KSCST

A Project Report

On

AN ALTERNATIVE, INEXPENSIVE STRATEGY FOR BETTER QUALITY YIELD OF SILK USING PARTHENIUM HYSTEROPHORUS

Syed Moiz Ahmed (E mail- moizfarhana@gmail.com)

Sharath T.N (E mail- sharathdepp@gmail.com)

PES Institute of Technology

100ft ring road, Banashankari 3rd stage, Bangalore-85

Department of Biotechnology

Under the Guidance of:

Dr. Maulishree Agrahari

Professor, Department of Biotechnology

E mail- maulishree.agrahari@gmail.com

January 2011 – June 2011

PROPOSAL REFERENCE NUMBER- 34S0934

Chapter 1

ABSTRACT

Vermiwash is a watery extract of compost, the wash of earthworms present in the medium and it is found to contain proteins , free amino acids nitrogen , phosphate , calcium , potassium , Iron , copper , zinc. These nutrients are very much essential for the robust growth of the silkworm to yield higher silk. Sericulture is an agro industry (combining both agriculture and industry), the end product of which is silk. It is a labor intensive activity providing direct and indirect employment to a large number of families.. About 14% of the global raw silk is produced in India, of which more than 65% is mulberry silk, mostly produced in Karnataka. Besides meeting the ever growing domestic demand, silk in its various forms is also exported and this sector is one of the important foreign exchange earner for the country. Of the factors responsible for increasing the production of silk the quality of mulberry plays the most important role. The present study evolve the technology for utilization of vermiwash as feed additive in the silkworm rearing practices to yield higher cocoon weight and yarn length. In this process extra nutrients are directly available to the silkworms along with the nutrients present in the mulberry leaf, which help in the growth of the silkworm.results of the present study reveal that there is an significant increase in the cocoon weight and shell ratio to a extent of 36.26 % over the control where the leaf's are fed without vermiwash. This gives scope for utilizing organically derived product to use in the sericulture. This study provides a base for integration of vermicomposting and sericulture to obtain high cocoon yield and helps to decrease the operational costs for the maintenance of the mulberry plantation, which gives more profit to the farmers. This study promotes organic farming practices which can increase the economic status of the farmers.