

ΤΕΧΝΟΛΟΓΙΚΟ ΠΑΝΕΠΙΣΤΗΜΙΟ ΚΥΠΡΟΥ
ΣΧΟΛΗ ΓΕΩΤΕΧΝΙΚΩΝ ΕΠΙΣΤΗΜΩΝ ΚΑΙ ΔΙΑΧΕΙΡΙΣΗΣ
ΠΕΡΙΒΑΛΛΟΝΤΟΣ



Πτυχιακή εργασία

«Η ΕΠΙΔΡΑΣΗ ΤΟΥ ΖΕΟΛΙΘΟΥ ΣΤΗΝ
ΑΝΘΕΚΤΙΚΟΤΗΤΑ ΦΥΤΩΝ ΤΟΜΑΤΑΣ ΣΤΟ
TETRANYCHUS URTICAE»

ΑΝΔΡΕΑΣ ΑΝΔΡΕΟΥ

Λεμεσός 2015

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ABSTRACT

In this dissertation, zeolite was added to potting medium of tomato plants and its effect on the population growth of *Tetranychus urticae* was investigated. Zeolite was added at 10, 20, and 40% ratios with a commercial potting medium. Ten female *T. urticae* were released on each tomato plant and seven days later the total number of *T. urticae* on each plant was counted. No significant effect of zeolite on *T. urticae* population growth was detected at any of the ratios tested. The regular irrigation of the plants with nutrient solution may have prevented zeolite from having an impact as the plants did not lack water nor nutrients.

In the second experiment the influence of an aqueous solution of zeolite (150 μm particle size) on *T. urticae* mortality was investigated. Ten *T. urticae* females were transferred on each of five tomato leaflets sitting on wet cotton wool in a Petri dish. The females were sprayed with zeolite solution at 8, 12 and 18% (w/v), and mortality was assessed 24 h later. Zeolite caused no significant mortality to *T. urticae*. The relatively large diameter of zeolite particles (150 μm) may have prevented the mineral from forming a film on the leaf surface, a process known to lead to the death of arthropods.

Keywords: Zeolite, Spider mites, Tomato