

POLYHOUSE CULTIVATION OF VEGETABLES

Greenhouse is a framed or covered structure with a transparent material in which crops are grown under controlled environmental conditions. The primary environmental parameter controlled is temperature, which includes cooling to mitigate excessive temperature as well as providing heat to overcome extreme cool conditions, light control by either shading or by adding supplemental light, carbon dioxide level, relative humidity, plant nutrients, pest and diseases. Growing of crops in greenhouses has proved to be the best way of utilising the crops potentials. In temperate region where the climatic conditions are extremely adverse and no crops can be grown, high value vegetable crops can be grown constantly by providing favourable climatic conditions for the particular crop.



Polyhouse is a structure made of translucent material like polyethylene where the crops grow and develop under controlled climatic conditions. In developing countries like India polyhouse is a popular greenhouse technology due to its low cost of construction and easy maintenance. Polyhouse is cheaper as compared to greenhouse but the latter is more long lasting than polyhouse.



'Polyhouse is a type of greenhouse which is covered using a thin sheet of polyethylene (cladding material).'

Advantages of greenhouse/polyhouse

- 1)The yield may be 10-12 times higher than that of outdoor cultivation depending upon the type of greenhouse, type of crop, environmental control facilities
- 2)The technology is highly suitable for vegetables and flower crops where uniformity in yield is very important
- 3)Year round production of vegetable crops are possible
- 4)Disease free transplants can be produced continuous
- 5)Efficient utilisation of chemicals, pesticides to control diseases along with efficient use of water
- 6)Production of quality produce
- 7)Most useful in monitoring and controlling the instability of various ecological systems

Polyhouse scenario in Kerala

In Kerala greenhouse technology is mainly used to cool off the environment as the normal temperature is high and protect the crops from heavy rain during monsoon season. In the state highest yield was recorded in polyhouse structures than in open field conditions for crops like tomato, cabbage, cauliflower and capsicum.