



Training Programme under **Van Vigyan Kendra**

ICFRE-INSTITUTE OF FOREST BIODIVERSITY (IFB), HYDERABAD

One Day Training Programme on

“Importance of Honey bees and its role in Biodiversity Conservation”



Honey bees are numerous in types & all they have the genus name “Apis”. Honey bees because they store large amount of surplus honey, compare to other type of bees like Solitary bees, bumble bees & Alkali bees.

On the other hand, other types of bees also valuable pollinators but their contribution is always under evaluated perhaps because of our limited insight in to their nesting behavior & mechanism of nesting. And the other reason maybe we have always relied more on easily manageable honey bees which provide byproducts also. Today Bee keeping industry suffers from magnitude of problems like honey bee early undergo disease & parasite attack and they are not pollinating under adverse environment conditions, but wild bees are more effective pollinators on a per visit basis than honey bees. Honey bees’ examples: *Apis dorsata*, *Apis cerana*, *Apis mellifera*, *Apis florea* out of these four commercially important Honey bees, *Apis Mellifera* has occupied dominating position in the commercial pollinators around the world because they are highly social bees. In this context, ICFRE-Institute of Forest Biodiversity (ICFRE-IFB), Hyderabad organized one days of training on “**Importance of Honeybees and its role in Biodiversity Conservation**” to the BSc- Agricultural students of Malla Reddy University, Hyderabad on 19.10.2023. A total of 70 students participated in this training program.

The training started with inauguration by **Dr. Deepa M, Scientist -E, Head Forest Ecology & Climate Change Division and training Co-coordinator** welcomed the students with talk on role of Honey bees in forest. Honey bees are numerous in types & all they have the genus name “Apis”. Honey bees because they store large amount of surplus honey, compare to other type of bees like Solitary bees, bumble bees & Alkali bees.

Shri Sandeep Pratty, IFS, Head Extension, ICFRE-IFB delivered inaugural address & highlighted the importance of honey, beeswax and propolis value & also shared experience of FCRI, Mulugu college Honey bee importance and their works & End with thought “If the bee disappeared off the surface of the globe, then man would only have 4 years of life left”.

Shri E. Manikanta Reddy, Technician, ICFRE- IFB, Hyderabad profusely thanked the dignitaries. He further said that ICFRE-IFB will give a diligent and comprehensive effort in the training program and expressed the hope that all the participants will play an active role to success this training program.



Technical Session-I

In the technical sessions, **Smt. V. Sailaja, Assistant Professor, Department of Natural Resource Management & Conservation, Forest College and Research Institute (FCRI), Telangana**, gave a lecture on **“The role of honeybees as pollinators to enhance the quality and productivity of Agriculture, Horticulture and Forest trees”**. She explained about Integrated Bee keeping centre, Quality nucleus stock development centre, Honey bee disease diagnostic laboratory, Mini honey testing laboratory, Trainings and awareness programs, Honey bee varieties in India, Honey bee & other beehive products processing unit, Extraction of honey, Bee venom extraction, Queen bee breeding, Extraction of Royal jelly, Collection of propolis, Bee pollen, Honey soap making, Beeswax candle making, Bee friendly garden, Technology & impact demonstration centre, etc.

Dr. M. P. Bharat, Assistant Professor, College of Agriculture, Kaveri University, Telangana gave a lecture on **“Need for Conservation of native Honeybees”**. He explained about Honey bee varieties in India, Native bees, Threats for native bees, Residential and commercial development, Land use change due to Agriculture, Pollution- agricultural and forestry effluents, Transportation and servise corridors, restore floral rich species on road sides, biological resource use, Natural system modification, Education and awareness raising, Honey hunting etc.

Dr. Deerpa M, Sc-E & Course-coordinator, gave a lecture on **“Bee keeping as livelihood security in addition to biodiversity conservation”**. She explained about Prime Ministers vision, Beekeeping, Honey bee varieties & species such as Rock bee, little bee, Indian. Asian bee, European bee, Dammer bee, Characteristics of honey bees such as nesting, distribution in India, sizes, swarming process, temperament, average honey yield per year, method of honey extraction, worker cells, honey bee castes & sex differentiation, Life cycle of honey bees, Bee hive and process, Ant wells, regular checking process of bee hives, Bee activities, smoking, Bee hive entrance, Seasonal management, Starting a new colony, Bee products, Pollinators support biodiversity, Bee pest management, Threats to Biodiversity & Loss of Pollinators, Symptoms of nee poisoning, Management of bee poisoning, etc.



During the valedictory session, **Shri E. Venkat Reddy, IFS, Director, ICFRE-IFB, Hyderabad** expressed his views about of role of honey bees & other native bees. It is unsurprising to find an amazing diversity of pollen feeding insects of the many kinds of insects, it is bees & their close relatives that have exploited this opportunity to diversify & associate themselves with various types of flowers and they are some of the more effective pollinators too. More than one-third of the world's crops require pollination to set seeds & fruits. Among various pollinating agents, insects occupy the more important place (entomophily) when compared to other invertebrates & vertebrates. In the changing world with climate change and other significance pollination stresses like drought, fire, habitat fragmentation, etc. there is a decline in the pollinator population in the past few decades generating great threat to the production of crops, they leading to a food crisis.

The one-day training on honeybee was concluded with a valedictory function and distribution of certificates. This session was concluded with a vote of thanks by **Shri E. Manikanta Reddy, Technician, ICFRE- IFB.**



