



# ANNAMALAI UNIVERSITY

(Accredited with 'A' grade by NAAC)



## FACULTY OF AGRICULTURE

### DEPARTMENT OF ENTOMOLOGY

(Accredited by ICAR)

**IQAC enabled**

*Short-term Training Programme on*

## **Bee Keeping for Sustainable Livelihood**

**18-19 October, 2019**



**Co-ordinator**

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## About the University

In the early 1920s Rajah Sir S. R. M. Annamalai Chettiar founded Sri Minakshi college, Sri Minakshi Tamil College and Sri Minakshi Sanskrit College at Chidambaram. In 1928, Rajah Sir S. R. M. Annamalai Chettiar agreed with the local Government to handover the above said institution for establishing a University. Thus, on 01.01.1929 Annamalai University was established as per Annamalai University Act 1928 (Tamil Nadu Act 1 of 1929).

One of the most significant developments is the enactment of the Annamalai University Act, 2013 (Tamil Nadu Act 20 of 2013), which has come into force from September 25, 2013. Annamalai University is accredited with 'A' Grade by NAAC in 2014. "The NIRF-2019" by the Ministry of Human Resource Development (MHRD) has ranked the University in the band 101 - 150 in the overall category as well as the University Category. In the Pharmacy Category the ranking is 12<sup>th</sup> in India. In the Medical Category the ranking is 25<sup>th</sup>. "The Times Higher Education World University Ranking - 2019" has ranked Annamalai University in 1000+ for Overall category. In the Subject category Ranking, 2019, the University is ranked in the band of 501-600 for Life Sciences and Pre-clinical, clinical & Health Subjects. 800+ in the Physical Sciences subject. "The QS World University Ranking - 2019" has ranked Annamalai University in the band of 291 - 300 in Asia Ranking, 174 in the BRICS Ranking and 43 in India Ranking. "The CWTS Leiden Ranking 2018", on scientific impact of universities and on universities' involvement in scientific collaboration & scientific performance, has ranked the University at 20<sup>th</sup> based on the number of publications and 4<sup>th</sup> based on the proportion of publications that, compared with other publications in the same field and in the same year, belong to the top 10% most frequently cited. "The MDRA - India Today Ranking" (2018) has ranked Annamalai University 13<sup>th</sup> among the best Government Universities in India. Among the top 197 ranked institutions for Higher Education in India the "SCImago Institutional Ranking (2018)" has ranked Annamalai University as 7<sup>th</sup> in Tamil Nadu and 32<sup>nd</sup> in India.

Annamalai University is one of the largest unitary, teaching, and residential Universities in Southern Asia comprising of 10 Faculties and 49 departments of study. This University has played a pivotal role in providing access to higher education to thousands of youth cutting across the social spectrum, especially from economically and socially disadvantaged classes. In this respect, this University's service to the nation is tremendous.

## **About the Faculty**

The Faculty of Agriculture is started in 1958. Presently there are nine departments and one division. The grants obtained by the Faculty from UGC, DST, DBT, ICAR, NMPB, Ministry of Coal, Ministry of Environment & Forests, Ministry of Water Resources etc. and budgetary provision from the University have added to an excellent infrastructural setup that facilitate cutting edge research in Agriculture and Horticulture. Teaching, research and extension activities, the three vital components for any agricultural institution, add significant value to the Faculty of Agriculture.

## **About the Department**

A Division of Entomology came into existence primarily to cater the instructional needs of B.Sc. (Ag.) degree, in the year 1958 when the Department of Agriculture was instituted. Department status came into being as a fifth one in the Faculty of Agriculture on 4<sup>th</sup> September 1984. With exuberant fore-vision and hard work of the Entomologists, the Department has grown to attain the present status of national and international recognition. The Department has a longstanding tradition of engaging empirical research. Umpteen numbers of consultancy projects and more government sponsored research projects have been handled by the staff members of the department. The hopeful areas of research in the department are Phyto-insecticides, Insecticide toxicology, Host Plant Resistance, Parasitoid taxonomy, Bio-control and Storage entomology. So far, the department has produced 276 PGs and 38 PhDs. A distinct forum, the "Entomology Society for Innovations" is functioning in the department from 2007 creating interest among budding entomologists.

## **About the Training Programme**

Honeybees are special gift to mankind because beekeeping can be done for both their pollination services and their cherished products such as honey, beeswax, propolis, bee venom, etc. These products have their widespread use in different small and large scale industries in India. Beekeeping is an agro-based activity which is being undertaken by farmers/landless labours in rural area as an integrated farming practice. Beekeeping supplements income & employment generation and nutritional intake of rural population.

In order to maximise agricultural production, honeybee can be used as an important input. About 85 per cent crop plants are cross-

pollinated, as they need to receive pollen from other plants of the same species with the help of external agents. One of the most important external agents is honeybee. Among the various pollinating agents, honey bees play a very important role in pollinating the crops. The honey bee pollination not only results in higher yields, it also gives a better quality of produce, and the efficient pollination of flowers also serves to protect the crops against pests.

In sunflower, bee keeping found effective in increasing higher number of seeds per head, per cent seed setting, seed test weight and germination of seeds. Bee pollination in sesame improved seed germination and vigour of seeds. Introduction of honey bee colonies in castor produced 17% increment in fruit set and complementary pollination carried out by honey bees with wild pollinators in soybean recorded more number of pods per plant and seeds per pod.

Dissemination of information from this training programme will increase the employment opportunity in rural sectors and thus enhancing additional income of farmers, farm women and unemployed youth.

### **Topics outline**

- Ø To teach the techniques in handling of honey bees
- Ø To give hands on training to apiculture
- Ø To expose the coastal bee flora
- Ø To highlight the benefits of bee products

### **Registration**

This Training Programme is open to the Farmers, Farm Women and unemployed Youths from the Coastal region of Cuddalore and Nagapattinam Districts of Tamil Nadu without any Registration Fees.

This brochure can also be downloaded from  
[www.annamalaiuniversity.ac.in](http://www.annamalaiuniversity.ac.in)

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### **For further details**

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