

Green-houses: Types and Structural Components

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Abstract

A greenhouse is a system for modification and management of environmental factors that allows plants to be grown in suitable climates that may be not well suited for their growth and development. This greenhouse technology gains significance in changing climatic scenario which emphasizes on high quality production along with higher productivity by efficient utilization of available resources. However, the productivity and efficiency of green house technology is fully depends on the types of greenhouse structure used for production. The recent trend in growth of the human population, along with the advancement of consumption patterns, emphasizes the development of innovative greenhouse structures. The type and equipment of greenhouse structure used in any area generally suit the local environment, availability of construction materials and specific crop. In each region, components such as cover materials, climate-control systems, and irrigation and fertilization equipments are regularly evaluated by growers, designers and researchers, to improve their efficiency, lower inputs, and reduce undesired environmental effects. The efficiency and productivity of a greenhouse operation is largely dependent on the type of growing structure used. Since many greenhouse designs are there to select for a particular region, it is very essential to become intimate with the advantages and disadvantages of each green house types and structure. Hence, a brief discussion on different types of greenhouses structure and their components is needed.

Keywords: Greenhouse, structural component, technology, types

1. Introduction

India has made a tremendous progress in agricultural production after green revolution but productivity is quite low due to climate change and intervention of traditional cultivation practices. In order to meet out the food demand in 2050, world production must increase by 70 per cent (FAO 2020). Man has developed technological methods