



Using Vermiculture to Improve Agricultural-Industrial Engineer Student Informal Education



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INTRODUCTION



Agricultural engineering students require a more diverse practice to motivate development of their competitions in an independent way and outside scholar environment, along with an informal education and less traditional teaching. This tendency is observed in the actual undergraduate education in the world. Society is turning into urban mentality that makes feel that agriculture is a subject and a profession far a way from the daily activities of undergraduate students.

OBJETIVE



The present study represents the first of two parts related to use vermiculture to improve agricultural-industrial engineer student informal education. First part explains scholar vermiculture program at the agricultural-industrial engineer education. Second part is related to impact of vermiculture program on undergraduate students' homes.

METHODOLOGY

Methodology was developed with a double intention: educative and productive. Education intention was related to transmission and construction of practices by training courses provided by professor to undergraduate students and from undergraduate students to high school and junior high school students at their schools. This allowed developing of values, knowledges and abilities in all participants.



RESULTS

Second intention was production of Californian red earthworm (*Eisenia foetida*), solid and liquid humus. They were used for production of plants, flowers, gardens and scholar farms. This system facilitated yielding young earthworms to use them at home.

The results showed that education student-student in small groups, creates active interaction among students from different ages, academic degrees, etc. It has allowed fortified actions to grow trees, flowers and plants, in addition to promote love for agriculture at local schools. In some students' houses, practices of domestic and productive vermiculture are made.

BENEFITS



Students attended vermiculture course.



Students were preparing material for humus production.

Small-scale vermicomposting is well suited to turn kitchen waste into high-quality soil, where space is limited. Together with bacteria, earthworms are the major catalyst for decomposition in a healthy vermiposting system although other soil species also play a contributing role other organisms such as insects, mold. Vermicompost benefits soil by improving its physical structure; enriching soil in micro-organisms, adding plant hormones such as auxins and gibberellic acid, and adding enzymes such as phosphates and cellulose; attracting deep-burrowing earthworms already present in the soil; improving water holding capacity; enhancing germination, plant growth, and crop yield; and improving root growth and structure.