Recovery Program of the Canary Black Bee in the Island of La Palma (Canary Islands, Spain)

Gracia, A*; García, C; Fert, G***; Rodríguez, S*; Cabrera, F*; Batista, M*; González, F***

**Instituto Universitario Sanidad Animal. Universidad Las Palmas de Gran Canaria .Spain*
***Dirección General de Ganadería. Gobierno de Canarias. Spain*
****Ferme Apicola.Orthez. France*

In Canary Islands there has been a great hybridization in recent years because of the importation of bee breeds supposedly more productive. Canary Black Bee is now officially declared a breed in danger of extinction. Only on the island of La Palma pure populations were detected.

At the beginning of the work the status of beekeeping at La Palma was:

- There were 82 apiaries with a total of 1921hives.
- The average production of honey per hive per year was 20 kgs., being the total production of about 40000kgs per year.

In 2000 starts a recovery plan to progressively replace hives that, through hybridization with other breeds, have lost the genetic characteristics of the local breed and to apply to recovered bees a selection program to improve the gentleness and production characteristics.

The activities implemented during the development of the program were mainly the following:

- Workshops and training of queen breeding.
- Genetic study of Canary Black Bee: capture of workers and drones for DNA analysis.
- Delineation of an area of natural fertilization in the north-east of the island, who became the first zone without hybridization of the island, in order to carry out fertilization of queens from pure hives.
- Installation of a queens breeding center.
- Distribution of queens to beekeepers of the program.
- Quality control of the queens of the program. Inspection and control of apiaries.
- Every beekeeper who receives a queen must fill in a data sheet about the behaviour of the hive and should breed the drones from the queen that has been sent to him.
- Emission from the Government of the Canary Islands of two orders for the protection of the black bee and the production of black bee honey.

Now we can say that the reality we have in La Palma is the following:

The collected data support the thesis of an African origin of the bees in La Palma and highlights the presence of endemic haplotypes in the Canary Islands, which suggest an evolution in situ of these bee populations. It is seen a differentiation of the subspecies of the African continent that are geographically closer to the islands.

The number of registered hives has increased from 1921 in the beginning of the program to 3636 at the end of 2007, representing a 47.16% increase. The number of registered bee farms has increased from 82 to 124, i.e., it has increased by 33.8,%.

A similar recovery process has started in the island of El Hierro with the queens produced in La Palma.

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