

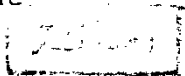
STUDIES ON WATER CONSUMPTION OF SOME VEGETABLE
CROPS UNDER PLASTIC HOUSES

BY

MOHAMED ZAKY EL-SAYED EL-SHINAWY

A thesis submitted in partial fulfillment

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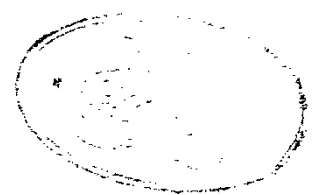


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By

MOHAMED ZAKY EL-SAYED EL-SHINAWY
B.Sc. In Agriculture, 1985

This thesis for M.Sc. degree has been
approved by :

- 1- Prof. Dr. Shamel Ahmed Shanan
Prof. of Vegetables
- 2- Dr. Ahmed Mahmoud El-Gizawy
Assoc. Prof. of vegetables
- 3- Prof. Dr. Hosnia Mohamed Gomaa
Prof. of Vegetables

S.A.Shanan

A.M.El-Gizawy

H.M.Gomaa

Date of examination : 15 / 11 / 1992



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BY

MOHAMED ZAKY EL-SAYED EL-SHINAWY

B.Sc. (Agric.) in Horticulture, 1985

Under the supervision of :

Prof. Dr. Hosnia Mohamed Gomaa

Prof. of Vegetables, Fac. Agric. Ain Shams University

Prof. Dr. Ibrahim El-Oksh

Prof. of Vegetables, Fac. Agric. Ain Shams University

Assoc. Prof. Dr. Ayman F. Abou-Hadid

Assoc. Prof. of vegetables, Fac. Agric. Ain Shams University

Abstract

The experiments were carried out at the Kassasin plastic houses site, Ismailia Governorate, Egypt for two successive seasons (1987/88 and 1988/89) to evaluate two methods of determination of water consumption for sweet pepper and cucumber plants, namely, radiation and Class A pan. The obtained results indicated that plant height, leaf number, leaf area, leaf area index, fresh and dry weights of plants, early and total yields of sweet pepper and cucumber plants were significantly higher when the radiation method was used for determination of water consumption compared to using Class A pan method. Electric conductivity at 25 °C for soil solution, soil, air and leaf

temperatre increased when Class A pan method was used for determination of water consumption than using radiation method. Soil moisture was high owing to application of radiation method. The water use efficiency was higher by using Class A pan method for determination of water consumption compared to radiation method.

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Contents

	Page
1. INTRODUCTION	1
2. REVIEW OF LITERATURE	2
3. MATERIALS AND METHODS	12
4. RESULTS AND DISCUSSIONS	29
4.1 Effect of radiation and Class A pan evaporation, as two methods for determination of water consumption on sweet pepper	29
4.1.1 Physical parameters	29
4.1.1.1 Soil moisture content	29
4.1.1.2 Electrical conductivity	32
4.1.1.3 Soil and air temperature	37
4.1.2 Plant growth	40
4.1.2.1 Plant height	40
4.1.2.2 Leaf number	41
4.1.2.3 Average leaf area and leaf area index	41
4.1.2.4 Number of branches	46
4.1.2.5 Fresh and dry weights	46
4.1.3 Chlorophyll content	49
4.1.4 Yield	49
4.1.5 Fruit quality	54
4.1.6 Water use efficiency	55
4.2 Effect of irrigation as calculated on the basis of radiation and Class A pan evaporation on cucumber	59
4.2.1 Physical parameters	59

4.2.1.1	Soil moisture content	59
4.2.1.2	Electrical conductivity	63
4.2.1.3	Soil and air temperature	66
4.2.2	Plant growth	71
4.2.2.1	Plant height	71
4.2.2.2	Leaf number	71
4.2.2.3	Average leaf area and leaf area index	74
4.2.2.4	Fresh and dry weights	74
4.2.3.	Chlorophyll content	78
4.2.4	Flower number per plant	80
4.2.5	Yield	80
4.2.6	Fruit quality	87
4.2.7	water use efficiency	88
5.	SUMMARY AND CONCLUSIONS	91
6.	REFERENCES	95
7.	ARABIC SUMMARY	

List of Figures

Figure No	Page
1. Effect of radiation and Class A pan evaporation as two methods for determination of water consumption on soil moisture (%) at 20 cm depth (sweet pepper experiment)	30
2. Effect of radiation and Class A pan evaporation as two methods for determination of water consumption on soil moisture % at different depths (sweet pepper experiment)	31
3a. Daily profile of soil moisture (%) at 20 cm depth for sweet pepper experiment as measured during two days 8,9 Jun. 1988	33
3b. Daily profile of soil moisture (%) at 20 cm depth for sweet pepper experiment as measured during two days 8,9 March 1989	33
4. Effect of irrigation as calculated on the basis of radiation and Class A pan evaporation on electrical conductivity (Ec) for soil solution at 20 cm depth (sweet pepper experiment)	34
5. Effect of irrigation as calculated on the basis of radiation and Class A pan evaporation on electrical conductivity (Ec) for soil solution at different depths (sweet pepper experiment)	35
6. Daily profile of electrical conductivity (mmohs/cm ⁻¹) at (20 cm depth) for sweet pepper experiment as measured during two days (8,9 March 1989)	36
7. Effect of irrigation as calculated on the basis of radiation and Class A pan evaporation on soil temperature °C (sweet pepper experiment)	38
8. Daily profile of soil temperature °C for sweet pepper experiment as measured during two days 8,9 March 1989	38
9. Daily profile of air temperature °C for sweet pepper experiment as measured during two days 8,9 March 1989	39
10. Daily profile of leaf temperature °C for sweet pepper experiment as measured during two days 8,9 March 1989	39
11. Effect of irrigation as calculated on the basis of radiation and Class A pan evaporation on plant height (cm) of sweet pepper plant	42
12. Effect of irrigation as calculated on the basis of radiation and Class A pan evaporation on number of leaves of sweet pepper plant	43

13.	Effect of irrigation as calculated on the basis of radiation and Class A pan evaporation on leaf area index of sweet pepper plant	45
14.	Effect of irrigation as calculated on the basis of radiation and Class A pan evaporation on accumulative yield (Kg/m) of sweet pepper plant	53
15.	Effect of irrigation as calculated on the basis of radiation and Class A pan evaporation on fruit loss weight of sweet pepper plant	56
16.	Effect of radiation and Class A pan evaporation as two methods determination of water consumption on soil moisture % at 20 cm depth of cucumber experiment	60
17.	Effect of radiation and Class A pan evaporation as two methods determination of water consumption on soil moisture % at different depths of cucumber experiment	61
18.	Daily profile of soil moisture % at 20 cm depth for experiment as measured during two days 8-9 Jun. 1988 and 8-9 March 1989 respectively	62
19.	Effect of radiation and Class A pan evaporation as two methods determination of water consumption on electrical conductivity (Ec) for soil solution at 20 cm depth (cucumber experiment)	64
20.	Effect of radiation and Class A pan evaporation as two methods determination of water consumption on electrical conductivity (Ec) for soil solution at different depths (cucumber experiment)	65
21.	Daily profile of electrical conductivity (mmohs/cm ⁻¹) for cucumber experiment as measured during two days (8,9 March 1989)	67
22.	Effect of radiation and Class A pan evaporation as two methods determination of water consumption on soil temperature (°C) of cucumber plant	68
23.	Daily profile of soil temperature (°C) for cucumber experiment as measured during two days (8,9 Mar.1989)	68
24.	Daily profile of air temperature (°C) for cucumber experiment as measured during two days (8,9 Mar.1989)	69
25.	Daily profile of leaf temperature (°C) for cucumber experiment as measured during two days (8,9 Mar.1989)	69

26.	Effect of irrigation as calculated on the basis of radiation and Class A pan evaporation on plant height (cm) of cucumber plant	72
27.	Effect of irrigation as calculated on the basis of radiation and Class A pan evaporation on number of leaves of cucumber plant	73
28.	Effect of irrigation as calculated on the basis of radiation and Class A pan evaporation on mean leaf area index of cucumber plant	76
29.	Effect of irrigation as calculated on the basis of radiation and Class A pan evaporation on number of flowers per plant of cucumber plant	81
30.	Effect of irrigation as calculated on the basis of radiation and Class A pan evaporation on accumulative yield (Kg/m ²) of cucumber plant	83
31.	Effect of irrigation as calculated on the basis of radiation and Class A pan evaporation on % fruit loss weight of cucumber plant	86

List of Tables

Table No.	Page
1. The amount of water added according to Class A pan for sweet pepper experiment in both seasons	21
2. The amount of water added according to radiation for sweet pepper experiment in both seasons	21
3. The amount of water added according to Class A pan for cucumber short autumn season	22
4. The amount of water added according to radiation for cucumber short autumn season	22
5. The amount of water added according to Class A pan for cucumber short spring season	23
6. The amount of water added according to radiation for cucumber short spring season	23
7. The amount of water added according to Class A pan for cucumber long season	24
8. The amount of water added according to radiation for cucumber long season	24
9. Total water applied in both season per house/m ³ for sweet pepper plant	25
10. Total water applied for cucumber plants per house/m ³	26
11. water duty per house, water application per plant/L and time of irrigation in both season for sweet pepper plant	27
12. water duty per house, water application per plant/L and time for irrigation of cucumber plants in short autumn season	27
13. water duty per house, water application per plant/L and time for irrigation of cucumber plants in short spring season	28
14. water duty per house, water application per plant/L and time for irrigation for cucumber plants in long season	28
15. Effect of irrigation as calculated on the basis of radiation and Class A pan on mean leaf area (cm ²) of sweet pepper plant	44

16.	Growth parameter at the end of the seasons for sweet pepper plants as affected by irrigation calculated on the basis of radiation and Class A pan evaporation	47
17.	Chlorophyll content in old and young leaf (spad) at the end of the season for sweet pepper plants as affected by irrigation calculated on the basis of radiation and Class A pan evaporation	47
18.	Effect of irrigation as calculated on the basis of radiation and Class A pan evaporation on yield (Kg) of sweet pepper plant	50
19.	Effect of irrigation as calculated on the basis of radiation and Class A pan evaporation on accumulative yield (Kg/plant) of sweet pepper plant	51
20.	Effect of irrigation as calculated on the basis of radiation and Class A pan evaporation on accumulative yield (Kg/m ²) of sweet pepper plant	51
21.	Effect of irrigation as calculated on the basis of radiation and Class A pan evaporation on accumulative yield (Kg/plot) of sweet pepper plant	52
22.	Effect of irrigation as calculated on the basis of radiation and Class A pan evaporation on fruit quality of sweet pepper plant	57
23.	Effect of irrigation as calculated on the basis of radiation and Class A pan evaporation on total water amount/house (m ³), total yield/house (Kg) and water use efficiency (Kg/m ³) of sweet pepper plant	57
24.	Effect of irrigation as calculated on the basis of radiation and Class A pan on mean leaf area (cm ²) of cucumber plant	75
25.	Effect of irrigation as calculated on the basis of radiation and Class A pan evaporation on fresh and dry weight (g) of sweet pepper plant	77
26.	Chlorophyll content in leaf (spad) for cucumber plant affected by irrigation calculated on the basis of radiation and Class A pan evaporation	79
27.	Effect of irrigation as calculated on the basis of radiation and Class A pan evaporation on yield (Kg) of cucumber plant	82

28.	Effect of irrigation as calculated on the basis of radiation and Class A pan evaporation on accumulative yield (Kg) /m ² , plant and plot of cucumber short autumn season	84
29.	Effect of irrigation as calculated on the basis of radiation and Class A pan evaporation on accumulative yield (Kg) /m ² , plant and plot of cucumber short spring season	84
30.	Effect of irrigation as calculated on the basis of radiation and Class A pan evaporation on accumulative yield (Kg/plot) of cucumber long season	85
31.	Effect of irrigation as calculated on the basis of radiation and Class A pan evaporation on fruit quality of cucumber plant	85
32.	Effect of irrigation as calculated on the basis of radiation and Class A pan evaporation on total water amount/house (m ³), total yield/house (Kg) and water use efficiency (Kg/m ³) of cucumber plant	89

INTRODUCTION