STUDIES ON PRODUCING UNTRADITIONAL VEGETABLE CROPS ON ROOFS BY SOILLESS CULTURE

BY

KHALED NASR ELDIN MOHAMED SHAABAN
B. Sc. Agric. (SOIL), Ain Shams University, 2001

A Thesis Submitted in Partial Fulfillment
of
The Requirement for the Master Degree

in
Enviromental Science

Department of Agriculture Science
Institute of Enviromental Studies &Research
Ain Shams University

2010

APPROVAL SHEET

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2010

ABSTRACT

This study was carried out on the roof of the Central Laboratory for Agriculture Climate (CLAC),Egypt. During two successive seasons (2005 - 2006) and (2006-2007). Broccoli, Chinese cabbage, Red cabbage and Celery were used in this study.

The studies were arranged in a completely randomized design with three replicate.

The aim of this study was to investigate the ability of using a local substrate in roof garden cultivation by comparing the effect of different substrate on production and quality of Non-traditional plants such as (Broccoli - Chinese cabbage - Red cabbage - Celery). The substrates mixture used in this study were Mix A: peat moss: perlite (1:1 v/v), Mix B: peanut hulls: sand (1:1 v/v), Mix C: rice hulls: sand (1:1 v/v), and Mix D: peanut hulls: rice hulls: sand (1:1:1 v/v/v).

Mix D: peanut hulls: rice hulls: sand (1:1:1 v/v/v) gave the highest values of vegetative growth and yield while the lowest values were obtained by Mix B: peanut hulls: sand (1:1 v/v) .

The chemical analyses of plants were completely differed according to substrate mixture.

Keywords:

Green roofs, Rice hulls, Peanut hulls, Substrate culture, Non-traditional crops.

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