

#### Tools for strengthening productive capacities in beekeepers from the Central Pacific Region of Costa Rica

MSc. Paola Hernández Ching<sup>1</sup> MSc. Luis Sánchez Chaves<sup>1</sup>

<sup>1</sup>Centro de Investigaciones Apícolas Tropicales (CINAT) Universidad Nacional



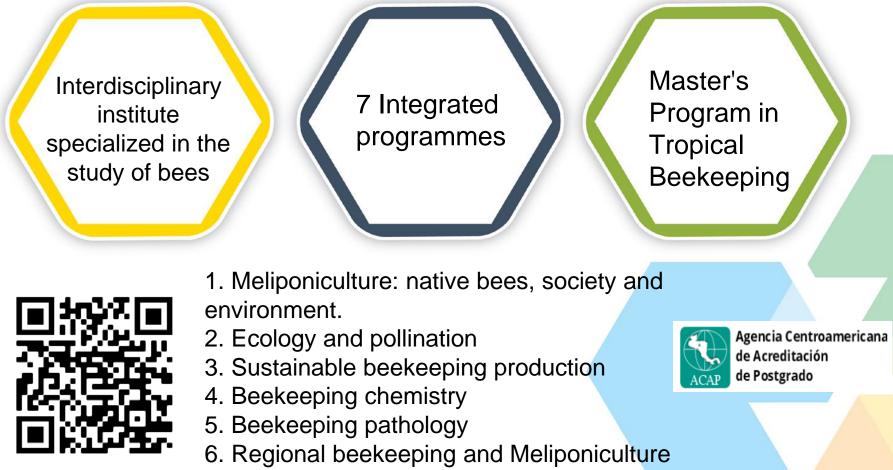






Centro de Investigaciones Apícolas Tropicales

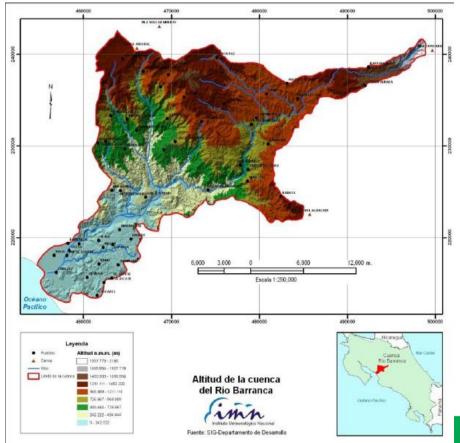
Who we are?



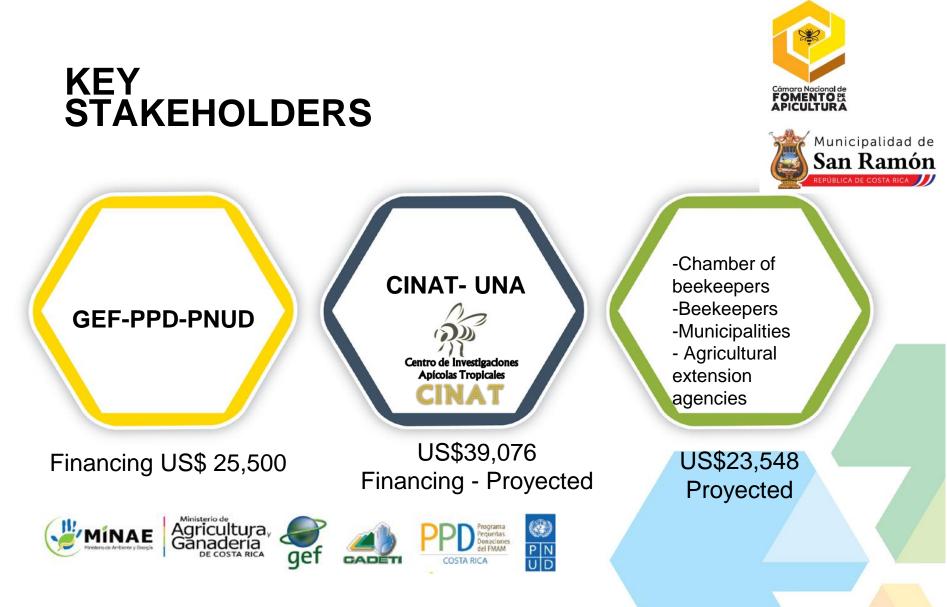
7. Microbiology and medicinal chemistry

#### Where we work?

The aim was to promote the empowerment and productive improvement of beekeepers operating in an area of **high ecological degradation and marked poverty levels** in the Central Pacific Region of Costa Rica, for whom beekeeping is their main source of income.



River basin Jesús María and Barranca, and the middle and lower basin of the Grande de Tárcoles and the Montes del Aguacate and Paso Las Lapas Biological Corridors



#### Period: 2 years: July 2021 – March 2023

Impact of COVID-19 on the country's economy

#### About beekeepers

We work with more than 30 small beekeeping companies to optimize their productive and commercial practices, which can result in improving their quality of life and growth expectations



Average age 48 years, with complete secondary, nucleus of 4 members.
83% beekeeping as main activity, 11 years of creation, operates as a family business.

Women	28%
Men	72%

87% have a Veterinary
Certificate of Operation
(CVO), 22% with registration
of small agricultural producer,
50% with regularization with
the Ministry of Finance and
30% has its trademark.
3 apiaries on average/108
hives.

Local market, no ecommerce, personal Facebook. 96% have financed their activity with their own resources. Low training in technical topics.

### Beekeepers indicated the following areas for improvement

-Capital

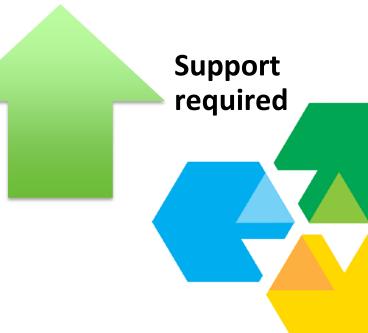
-Methodologies to obtain new products from the base raw material that has already been generated

-Productive improvement

#### Difficulties

-Need for capital to invest -Lack of infrastructure -Lack of technical support -"I have not managed to obtain

permits and this prevents me from reaching more markets".





The work program was based on four thematic nuclei, according to the areas of improvement

Best practices in beekeeping production

Value-added products.





100% Purz

Auténtica, exclusiva

# Best practices in beekeeping production

- Virtual talks given by specialists.
- 2. Technical guides in digital and printed format and YouTube videos.
- 3. Face-to-face workshops
- 4. Improvements in the presentation and labeling of the product.



### Best practices in beekeeping production

CICLO DE CHARLAS: MEJORES PRÁCTICAS EN LA PRODUCCIÓN APICOLA

FORTALECIMIENTO De las capacidades

PRODUCTIVAS EN PERSONAS APICULTORAS

#### DEL 18 AL 21 DE OCTUBRE

- 18 DE OCT 2PM
- 19 DE OCT 2PM

21 DE OCT

2PM

- Veterinario de Operación en C.R. MARIANA ACUÑA CORDERO Inocuidad en miel de abeja
- y otros productos apícolas.
- 20 DE OCT LORNA VINDAS PEREIRA 2PM Requisitos de etiquetado en miel de abeia.
  - FRANKLIN PÉREZ VEGA Aspectos básicos en la calidad e inocuidad de la miel aplicado a la empresa apícola.

UNIRSE A LA REUNIÓN ZOOM HTTPS://UNA-CR.ZOOM.US/J/81150865374

\*Hora Costa Rica



UNA MFCTM

- Topics: Safety in bee honey processing and legal requirements for operation and labeling
- More than 100 people connected
- Videos available

# Best practices in beekeeping production

MINAE 🖌 Agricultura, 🌒 SGP 🚟 30 🥰 30

BUENAS PRACTICAS Manifactura en

SALAS DE EXTRACCIÓN Y Envasado de

PRODUCTOS APÍCOLAS

**Best manufacturing** 

packaging rooms

for beekeeping

practices in extraction and

products

**REDUISITOS EN EL** 

ETIQUETADO DE MIFL DE ABEJA

Labelling

on honey

requirements

🖓 MINAE 🥻 Agricultura, 🃣 SGP 📰 30 🥰 30

 We complement the topics of the virtual talks with the elaboration of Technical Guides to reinforce learning, in digital and printed edition:

**N1** 

# Best practices in beekeeping production



**N1** 

PRODUCTIVAS EN PERSONAS APICULTORAS PhD. JOHAN

Director CINAT-UNA Coordinador del Programa Reginal de Apiculura y Meliponicultura

#### Charla: MANEJO ESTACIONARIO DE COLMENAS

**Charlas en modalidad presencial** 





### 80 beekeepers were trained



Training at the Agricultural Extension Agency of the Ministry of Agriculture and Livestock, San Ramón.



### Best practices in beekeeping production

- Design of labels or adjustments to existing ones, incorporating the information requested in the technical regulations for honey.
- Printing of 100 new labels to each beekeeper
- Digital folder with editable tag files









JARGONS Miel de Abejas

Peso Neto:

O1000 g O500 g O 250 g

Miel de abejas. (Apis sp.) Instrucciones de conservación:

Ingredientes:

Almacenar a temperatura ambiente. No exponer a la luz solar. Por su naturaleza la miel puede cristalizar.

Lote: ver envose.

Fecho de vencimiento: ver envose

NO SUMINISTRAR A NIÑOS MENORES DE UN AÑO





# Best practices in beekeeping production

Label design and redesign











# Administrative management of beekeeping companies

- 1. Talks with experts on entrepreneurship topics.
- 2. Technical guides in digital and printed format and YouTube videos.
- 3. Creation and maintenance of business social networks (not personal).
- 4. WhatsApp Business and new pictures.







### Administrative management of beekeeping companies

DE LAS CAPACIDADES Productivas en Personas apicultoras

#### CICLO DE CHARLAS: MEJORES PRÁCTICAS EN LA PRODUCCIÓN APÍCOLA

DEL 20 AL 24 DE JUNIO

JOSÉ DAVID ULLOA Redes sociales como herramientas de marketing para la empresa apicola.

IVETTE BARBOZA Todo lo que debe de saber sobre el Régimen especial agropecuario.

MARIANELA SÁNCHEZ Más allá de un Beep en un supermercado: Todo sobre el código de barras.

CECILIA CORDERO Con sello PYME: registro de la Pequeña y Mediana Empresa ante el MEIC

VÍCTOR MANUEL SALAZAR El ABC del registro como Pequeño y Mediano Productor Agropecuario (PYMPA),

UNIRSE A LA REUNIÓN ZOOM HTTPS://UNA-CR.ZOOM.US/J/81150865374



MINAE Agriculture A

💌 🏦 (MIRCTIM 🍕 UNA

- Marketing
- Accounting
- Barcodes (GTING)
- Registration as a small business or small agricultural producer

\*Hora Costa Rica

20 DE JUN

21 DE JUN

22 DEJUN

23 DE JUN

24 DE JUN

2PM

2PM

2PM

2PM

2PM

## Administrative management of beekeeping companies



Thanks Enrique Vega for the wonderfull pictures! You can download: <u>https://repositorio.una.ac.cr/handle/11056/18916</u>



# Value-added generation with bee colony derivatives



- 1. Artisanal candies
- 2. Cosmetics
- 3. Honey beer and carbonated beverages
- 4. Mead (next)



## Value-added generation with bee colony derivatives



 $\mathbb{N}3$ 











- 1. Educational app Bees in my garden
- 2. Teaching support guide for learning about bees
- 3. Planting of plants of melliferous importance
- 4. Calendar for the registration of melliferous flora













Teaching support guide for learning about bees.



You can download: https://repositorio.una.ac.cr/handle/11056/26029



750 trees of melliferous importance distributed in 3 points: Puriscal, Esparza and San Ramón.





Bees and flowers: a vital relationship that we must foster and preserve.





Calendar for the registration of • melliferous flora

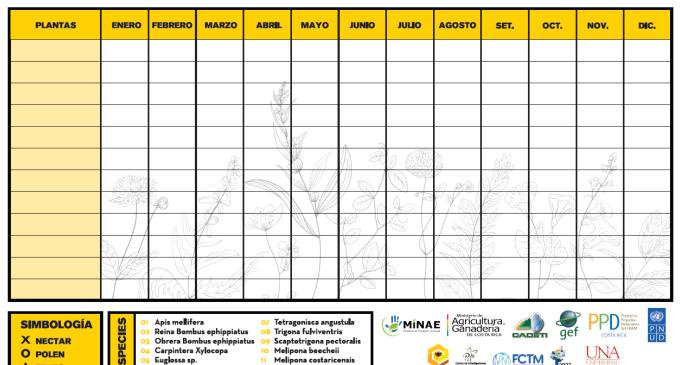


**A** FRUTO

Euglossa sp.

Eulaema sp.

#### Calendario de la Flora Apícola



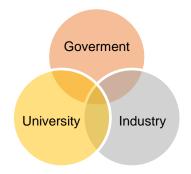
11 Melipona costaricensis

12 Otras especies

### Conclusions

Promote and support the formalization of the beekeeping guild as a mechanism to obtain greater access to the market and financial resources. **Technical support is not enough.** 

Articulate the inter-organizational work: government, university and productive sector, towards a more precise detection and attention of needs and optimization of resources (Triple helix innovation model).



Integration of civil society in these activities to support the beekeeping sector and use of ICTs: include trees of melliferous importance in tree planting campaigns, talks in schools with beekeepers about the importance of pollinators, make the activity visible in the community!



### Thank you!

MSc. Paola Hernández Ching paola.hernandez.ching@una.cr WhatsApp: 506 88454995

Centro de Investigaciones Apícolas Tropicales (CINAT) Universidad Nacional



