From the CEO’s Desk...

Dear Readers,

April! The 2nd month of the spring, brings to you an unbound optimism and cheer and here at KVIC we embark on the journey of spring with the second issue of our News Bulletin ‘Bee Inspired’.

In this issue, we bring you the story of CBRTI, our leading partner entrusted towards developing a sustainable and standardized beekeeping practices in India. The issue will enlighten you on the National Beekeepers Meet, which was held in Pune and the successful model adoption of Qutubghar village by KVIC, which indeed are accolades for us.

If you are pondering on pursuing Beekeeping as a Hobby, the issue will surely guide you on the basics of Beekeeping. Additionally, to celebrate the gracious occasion of International Women’s Day we have an exclusive story from the Land of Tamil Nadu on the spirit of Women Entrepreneurship.

Innovation is the need of the hour and taking a clue from pioneering approach of Api-tourism adopted by Slovenia and Green Propolis of Brazil, we have an insightful story on both.

Ensuring the variety, we have included BEE dedicated comics strip along with the pride and plight of Sundarban Honey of West Bengal.

I hope you get fruitful knowledge with this issue and the articles are pleasure to read.

Enjoy!!

Ms. Preeta Verma
Chief Executive Officer
Khadi and Village Industries Commission
MSME, Government of India (GoI)
Central Bee Research and Training Institute (CBRTI) Pune

A pioneer institute envisioned to bring holistic growth in Indian Apiculture sector

Central Bee Research and Training Institute (CBRTI) is an apex institute setup in 1962 with an aim to strengthen the apiculture research and training in Indian Beekeeping Sector.

Currently, KVIC and CBRTI with its extensive network of 15 State Beekeeping Extension centers (SBEC), 100 registered institutions, Cooperatives and State Khadi and V.I. Boards is undertaking training programs throughout the country.

THE DRIVING OBJECTIVES

• Undertake comprehensive training (basic and advanced) and research activities
• Assess Beekeeping impact on ecology, agriculture, & horticulture
• Study and enhance performance of Honey Bee and Beekeeping
• Create awareness on Bee hive products
• Establish and portrait honey characteristics to market meritoriously

CBRTI
CBRTI ACTIVITIES

**Apiculture Section**
Standardizes beekeeping inputs, improves bee breeds and apicultural practices

**Wild Bees**
Studies bee biology and behavior to promote keeping wild bees like Rock-bee, Dwarf-bee and Trigona

**Bee Chemistry**
Standardizes processing techniques of honey and testing of honey and other hive products

**Bee Entomology and Pathology**
Studies various bees, beekeeping control, bee diseases and disease control

**Beekeeper Training**
The Section has 15 different training modules from 2 hours to 6 months, designed for beginner to expert

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**CBRTI Training Courses**

<table>
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<tr>
<th>S.No.</th>
<th>Name of the Training</th>
<th>Duration</th>
<th>Eligibility</th>
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<tbody>
<tr>
<td>1</td>
<td>Introductory Course</td>
<td>2 Hours</td>
<td>Students from College/ School/ Farmers/ Officials concerned with project for rural and tribal beneficiaries</td>
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<tr>
<td>2</td>
<td>Training in Honey Testing Kit</td>
<td>1 day</td>
<td>Anyone</td>
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<td>3</td>
<td>Analysis of honey</td>
<td>5 days</td>
<td>B.Sc. Chemistry</td>
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<tr>
<td>4</td>
<td>Processing and handling of Honey</td>
<td>5 days</td>
<td>Anyone</td>
</tr>
<tr>
<td>5</td>
<td>Short term training course in beekeeping</td>
<td>5 days</td>
<td>Hobbyist/ Amateur</td>
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<tr>
<td>6</td>
<td>Management of Apis mellifera</td>
<td>1 week</td>
<td>Persons with background in beekeeping/ beekeepers</td>
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<tr>
<td>7</td>
<td>Pollen and Propolis collection</td>
<td>1 week</td>
<td>Persons with background in beekeeping/ beekeepers</td>
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<tr>
<td>8</td>
<td>Processing, handling and analysis of honey</td>
<td>10 days</td>
<td>B.Sc. Chemistry</td>
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<tr>
<td>9</td>
<td>Tailor made course in beekeeping</td>
<td>10-15 days</td>
<td>Officials of Government Organizations/ NGO’s / Beekeeping Cooperatives</td>
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<tr>
<td>10</td>
<td>Elementary Beekeeping course</td>
<td>15 days</td>
<td>SSC or equivalent</td>
</tr>
<tr>
<td>11</td>
<td>Queen Rearing, Pollination, Bee Pathology, CF Sheet</td>
<td>15 days</td>
<td>Persons with background in beekeeping, Hobbyist or Amateur</td>
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<tr>
<td>12</td>
<td>Technology of Honey and Bee products</td>
<td>15 days</td>
<td>B.Sc. Chemistry/ 5 years’ experience in beekeeping</td>
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<td>13</td>
<td>Wild bees handling course</td>
<td>20 days</td>
<td>Honey Hunters/ Tribal</td>
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<td>14</td>
<td>Certificate course in Beekeeping</td>
<td>1 month</td>
<td>SSC or equivalent</td>
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<tr>
<td>15</td>
<td>Diploma course in Beekeeping</td>
<td>6 months</td>
<td>B.Sc. (Biology/ Agriculture/ Forestry)</td>
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</table>
National Beekeepers Meet
{Held at CBRTI in Pune}

Theme: *BEE INSPIRED* with Journey of Sweet Revolution

250 Participants | 3 Technical Session | 13 Speakers | 200 Bee Boxes Distribution to 20 Beneficiaries | 1 Souvenir | 5 Kiosks

Overview of the event

- The Journey of Sweet Revolution reached another highpoint with the conduct of One Day National Beekeepers Meet 2019 - *Journey of Sweet Revolution*
- The meet was successfully organized by KVIC in collaboration with CBRTI and was held in Pune on 27th Feb 2019
- The meet saw an upbeat participation from prominent beneficiaries, luminary Scientists, leading Industrialists, Decision making Government Institutions, and key Legal bodies.

Discussion Topics

Bee-breeding, Conservation of Indigenous bees, Standardization, Analysis facility, FSSAI guidelines, Pollination impact, Migration, Marketing of honey, Innovative, and new hive products, and marketing strategies.
Beekeeping as a Hobby
And Why You Should Do it Too....

Have you ever heard the term ‘busy as a bee’?
Have you ever considered getting an up-close look at how busy bees actually are?
Well, if you haven’t, you should. Raising bees is becoming more popular by the day. An interesting hobby, it has tons of benefits.
Before we begin let’s check out the road Map and be well informed.

Beekeeping today is enjoying a resurgence of interest across India after the Honey Mission awareness and anyone can become a beekeeper- kids, adults and elders (has no age restriction as such).

You can buy/inquire the complete set from your local supplier, government bodies or can also attract a colony. Ideally you should start with minimum two (2) colonies and after experiencing all the three seasons of honey bees in a year, take a leap forward or simply enjoy the existing two colonies.

In India, we have 4 indigenous species of which you can conserve and pet the Apis cerana indica or Trigona (Stingless) bees. Also, make sure to buy equipment like Bee veil, Swarm bag, hive tool, Small Stand, Ant well plate/bowl and Jute bag while starting with your beekeeping journey.

You can keep your two beehives minimum 3 feet away from each other facing east or southeast in your balcony, garden, backyard, park, community garden/farm or in your farm where there is sufficient food available for Bees from 250 meters to 1 kilometer range from the hive location.

Trees like Coconut, Drumstick (Moringa), Nilgiri, Neem, Jamun, Acacia, Arecaanut, Curry Leaves are some of the food source that you should consider while bee-hives. You can also plant some flowers or trees which bees love to buzz around.

Further, during harsh season when there’s no food available for bees you have to provide a sugar solution water to honey-bees for their sustenance.

Further, keeping Two (2) bee hives won’t ingest a lot of time yet super rewarding. In fact, after a point you’ll just spend hours observing, learning and getting inspired from them. You just have to inspect them once or twice in One month.

After every 18/30 days you should inspect your colonies, here’s the math- half an hour for two weeks, an hour for a month and 12 hours for a years’ time is all needed from you and in return, to name a few, you’ll be blessed with Honey, beeswax, pollen and their next generation of bees.

Also, you don’t have to provide the bees with food and water. They collect and eat on their own. You just have to provide them with good shade and sugar feeding during their famine period. Another hurdle where you might feel yourself getting stuck is permission to keep the bee-hives in public areas.

But guess what!!! people are quite eager and inquisitive about it and mostly will allow, however, if not then keep foraging some other places where you can keep bee-hives along with people’s agreement. Keeping bees will benefit you with happiness and inner satisfaction.

Key benefits that keeping the bee hives would provide you are:
- Your own start up factory of Liquid Gold (Pure Raw Honey), beeswax, pollen and Propolis for self and gifting purpose
- You would be close to nature and a part of conservation of our Indigenous species
- Gifting an amazing experience for Kids and adults as a hobby.
Proving their creativity, determination and skills, women in Tamil Nadu have come forward to take up beekeeping. Out of total 325 beneficiaries in Tamil Nadu, 147 beneficiaries are women which is equal to 45 percent of total beneficiaries.

Beekeeping activities provides financial support to the families of these ‘Queen’ Beekeepers of Tamil Nadu and also setting an example for women entrepreneurship to be followed nationwide.

One Honey Processing Plant, Vinova Seva Sangam was setup under Scheme of Fund for Registration of traditional Industries (SFURTI). The plant is entirely run by women Queen Beekeepers of India (Women beekeepers breaking shackles of a male dominated industry).

“I wanted to start a business of my own. Honey mission program of Government of India provided the best opportunity to pursue my dream.”

Ms. Keerthana
Student, Tamil Nadu

“I wanted to help my family with an income of my own. Honey mission helped me realise my ambition. I have witnessed the wonders of beekeeping when after a month of keeping bees, there was an increase in flowers of the marigold crop in my father farm near beehives. Also, my guava tree grew very fast under the shades of beehives. I am happy to find income from the hands of nature.”

Ms. Vithya Mani
Student, Tamil Nadu

“Honey Mission is a good Mission being implemented by our Government. It has helped us in generating additional source of income.”

Mrs. Kavita Kumari
House wife, Bihar

“Beekeeping in Honey mission program is suitable for earning and employment for women who want to earn but cannot go outside home.”

Mrs. Thilagavathi
House Wife, Tamil Nadu
Key Facts on Slovenia Api-tourism:

- Slovenia described as the ‘Cradle of Beekeeping’ is home to the original Carniolan honey bee; one of the most popular species worldwide.
- Apitourism is unique to Slovenia, as it is the first – and only – country to certify apitourism providers.
- The country currently has 9,600 beekeepers, about 12,500 apiaries and nearly 170,000 hive colonies.
- The country also conceptualized ‘World Bee Day’.

Opportunities galore in Api-tourism:

1. Go on Honey Tasting Trail
   You can sip on the country’s only sparkling chestnut honey-based wine. You could also taste sample liqueurs, mead, vinegar, beer and goats cheese, all made from honey.

2. Take an Apitherapy Tour
   You can learn about the medicinal properties of Propolis and the ‘curative’ effects of royal jelly.

3. Get hands-on at an Apicamp
   Whether you’re a beekeeping pro or simply want to learn more about the api-industry, Slovenia offers various ‘Apicamps’ on Queen breeding.

4. Stay on an Eco-Api-friendly Estate
   Slovenia has developed eco and bee friendly niche estates for travel stay.

5. Discover Api-Folklore
   Get to know about Slovenia rich rural folk art, which appears on many of the country’s traditional stacked AZ bee houses – (it was believed that the motifs helped the bees navigate back to their hives).

Bee Tourism (Apitourism) in Slovenia
The Buzz in Travel Trend
Sundarban Honey (Blood Honey)  
‘The Pride and Plight of West Bengal’

Sundarban (Meaning: Beautiful Forest)  
- Sundarban is the largest single track mangrove forest area in the world formed by the confluence of Ganga, Brahmaputra and Meghna rivers in the Bay of Bengal  
- Four areas in Sundarbans are enlisted under UNESCO World Heritage Sites  
- Sundarbans mangrove forest cover about 10,000 km² of which two-thirds is in Bangladesh and one-third is in India.  
- Sundarban is rich in flora and fauna and is home to Royal Bengal Tiger.  
Source: www.sunderbannationalpark.in

What is Sundarban Honey/ Blood Honey ???

- The Sundarban is the major natural habitat of the wild indigenous giant honeybee, Apis dorsata  
- Two other indigenous species The Indian Bee and The Little Bee are also present in the Sundarban but with little significance  
- Bee foraging plants and honey hunting from giant honeybee colonies has been practiced for centuries  
- Traditional Honey Collectors in the region are called ‘Moulis’  
- The term ‘Blood Honey’ is used as approximately 5 honey collectors die every year in the Sundarbans due to conflict with tigers  
- Sundarban honey is well known for its anti-bacterial, anti-oxidant, anti-inflammatory, anti-browning, anti-allergic, anti-parasitory, anti-ulcer, anti-tumor, anti-viral property and it is used in the treatment of cataracts and cardiovascular diseases  
- Sundarban honey has a high demand but is low on quality and ferments readily.

Source: A Review on Bee Foraging Plants and Honey Collection from the Sundarbans
**Story of Qutubgarh**  
(The Honeygarh of India)

**Qutubgarh**: a prominent village in Delhi has been adopted by KVIC under the ambit of ‘Sweet Revolution’. It is also the adopted village of MP Smt. Meenakshi Lekhi

Under the Honey Mission 100 Bee boxes were distributed to 10 beneficiaries in the village.

The village has witnessed a production of ~ **1100 Kgs of Honey** since its inception in Nov 18 with an estimated revenue of **INR 3 lac**

KVIC has also created a ‘Honey Hub’ with a pool of **10 expert villagers**, who were trained under Honey Mission

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**Villagers of Qutubgarh have been ensuring its ‘Sweet Legacy’ with:**

- Production of Honey with flavor of Neem, Jamun, Eucalyptus etc.
- Production of exclusive Mustard Honey
- Production of Bee Propolis, Beeswax and Bee Pollen
- Honey Shampoo, Vinegar, Soaps, Apple Cider

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“We have extracted 485 kilograms of honey valuing around INR 97,000. We want to create record in honey production, so that the people can know our village as ‘Honey-garh’”

- Dinesh Singh

“Our village has fertile agricultural land and has won accolades on number of occasions for its high yield of crops, I am happy it is now emerging as one of the most honey-producing zone in proximity to the National Capital”.

- Harish Rana

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**Source:** Times of India
Brazilian Green Propolis

Introducing BRAZIL Beekeeping
• 11th largest honey producer in the world and the 2nd largest producer in Latin America
• Home to ~3,000 different bee species
• Brazil is the largest producer of organic honey
• Owing to the rainforest; Brazil has the proper climate and environment for propolis production throughout the year.

“Propolis is formed by a complex set of components collected by Apis mellifera from different parts of plant resins (twigs, flowers pollen, buttons and exudates of trees) which are deposited in the hive with saliva and enzymes of the insect to seal the cracks and maintain the temperature”.

About the Green Propolis and its UNIQUENESS......

Π Green propolis from Brazil is known globally due to its Green color
Π It is produced by Apis Mellifera bees
Π The Africanized honeybee from Cerado region of Brazil produces propolis from the unexpanded leaf buds of Baccharis dracunculifolia D.C. plant
Π Easily absorbed and more effective; the propolis contains complete vegetable tissues
Π It get its powerful health benefits from its active ingredient, Artepillin-C (ARC), an antioxidant which has extremely potent anti-bacterial, anti-viral, anti-fungal, anti-inflammatory, and anti-oxidant properties
Π The commercial value of the propolis in the international market is very high

Source: Functional Properties of Brazilian Propolis: From Chemical Composition Until the Market
Source: Brazilian Green Propolis: Anti-Inflammatory Property by an Immunomodulatory Activity
**BEE FUNNY** with the comic strips..

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**Bee-ing Like –minded’**

You have news or information you would like to share with us? Are you looking to purchase/ sell honey, equipment, bees, volunteer, etc.? Connect with us on the email : fbi.kvic@gov.in