## PDEA's Waghire College, Department of Zoology Report on One day Workshop on Honey Bee handling and Practical's related to it conducted by Zoology Department under the DBT- STAR College Scheme 2021-2022

Under the funding of the DBT-STAR College Scheme, the Zoology department of Waghire College, Saswad organized One Day Online Workshop on Honey Bee handling and Practical's related to it like Extraction of honey, Beewax, Propolis, Pollen from honey bee combs and Extraction of bee venom from honey bees under the DBT-STAR College Scheme for the students of S.Y.B. Sc Zoology on 22<sup>nd</sup> January 2022.

The Workshop was organized under the guidance of Dr. B.U. Mane, Head of Zoology Department, Waghire College, Saswad and was inaugurated at the hands of Vice Principal of Waghire College, Dr. Subhash S. Wavhal. The Resource persons who guided the Students were Apiculture Experts Shri. Prashant Gavade and Shri. Sachin Kshirsagar, both from Krishi Vidhnyan Kendra (KVK), Baramati, Pune. 65 students were benefited from this workshop.



Inauguration of One day Workshop and Felicitation of Resource persons

After the Inaugural and Felicitation, Shri. Prashant Gavade explained to the Students in the first part of Workshop – Concept of Apiculture; Ecological and economical Importance of honeybees; Honey yielding different bee families; Types of honeybees and their habits, habitat and nesting behaviour; Life cycle of honeybees; the caste system and division of labour followed by honeybees; Role of different castes in maintaining the colony; Difference between the different species; Economically important and cultivable bee species in Indian environment. Shri. Gavade and Shri. Kshirsagar also showed and explained the rearing equipments like Langstroth Bee box, Honey extractor, smoker, overall, bee gloves, high boots and bee veil used in beekeeping to the students



Shri. Prashant Gavade explaining the Economic importance of honeybees to Human beings









Shri. Gavade explaining the different equipments used in Apiculture or Beekeeping

While dealing with the practical part of the Workshop related to Apiculture, he explained Honey production and storage process done by bee; Difference between ripe and unripe honey; Extraction of honey from sealed honey frames.

He also explained the beeswax extraction, bee venom extraction, royal jelly extraction and pollen extraction by showing the students the pollen trap used for extracting pollens loaded by honeybees and rearing cups used for artificial queen rearing process and collection of royal jelly.



Artificial Queen rearing and Royal jelly collection cups Pollen traps used for pollen collection from honeybees

Shri. Gavade and Kshirsagar also explained that depending upon the seasons and availability of nectar and pollens, the honeybees show certain behaviour which need to be identified by the beekeeper. Inorder to sustain the bee colony in an apiary, the beekeeper also needs to have knowledge of Seasonal and Scientific Management of bees,

Status of Beekeeping in the world and in India, Requirements for Apiculture setup and different Government schemes made available to entrepreneurs in Apiculture were also explained to students..



Shri. Gavade explaining the Seasonal management, scope for beekeeping, its global status and the various schemes made available to entrepreneurs in Apiculture.













Feedback and Valedictory function of Workshop on Honey Bee handling and Practical's related to it



सासवड (ता. पुरंदर) ः मधुमक्षिका पालन तंत्रज्ञान प्रशिक्षणाप्रसंगी उपस्थित विद्यार्थी. स्वकाळ ः दत्ता भौंगळे

## वाघिरे महाविद्यालयात मधुमक्षिका पालन प्रशिक्षण

सासबढ शहर, ता. २९ ः सासवड (ता. पुरंदर) येथील पुणे जिल्हा शिक्षण मंडळाचे वाधिरे महाविद्यालय सासवड व ऑक्रिकल्चर डेव्हलपमेंट ट्रस्ट संचलित कृषी विज्ञान केंद्र, बारामती यांच्या संयुक्त विद्यमाने, डी. बी. टी. स्टार कॉलेज योजनेतर्गत एक दिवसीय शास्त्रीय मपुपर्विका पालन तंत्रज्ञान प्राणिशास्त्र विधायाचा प्रशिक्षण कार्यक्रम प्राचार्य डॉ. सुपमा भोसले यांच्या मार्गदर्शनास्त्राली पार पडरण.

कार्यक्रमाच्या उद्घाटनप्रसंगी प्राणिशास्त्र विभाग प्रमुख डॉ. बबन माने यांनी सदर परिसरातील निरनिराज्या पिकांसाठो मधमाशी किती महत्त्वाचा आहे, यात्राखत माहिती दिली. महाविद्यालयांन विद्यार्थ्यांनी पधमाशी पालनाचे तंत्रज्ञान आत्मसाठ करून मधमाशी व त्यापासून मिळणारे विविध पदार्थ याचा अभ्यास करून विद्यार्थ्यांनी व्यावसायिक बनावे असे आवाहन केले.

कृषी विज्ञान केंद्र, बारामतीचे मधमाशी तज्य प्रशांत गावडे यांनी मधमाशीपासून मिळणारे निरनिराळे पदार्थ, मधमाशीच्या विविध जाती, मधमाशीचे परागीभवनात महत्त्व, मधमाशी पालनासाठी खोग्य जातीची निवड, मधमाशीची हाताळणी, योग्य पद्धतीने शुद्ध मधाची काढणी, मधमाशी पालनासाठी लगणगरे विविध साहित्य इत्यादी गोष्टींची माहिती दिली. तसेच प्रक्रिया उद्योगासाठी प्रधानमंत्री सूक्ष्म अन्न प्रक्रिया उद्योग योजना (PMFME) याबद्दल माहिती दिल्पी.

वाषिरे महाविद्यालयाचे उपप्राचार्य डॉ. सुभाष वाव्हळ यांनी विद्यार्थ्यांना मधमाशो हा कीटक पर्यावरण आणि इको सिस्टीमसा किती महत्त्वाचा आहे. याविष मार्गदर्शन केले. यावेळी प्राणिशा विभागातील प्रा. खुनील कोकरे, उ अभिजित देशमुख, कृषी विज्ञान केंद्र वाराभतीचे सचिन क्षोरसागर यांच्यासह महाविद्यालयातील ६५ विद्यार्थी उपस्थित होते. हा कार्यक्रम यशस्वी होण्यासाठी अमोल भोसले, नवनाथ उरसळ आणि रोहिणी नेवसे यांनी प्रयत्न केले. डॉ. भाष्यश्री मदभावीकर यांनी उपस्थित विद्यार्थ्यांचे, शिक्षकांचे व कृषी विज्ञान केंद्राच्या अधिकाऱ्यांचे आधार मानले.

Newpaper clip on News published in Local newspaper "Sakaal" on 30<sup>th</sup> January, 2022

Dept. Co-ordinator

Head of Department

DBT Co-ordinator

Principal

## PDEA's Waghire College, Department of Zoology Report on One day Hands on Training on Honey Bee handling conducted by Zoology Department under the DBT- STAR College Scheme 2021-2022

Under the funding of the DBT-STAR College Scheme, the Zoology department of Waghire College, Saswad organized Hands on Training on Honey Bee handling for the Teaching and Non- teaching staff of Zoology department, S.Y.B. Sc Zoology students and nearby farmers on 2<sup>nd</sup> February, 2022.



Hands on Training on Honey bee handling organised on 2<sup>nd</sup> February, 2022 in Waghire College campus

The Hands on Training Workshop was organized under the guidance of Dr. B.U. Mane, Head of Zoology Department, Waghire College, Saswad and conducted by Resource persons Shri. Prashant Gavade and Shri. Sachin Kshirsagar, from Krishi Vidhnyan Kendra (KVK), Baramati, Pune. Along with the 4 Zoology department faculty members, 73 people benefited from this workshop out of which 11 people were nearby farmers and 62 were S.Y.B. Sc students.

Shri. Prashant Gavade and Shri. Kshirsagar explained to the Farmers and students the ecological and economical importance of Honey bees and placed the Langstroth bee-boxes in the College Botanical garden. They then showed the everyone how to Hive the colony from old colony frames into the new unoccupied frames of the new bee boxes.



Hands on Training on Honey bee handling to the nearby farmers

While setting up the bee boxes in the botanical garden, they explained how to setup the bee box, its direction, height from the ground and the location in which to place based on the availability of flora, nectar and water. The care and Precautionary measures to be implemented and followed after the setting up of an Apiary were also explained. They also explained

morphology of the worker, drone and the queen honey bee and the significance of the Queen bee in the colony.

During the actual colony hiving process they showed all those assembled there how to identify the queen from the workers within the colony and how to transfer her into the new bee boxes. With the entrance of the Queen bee in the bee box, all the workers enter the bee box and the process of hiving is completed. Thereafter, the bee boxes were installed in the botanical garden which will serve as an Apiary for the college.



Hiving process of Bee colonies obtained from KVK, Baramati in New Departmental Bee boxes

After the hiving process, the resource people explained the difference between Ripe and Unripe honey and showed the process of Honey extraction from sealed honey comb frames. The assembled mob devoured the sweet honey after the honey extraction process. During all these process the use of the beekeeping equipments like Hive tool, Bee-veil, Overall, gloves, Bee boxes, smoker etc. procured by the Zoology department under the DBT STAR College Scheme was done.



Overall the Hands on Training organised by the Department of Zoology under the DBT STAR College Scheme was a successful programme which motivated many students in terms of Entrepreneurship in Apiculture.

Dept. Coordinator

Head of Department

DBT Co-ordinator

Principal

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