poly house cum rain shelter is useful for the hill zones

Protected cultivation technology can be utilized for year around production of high value and quality vegetable crops, floriculture crops, raising of virus free high quality planting material, seedling and production of off-season vegetable, hybrid seed production and also as a tool for disease resistance breeding program.

Vegetable has tremendous scope in urban area of the country because of the continuous increase in availability of up markets and continuous changing choice of consumers towards rare vegetable in the diet.Green house have tremendous potential in increasing production and productivity of vegetable like in size and shape f tomatoes colour during sweet pepper, parthenocarpic cucumber off-season musk melon, in the use net house. By this way the growers can directly reduce the use of insecticides and they can grow virus free and borer free crops.

COURSE OBJECTIVES

- ❖ To provide basic and practical knowledge on Greenhouse constructions.
- ❖ To impart hands on training on the commercial protectedcultivation of flowers and high value Vegetable.
- ❖ To equip the students on management of protected cultivation.

DURATION: Three months (Class room/ lecture / practical/ field visits, internship)

BATCH STRENGTH: 20 students per batch

LOCATION: Central Institute of Horticulture, Medziphema, Nagaland

MEDIUM OF INSTRUCTION: English

ELIGIBILITY: Minimum qualifications of class X pass and above.

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COURSE CONTENT

THEORY

- ❖ General greenhouse management.
 - a) Soil sterilization and preparation of cultural practices.
 - b) Climate control and CO² management.
 - c) Irrigation and fertigation technology.
 - d) Crops protection.
 - e) Post-harvest management.
- ❖ Automation in protected cultivation.
 - a) Automation in green house structures.
 - b) Climate control.
 - c) Automated irrigation and fertigation system.
- ❖ Crops specific crops.
 - a) Rose/ gerbera/Anthurium/orchids
 - b) High value vegetable like capsicum, tomato & cucumber
 - c) Green house construction.
 - d) Economics.
 - e) Cultivation of open field flowers, fillers and greens.

PRACTICAL

- ❖ Practical demonstration on soil sterilization.
- ❖ Practical demonstrations on bed preparation.
- ❖ Practical demonstration of atomization of fertigation.
- ❖ Practical on drips system operation & fogging.
- ❖ Practical on flowers grading and packaging.

INTERNSHIP

The enrolled trainees would undergo internship for a period of 15 days in renowned Institutes/ organizations.

CAREER OPPORTUNITIES: Supervisors, technical assistants, self-employment.

(Lallan Ram)
Director