بسم الله الرحمن الرحيم

شبكة المعلومـــــات الجامعية

التوثيق الالكتروني والميكروفيلم

شبكة المعلومات الجامعية

جامعة عين شمس

التوثيق الالكتروني والميكروفيلم

﴿ قـــسـم ﴾

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
علي هذه الأفلام قد اعدت دون آية تغيرات

يجب أن

تحفظ هذه الأفلام بعيداً عن الغبار

في درجة حرارة من 15 – 20 مئوية ورطوبة نسبية من 20-40 %

To be kept away from dust in dry cool place of
15 – 25c and relative humidity 20-40 %

بعض الوثائق الأصلية تالفة

بالرسالة صفحات

لم ترد بالأصـــل

EFFECT OF NATURAL VENTILATION ON PRODUCTIVITY AND FRUIT QUALITY OF CUCUMBER FRUIT GROWN UNDER PLASTIC HOUSE

BY

AHMED AWNY AHMED FARAG
B.Sc. Agric. Sci. Horticulture, Cairo Univ., 1996

A thesis submitted in partial fulfillment
of
the requirements for the degree of
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in
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(Vegetable crops)

Department of Horticulture
Faculty of Agriculture
Ain Shams University

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2001

APPROVAL SHEET

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Abstract

Ahmed Awny Ahmed Farag, Effect of natural ventilation on productivity and fruit quality of cucumber fruit grown under plastic house.,Unpublished Master of Science Thesis, Horticulture Department , Fac. of Agric., Ain Shams Univ., 2001.

This study was conducted at El-Bosaily Protected Cultivation greenhouses (Agricultural Research Center) during 1998 and 1999 seasons in order to study the possibility for improving natural ventilation of existing single arch plastic houses. Cucumber (*Cucumis sativus* L.) cv. Primo F_1 seedlings were transplanted to the plastic house during February in both seasons. Two methods of natural ventilation were tested in comparison with a standard plastic house that contains 1.8 m^2 maximum ventilation opening in the overlap area, every 5m longitudinally (12.6 m^2 / 360 m^2 cultivation area). The first tested method was the side ventilation of one meter width along both sides of the plastic house (80 m^2 opening / 360 m^2 cultivation area) and the second tested method was a longitudinal top ventilation of about 0.8 m (32 m^2 opening /360 m^2 cultivation area).

The results showed that side-ventilation reduced greenhouse air temperature about 4-5 °C in summer season compared to control. Relative humidity was lower in the side-ventilation treatment followed by top-ventilation then the control. Using side-ventilation increased plant height, number of leaves and total leaf area. These were reflected positively on the early, total and marketable yield where the highest early and total yield were obtained by using side-ventilation followed by top-ventilation comparing with control.

Key words: Side ventilation – Top ventilation - Humidity – Temperature.

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