Report of
"Scientific Beekeeping Training Programme"

Sponsored by

National Bee Board

Department of Agriculture, Cooperation & Farmers Welfare
Ministry of Agriculture and Farmers Welfare, Govt. of India
"B" Wing, IInd Floor, Janpath Bhawan, Janpath, New Delhi

Through

ICAR - Agricultural Technology Application Research Institute,

Zone-II, Jodhpur (Rajasthan)

Organized by

Krishi Vigyan Kendra

(National Horticultural Research & Development Foundation)
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CONTENTS

1. INTRODUCTION:

Beekeeping is an important enterprise of agriculture sector which provides nutritional, economic, and ecological balance, with employment and income to the farmer. The knowledge of agro-climatic conditions, the diversified flora, changing Agri/horticultural pattern of the crop, the number of species of bees available coupled with management practices play a vital role in transforming the beekeeping entrepreneurship in the confer.

India has the good potential for beekeeping in all the states due to floral diversity. Beekeeping as the very low investment and skills industry have the potential to offers direct employment to lakhs of people especially hill dwellers, tribal and unemployed youth and farmers. Sustainability of this industry is therefore vital to the country's economic wellbeing and development. Beekeeping has been carried out across many generations in India. It plays a vital role in the livelihoods of the rural communities. Beekeeping is an agro-based activity. This is being done by farmers, landless labourers in rural areas under Integrated Farming System (IFS). Bee keeping is very useful in pollination of crops. At present expensive bee products like Honey and Bee Wax, Bee Pollen, Propolis, Royal Jelly, Bee Venom, etc. are becoming available. India's diverse agro-climate offers wide possibilities and opportunities for beekeeping, honey production and honey export.

The Bees play an important role in the development of the agricultural sector as it helps to double the farmer's income. Promoting bee farming implies a significant spike in farm productivity, as well as job creation and the agrarian sector has to revolutionize and not stay stagnant as it is the "need of the hour". It is crucial to adapt to new techniques, better alternatives, and advanced innovations in the farming sector for the progress of the agrarian society. The White revolution that uplifted India's Dairy sector, saying that similarly the Green revolution strengthened the farming and agriculture sector, and now the Sweet revolution, of which Bee farming is an essential part, is making progressive demands in the nation.

As per Food and Agricultural Organization (FAO) database revealed that India ranked eighth in terms of honey production worldwide. Based on the area under cultivation in India and bee forage crops, India has a potential of about 200 million bee colonies as against 3.4 million bee colonies.

2. National Beekeeping and Honey Mission (NBHM)

Keeping in view the importance of beekeeping and to achieve the goal of "Sweet Revolution" the need for holistic development of beekeeping was felt. Accordingly, a new Central Sector Scheme ***"National Beekeeping and Honey Mission (NBHM)"*** for overall promotion & development of scientific beekeeping and production of quality honey & other

beehive products is approved by the Govt. of India. The scheme will be implemented through National Bee Board as a Central Sector Scheme (100% funded by Central Govt.).

The NBHM will have following sub-schemes/ three Mini Missions:

I. **Mini Mission-I:** Production & productivity improvement of various crops through pollination assisted by adoption of scientific beekeeping;

II. **Mini Mission-II:** Post-harvest management of beekeeping/ beehive products including collection, processing, storage, marketing, value addition, etc. with a thrust to develop requisite infrastructural facilities for these activities; and

III. **Mini Mission-III:** Research & Technology generation for different Regions/ States/ Agro-Climatic and Socio-Economic conditions.

The NBHM will work in coordination with other Governmental programmes / schemes relating to promotion of beekeeping, viz.; MIDH, RKVY, Honey Mission of KVIC, MSME, ICAR institutes and KVKs, etc,. with aims of overall promotion & development of scientific beekeeping in the country. The NBHM will provide technical guidance/ advice and administrative support to the implementing agencies at the National & State level for effective & smooth implementation of the scheme.

3. Scientific Bee Keeping Training:

The main objective of the National Bee Board (NBB) is overall development of Beekeeping by promoting Scientific Beekeeping in India to increase the productivity of crops through pollination and increase the Honey production for increasing the income of the Beekeepers/ Farmers.

In view of developing the knowledge and skills of Beekeepers/Farmers the National Bee Board allotted scientific beekeeping to KVKs through ICAR-ATARI, Jodhpur.

3.1 Implementation National Beekeeping and Honey Mission at KVK Level

Krishi Vigyan Kendra, Delhi has received vide letter No 6-37/2020-NBB dated on 14th February, 2021 form DAC&FW & ICAR-ATARI, Jodhpur dated 17th February, 2021 for organizing 6 scientific bee keeping training programme. Out of 6 scientific training programme, 5 training programme will be physical training each of 7 days with a batch of 25 participants and 1 training programme will be online training three days with a batch of 25-30 participants under Mini Mission-I under National Beekeeping and Honey Mission. (Letter enclosed in Annexure – I)

3.2 Objective of Scientific Bee Keeping Training

- To promotion of scientific beekeeping for pollination support of crops, production of quality honey and other beehive products
- To generating valuable employment & income for provide livelihood support to rural population and ultimately help in doubling farmers' income
- Adopt Scientific Beekeeping for own and Nation's prosperity

3.3 Fund allocation

ICAR-Agricultural Technology Application Research Institute (ATARI), Zone—II, Jodhpur (Rajasthan) released Rs 9.15 lakh to KVK, Delhi for conducting 6 scientific bee keeping training programme under National Beekeeping and Honey Mission Scheme.

Table 3.1. Fund allocation under scientific beekeeping training (Rupees in lakhs)

Name of KVK	No. of training (Physical)	No. of training (Online)	Per training amount (Lakhs (Physical)	Per training amount (Lakhs (Online)	Total (Lakhs)
KVK, Delhi	**5.0**	**1.0**	**1.75**	**0.15**	**9.15**

3.4 Application of Training Programme

3.4.1 Training Schedule - As per allotment KVK Delhi has prepared a schedule for conducting seven days Scientific Bee Keeping Training trainings programme in GNCT, Delhi whose descriptions in details is given below-

S. No.	Title	Venue	Date
01.	**Scientific beekeeping training**	KVK(NHRDF), Delhi	07 to 15 April 2021
02.	**Scientific beekeeping training (Virtual)**	KVK(NHRDF), Delhi	27 to 29 May 2021
03	**Scientific beekeeping training**	KVK(NHRDF), Delhi	22 to 29th July 2021
04	**Scientific beekeeping training**	Tigipur (North, Delhi)	23 to 29th September to 2021
05	**Scientific beekeeping training**	Dunyapur(North West)	05 to 13th October, 2021
06	**Scientific beekeeping training**	KVK(NHRDF), Delhi	10 to 17th November 2021

3.4.2 Publicity & Advertisements - KVK Delhi made a plan for more advertisement and publicity of scientific beekeeping training through newspapers, social media channels (Whatsapp Group, YouTube, Facebook and Twitter) and KVK website and various extension activities of KVK Delhi. The main objective of the advertisement was to select need based rural youth and farmers and women to generate self-employment to improve their livelihood through scientific beekeeping training programs.

कृषि विज्ञान केन्द्र

(राष्ट्रीय बागवानी अनुसन्धान एवम् विकास प्रतिष्ठान)

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मधुमक्खी पालन प्रशिक्षण

कृषि विज्ञान केंद्र (राष्ट्रीय बागवानी अनुसन्धान एवम् विकास प्रतिष्ठान), उजवा, नई दिल्ली द्वारा राष्ट्रीय मधुमक्खी पालन एवं मधु मिशन कार्यक्रम, कृषि एवं कृषक कल्याण मंत्रालय, भारत सरकार के अंतर्गत 7 दिवसीय एवं 3 दिवसीय (ऑनलाईन) "वैज्ञानिक मधुमक्खी पालन" पर प्रशिक्षण कार्यक्रम आयोजित करने जा रहा है।

इच्छुक आवेदक अपना आवेदन सहित शैक्षिक योग्यता प्रमाण पत्र, आधार कार्ड की छाया प्रति एवं रंगीन पासपोर्ट फोटो सहित ऊपर लिखे पते पर आवेदन 15 दिन के अंतर्गत (प्रकाशन तिथि के बाद) करें।

विशेषः संबन्धित जानकारी कृषि विज्ञान केंद्र की वेबसाईट www.kvkdelhi.org & www.nhrdf.org पर उपलब्ध है। अधिक जानकारी के लिए डॉ डी. के. राणा विषय विशेषज्ञ (9310904705) से सम्पर्क करे।

(डॉ. पी. के. गुप्ता)
अध्यक्ष

Publicity through News Paper

वैज्ञानिक मधुमक्खी पालन पर प्रशिक्षण कार्यक्रम

(राष्ट्रीय मधुमक्खी पालन एवं शहद मिशन, भारत सरकार)

(ऑनलाईन)

मुख्य अतिथि

श्री एस. के मल्होत्रा

दिनांक 27–29 मई, 2021

समय 11:00 AM – 03 : 00 PM

विशिष्ट अतिथि

श्री मधूप व्यास | डॉ. बलराज सिंह | डॉ. सुशील कुमार सिंह | डॉ. बी.एल. सरस्वत | श्री आर.वी. रामाकृष्णा

जूम (Zoom) मीटिंग विवरण

मिटिंग लिंक - https://us02web.zoom.us/j/89053203174?pwd=d0thbFRNWExmUnBCckZGY3Y1RlVRZz09

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संयोजक

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Krishi Vigyan Kendra, Ujwa

Krishi Vigyan Kendra, Ujwa, New Delhi

डॉ. पी. के. गुप्ता
अध्यक्ष

डॉ. डी. के. राणा
विशेषज्ञ (पादप सुरक्षा)

Literature

Face book **Whats App**

3.4.3 Selection of trainees : Prior to the training program, KVK Delhi would shortlist the applications received after giving wide publicity through newspaper, print media and social media platforms and select the need based trainees of Delhi region so that the youth could be self-employed after training. After selection of trainees KVK were informed to trainees for participation in training.

4. Implemented Scientific Bee Keeping Training Programme.

The scope of Bee Keeping in Delhi is very good concerning the production and market demand of Honey. Keeping the view in mind, Krishi Vigyan Kendra, Ujwa, organized the trainings 7 day (offline) & 7 day (online) to conduct 6 scientific beekeeping under the National Beekeeping and Honey Mission of the Government of India. The main object in the training will be given to create awareness among the farming community of the area about the benefits of Bee Keeping including its role in increasing the productivity of Agricultural & Horticultural crops. All the major issues relating to Bee Keeping, Honey processing, its

extraction, migration of bee colonies, information about quality of Flora & Fauna required for successful Bee Keeping etc. will be discussed in this training

KVK Delhi organized seven and three days' trainings programme in KVK campus and villages of NCT Delhi, whose descriptions in details are given below:

Table 4.2: Successful training programme conducted by KVK Delhi

S. No.	Title	Venue	Date	No. of participants	Mode of Training
01.	**Scientific beekeeping training**	KVK, Ujwa campus	07 to 15th April 2021	19	Physical
02.	**Scientific beekeeping training (Virtual)**	KVK, Ujwa campus	27 to 29th May 2021	94	Online
03	**Scientific beekeeping training**	KVK, Ujwa campus	22 to 29th July 2021	26	Physical
04	**Scientific beekeeping training**	Tigipur (North Delhi)	23 to 29th September to 2021	30	Physical
05	**Scientific beekeeping training**	Dariyapur Kalan (North West, Delhi)	05 to 13th October, 2021	27	Physical
06	**Scientific beekeeping training**	KVK, Ujwa campus	10 to 17th November, 2021	20	Physical

1st Scientific Bee Keeping Programme

Inauguration

The Krishi Vigyan Kendra, Ujwa, Delhi organized first seven days training programme on "Scientific Bee Keeping" Programme dated from 07th to 15th April, 2021 at KVK campus. The programme was organized under the Mini Mission - I - National Beekeeping & Honey Mission (NBHM). Dr. B. L. Jangid**,** Principal Scientist (Agril. Extension), ICAR-Agricultural Technology Application Research Institute, ATARI, Jodhpur (Rajasthan) was the chief guest of the training programme and he addressed to participants about developing the knowledge and skills of scientific beekeeping. He told about the direct and indirect benefits of bees and also he said that keeping bees can be beneficial without any extra cost as bees get their food, water and livelihood from nature itself. Dr. P.K. Gupta, Head, KVK Delhi welcomed to all participants, chief guest and other guests and the farmers for concentrating on honey bee farming and making it an integral part of crop husbandry for attaining higher income with less investment.

Dr. B. L. Jangid, Principal Scientist (Agril. Extension), ICAR-ATARI, Jodhpur (Rajasthan) addressed to participants about developing the knowledge and skills of scientific beekeeping as a Chief Guest during Inaugural session.

Technical Session

First Day (07th April, 2021)

The technical session that followed started with pre-evaluation of trainees. After that Dr. D.K. Rana, SMS (Plant Protection) delivered importance of Beekeeping in respect of National & International scenario and nature of Beekeeping industry & selection of site for apiaries unit. He also told about requirement of quality of beehives and equipment's/tools for starting apiculture.

Second Day (08th April, 2021)

The second day started with a lecture by Shri Mukesh Sharma, Extension Officer, Department of Agriculture, Government of Delhi delivered he stated about how National Bee Board and Khadi Village Industries promote beekeeping in honey industries. Simultaneously he described the methods of producing queen bees. He stated that the queen bees produce queens under three conditions: early, supersede and emergency. It has become necessary for scientific beekeeping to prepare many queens in advance, as soon as a queen appears mature, weak or ill, then the queen bee can be given to that offspring immediately.

Third Day (09th April, 2021)

The highlight of third day was started with the lecture of Dr. D.K. Rana SMS (PP) KVK, Delhi & course coordinator. He taught the trainees about ways to prevent diseases, pests and enemies in beekeeping. Along with giving training to the trainees in a practical and practical way, they were made aware about various activities and schemes being run by the Government of India under Beekeeping and Honey Mission.

Fourth Day (12th April, 2022)

In the morning, the fourth day session was started with the lecture KVK bee expert of Dr. D.K. Rana , he delivered lectures on importance of bees in pollination, their types, different species, beekeeping tools/ equipment, apiary sites, seasonal managements, insect pests associated with them and their management. They were also given exposure to the apiary unit located at KVK, Campus

Fifth day ((13th April, 2022)

This day was started with valuable remark of Shri Manoj Pathak, Technical Officer, NHRDF. Karnal, Haryana. He informed that scientific management of bee colony in different seasons. He also told that in all these seasons, spring, summer, rainy season and winter season, beekeepers should take special care of cleaning the monkey forest and how to keep the bee healthy. Trainees were shown practical on how do seasonal management of apiary according to the season.

Sixth day ((14th April, 2022)

The fifth day started with a lecture by Dr. P.K. Gupta, Head, KVK, Delhi. He informed to trainees about bee keeping for increased productivity in horticultural crops and beekeeping is a very fascinating occupation. Though the honeybees are best known for the honey they produce, their economic role in nature is to pollinate hundreds and thousands of flowering plants and assure setting of seeds or fruits.

During his lecture he stressed that the honey bees thus play a very important role in cross – pollination crop agricultural and horticultural crops and increase their yield with their quality. Beekeeping supplements income generation to the rural people. Honeybees have been offering services to the society through ensured pollination in cross-pollinated crops as well as by providing honey and a variety of beehive products. It is being increasingly realized that bees could be less expensive input for promoting sustainable and eco-friendly agriculture and enhancing crop productivity. The potential benefits, due to bee pollination, in the form of increase in yields of various crops including fruits, vegetables, oilseeds, pulses etc.

Seventh (15 April, 2022)

In the end of training session Dr. D.K. Rana addressed to participants about the harmful effects of pesticides to the honey bees and tells about the precaution to be taken during spraying in the fields/orchards. He also told about the economics of beekeeping and gave important tips for processing, value addition and marketing of honey to the trainees.

The training was ended with the taken of post-evaluation of trainees and collection of feedback of training.

Shared the knowledge through method demonstrations for trainees

4.1 Trainees Participated.

Around 19 participants participated from different states (Haryana, Uttar Pradesh) and GNCT Delhi in the Scientific Bee Keeping Training Programme. The details of participants are given below:

Table 4.3: Trainees participated in 1st training programme.

S. No.	Name of trainees	Father's Name / Husband	Address	Passport size photo
1.	Sh. Jai Prakash	Sh. Jagdish Sharma	H.N. -229A, Nangloi, North West Delhi	
2.	Pritam	Sh. Jogender	H.No.-461 Main stand waali gali VPO Jaunti , North West Delhi i	
3.	Rahul	Sh. Satender	H.No.-461 Main stand waali gali VPO Jaunti, North West Delhi	
4.	Deepak	Sh. Jogender	H.No.-461 Main stand waali gali VPO Jaunti, North West Delhi	
5.	Rajkumar	Sh. Sukhbir Singh	H.No. 106 Village, North west Delhi Tatesar, North West Delhi	
6.	Aman Dagar	Sh. Bijender Singh	Dhansa, South West, Delhi	
7.	Savita Devi	Sh. Satbir Phogat	Dhansa, South West, Delhi	

8.	Vishal Tyagi	Sh. Vinod Tyagi	Kh.270 Lalten Factory Waali gali, Takia Chowk, Burari, North, Delhi	
9.	Rajender Kumar	Sh. Nar Singh Dass	931\2 Paschim Puri, North west Delhi	
10.	Raj Kumar	Sh. Sardara Singh	R.Z. 37 Baba Haridass Nagar, Najafgarh, South West, Delhi	
11.	Reena	Sh. Ajay Kumar (H)	Rawta South West, Delhi	
12.	Suman	Sh. Vijay (H)	Rawta, South West, Delhi	
13.	Mamta	Sh. Devendra Kumar	Rawta, South West, Delhi	
14.	Savita	Sh. Rajesh Kumar(H)	Rawta, South West, Delhi	
15.	Manisha	Sh. Ramavtar(H)	Rawta, South West, Delhi	

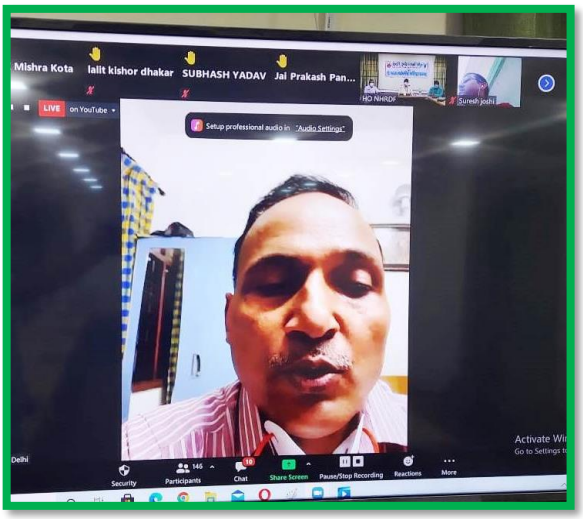
16.	Seema	Sh. Pardeep(H)	Rawta, South West, Delhi	
17.	Lakshay	Sh. Kali Ram	Ujwa, South West, Delhi	
18.	Kapil Bhoriya	Sh. Mahender Singh Bhoriya	Ujwa, South West, Delhi	
19.	Mupul Srivastave	Sh. Indrajit Lal	Kaushik enclave, Burari, North, Delhi	

SECOND TRAINING (Virtual)
(27th to 29th May, 2021)

Inauguration

The Krishi Vigyan Kendra, Delhi organized a three-day Virtual Training Programme on "Scientific Beekeeping for the Farmers" from 27th to 29th May, 2021. The programme was organized in association with the National Beekeeping & Honey Mission (NBHM)- Mini Mission - I. Dr. S.K. Malhotra, Agriculture Commissioner, Department of Agriculture and Cooperation and Farmers Welfare, Ministry of Agriculture and Farmers Welfare, Government of India, New Delhi, was the chief guest and Mr. Madhup Vyas, IAS, Secretary-cum-Commissioner, Development Department, Government of Delhi, New Delhi, Dr. S. K. Singh, Director, ICAR-ATARI, Jodhpur (Rajasthan), Dr. Balraj Singh, Coordinator, AICRP, ICAR-IARI, New Delhi and Shri R. V. Ramakrishna, GM, NABARD, New Delhi as the guest of honor and benefited all the farmers with their knowledge.

Dr. S.K. Malhotra, Agriculture Commissioner, MoA&FW, Govt. f India as a Chief Guest



Mr. Madhup Vyas (IAS), Development Commissioner addressed to participants as a Guest of Honor

In the inaugural session of the program, the chief guest Dr. S.K. Malathora urged the entrepreneurs and trainees starting beekeeping to get information related to processing and marketing of honey along with quality honey from bees. He has said that there is a need for research at present regarding honey production and beekeeping and problems faced by beekeepers.

Special guest Mr. Madhup Vyas, IAS stated that the aim of the Government of India is to provide good income to the farmers from beekeeping as well as to provide high quality honey to the consumers. Right now, during the Corona epidemic, honey has become a part of our daily diet.

Dr. Balraj Singh told that there are ample opportunities for income and employment through bee keeping in arid and semi-arid areas and hilly areas. He has said that nowadays new species of bees can also be raised in the greenhouse and can be obtained from honey production. He has said that bees are also helpful in honey production and pollination and we need to protect the bees from pesticides for good crop production.

Dr. Bal Raj Singh, Project Coordinator, delivered the lecture as a Guest of Honor

Dr. S.K. Singh delivered the lecture as a Guest of Honor

Dr. S.K. Singh stated that in order to double the income of the farmers, along with the agriculture system, beekeeping business is proving to be the most effective. Keeping this in view, the Government of India has allocated Rs 500 crore under the Beekeeping and Honey Mission. Under which training KVK will be opened to maintain the production and quality of honey for beekeeping. He has said that we should also work on processing, packing, testing, storage and marketing through an aggregate (Farmer Producer Organization) by forming a group of farmers.

Shri R. V. Ramakrishna told that farmers can get good income from beekeeping business by forming small groups, farmers' clubs and self-help groups etc., by getting grants through banks.

Dr. P. K. Gupta, Head, warmly welcomed all the dignitaries, eminent scientists and participants attend the program and about the aims of the webinar on scientific beekeeping organized by the KVK, Delhi.

Shri R. V. Ramakrishna, GM, NABARD, New Delhi addressed to participants as a Guest of Honor

Dr. P. K. Gupta, Head, KVK & Director (Acting), NHRDF welcome to all dignitaries & participants

Technical Session:

First Day (25th May, 2021)

The virtual technical session that followed started with Dr. D.K. Rana, SMS (Plant Protection). He explained about the life cycle of a bee that he said the life cycle of a bee consists of 4 stages. The life cycle inside the egg, larva, pupa and adult hive depends on the time of flowering, as well as he told that the manufacturer of the equipment used in the beekeeping business should be good with the mark, the use of boxes in beekeeping.

Shri Mukesh Sharma, Extension Officer, Agriculture Department, Government of Delhi has aimed to achieve the goal of mini revolution in Bee keeping regarding the importance of beekeeper in the field and diversity with sustainable development, and the source of livelihood of rural poverty.

Dr. P.K. Gupta, Head, apprised the trainers about the importance of beekeeping in relation to the national and international scenario. He said that the diverse agro-climatic conditions in India offer immense potential and opportunities for beekeeping

In this training, 217 trainees participated from different states of India like Uttar Pradesh, Delhi, Haryana, Odisha, Maharashtra and Rajasthan.

Second Day (26th May, 2021)

The second day started with a lecture by Dr. S.K Dhaka, Assistant Professor, Sardar Vallabhbhai Patel University of Agriculture and Technology, Meerut, Uttar Pradesh gave information about bee diseases, mites, pests and enemies and their management. He said that diseases in bees are mainly spread by bacteria, fungi and viruses. He told that the babies of the wax moth insect initially cause damage by eating honey, flower sap, pollen inside the bee planet, then later eat the wax by piercing the holes of the roofs.

Dr. Bharat Singh, SMS (PP) Krishi Vigyan Kendra, Gurugram, Haryana stated about the nature of beekeeping industry and how to select the site for the beekeeping unit. He told that the bees should be shifted at that time. When the honeycomb is over, keep in mind that the quantity of honey in the hive should not be high and the quantity of babies in it should also be less. Apart from this, he told the door of the bee hive should be completely closed on the first evening so that the bees do not stay in the old place. He also told that the selection of the place should be in such a way that the bee can get maximum quantity of flowers.

Dr. D.K. Rana, SMS (PP), KVK Delhi addressed to participants

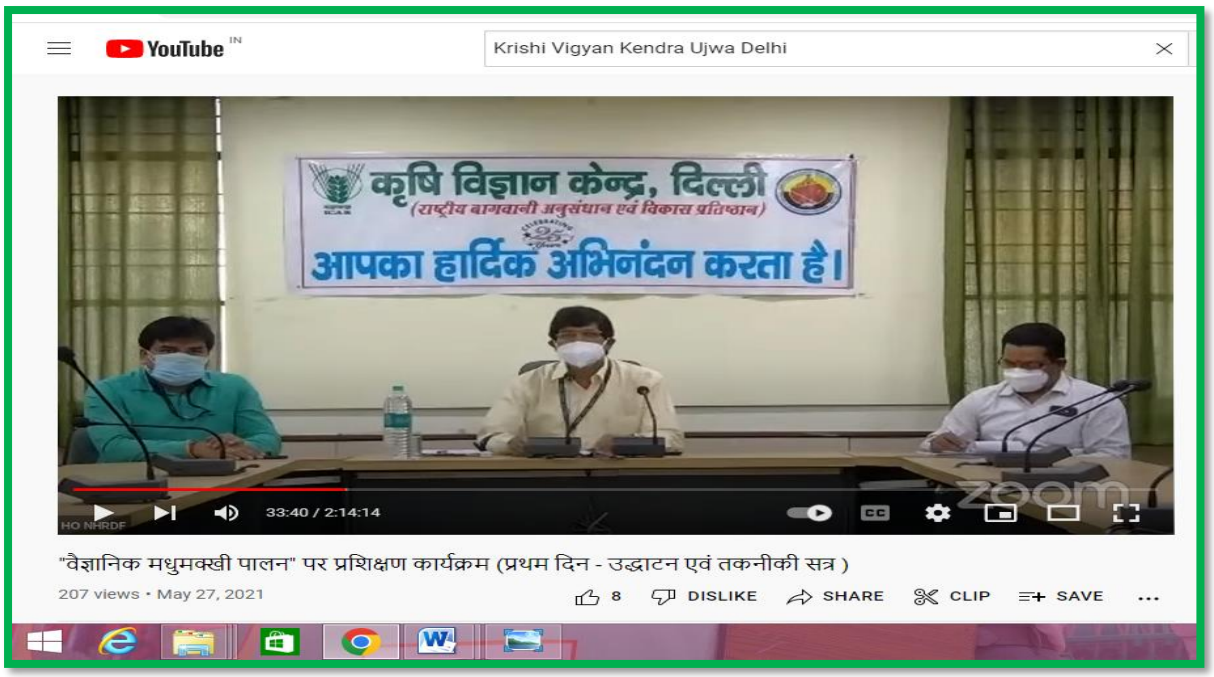
Sh. Mukesh Kumar, Bee Expert and Extension Officer (Agri), Govt. of Delhi addressed to participants

Third Day (27th May, 2021)

The highlight of third day was started Shri Manoj Pathak, Technical Officer, NHRDF. Karnal, Haryana informed about different seasons, spring, summer, rainy season and winter season, beekeepers should take special care of cleaning the monkey forest and how to keep the bee healthy during these seasons.

Dr. Raj Narayan Principal Scientist (Vegetable Science) ICAR-ATARI, Jodhpur stated about flowering of most of the crops is an important part of their reproductive process. As well as he told which crops have nectar and pollen in different horticultural crops and how it helps in increasing production by pollination on bees.

The programme ended with the warm vote of thanks by Dr. D. K. Rana.



The webinar of Scientific Bee Keeping live telecasted through KVK Youtube channel and facebook platform

03rd Scientific Bee Keeping Training

Inauguration

The Krishi Vigyan Kendra, Delhi organized third seven days Scientific Bee Keeping Training Programme from 22nd to 29th July, 2021 at KVK campus. During the inaugural session was chaired by Dr. P. K. Gupta, Head, KVK, Delhi and apprised the trainers about the importance of beekeeping in relation to the national and international scenario. Dr. Gupta delivered the lecture on National Beekeeping and Honey Mission of Govt. of India he also urged the youth to take up honey production as he highlighted success stories of various successful entrepreneur of KVK, Delhi. Before the inaugural session KVK experts took the pre-evaluation for assessment of knowledge of bee trainees.

Inaugural session of 3rd Scientific Bee Keeping.

Technical Session:

First Day (22nd July, 2021)

The technical session that followed started with Dr. D.K. Rana, (Plant Protection). He shared the knowledge about the life cycle of the bee, the quality of the hive and equipment used in beekeeping, flow management of pollinators and bee colonies, super chambers and honey extraction.

Second Day (23rd July, 2021)

The second day started with a lecture by Sh. Mukesh Sharma, Extension Officer, Department of Agriculture, Government of Delhi, provided detailed information about Beekeeping, Biodiversity and Sustainable Development, Protection of Bees from Pesticides and Scheme

of Beekeepers and Role of National Bee Board and Financial Assistance from Bank in Honey Industries.

Sh. Mukesh Sharma, Extension Officer, Govt. of Delhi gave the lecture Scientific Beekeeping species and equipment's

Third Day (24th July, 2021)

The highlight of third day was started with the lecture of Dr. D. K Rana. He provided the practical information on how to start bee keeping and the use of equipment's and tools for bee keeping. He also talked about scientific information on how to maintain bee colonies, management of migratory system of bee keeping for higher production. He suggested about importance of honey bee in pollination for crops production and productivity through commercial bee keeping. Besides, they were also made aware of importance of honey for mankind.

Fourth Day (26th July, 2021)

In the morning, the fourth day session was started with the lecture KVK bee expert Sh. Rakesh Kumar, SMS (Hort) emphasised on availability of flora round the year for honey production through horticultural crops.

Shri Manoj Pathak, Technical Officer, NHRDF. Karnal, Haryana informed that scientific management of bee colony in different seasons. He talked about management and care of cleaning the monkey forest and how to keep the bee healthy during these seasons.

Fifth day ((27th July, 2021)

The highlight of fifth day was started with the remarked of Dr. S.K Dhaka, Assistant Professor, Sardar Vallabhbhai Patel University of Agriculture and Technology, Meerut, Uttar Pradesh. He gave information about bee diseases, mites, pests and enemies and their management. He also said that diseases in bees are mainly spread by bacteria, fungi and viruses. They should be identified and diagnosed in time. He urged about the babies of the wax moth insect initially because damage and mite is a harmful micro-organism in the bee, he also suggested preventing it through formic acid and sulfur.

Sixth day ((28th July, 2021)

Dr. Bharat Singh, SMS (Plant Protection) Krishi Vigyan Kendra, Gurugram, Haryana stated about the nature of beekeeping industry and how to select the site for the beekeeping unit. He told that the bees should be shifted at that time. When the honeycomb is over, keep in mind that the quantity of honey in the hive should not be high and the quantity of babies in it should also be less. Apart from this, he told the door of the bee hive should be completely closed on the first evening so that the bees do not stay in the old place. He also told that the selection of the place should be in such a way that the bee can get maximum quantity of flowers.

Seventh day ((29th July, 2021)

This end day of training was started with valuable remark of Dr. Ritu Singh, SMS (Home Science), KVK Delhi. She explained about the value addition in honey to get additional income by making the Biscuits, Muraba, Jam and other value-added products. She told about the removal machine should be done in a closed room away from silent lines or in a tent made of fine mesh. She stated in detail about the various methods of processing and also apprised the trainees about the medicinal and nutritional properties of honey.

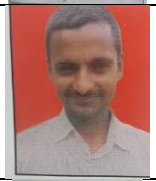
Hand-to-hand training session of Scientific Beekeeping Training

4.3 Trainees Participated

In this training, 26 trainees participated from different states.

Table 4.4: Trainees participated in 3rd training programme.

S.N	Name	Father's Name /Husbend	Address	Passport Size Photos
1.	Sudarshan Jha	Sh. Bhaiyalal Jha	Munirka,South, Delhi	
2.	Alka	Sh. Sunil Kumar	Bapora, Bhiwani (Hr)	
3.	Devender	Sh. Ramkishan	Ho.N. 310, Pana Barsan,Tikri Kalan, Delhi	
4.	Mukesh Kumar	Sh. Randhir Singh	Daurala, South- West, Delhi	
5.	Ashok Kumar Sharma	Sh. Ram Kumar Sharma	Hari Nagar Ext. South-West, Delhi	
6.	Ram Parkesh	Sh. Ramkumar	Munda Khera, Jhazzar (Hr)	
7.	Harpal	Sh. Shar Singh	Kalyavas, Gurugam(Hr)	
8.	Babita Tomar	Sh. Kishan Tomar	1/5801a-2,Balbir Nagar, Shahadra, Delhi	
9.	Rahul Kapoor	Sh. . Wazir Singh Kapoor	G-2/16,Sec. -11, Rohini, Delhi-110085	
10.	Parveen Kumar Fialok	Sh. Ramsawroop	C-54,Gf, Multan Nagar, Delhi	

11.	Jeet Singh Yadav	Sh. Raghubir Singh	Mundka, South-West, Delhi	
12.	Raj Kumar	Sh. Ram Dutt	Birar, Jhazzar.(Hr)	
13.	Rajneesh Yadav	Sh. Sukhbir Singh	Jaffar Pur Kalan, South-West, Delhi	
14.	Sunita Dagar	Sh. Jaivender Dagar	Ujwa, South- West, Delhi	
15.	Bhavas Dagar	Sh. . Jaivender Dagar	Ujwa, South- West, Delhi	
16.	Riya	Sh. . Yogesh Kumar	C- 442,Seema Puri , Shadhara, Delhi	
17.	Mr. Amit	Sh. Kali Ram	VPO- Ujwa, Najafgarh, New Delhi	
18.	Mr. Punit Kumar	Sh. Mahendra Singh	Vpo- Ujwa, Najafgarh, New Delhi	
19.	Sh. Ajay Kumar	Sh. J.C. Dhingra	D-66, Multan Nagar, North-West Delhi, Delhi	
20.	Mohmadh	Sh. Mahrudin	Sahadara, Delhi	
21.	Sh. Pankaj Kumar	Sh. Virender Kumar	Vpo- Maujpur, Bhajan Pura, North-East Delhi	

22.	Sh. Pankaj Panwar	Sh. Surender Singh	Vpo- Baund Kalan, Bond Khurd, Bhiwani, Haryana	
23.	Mrs. Babita Tomar	Mukesh Kumar	Vpo- Deorala, Najafgarh, New Delhi	
24.	Yogesh Kumar	Sh. Jitendra Kumar	New Seemapuri, Jhilmil	
25.	Sh. Deepak Yadav	Sh. Raj Singh Yadav	Madipur Village, West Delhi, Delhi	
26.	Anjali	Mr. Mukesh Kumar	Daurala, Rawta, Najafgarh, New Delhi	

04th Scientific Bee Keeping Training

Inauguration

The KVK Delhi conducted fourth seven days training programme on "Scientific Bee Keeping" dated from 23rd to 30 September, 2021 at Tigipur Village (Alipur Block), North-West Delhi. This training program was organized at 70 km away from KVK Delhi campus as they cannot come that far for training at the centre. Shri Kuldeep Singh, DGM, NABARD, New Delhi was the Chief Guest and he addressed about various govt. scheme which implement through National Bee Board, State Govt and NABARD and he talked about scenario of our countries in bee keeping and honey production. He has said that there is a need for research at present regarding honey production and beekeeping and problems faced by beekeepers.

Shri Kuldeep Singh, DGM, NABARD, New Delhi was the Chief Guest during the inaugural session.

Technical Session

First Day (23rd September, 2021)

The technical session that followed started with Dr. D.K. Rana, (Plant Protection). He urged the farmers for concentrating on honey bee farming and making it an integral part of crop pattern for achieving higher income. Dr. Rana briefed about the training course and role

of National Beekeeping & Honey Mission (NBHM) for promoting apiculture and adopting the techniques of scientific beekeeping.

Second Day (24th September, 2021)

The second day started with a lecture by Dr. PK Gupta, Head, KVK. He stated to trainees about the beekeeping is a very lucrative business along with horticulture crops. Although bees are best known for the honey they produce, their economic role in nature is to pollinate hundreds and thousands of flowering plants and ensure the establishment of seeds or fruits. Thus bees play a very important role in cross pollination in various agricultural and horticultural crops and increase their yield and improve their quality. Beekeeping increases the income of the rural people.

Third Day (25th September, 2021)

The highlight of third day was started by Shri Mukesh Sharma, Extension Officer, Department of Agriculture, Government of Delhi. He delivered the detailed lectures on importance of bees in pollination, their types, different species, beekeeping tools/ equipment, apiary sites, seasonal managements, insect pests associated with them and their management. They were also given exposure visit to the apiary unit located at Sindhu village North, Delhi.

Shri Mukesh Sharma delivered the lecture of different species and management of queen.

Fourth Day (27th September, 2021)

In the morning, the fourth day session was started with the lecture KVK bee expert Dr. D K Rana and he discussed the different enemies of honey bees and their management.

Dr. Rana demonstrated through presentation the live symptoms of various diseases to the trainees and gave practical experience of bees to the participants. After mass queen rearing in honey bees and demonstrated practically

Fifth day ((28th September, 2021)

This day was started with the lecture on importance of bee flora for sustainable apiculture industry valuable by Sh. Rakesh Kumar SMS (Hort). He discussed about management and care of migratory beekeeping.

Dr. D K Rana delivered lecture on different bee hive products like honey, wax, pollen, royal jelly, bee venom and propolis -their production, storage, processing and uses. After Lunch demonstrated practically work.

Sixth day ((29th September, 2021)

The fifth day started with a lecture by Dr. D.K. Rana SMS (PP) and informed about the harmful effects of pesticides to the honey bees and talks about the precaution to be taken during spraying in the fields/orchards and Honey Bees & Pollinators to the participants. He talked about the economics of beekeeping also and gave important tips for marketing of honey to the trainees.

Trainees visited to successful entrepreneur of Bee Keeping Unit

Seventh (30th September, 2022)

In the end of training session Dr. D.K. Rana addressed to participants about the harmful effects of pesticides to the honey bees and talks about the precaution to be taken during

spraying in the fields/orchards. He also talked about the economics of beekeeping and gave important tips for processing, value addition and marketing of honey to the trainees.

The training was ended with the taken of post-evaluation of trainees and collection of feedback of training.

4.4 Trainees Participated.

Around 30 participants participated from different states. The details of participants are given below:

Table 4.5: Trainees participated in 4th training programme.

S. No	Name	Father Name/Husband Name	Address	Passport Size Photos
1	Manoj Kumar Mishra	Sh. Ram Sudan Mishra	Village-Tigipur, North West Delhi	
2	Mahavir Singh	Sh. Manglu	Village- Palla, North West Delhi	
3	Promila	Sh. Virender Kumar	Village- Singhu, North West Delhi	
4	Pappan Singh Gahlot	Sh. Narayan Singh	Village-Tigipur, North West Delhi	
5	Shivani	Sh. Pappan Singh Gahlot	Village-Tigipur, North West Delhi	
6	Mohd. Ali	Sh. Mohd. Ilyas	Village- Khure Ji Khas, Krishna Nagar, New Delhi	
7	Pinky	Sh. Babblu	Village-Tigipur, North West Delhi	

8	Ritu Chauhan	Sh. Gaje Singh	Village-Tigipur, North West Delhi	
9	Pranav Chauhan	Sh. Gaje Singh	Village-Tigipur, North West Delhi	
10	Bhagat Singh	Sh. Narayan Singh	Village-Tigipur, North West Delhi	
11	Kavish Chauhan	Sh. Bhagat Singh	Village-Tigipur, North West Delhi	
12	Sanjay Gahlot	Sh. Mahender Singh	Village-Tigipur, North West Delhi	
13	Charu	Sh. Sanjay Gahlot	Village-Tigipur, North West Delhi	
14	Lalit	Sh. Shradhanand	Village-Tigipur, North West Delhi	
15	Chandra Haas	Sh. Bhan Singh	Village-Tigipur, North West Delhi	
16	Shakti Singh	Sh. Narain Singh	Village-Tigipur, North West Delhi	
17	Davender Singh	Sh. Budh Ram	Village-Tigipur, North West Delhi	
18	Virender Kumar	Sh. Sukhbir Singh	Village- Singhu, North West Delhi	
19	Ashwani Tanwar	Sh. Ranbir Singh Tanwar	Village- Basai Darapur, New Delhi	

20	Sanjay Kumar	Sh. Shiv Charan Singh	Village-Sagarpur, North Delhi	
21	Surat Singh Janghu	Sh. Phool Singh	Village-Bakhtawarpur, North West Delhi	
22	Priya	Sh. Devendra Singh	Village-Dar Nagar,Karol Bagh, New Delhi	
23	Man Singh	Sh. Satbir Singh	Village-Maujpur, North East Delhi	
24	Girand Singh	Sh. Rangi Lal	Village- Kirari, New Delhi	
25	Gaurav Choudhary	Sh. Deepal Singh	Village-Maujpur, North East Delhi	
26	Sarita	Sh. Satya Pal	Village- Singhu, North West Delhi	
27	Poonam	Sh. Vineet Chauhan	Village-Tigipur, North West Delhi	
28	Mamta	Sh. Vikrant Chauhan	Village-Tigipur, North West Delhi	
29	Nitin	Sh. Virender	Village- Singhu, North West Delhi	
30	Satya Pal	Sh. Sukhbir Singh	Village- Singhu, North West Delhi	

05th Scientific Bee Keeping Training

Inauguration

The KVK Delhi organized a fifth seven days training programme on "Scientific Bee Keeping" dated from 05th to 13th October, 2021 at Dariyapur Kalan Village (Alipur Block), North-West Delhi. This training program was organized at 40 km away from KVK Delhi campus. The inaugural programme was chaired Dr. P.K. Gupta and he welcomed the all participants and suggested various govt. scheme.

Technical Session:

First Day (05th October, 2021)

The technical session that followed started with Dr. D.K. Rana, (Plant Protection). He gave information about Importance of Beekeeping in respect of National & International scenario and quality of beehives and equipment's/tools for apiculture. He presented different equipment's of apiculture and their utility through presentation. He talked about honey bees could be affected by diseases and the real cause of abnormality or any disease present in the honey bee broods need to be ascertained before taking up any control measures. It is best to contact the researchers/scientists/beekeeping experts at the nearest centre or university or Government department working on honey bees. After the exact diagnosis of the causal agent of the particular disease, the guidelines/ recommendations given by the expert should be followed in true letter and spirit.

Second Day (06th October, 2021)

The second day started with a lecture by Shri Mukesh Sharma, Extension Officer, Department of Agriculture, Government of Delhi delivered he stated about how National Bee Board and Khadi Village Industries promote beekeeping in honey industries. Simultaneously he described the methods of producing queen bees. He stated that the queen bees produce queens under three conditions: early, supersede and emergency. It has become necessary for scientific beekeeping to prepare many queens in advance, as soon as a queen appears mature, weak or ill, then the queen bee can be given to that offspring immediately.

Third Day (07th October, 2021)

The third day started with a lecture by successful entrepreneur of KVK Delhi Mr Parful Arya, of Pitampura. He shared his practical knowledge, skill and problems faced during the bee keeping. He provides the details information of selection of ideal apiary, proper maintenance of the apiary and the benefits of Bee hive products in the poly-house.

After that lecture Dr. D K Rana discussed the different enemies of honey bees and their management. Dr. Rana demonstrated the live symptoms of various diseases to the trainees

and gave practical experience of bees to the participants. After mass queen rearing in honey bees and demonstrated practically.

Dr. D K Rana, SMS (PP), KVK, Delhi discussed the different enemies of honey bees and their management

Fourth Day (08th October, 2021)

In the morning, the fourth day session was started with the lecture KVK bee expert Dr. D K Rana, SMS (PP) KVK, Delhi delivered detailed lectures on importance of bees in pollination, their types, different species, beekeeping tools/ equipment, apiary sites, seasonal managements, insect pests associated with them and their management.

Fifth Day (11th October, 2021)

Shri Mukesh Sharma, Extension Officer, Department of Agriculture, Government of Delhi gave information about bee diseases, mites, pests and enemies and their management. He said that diseases in bees are mainly spread by bacteria, fungi and viruses. They should be identified and diagnosed in time. He told that the babies of the wax moth insect initially cause damage by eating honey, flower sap, pollen inside the bee planet, then later eat the wax by piercing the holes of the roofs.

Sixth day ((12th October, 2021)

The Sixth day started with a lecture by Dr. P.K. Gupta, Head, KVK, Delhi. He informed the different enemies of honey bees and their management. Dr. Rana demonstrated the live symptoms of various diseases to the trainees and gave practical experience of bees to the participants. After that Dr. D K Rana ends the session with a lecture on mass queen rearing in honey bees and demonstrated practically

Seventh day ((13th October, 2021)

This end day of training was started with valuable remark of Dr. Ritu Singh, SMS (Home Science), KVK Delhi. She explained about the value addition in honey to get

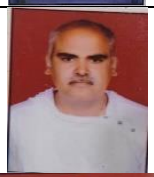
additional income by making the Biscuits, Muraba, Jam and other value-added products. She told about the removal machine should be done in a closed room away from silent lines or in a tent made of fine mesh. She stated in detail about the various methods of processing and also apprised the trainees about the medicinal and nutritional properties of honey.

Trainees visited the Beekeeping Unit

4.5 Trainees Participated.

Around 27 participants participated from different states. The details of participants are given below:

Table 4.6: Trainees participated in 5th training programme.

S. No	Name	Father Name/Husband Name	Address	Passport Size Photos
1	Ashok Kumar	Sh. Chetram	Village- Daryapur, North-West Delhi	
2	Ravindra Kumar	Sh. Ran Singh	Village-Nangal Thakran, North-West Delhi	
3	Gyanendra Singh	Sh. Hari Singh	Village- Nangal Thakran, North-West Delhi	

4	Vijender Singh	Sh. Jiya Ram	Village- Nangal Thakran, North-West Delhi	
5	Amit Malik	Sh. Parveen Malik	Village- Sonipat	
6	Paras Rana	Sh. Dalip Singh	Village-Ferozpur, Sonipat, Haryana	
7	Neelam Verma	Sh. Mukesh Verma	Village-Cp/69 Pitampura, New Delhi	
8	Atithi Popli	Sh. Surender Popli	867,Vikaspuri, West Delhi	
9	Rajesh Kumar	Sh. Mahavir Singh	Village- Auchandi North-West Delhi	
10	Ranjeet Singh	Sh. Raghubir Singh	Village- Daryapur, North-West Delhi	
11	Sanjay Mallick	Sh. B.D. Mallick	178sfs, Rohini, Sec-11, New Delhi	
12	Chandar Singh	Sh. Mange Ram	Village-Budhpur, North-West Delhi	
13	Varun Dabas	Sh. Sunil Dabas	Sec-23, Rohini, Delhi	
14	Surender Saini	Sh. Abheyram Saini	Village- Daryapur, North-West Delhi	
15	Anjani Malik	Sh. Kailash Chand Malik	Sec-9, Rohini, North-West Delhi	

16	Surender Bhardwaj	Sh. Ramphal Bhardwaj	Village-Bawana, North-West Delhi	
17	Rajender Dahiya	Sh. Jamna Singh	Village-Halalpur, Sonipat	
18	Rajeev Chawla	Sh. Amitlal Chawla	Sec 16,Rohini, North-West Delhi	
19	Naveen Sehrawat	Sh. Paramjeet Singh	Village-Bawana, North-West Delhi	
20	Devender	Sh. Krishanlal	Village-Qutabgarh, North-West Delhi	
21	Krishan Kumar Sharma	Sh. Ram Jeevan Sharma	Village-Ibrahimpur, Burari, North Delhi	
22	Naresh Kumar	Sh. Chandan Singh	Village-Katlupur,Rai,Sonipat, Haryana	
23	Rajbir Singh	Sh. Dara Singh	Village- Daryapur, North-West Delhi	
24	Praveen Kumar	Sh. Rajbir Singh	Village- Daryapur, North-West Delhi	
25	Rakesh Kumar	Sh. Balwan Singh	Village- Daryapur, North-West Delhi	
26	Mini Mallick	Sh. Sanjay Mallick	178sfs, Rohini, Sec-11, New Delhi	
27	Manish	Sh. Ashok Kumar	Village- Daryapur, North-West Delhi	

06th Scientific Bee Keeping Training

Inauguration

The KVK Delhi conducted sixth and final training programme on "Scientific Bee Keeping" dated from 10th to 17th November, 2021 at KVK campus. The inaugural programme was chaired Dr. P.K. Gupta and he welcomed the all participants and suggested various govt. scheme.

Technical Session

First Day (10th November, 2021)

The technical session that followed started with Dr. D.K. Rana, (Plant Protection). He made the trainees understand the basic principles of beekeeping and talked about how to start beekeeping from ground level and to develop it as a profitable business. In addition, she demonstrated the mud hives of Apis melifera present in the entomology farm at KVK campus.

Second Day (11th November, 2021)

The second day started with a lecture by Dr. D. K. Rana, Specialist (Plant Protection) Krishi Vigyan Kendra, Ujwa New Delhi talked about the India is blessed with vast floral and faunal diversity with majority of the flowering plants. Bee keeping potential has not been fully realized considering the availability of the potential floral resources. Further, the pollination of the agriculture and horticulture crops demands for another 20 million bee colonies which cannot be met through the presently available colonies. Wide spread unemployment among the rural youth and poor economic empowerment of the women needs to be addressed urgently to prevent the distress among these sections.

He informed about the skill development in scientific bee keeping will enhance the employability and entrepreneurship development among the youth and women. The project also aims to increase the farm income through diversification of the production system by incorporating bee keeping as one of the components. Further, the farmers and other stakeholders will be educated on the importance pollination and pollinators in enhancing the productivity of the crops.

Third Day (12th November, 2021)

The highlight of third day was started Dr. D.K. Rana (PP) and told the highlighted the significance of bee keeping not only for enhancing the overall agricultural production and productivity of the country but also for rural employment generation, honey and other bee hive products. He emphasized that the beekeeping would be an important component for doubling farmers' income.

Dr. D K Rana, SMS (Plant Protection) KVK, Delhi delivered lectures on beekeeping, tools and honey production

Fourth Day (13th November, 2021)

In the morning, the fourth day session was started with the lecture by Dr. S.K. Dhaka, Assistant Professor, Sardar Vallabhbhai Patel University of Agriculture and Technology, Meerut, Uttar Pradesh gave information about bee diseases, mites, pests and enemies and their management. He said that diseases in bees are mainly spread by bacteria, fungi and viruses. They should be identified and diagnosed in time. He said that the babies of the wax moth insect initially cause damage by eating honey, flower sap, pollen inside the bee planet, then later eat the wax by piercing the holes of the roofs. He suggested in details about various diseases and insect who affected the bee keeping enterprise.

Fifth day (15th November, 2021)

This day was started with valuable remark of Dr. D K Rana, Subject Matter Specialist (Plant Protection) KVK, Delhi and he delivered detailed lectures on importance of bees in pollination, their types, different species, beekeeping tools/ equipment, apiary sites, seasonal managements, insect pests associated with them and their management. They were also given exposure visit to the apiary located at KVK, South- West, Delhi.

Sixth day (16th November, 2021)

The fifth day started with a lecture by Dr. P.K. Gupta, Head, KVK, Delhi. He informed the different enemies of honey bees and their management. Dr. Rana demonstrated the live symptoms of various diseases to the trainees and gave practical experience of bees to the participants. After that Dr. D. K. Rana ends the session with a lecture on mass queen rearing in honey bees and demonstrated practically.

Dr. D K Rana discussed the harmful effects of pesticides to the honey bees and talks about the precaution to be taken during spraying in the fields/orchards and Honey Bees & Pollinators to the participants. He talked about the economics of beekeeping also and gave important tips for marketing of honey to the trainees.

KVK Bee expert shared the knowledge with trainees

Seventh (17th November, 2021)

This end day of training was started with valuable remark of Dr. Ritu Singh, SMS (Home Science), KVK Delhi. She explained about the value addition in honey to get additional income by making the Biscuits, Muraba, Jam and other value-added products. She told about the removal machine should be done in a closed room away from silent lines or in a tent made of fine mesh. She stated in detail about the various methods of processing and also apprised the trainees about the medicinal and nutritional properties of honey.

4.1 Trainees Participated.

Around 20 participants participated from different states (and GNCT Delhi in the Scientific Bee Keeping Training Programme. The details of participants are given below:

Table 4.7: Trainees participated in 6th training programme.

S.N	Name	Father Name/Husband Name	Address	Passport Size photos
1	Rajesh Juneja	Sh. Matwal Chand Juneja	Village Tigra, Gurugram, (Hr)	
2	Prithvi Raj	Sh. Shyoram	Village Tikari Kalan, West, Delhi	
3	Ram Nivas	Sh. Balla Ram	Village Malikpur, South West, Delhi	
4	Rahul	Sh. Vijay Kumar	Village Dashinpuri, Delhi	
5	Jasmeet Singh	Sh. Janak Singh	144,Bal Mukand , Giri Nagar, South, Delhi	
6	Radhika Juneja	Sh. Rajesh Juneja	T-187, Golaf Cource Extension Road , Gurugram (Hr)	
7	Prachi Laud	Sh. Harmeet Singh	15/93, Vikram Vihar , Lajpat, Nagar, South, Delhi	
8	Sarita Hansdan	Sh. Bhim Sen Hansdan	Bhrat Bihar, Block A, Uttam Nagar	

9	Shiv Shanker Yadav	Sh. Ram Avtar Yadav	Village Mithapura, South, Delhi	
10	Priyanka Juneja	Sh. Rajesh Juneja	Village Tigra, Gurugram (Hr)	
11	Tushar Khatri	Sh. Krishan	Village Ujwa, South West, Delhi	
12	Ashu	Sh. Suresh Chander	Village Maliklur,South West, Delhi	
13	Ankit	Sh. Sunil	Village Budhanpur, North West, Delhi	
14	Vijender	Sh. Ramswaroop	Village Ujwa, South West, Delhi	
15	Ajay Kumar	Sh. Dharmbir Singh	Village Ujwa, South West, Delhi	
16	Parvesh	Sh. Mahender Kumar	Village Gumenhera, South West, Delhi	

17	Deepika Rai	Sh. Ashok Kumar	780/40, Gurugram (Hr)	
18	Subhas Chander	Sh. Raghbir Singh Dagar	Villagr Jharodha Kalan, South West, Delhi	
19	Raj Kumar Verma	Sh. Shiv Chran Singh	Rz- 156/1, Sagarpur, New, Delhi	
20	Ashu Dagar	Sh. Pardeep Kumar	Village Ujwa, South West, Delhi	

5.0 Closing ceremony:

5.1 Certificate distribution

Krishi Vigyan Kendra, Ujwa, organized at certificate distribution programme of scientific beekeeping trainees at KVK campus on 27th November, 2021. Dr. Naveen Kumar Patle, Additional Commissioner (Horticulture) & ED (NBB) and Shri Harit Kumar, under Secretary, Ministry of Agriculture and Farmers Welfare, Government of India presented as the Chief Guest and met farmers and female beekeeping trainees of this area and also gave training certificates.

Dr. Naveen Kumar Patle, Additional Commissioner (Horti.) & Executive Director, NBB Department of Agriculture, Cooperation & Farmers Welfare, Ministry of Agriculture and Farmers Welfare, Govt. of India distributed certificates of trainees.

Shri Harit Kumar, Under Secretary, Ministry of Agriculture and Farmers Welfare, Govt. of India distributed certificates of trainees.

6. Formative / Impact evaluation study of trainees

Formative / Impact evaluation study of trainees: The trainees studies discussed under the sub-section: descriptive statistics, formative and outcome evaluation and impact evaluation.

6.1 Descriptive Statistics:

The study revealed that minimum and maximum age of the respondents was 15 years and 35 years. Majority of the trainees (61.48%) belonged to the age group of 35 and above, 14.75 per cent of the respondents belonged to the age group of 25-35 years and 23.77 per cent respondents were to the age group of 15-25 years. The data also revealed that majority of the respondents (40.98%) were having graduate level of education and 29.51 per cent per cent of the respondents were having senior secondary education. While majority 73.77 percentage trainees were male and 26.23% female group. During the training program, 12.00 percent trainees participated from the neighbouring states of Haryana, Uttar Pradesh.

Distribution of respondents by their characteristics n-122

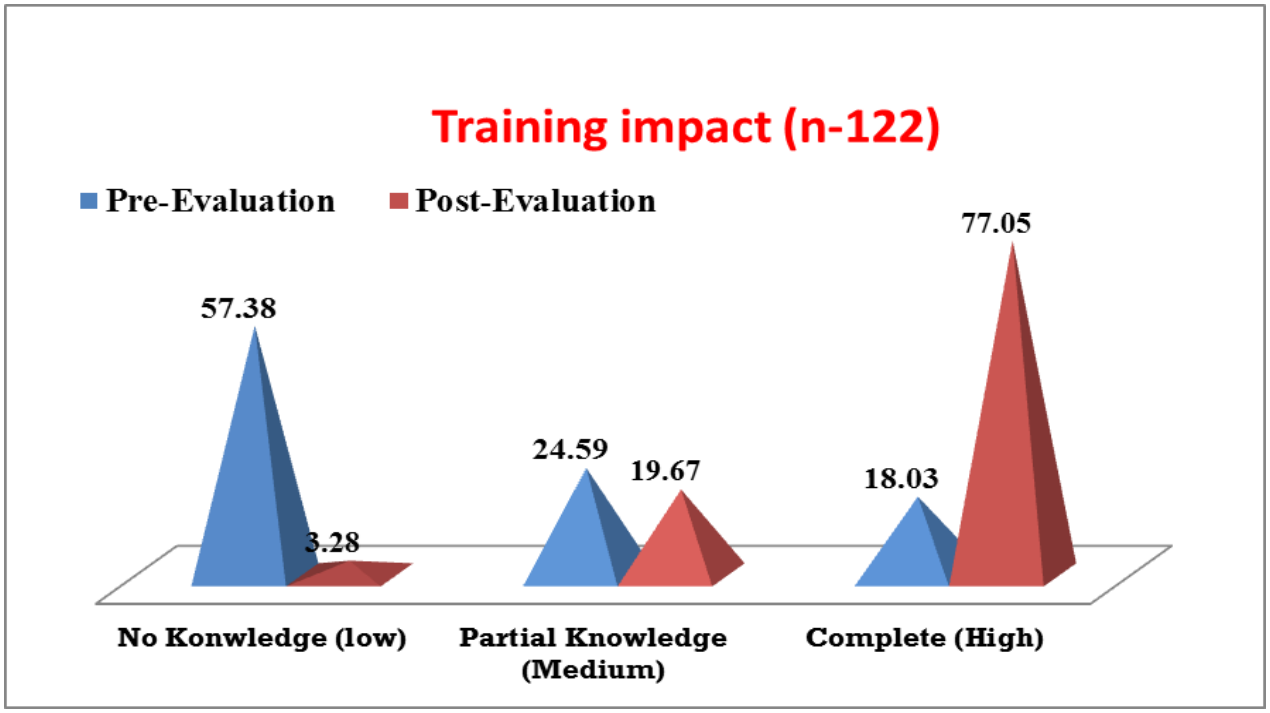
S. No.	Descriptive analysis	No. of respondents	%
1.	**Age**		
	15-25 (Low)	29	23.77
	25-35 (Middle)	18	14.75
	35 and Above (High)	75	61.48
2.	**Education**	**No. of respondents**	**%**
	Illiterate	5	4.10
	Can read only	1	0.82
	Primary	1	0.82
	Middle	12	9.84
	Matric	17	13.93
	Senior Secondary	36	29.51
	Graduate & above	50	40.98
3.	**Gender**	**No. of respondents**	**%**
	Female	32	26.23
	Male	90	73.77
4.	**State**	**No. of respondents**	**%**
	Haryana	14	11.48
	New Delhi	108	88.52

6.2 Knowledge before and after training:

The following table presents the distribution of data as per the knowledge level of respondents before and after the training. It was revealed that majority of the respondents (57.38 %) were having low knowledge, 24.59 per cent respondents possessed medium and 18.03 per cent had high level of knowledge before training. Whereas, in majority (77.05%) of the respondents level of knowledge was found high after training and meagre number of respondents 3.28 % were having low level of knowledge after training.

Distribution of trainees as per their knowledge before and after the training (n-122)

Knowledge of respondents	Before training	%	After Training	%
No Knowledge (low)	70	57.38	4	3.28
Partial Knowledge (Medium)	30	24.59	24	19.67
Complete (High)	22	18.03	94	77.05



I. **News Coverage:** KVK Delhi disseminated knowledge and importance of training through news coverage **(Dainik Jagran Dated- 19 November, 2021 Page No.02).**

नई दिल्ली, शुक्रवार, 19 नवंबर, 2021

राष्ट्रीय मधु मिशन के तहत उजवा स्थित कृषि विज्ञान केंद्र में प्रशिक्षण शिविर का आयोजन

शहद की मिठास खोल रही स्वरोजगार के द्वार

जागरण संवाददाता, पश्चिमी दिल्ली : विज्ञानी शहद की मिठास में छिपे रोजगार की असीम संभावनाओं से उद्यमियों व स्वरोजगार के इच्छुक युवाओं को अवगत करा रहे हैं। राष्ट्रीय मधु मिशन के तहत विज्ञानी समय-समय पर मधुमक्खी पालन से जुड़े पाठ्यक्रमों का आयोजन कर लोगों को प्रशिक्षण दे रहे हैं। साथ ही लोगों को मधुमक्खी पालन के लिए संबंधित एजेंसियों से ऋण का प्रबंध भी करवा रहे हैं।

उजवा स्थित कृषि विज्ञान केंद्र में राष्ट्रीय मधु मिशन के तहत समय-समय पर प्रशिक्षण शिविर का आयोजन किया जाता है। इस क्रम में पिछले दिनों एक शिविर का समापन हाल ही में हुआ है।

एक सप्ताह तक चले इस प्रशिक्षण शिविर में उद्यमी व स्वरोजगार के इच्छुक युवाओं ने हिस्सा लिया और मधुमक्खी पालन की बारीकियों को समझा। इस दौरान खादी एवं ग्रामोद्योग विभाग के अधिकारी भी मौजूद थे। विभाग के विशेषज्ञों ने प्रशिक्षणार्थियों को मधुमक्खी पालन के लिए सरकार की तरफ से उपलब्ध कराई जा रही विभिन्न योजनाओं के बारे में भी बताया। यह भी बताया गया कि पूंजी की दिक्कत होने पर सरकार किस तरह से कारोबार स्थापित करने में सहायता करती है।

कई तरह के हैं फायदे : मधुमक्खी पालन के एक-दो नहीं बल्कि कई फायदे हैं। इससे आय और रोजगार में सृजन तो होता ही है साथ ही आसपास की फसलों की पैदावार भी बढ़ती है। मधुमक्खी से शुद्ध शहद, रायल जेली, मोम और मौनी विष का भी उत्पादन होता है। इसके लिए खाद, बीज, सिंचाई का खर्च नहीं करना है।

मधुमक्खी के मौन वंश को खेतों व मेड़ों पर रखने से कामेरी मधुमक्खी के परागण प्रक्रिया से फसल, सब्जी, फलों के उत्पादन में सवा से डेढ़ गुना उपज बढ़ जाती है। परंपरागत खेती के साथ कर सकते हैं मधुमक्खी पालन : प्रशिक्षण के दौरान मधुमक्खी पालन से शहद के उत्पादन की जानकारियां दी गई। मधुमक्खी पालन के लिए अधिक जमीन की आवश्यकता नहीं होती है। किसान अपनी परंपरागत खेती के साथ मधुमक्खी पालन कर सकते हैं। कृषि विज्ञान केंद्र के विशेषज्ञ डा. देवेंद्र राणा ने मधुमक्खी पालन के बाक्स का विभाजन, शहद निष्कासन की विधि, मधुमक्खी में लगने वाली बीमारियां और कीट का प्रबंध आदि के बारे में विस्तृत जानकारी दी। इस दौरान शहद को शुद्ध करने तथा इसके पैकेजिंग की भी जानकारी दी। मधुमक्खी के फीडिंग, सफाई, मादा रानी मधुमक्खी से जुड़ी जानकारी दी। साथ में बाजार में उत्पाद को बेचने तथा इसके प्रमाणीकरण के बारे में भी बताया गया। शहद से बनने वाले विभिन्न उत्पादों जैसे बिस्किट, केक, मुरब्बा आदि के बारे में बताया।

मैं मधुमक्खी पालन को लेकर स्टार्टअप शुरू करने जा रही हूं। यह प्रशिक्षण मेरे लिए काफी लाभकारी रही। मधुमक्खी पालन के व्यावसायिक लाभ के साथ साथ यह जानना काफी महत्वपूर्ण रहा कि मधुमक्खी पर्यावरण के लिए भी काफी उपयोगी है। प्रशिक्षण के दौरान कई नई जानकारियां मिली।

- प्रीती लाड, प्रशिक्षणार्थी

कृषि विज्ञान केंद्र में इस वर्ष अभी छह प्रशिक्षण शिविर आयोजित किए जा चुके हैं। यहां न केवल दिल्ली बल्कि आसपास के अन्य राज्यों से भी लोग प्रशिक्षण लेने पहुंच रहे हैं। मधुमक्खी पालन को लेकर जिस तरह का उत्साह देखने को मिल रहा है वह अच्छा संकेत है।

- डा. देवेंद्र राणा, वरिष्ठ विज्ञानी

II. Lesson Plan / Training Schedule of scientific beekeeping training

"Training on Scientific Beekeeping" (Physical)

Day -1

Topic / Activities	Speaker / Experts
Inaugural	
Importance of Beekeeping in respect of National & International scenario	Dr. P K Gupta, Head
Lunch	
zNature of Beekeeping Industry & Selection of Site for Apiariesunit	Dr. D K Rana, SMS (PP)
Quality of Beehives and equipments/tools for apiculture	Dr. Bhrat Singh ,SMS (PP) KVK, Gurgaon
Day -2	
Beekeeping Bio diversity and sustainable development	Dr. D K Rana, SMS (PP)
Role of Beekeeping in pollination of Horticulture and other crop	Mr. Rakesh Kumar ,SMS, (Hort)
Lunch	
Introduction of an various equipment of apiculture and their utility	Dr. D. K. Rana, SMS (PP)
Day -3	
Method of Pesticides application in crops safe to bees	Dr. D. K. Rana, SMS (PP)
Different govt. Scheme of beekeepers and role of National bee board	Dr. D K Rana SMS (PP)
Lunch	
Visit of Apiaries unit at different honey bee entrepreneur	Dr. D K Rana SMS (PP)
Day -4	
Scientific Management of bee colony during different season	Mr. Manoj Pathak Technical officer. (Ext.), Karnal
Flow management of pollinators and bee colonies super chamber & extraction	Dr. D K Rana SMS (PP
Lunch	
Practical - Cleaning of box ,identify of bee family and extraction of honey from bee farming	Dr. D K Rana SMS (PP)
Day -5	
Sharing experience of entrepreneur way of success journey	Dr. D K Rana SMS (PP)
Different products of honey and their utilization	Dr.Ritu Singh , SMS (HS)
Lunch	
Identification symptoms' different diseases& pest and their management	Dr. D K Rana SMS (PP)
Day -6	

Application time & action of pesticides on crop and safe for bees and their management	Dr. D. K. Rana, SMS (PP)
Market and export potential of honey & by product	Sh. Mukesh Sharma Ext. Officer ,Govt, of NCT, Delhi

Lunch Break	
Good Queen Development (Practical)	Dr. D K Rana SMS (PP)
Day -7	
Potential of beekeeping in NCT, Delhi	Sh. Mukesh Sharma Ext. Officer ,Govt, of NCT, Delhi
Financial support from bank in honey industries	Manager, bank of NABARD
Lunch	
Trainees experience, Evolution & feed back	All stafs, kvk

III. List of resource persons who shared his experience in different training programme.

S.N.	Topic / Activities	Resource person
1	Role of Beekeeping in pollination of Horticulture and other crops	Dr.Balral Singh, Coordinator, AICRP, ICAI-IARI, New Delhi
2	Quality of Beehives and equipment's/tools for apiculture	Shri Manoj Pathak, Technical Officer, NHRDF. Karnal, (Haryana)
3	Importance of Beekeeping in respect of National & International scenario	**Dr. B. L. Jangid**, Principal Scientist, ICAR - ATARI, Jodhpur (Rajasthan).
4	Beekeeping Bio diversity and sustainable development	Shri Mukesh Sharma, Extension Officer, Department of Agriculture, Government of Delhi
5	Different products of honey and their utilization & Market and export potential of honey & by product	Dr. S K Malhotra, Agriculture Commissioner, Department of Agriculture and Cooperation and Farmers Welfare, Ministry of Agriculture and Farmers Welfare, Government of India, New Delhi
6	Double income of the farmers, the agriculture system and beekeeping business	Dr. Sushil Kumar Singh, Director, - Indian Institute of Agricultural Applications, Zone-2, Jodhpur (Rajasthan),
7	Schemes of farmer through government of NCT, Delhi	Mr. Madhup Vyas, IAS, Secretary-cum-Commissioner, Development Department, Government of Delhi, New Delhi
8	Different govt. Scheme of beekeepers and role of National bee board& Financial support from bank in honey industries	Shri R. V. Ramakrishna, General Manager, National Bank for Agriculture and Rural Development (NABARD), New Delhi
9	Diseases, mites, pests and enemies and their management.	Dr. S.K Dhaka, Assistant Professor, Sardar Vallabhbhai Patel University of Agriculture and Technology, Meerut,(Uttar Pradesh)
10	Nature of Beekeeping Industry & Selection of Site for Apiaries unit	Dr. Bharat Singh SMS, (Plant Protection) KrishiVigyan Kendra, Gurugram,(HR)
11	Role of Beekeeping in pollination of Horticulture and other crop	Dr. Raj Narayan Principal Scientist (Vegetable Science) Indian Council of Agricultural Research Indian Institute of Agricultural Applications, Zone 2 Jodhpur (Rajasthan)
12	National Beekeeping and Honey Mission	Shri Kuldeep Singh, DGMA, NABARD, New Delhi

IV. Certificate Draft: The attached certificate draft distributed to trainees who completed successful training programme.

कृषि विज्ञान केन्द्र, दिल्ली

(राष्ट्रीय बागवानी अनुसंधान एवं विकास प्रतिष्ठान)

Ujwa, New Delhi-110073, Website : www.kvkdelhi.org

Certificate / प्रमाण पत्र

S.No./ क्रमांक : KVK/VT/21-22/478

Date/ दिनांक : 17/11/2021

This is to certify that Mr. **ASHU DAGAR S/o Sh. PARDEEP KUMAR**

(यह प्रमाणित किया जाता है कि श्री)

has successfully completed the training programme on

(प्रशिक्षण कार्यक्रम को सफलतापूर्वक पूरा किया)

Scientific Bee Keeping (वैज्ञानिक मधुमक्खी पालन)

Organized at KVK Campus on 10-17 November, 2021, sponsored by National Bee Board, Ministry of Agriculture & Farmers Welfare, Govt. of India. (राष्ट्रीय मधुमक्खी बोर्ड, कृषि और किसान कल्याण मंत्रालय, भारत सरकार के वित्तिय पोषित सहायता)

(Dr. D.K. Rana)
Course Co-ordinator

(Dr. P.K. Gupta)
Head

V. Trainees registration form: The following registration form was to be filled by the trainees while participating in the training programme.

Krishi Vigyan Kendra

(National Horticultural Research &Development Foundation),
Nafed Complex, Village & post: Ujwa, New Delhi – 110 073
Ph. No. 9667971155 e-mail: kvkujwa@yahoo.com Website: www.kvkdelhi.org

Sr. No.:- KVK/VT/2021/ …….. Date:

Application Form (आवेदन पत्र)
For
Vocational / Scientific Training Programme – 2021
(व्यवसायिक / वैज्ञानिक प्रशिक्षण कार्यक्रम – 2021)

Passport Size Photo

1. Name of the course / Title (पाठ्यक्रम का नाम / शीर्षक)
2. Date of Training (प्रशिक्षण की तिथि)
3. Duration अवधि
4. Name of the applicant (आवेदक का नाम)
5. Father/Husband Name (पिता/पति का नाम)
6. Date of Birth (जन्म तिथि)
7. Aadhar Number: (आधार संख्या)
8. Contact Details: (संपर्क विवरण)
9. Address (पता) Village (गांव) -
   Block (ब्लांक) -
   District (जिला) -
   State (राज्य) - Pin Code -
10. Qualification (शिक्षा)
11. Profession (व्यवसाय)

Signature:- Signature (हस्ताक्षर) -……..

Name of Training Organizer:

Date:

Name of Trainees
(प्रशिक्षुक का नाम) :
Date:-

Approval of Head :

VI. Online Google form for registrations.

वैज्ञानिक मधुमक्खी पालन" पर सात दिवसीय प्रशिक्षण कार्यक्रम

कृषि विज्ञान केंद्र, उजवा, दिल्ली के द्वारा भारत सरकार के "राष्ट्रीय मधुमक्खी पालन एवं शहद मिशन" के अंतर्गत "वैज्ञानिक मधुमक्खी पालन" पर सात दिवसीय प्रशिक्षण कार्यक्रम गांव तिगिपुर, बख्तावरपुर, अलीपुर ब्लॉक, उत्तरी दिल्ली में दिनांक 23 से 30 सितंबर, 2021 सुबह 10 बजे से आयोजित की जायेगी।
हम इस Google Form के माध्यम से प्रशिक्षण के लिए आपका पंजीकरण कर रहे है। यदि आप इच्छुक है तो आप अपना पंजीकरण अवश्य करें।
हम इस Google Form के माध्यम से प्रशिक्षण के लिए आपका पंजीकरण कर रहे है। यदि आप इच्छुक है तो आप अपना पंजीकरण अवश्य करें।
आप अपने साथी, रिश्तेदार एवं परिवार को भी जानकरी साझा करें।
धन्यवाद
डॉ पी के गुप्ता
अध्यक्ष
कृषि विज्ञान केंद्र, उजवा, दिल्ली

Name *

Short-answer text

Father / Husband Name *

Short-answer text

Gender *

Male

Female

Prefer not to say

Address (पत्ता) (Village गांव /Block ब्लॉक /District जिला /State राज्य) *

Long-answer text

Mobile Number (मोबाइल नंबर) *

Short-answer text

Email Id (ई-मेल आई डी)

Short-answer text

Qualification (शिक्षा) Checkboxes

- [ ] 5th Class
- [ ] 08th Class
- [ ] 10th Class
- [ ] 12th Class
- [ ] Graduate (स्नातक)
- [ ] Post Graduate (स्नातकोत्तर)
- [ ] Add option or Add "Other"

Required

Profession (व्यवसाय) *

Short-answer text

VII. Evaluation and Feedback form :

The attached evaluation (Pre, Mid & Post) questionnaire draft so as to determine the participants knowledge and expectations from the training programme.

VII.a - Pre-Evaluation form

कृषि विज्ञान केंद्र, नई दिल्ली

(राष्ट्रीय बागवानी अनुसंधान एवं विकास प्रतिष्ठान)

वैज्ञानिक मधुमक्खी पालन पर प्रशिक्षण कार्यक्रम **दिनांक –**
(05 से 13 अक्टूबर, 2021)

पूर्व–प्रशिक्षण मूल्याकंन

प्रतिभागी का नामः प्रतिभागी के पिताजी / पति का नामः

प्र. 01 आपको इस प्रशिक्षण की जानकारीकैसे प्राप्त हुई ?
उत्तर

प्र. 02 आपको इस प्रशिक्षण की क्यों आवश्यकता है?
उत्तर

प्र. 03 क्या इस प्रशिक्षण से पहलेआप मधुमक्खी पालन का प्रशिक्षण ले चुके है? (हाँ या ना)
उत्तर

प्र. 04 भारत में मधुमक्खीयों की मूख्यतः कौन–कौन सी प्रजातियाँ पाई जाती है?
उत्तर

प्र. 05 मधुमक्खी परिवार में कौन–कौन से सदस्य होते है?
उत्तर

प्र. 06 रानी मधुमक्खी का प्रमुख क्या कार्य है?
उत्तर

प्र. 07 बक्सों का प्रबंधन कैसे करना चाहिए?
उत्तर

प्र. 08 मधुमक्खी पालन के लिए किस किस उपकरणों की आवश्यकता होतीहै?
उत्तर

प्र. 09 मधुमक्खीयों का स्थातंरण का उचित समय क्या है?
उत्तर

प्र. 10 मधुमक्खी के शत्रु कीट कौन–कौन से होते है?
उत्तर

प्र. 11 शहद निकालने की विधि क्याहै?
उत्तर

प्र. 12 शहद की प्रसंस्करण कैसे किया जाता है?
उत्तर

VII.b - Mid-Evaluation form

कृषि विज्ञान केंद्र, नई दिल्ली

(राष्ट्रीय बागवानी अनुसंधान एवं विकास प्रतिष्ठान)

वैज्ञानिक मधुमक्खी पालन पर प्रशिक्षण कार्यक्रम **दिनांक –**
(05 से 13 अक्टूबर, 2021)

मध्य – प्रशिक्षण मूल्याकंन

प्रतिभागी का नाम: प्रतिभागी के पिताजी/पति का नाम:

प्र. 01 सबसे ज्यादा शहद किस प्रजाति का प्राप्त होता हैं?
क. एपिस इंडिका ख. एपिस डोरसेटा
ग. एपिस मेलिफेरा ध. एपिस फलोरिया

प्र. 02 मधुमक्खी का जीवन चक्र कितने चरणों में पुरा होता हैं?
क. एक ख. दो
ग. तीन ध. चार

प्र. 03 पौधो से फ्लोरा लाने का कार्य कौनसी मधुमक्खी करती है?
क. श्रमिक ख. मादा
ग. नर ध. इन में से कोई नहीं

प्र. 04 मधुमक्खीयाँ कितने किलोमीटर तक शहद के लिए भ्रमण करती हैं?
क. एक ख. दो
ग. तीन ध. चार

प्र. 05 एक परिवार (बक्सें) मे कितनी रानी मक्खियाँ होती हैं?
क. एक ख. दो
ग. तीन ध. चार

प्र. 06 मधुमक्खीयाँ पालन हेतू कौनसी लकड़ी के बक्सें उपयुक्त होते हैं?
क. आम ख. चीड़
ग. नीम ध. अन्य

प्र. 07 एक बक्से में कितने फ्रेम उपयुक्त होते हैं?
क. 10 ख. 06
ग. 12 ध. 05

प्र. 08 मधुमक्खीयों के बक्से का स्थानान्तरण का उचित समय किया हैं
क. दोपहर ख. रात
ग. सुबह ध. कभी भी

प्र. 09 शहद का प्रसंस्करण करते समय कितना तापमानहोना चाहिए?
क. 60 से 65° C ख. 40 से 45° C
ग. 70 से 75° C ध. 50 से 55° C

प्र. 10 रानी मक्खी बनाने के लिए क्या खिलाये जायें?
क. परपॉलिस ख. रॉयल जैली
ग. मोम ध. पराग

प्र. 11 शहद का जमने के कौन–कौन से कारण हैं?
उत्तर

प्र. 12 मधुमक्खी पालन में काम लाने वाले मुख्य चार उपकरणों के नाम लिखें
उत्तर

हस्ताक्षर

VII.c - Post-Evaluation form

कृषि विज्ञान केंद्र, नई दिल्ली

(राष्ट्रीय बागवानी अनुसंधान एवं विकास प्रतिष्ठान)

वैज्ञानिक मधुमक्खी पालन पर प्रशिक्षण कार्यक्रम **दिनांक –**
(05 से 13 अक्टूबर, 2021)

प्रशिक्षण मूल्याकंन (समापन)

प्रतिभागी का नामः प्रतिभागी के पिताजी/पति का नामः

प्र. 01 मधुमक्खीया किस रंग को नहीं पहचानती ?
क. लाल ख. पीला
ग. नीला ध. काला

प्र. 02 श्रमिक मधुमक्खी की उड़ान गति लगभग क्या होती हैं?
क. 18 किलोमीटर ख. 30 किलोमीटर
ग. 24 किलोमीटर ध. 15 किलोमीटर

प्र. 03 शहद में पानी की मात्रा कितनी होती हैं?
क. 14 से 16 प्रतिशत ख. 18 से 20 प्रतिशत
ग. 22 से 24 प्रतिशत ध. 26 प्रतिशत

प्र. 04 बी वेनम (मधुमक्खी डंक) का प्रयोग किस बिमारी के बचाव हेतू किया जाता हैं?
क. छमा ख. टी.बी.
ग. गठीया ध. कमर दर्द

प्र. 05 अमरीकन फाउल ब्रूड बिमारी किसके कारण होती है
क. क्वक ख. जीवाणु
ग. वायरस ध. माईट

प्र. 06 रानी मधुमक्खी अपने जीवन काल मे लगभग औसतन कितने अंडे देती है।
क. 6 लाख ख. 10 लाख
ग. 08 लाख ध. 12 लाख

प्र. 07 बक्सों का प्रबंधन कैसे करना चाहिए?
उत्तर

प्र. 08 रानी मधुमक्खी का प्रमुख क्या कार्य हैं?
उत्तर

प्र. 09 मोमी पंतगा कीट से कैसे बचाव करना चाहिये?
उत्तर

प्र. 10 माइट से मधुमक्खियों का बचाव हेतू क्या करना चाहिए?
उत्तर

प्र. 11 शहद निकालने की विधि क्या हैं?
उत्तर

प्र. 12 शहद की प्रसंस्करण कैसे किया जाता हैं?
उत्तर

हस्ताक्षर

VII.d - Training Feedback Form

कृषि विज्ञान केंद्र, नई दिल्ली

(राष्ट्रीय बागवानी अनुसंधान एवं विकास प्रतिष्ठान)

वैज्ञानिक मधुमक्खी पालन पर प्रशिक्षण कार्यक्रम **दिनांक –**
(05 से 13 अक्टूबर, 2021)

प्रतिकिया प्रशिक्षण मूल्याकंन

प्रतिभागी का नामः प्रतिभागी के पिताजी/पति का नामः

प्र. 01 क्या आप इस प्रशिक्षण में प्राप्त जानकारी से संतुष्ठ है ?
उत्तर

प्र. 02 प्रशिक्षण के दौरान केन्द्र के अधिकारीयों का कैसा सहयोग मिला ?
उत्तर

प्र. 03 प्रशिक्षण के बाद क्या आप मधुमक्खी पालन का व्यवसाय प्रारम्भ करेगें?

प्र. 04 आपको इस प्रशिक्षण के दौरान क्या कमी महसूस हुई?
उत्तर

प्र. 05 प्रशिक्षण कार्यक्रम को और बेहत्तर बनाने के लिए आपके क्या सुझावदेगें ?

प्र. 06 आपके द्वारा प्रशिक्षकों का मूल्याकंन ?
क्या आप प्रशिक्षकों के अध्ययन से संतुष्ठ है यदि हाँ तो आपअंक दीजिए। (यदि आप प्रशिक्षक के अध्ययन से संतुष्ठ नहीं है तो कृपया कारण बतायें या टिप्पणी करें)

	प्रशिक्षक का नाम	अंक (10 में से)	टिप्पणी
01	डा. डी. के. राणा		
02	डा. मुकेश शर्मा		
03	डा. रितु सिंह		
04			
05			
06			

हस्ताक्षर

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