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Chapter 17

Cultivation of Crops under Shade-net Greenhouse

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Abstract

Human activities concerned with agricultural growth and productivity are touching new heights every coming day by radical changes in technologies. Protected structures have made their inroad to agriculture along with the technologies, among which shade net structures are an integral part for the progressive farmers and cultivators around the globe. This chapter is dedicated to some of the lucid details explaining various technical requirements, planning, applications, material utility, crop cultivations and future scope of research, of the shade net structure. The essentiality and scope of the protected cultivation are widening avenue of research in future.

Keywords: Shade net, growth, productivity, material utility

1. Introduction

The recent trend in global climate change mainly due to anthropogenic factors have yielded no good to human beings as a whole. The population pressure on agricultural land with addition of 2 crore people to existing base population each year in India vehemently exaggerates the overexploitation of the same. With present 140.8 Mha of net cultivated area which is on ever declining side, the challenges of sustainable food production posed by both erratic climatic factors and rise in population pressure on agricultural land has its answers in protected cultivation. Protected cultivation may be defined as a crop growing method where in the microclimate of the plant is controlled conveniently as required by the plant for optimum growth and development. The area under protected cultivation in India is around 30,000 ha, with states like Maharashtra and Karnataka have leaded the path from the front. Presently, progressive farmers are adopting commercial protected cultivation of high value vegetables and flowers