

Dominican Republic



DOMINICAN COFFEE *Caribbean Treasurer!*



CBB Situation

(Hypothenemus hampei)

In Dominican Republic

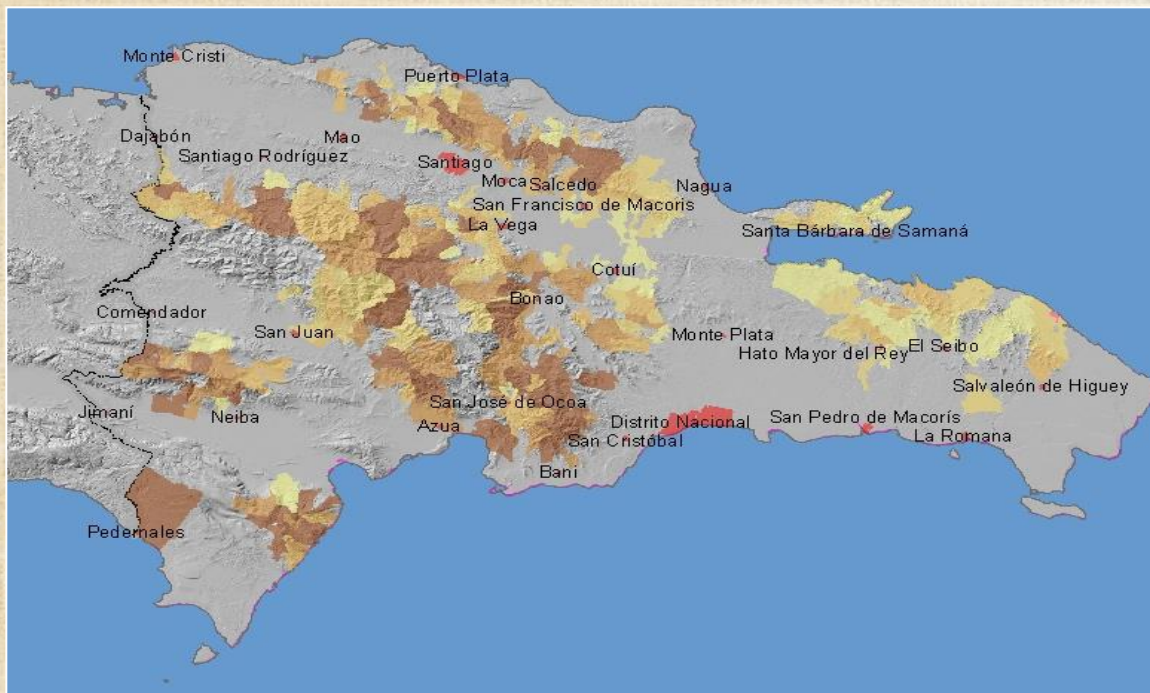
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Translated By PePe Miranda

Dominican Republic

DOMINICAN REPUBLIC



LOCATION: Higher part of the tropical Rim.

Area: 48,000 km²

Area in coffee: 132,000 ha.

Coffee farmers: 50,000

18° & 20° North
-68° & -72° West

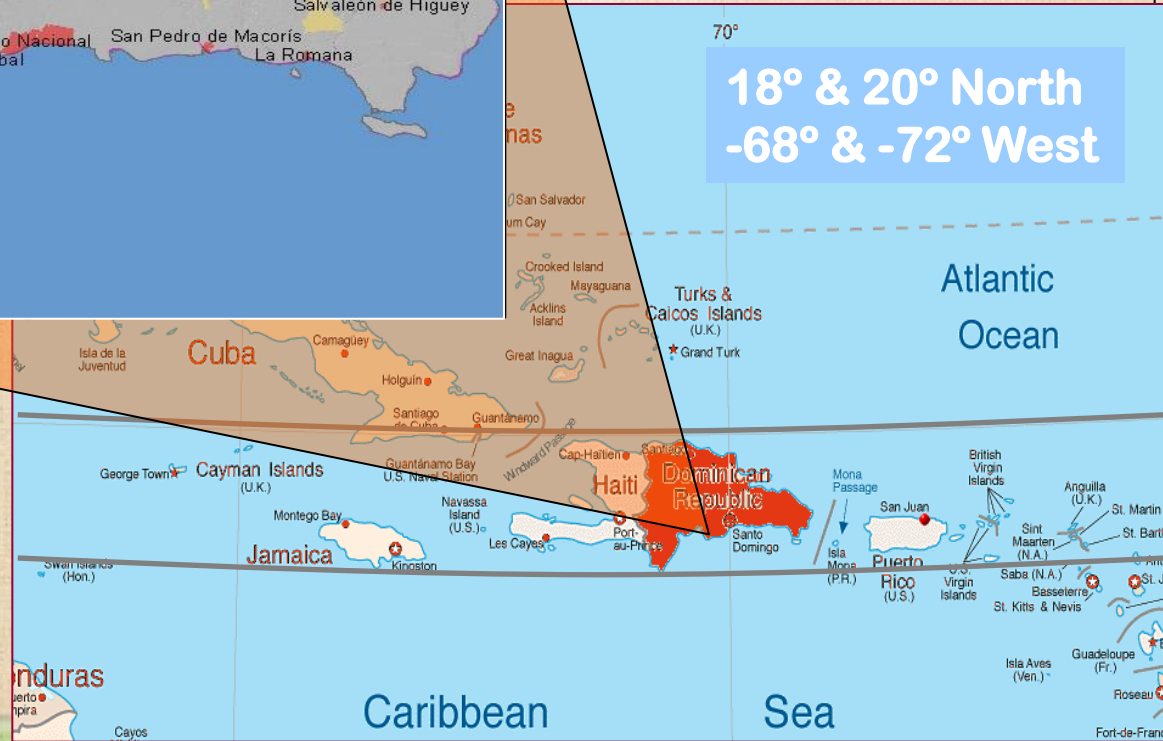
Average anual production:

600,000 bags of 60 kilos

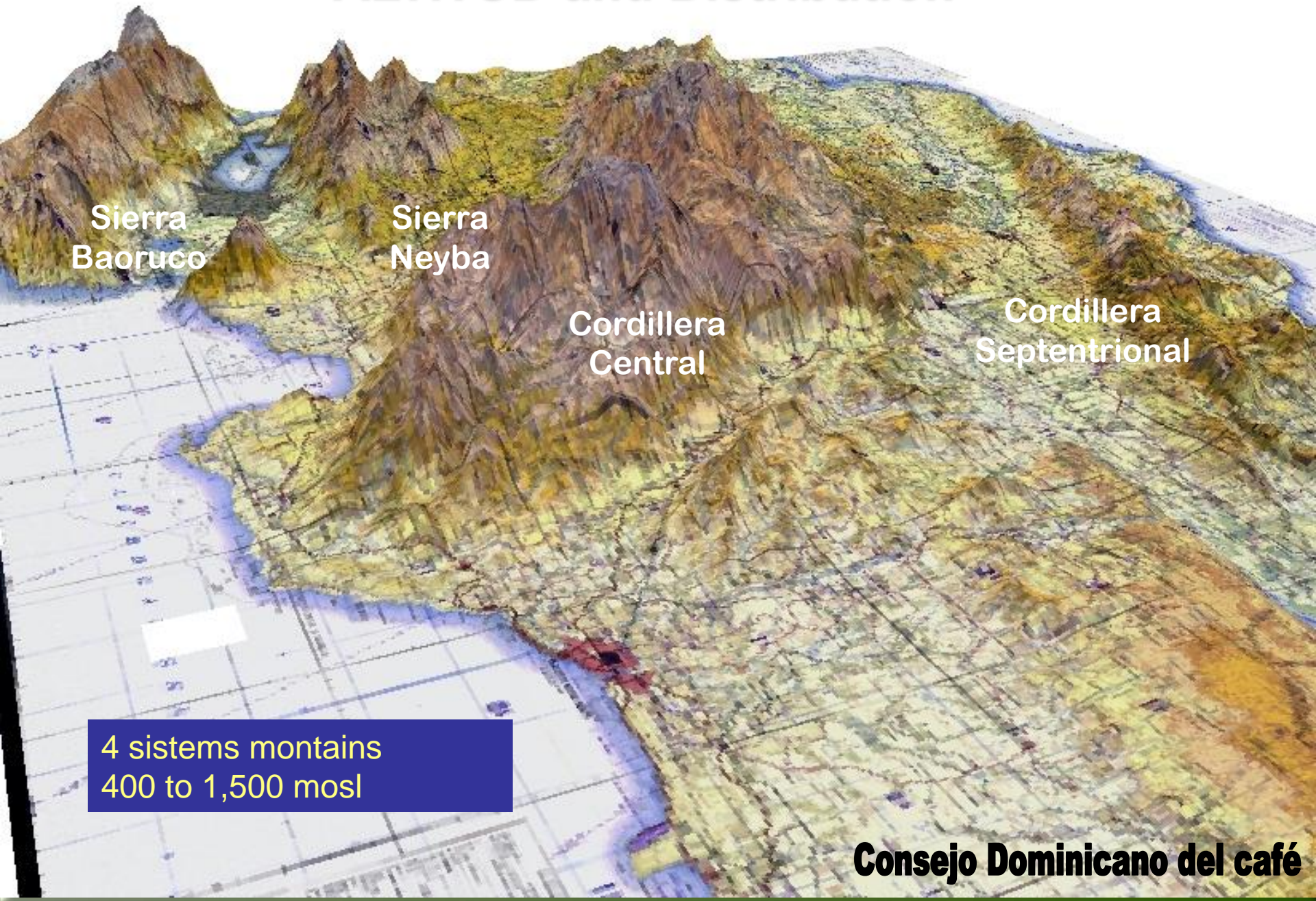
Average anual export:

70,000 bags of 60 kilos

Relative participation in PIB: 3.3%



ALTITUD and Distribution



Sierra
Baoruco

Sierra
Neyba

Cordillera
Central

Cordillera
Septentrional

4 sistemas montañas
400 to 1,500 msnl

Consejo Dominicano del café

CBB Situation In Dominican Republic

- Detected:

Augst 1995, province Sanchez Ramírez



CBB Situation In Dominican Republic

- **Distribution**
September 1995:
Monte Plata.
Duarte.
San Cristóbal.
National District.
- **Afected Area**
September 1995:
37,500 ha.
- **Level of infestation**
32%



- **Distribution**

End of 1996:

All of producer
provinces

- **Afected Areas**

End of 1996:

70% of Coffee communities



Year 1999

- **Afected Area:** 62,500 ha.
- **Level of infestation:** 9.2%

Year 2002

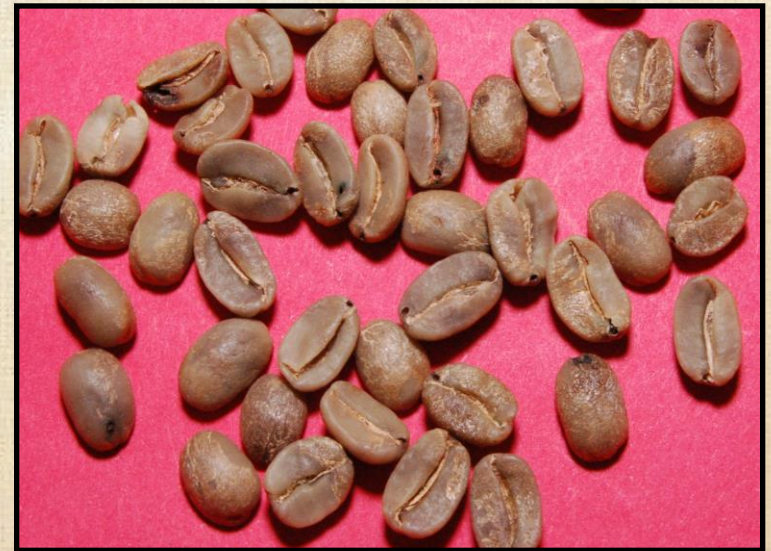
- **Afected Area:** 132,000 ha.
- **Level of infestation:** 15.4%

Year 2006

- **Level of infestación:** 6.7%

CBB Losses

It has been estimated that the losses from CBB damage is from 950 to 1500 tons of green beans yearly, this represents a reduction of income from the coffee sector from 1.7 and 2.2 U.S. millions Dollars .



CBB ACTIONS AND PRACTICES TO CONTROL

- 1997 → Chemical Control
- 1998 → Biological Control
- 1999 → CBB IPM
- 2000 → Sanitation Practices
- 2002 → National Traps program



Chemical Control

This was the first activitie practiced in the Contry. Consisting in practicing few activities on heavy and masives applications in all coffee communities infested with CBB.

We started in 1997 teaching producers and technitians about identifying hot spots, uses and management of chemical prodducts and spraying equipment.

This was an offitial emergency activitie but discontinued on the same year.

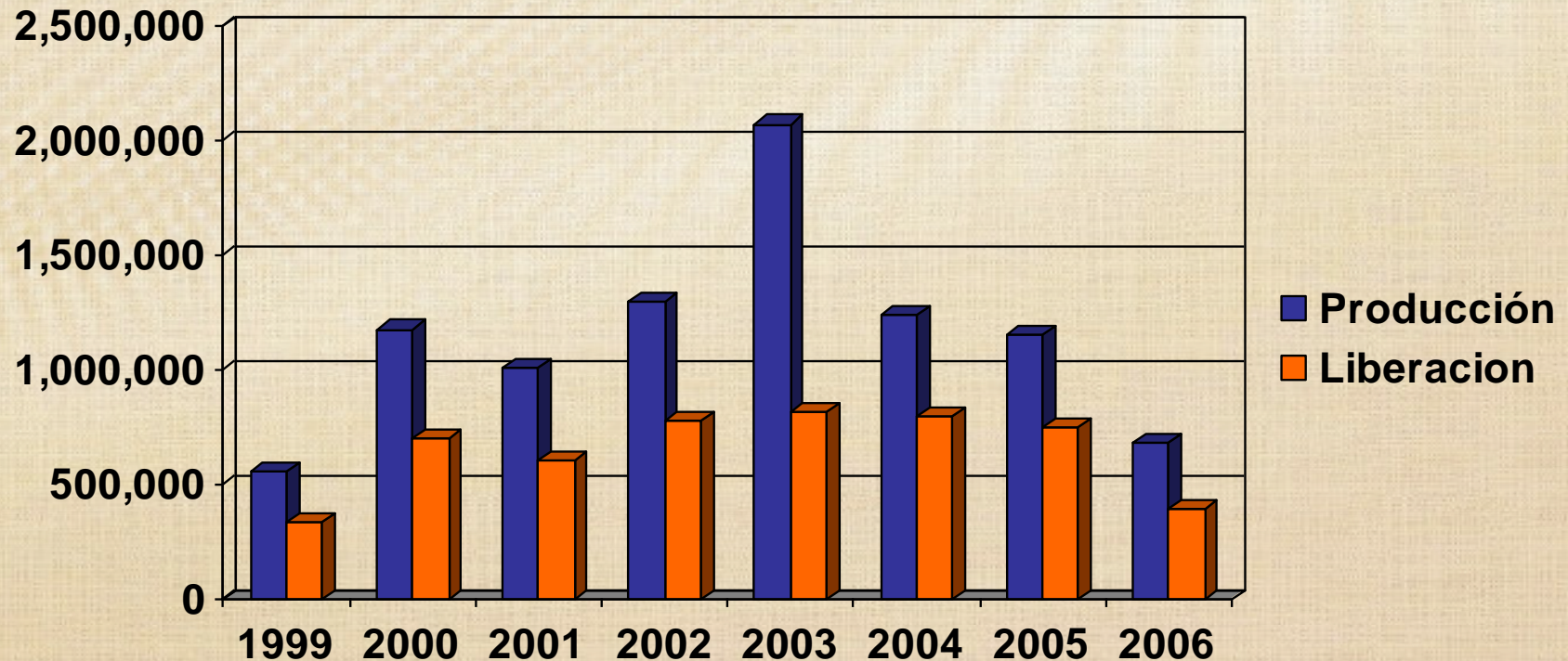
Biological Control

Cephalonomia stephanoderis

Is a program focus in the use of parasitoides. Began in 1997 with the first introduction from Honduras, and later a second introduction in 1998 from Guatemala with this one We start our own production for the contry . This year we stablish four multiplication stations with the purpose to spediate masive production.



The yearly production level varies from 500,000 to 2,600,000 parasitoids, and have been distributed in about 250 farms.



Producción, liberación de parasitoides en República Dominicana

Beauveria bassiana

Additional to parasitoides, we have collected, characterized and multiplied several strains in the Lab at the University Autónoma de Santo Domingo, UASD, different strains from this fungus was found in different coffee zones in the country, example: Ocoa, Bonao, Villa Trina, La Cumbre and Polo de Barahona. We have multiply them on small scale and distributed on the fields as source for inoculation.



IPM (PROMIB)

This Project begun with four components : Training, Communication, Biological Control, Investigation and validation.



Trainin to 1,065 technicians and 91,647 coffee farmers, in 4,174 educational setions. We stablish 40 plots located in the principals communities and we support research and applied investigation.



Sanitation during and after harvest

This Activitie started in october of 2000, for a period of six months, to support coffee farmers in the realization of each labor and its importance like harvest all remain on the trees and from the ground(raysing ,ripe over ripe, under ripe etc) with the main purpose of reducin the CBB population in their farms.



National trap program

In 2001 We establish the first plot validated with the BROCAP trap in Los Cacaos, San Cristóbal, Where we collect the first data in the Contry.

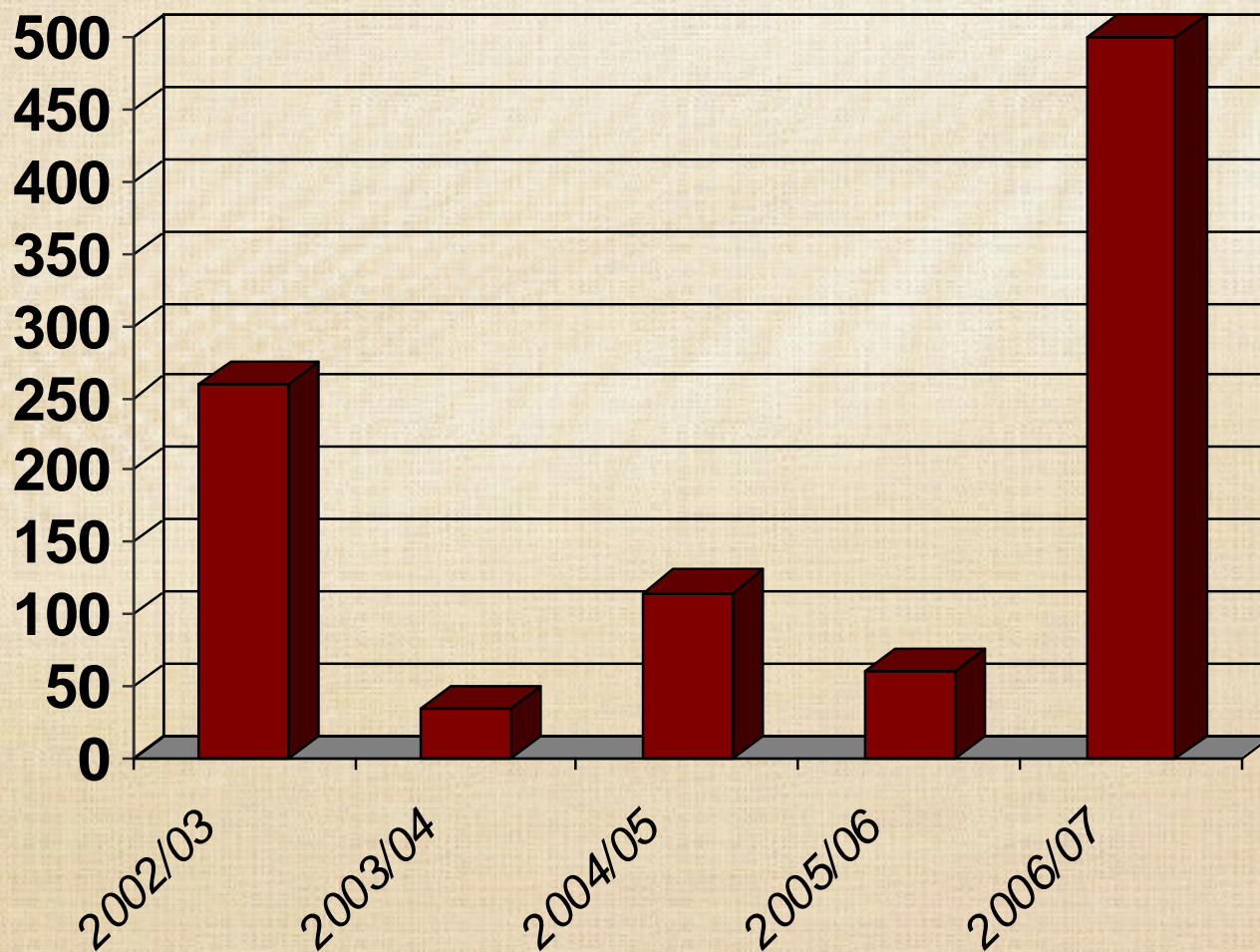
After the confirmation of the efficacy of the trap We inisiated the National trap program in the year 2002, This program still going.



With the intention of extending this program to more than 25,000 ha. And to assist more than 6,500 farms and farmers The CODOCAFE aquired 50,000 new traps Brocap and the farmers contributed with 20,000 traps home made for the post harvest period in wich we collect over 500,000,000 CBB

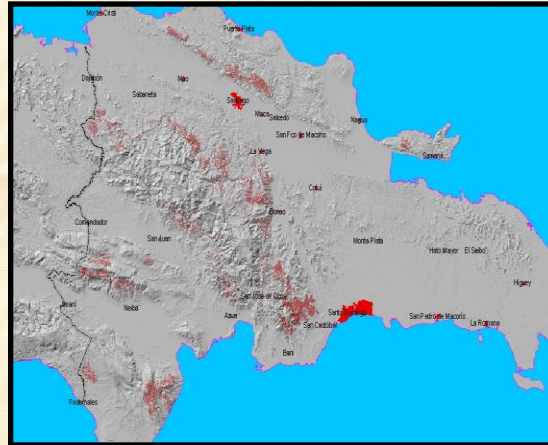


CBB Captured



Millones de brocas capturadas en el período 2002-2007

Investigation about CBB in the Dominican Republic



Organization Involved

IDIAF (Institute of investigation)

CODOCAFE (Gubernmental entity for the coffee sector)

UASD e ISA (Universities)

Objective:

To Increase net income

- 1. Productivity and quality.**
- 2. Diversification (other crops, PSA).**
- 3. Better Position in market niches.**

Investigation and Participation (All links from the chain).

Producer

Midman

Associations

Exporter



Fast and validated process adopted
for a Technologica development

LEVEL OF INCREMENT & INFESTATION

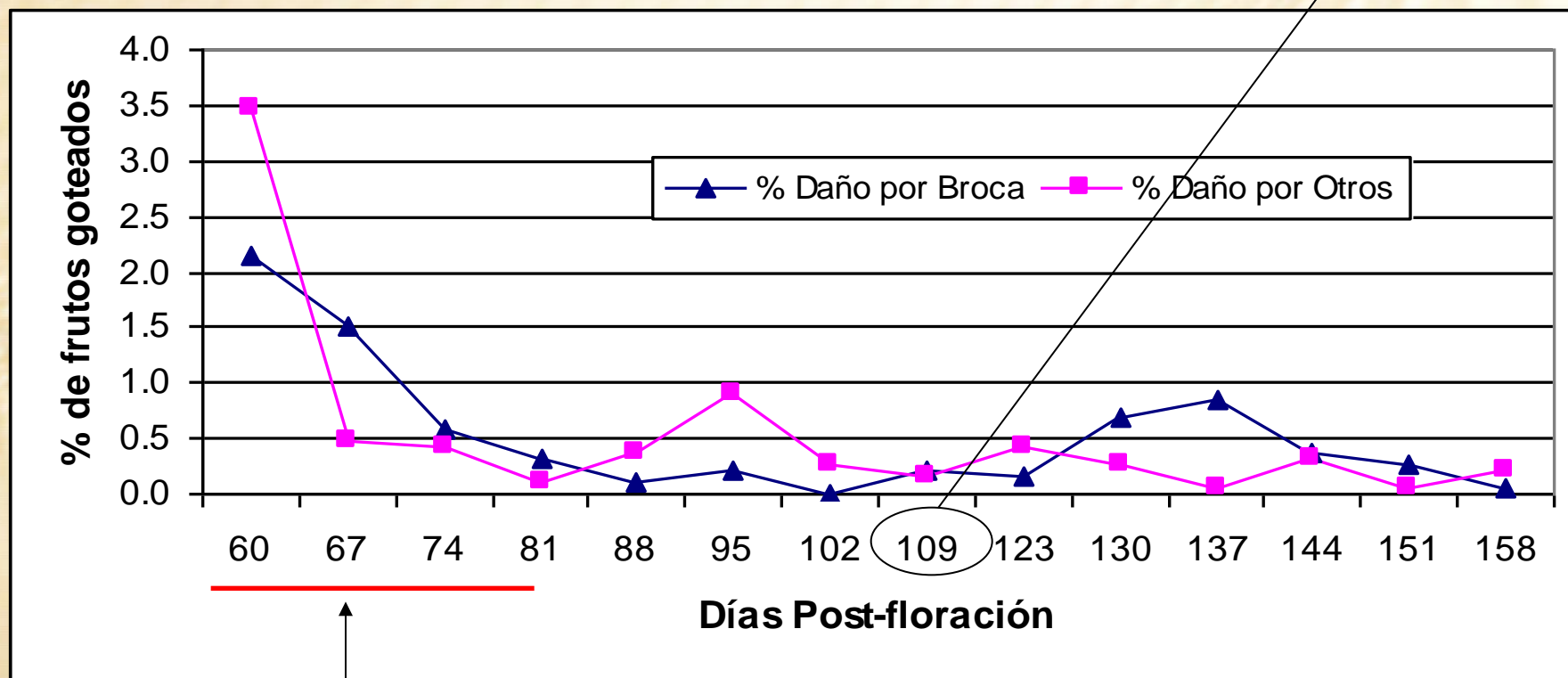
Natural Behavior In Low zone (500 to 600 mosl)



Days	% of Infestation
First monitorin	2
42	5
57	10
72	20
102	75

CBB effect in premature beans

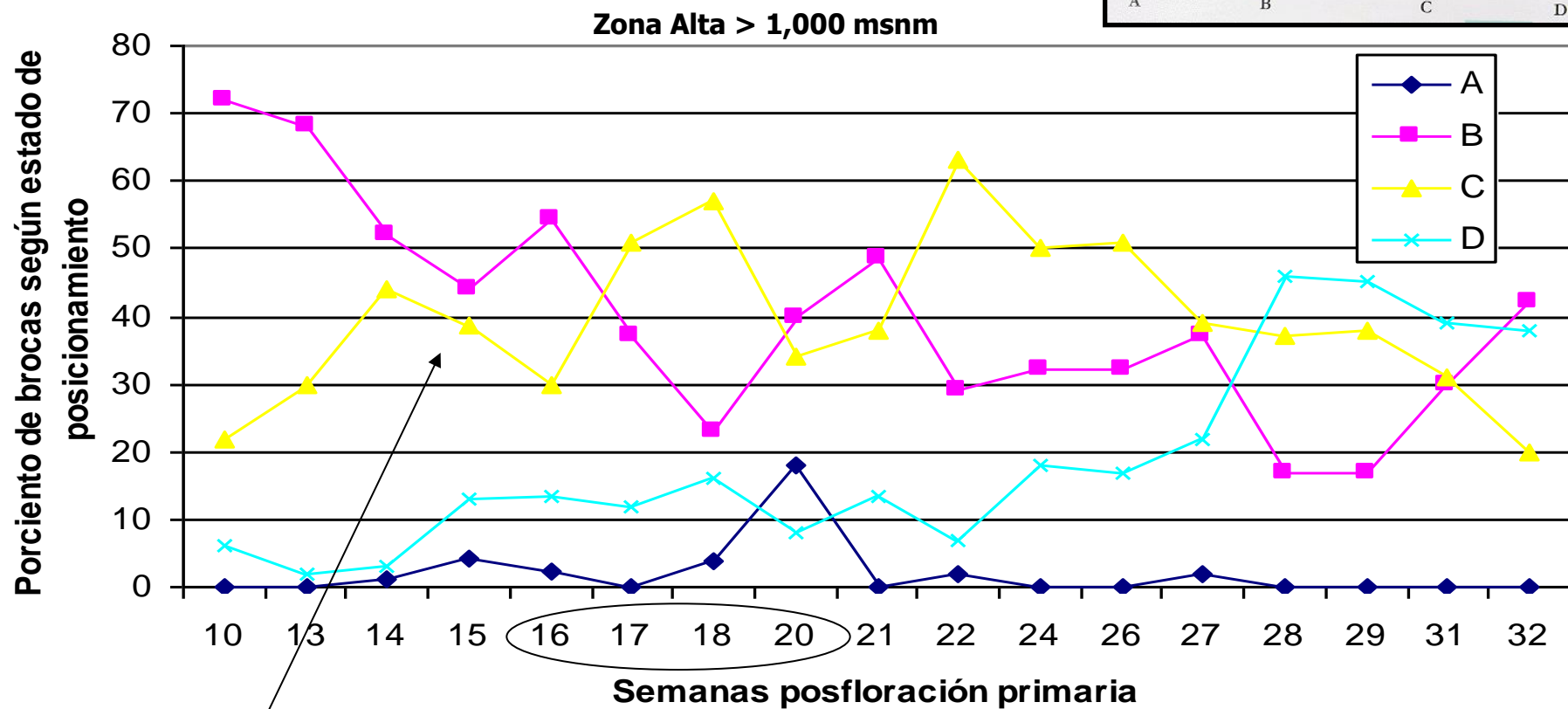
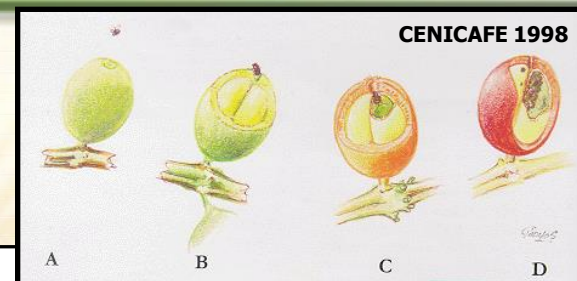
Fruits on a fear host



First days more vulnerable (4 %)
 Diametre more susceptible: 6 mm

Damage total caused for CBB (7.49%)

CBB behavior and position

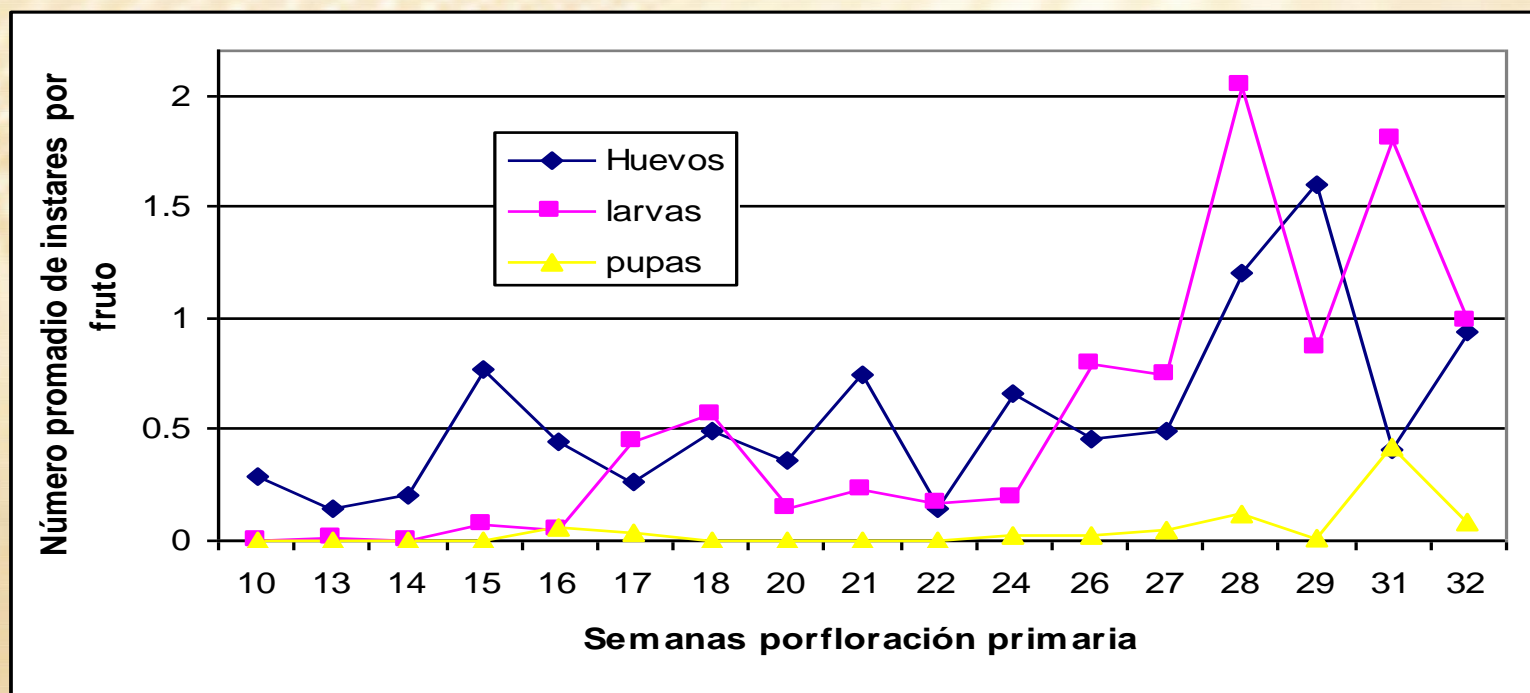


High % from the beginning

Constant flowers

CBB Reproduction

Average	Low Zones	High Zones
Eggs/fruit	0.2 a 4.1	0.42 a 1.03
Larvae/fruit	4.1	0.81



Infestation during & after harvest



Ground collection



Re-recollection

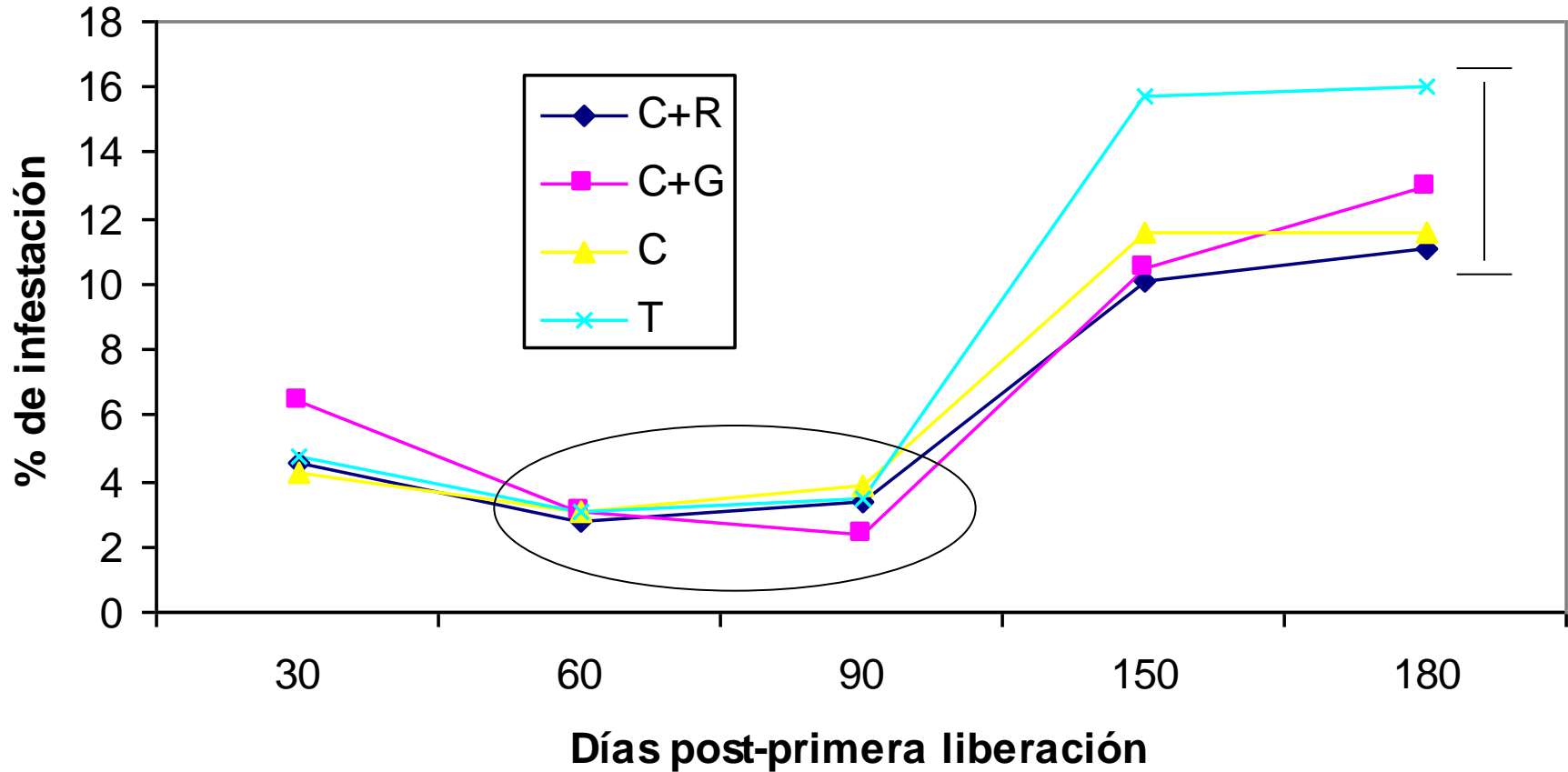
- Reduce level of infestation up to 4 %.
- The effect of practicing RE-RECOLLECTION IS FROM 7.6 to 54%, a second RE Re recollection will reduced significantly the population but will increased 133 % of costs on this studye.

Cost analysis per activities

Activity	Fruits w/CBB (%)	Cost/ha (US\$)
Repela+pepena+graniteo	1	141.72
Repela	6	51.56
Repela +graniteo	5	111.70
Repela+pepena	7	128.95
Pepena+graniteo	8.8	128.00
Graniteo	12	137.5

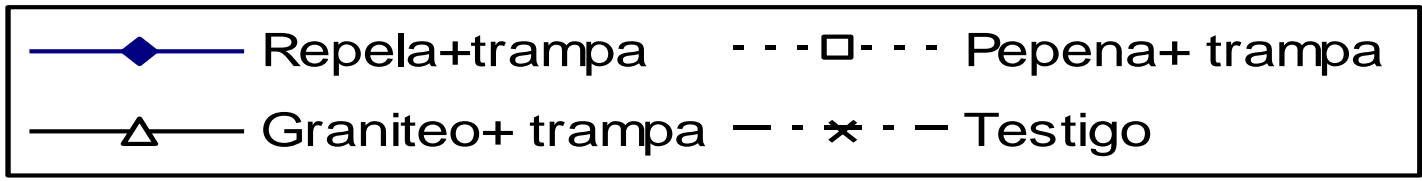
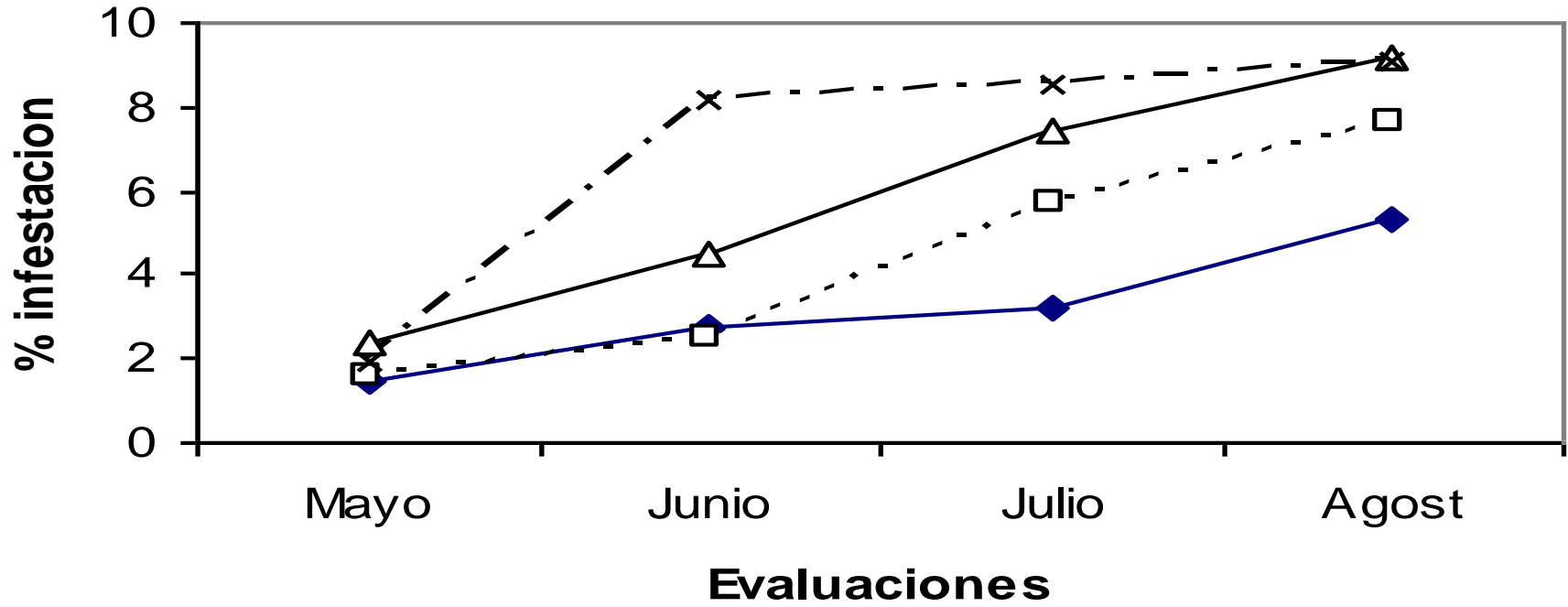
- The effects for each activity depend on the agronomic management and the farm productivity.

Parasitoids



- **Stabliment 1.28 parasitoids/fruit**
- **Distribution in a zona 1.5 km 0.9 parasitoids/fruit**

Cultural practices and traps



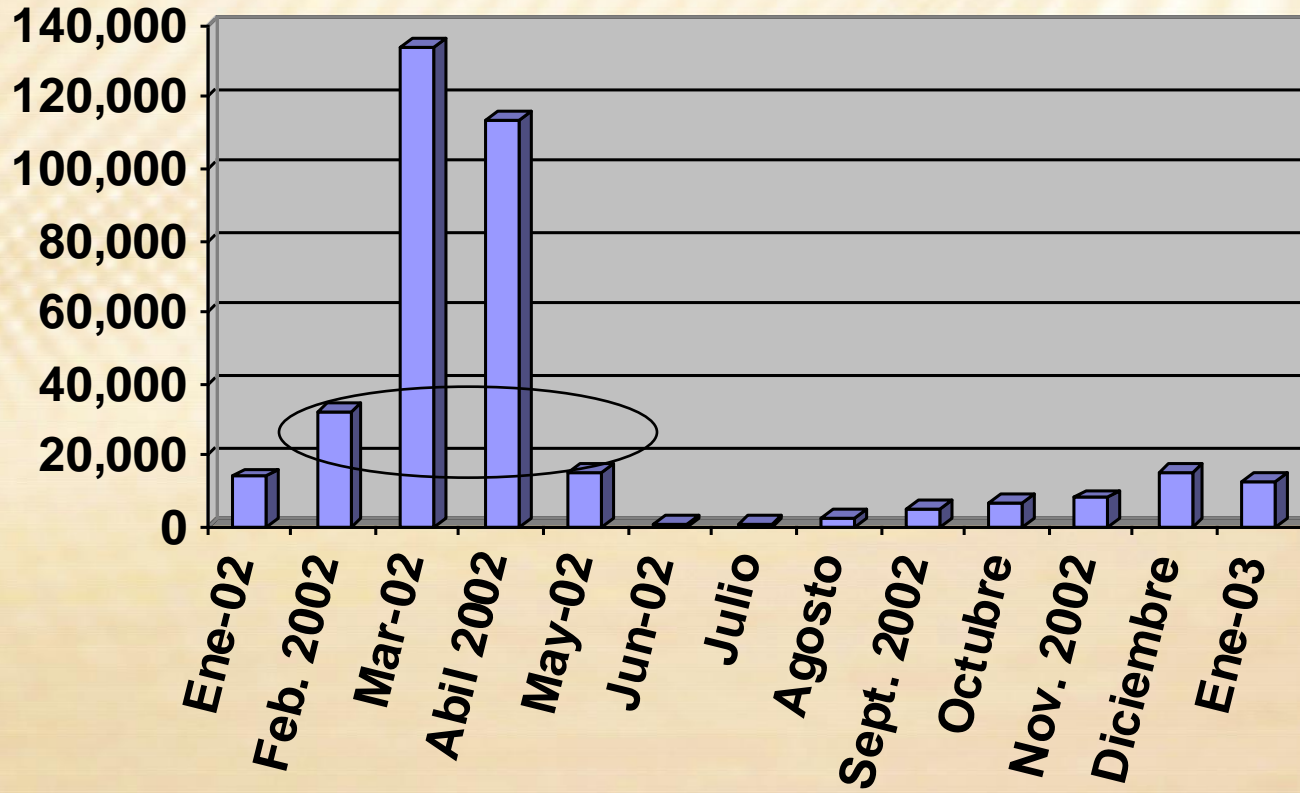
Traps evaluation

TRAPS	CBB CAPTURED	PERCENTAGE
Brocap	36,200	100 %
Model L (4)	34,900	96 %
Other Models (average)	19,487	53 %



40% OF COST

Capture table



Conclusion

- ✓ **All programs, projects and practices toward control of CBB need continuity with a long term to ensure a sustained producing system in the application of all activities.**

- ✓ **The most valuable and effective tools on the IPM in the country are: repela, trampeo y control biológico. We request focus dedication and resources to support this practices.**



DOMINICAN
Coffee
The Treasure of the Caribbean

Gourmet

PRODUCT OF DOMINICAN REPUBLIC

ORGANIC

FAIRTRADE

HIGH QUALITY

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