

ABSTRACT

M.Sc. Thesis

DETERMINATION OF FAN-PAD SYSTEM EFFICIENCY OF GREENHOUSES IN ISPARTA REGION

Hasan ÖZ

Suleyman Demirel University Graduate School of Applied and Natural Sciences

Agricultural Buildings and Irrigation Department

Thesis Committee: Asst. Prof. Atılgan ATILGAN
Asst. Prof. Davut AKBOLAT
Asst. Prof. Abdullah KADAYIFÇI

In this thesis, the efficiency of fan pad system which is one of the greenhouse cooling system was observed in Isparta region and the results was listed as graphics.

Temperatures can easily exceed 40 °C hot region greenhouses during the summer if they are not equipped with cooling systems. Such high temperatures reduce crop quality and worker productivity. Evaporative cooling is the most common method for reducing the temperature inside a greenhouse. While temperature of cool climatic regions increase until 30-33 °C inside of greenhouse temperature is more than outside during summer periods. Temperature of greenhouse cooling as 10-12 °C by fan pad system because of summer temperature in cool climatic region is lower than hot climatic regions. By this process, production can be kept on in greenhouse in summer period due to decreasing of greenhouse temperature under the outside air temperature.

Therefore, as a results of the study, effective cooling was determined by using fan pad system established greenhouse in Isparta region.

Key Words: Greenhouse, Fan Pad System, Cool Climate Region, Isparta, System Efficiency

2007, 62 pages