

AFRICANIZED HONEYBEE IMPACT IN BEEKEEPING OF ARGENTINA

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The arrival of Africanized honeybee has not been well documented in Argentina. It seems likely that in 1965 Africanized honeybee was found in Misiones. Moreover the map distribution of Africanized honeybee carried out by De Santis and Cornejo (1968) showed the occurrence of these bees in three different northeast provinces (Formosa, Misiones and Corrientes). The spite the fact that africanization process in Argentina placed the natural limit of 33 °S and 34 °S (Kerr *et.al.* 1982), the presence of Africanized bee has also been reported in Río Negro province (39 °S) (Dietz *et.al.*, 1985). However, different outcrosses and recombination processes between Africanized honeybee and the previous European introduced honeybee in our country, allowed the formation of local ecotypes with morphological, behavioral and physiological proper features.

During the last decade a massive introduction of queen honeybees from Buenos Aires province (where *Apis mellifera ligustica* was the main introduced subspecies) to the northeast and northwest of the country has been carried out. Thus, the European gene frequency in Africanized saturated regions might be higher that those previously reported. Morphometric analyses carried out by Rosenkranz in 1998 (unpubl. data) have shown that honeybees from Tucumán 26° S supposed to be Africanized were different from Africanized honeybees from Brazil. This could explain the fact that ecotypes with huge defensive behavior (probably Africanized bee) have shown *Varroa* susceptibility in our country different from the well documented tolerance to *Varroa* in Brazilian Africanized honeybee.

As it is well known the main problem with Africanized honeybee is its defensive behavior. In this sense Beekeeping Development Integrated Project (PROAPI) have selected genetic materials adapted to different eco-geographical regions with special attention in defensive behavior evaluation in subtropical areas.

The widespread of beekeeping activity of the last decade has led the intensification of this activity to Africanized areas such as Santa Fé and Entre Ríos province. In these areas the average honey productivity per hive is at the moment the highest in our country. Besides, in Tucumán and other northern provinces are many queen breeders enterprises. The Africanized honeybee has also been incorporated in some pollination schemes of Argentina, specifically these bees have been used for sunflower hybrid seed production field in Buenos Aires province. Comparative studies realized by Basualdo *et. al.* (2000) in a hybrid seed production field with European and Africanized honeybees showed that Africanized honeybees collected significantly larger proportions of sunflower pollen than the European bees. This suggest that Africanized bees would be more efficient for pollination.