

عنوان مقاله:

A Review of Ventilation and Cooling Technologies in Agricultural Greenhouse Application

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نویسندگان:

a Ganguly - Department of Mechanical Engineering, Bengal Engineering and Science University, Shibpur,
Howrah-71103, West Bengal, India

s Ghosh - Department of Mechanical Engineering, Bengal Engineering and Science University, Shibpur, Howrah-71103,
West Bengal, India

خلاصه مقاله:

This article presents a comprehensive review of the literature that deal with ventilation and cooling technologies applied to agricultural greenhouses. The representative application of each technology as well as its advantages and limitations are discussed. Advance systems employing heat storage in phase change materials, earth-to-air heat exchangers and aquifer-coupled cavity flow heat exchangers have also been discussed. For an agricultural greenhouse equipped with cooling and artificial ventilation system, availability of uninterrupted electric supply is important. To achieve grid independence, dedicated power generation and storage systems need to be integrated with the greenhouse. The relevant literature on such power generation system for greenhouse application has been reviewed and is discussed here. This review concludes by identifying some important areas where further research needs to be undertaken

کلمات کلیدی:

Greenhouse % Ventilation % Evaporative cooling % Shading

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