

APIMONDIA

ABSTRACTS

IRELAND 2005

"Five Millennia of Beekeeping on your Doorstep"

August
21st-26th 2005

39th Apimondia International Apicultural Congress
Dublin, Ireland

www.apimondia2005.com



Random sampling procedure was used to chose 60 respondents 9 apiarist).

descriptive statistics was used to the methods of usage.

It was recommended among others that wax moth can be effectively control with adequate farm planing strategies in order to minimize the spread of moth.

BEEKEEPING IN PORTUGAL. AN UPDATED OVERVIEW FOCUSED ON COPING WITH VARROA

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In Portugal, there are no official, statistically validated, records that can allow an objective data-based analysis of the national beekeeping sector. This was the first study that set out to try a first nationwide characterization of beekeepers and beekeeping operations most frequently carried out in the context of our apiculture, particularly the type of operations expected to impose some selection pressure on national populations of varroa. The starting point of this project (2003) was the package of approximately 1200 interviews/enquiries carried out/answered by beekeepers well distributed across the whole continental part of the country. As a very superficial overview of the obtained results, we can say that:

- The Portuguese beekeeper is, on average, a 56 years old male;
- Most beekeepers (62%) have less than 4 years of official general education and their level of specific beekeeping training is, at best, very deficient;
- Each beekeeper has a mean number of 2 apiaries, were circa 48 colonies are kept. The 2 most used hive models are country-specific ("Lusitana" in the north, and "Reversivel" in the southern part of Portugal), followed by Langstroth hives. It is not rare to find beekeepers that build their own hives;
- Treatments against Varroa have been based on Apivar (43%), Apistan (26%), Klartan (17%) and the Acadrex (10%). Other substances are becoming increasingly more frequently used, such as the alarming Supona (chlorfenvinphos) or the welcome timol;
- On average, 2 annual treatments against varroa are introduced into honey bee colonies for 4 to 6 weeks, predominantly between January/March and later on in July/September (after honey harvest); and
- Most beekeepers (83%) annually replace 3 old drawn combs by newer wax foundations sheets, particularly during spring time.

ACTIVITIES INVOLVED IN APIS MELLIFERA HYGIENIC BEHAVIOR IN PRESENCE OF BROOD AFFECTED BY ASCOSPHERA APIS

No 452

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Hygienic behavior of honeybees involves cell uncapping and affected brood cell removal from comb. The objective of this work was to study the activities performed by honeybees of different ages on cells containing brood affected by *Ascosphaera apis* in hygienic (H) and non-hygienic (NH) colonies. Four observation hives (two H and two NH) were used. Emerging honeybees were numerated and introduced in observation hives. Pieces of comb containing mummies obtained by inoculation with *A. apis* spores were introduced in each observations hive (H and NH) and the cells were filmed. Observer Video-Pro was used for analyses. It was registered the frequency of numbered honeybees doing different activities on cells with mummies. Inspection, Uncapping, Removing and Inactivity were considered. Honeybees age, frequency and duration of activity were analyzed. Honeybee age was analyzed with a t-test. Percentage of honeybees performing an activity were compared with a Chi-square test. The average age of honeybees performing inspection was 15 and 16 days for uncapping and removing and no difference was detected between H and NH colonies. Percentage of bees that performed hygienic activities was higher in H colonies ($p < 0,0001$). The average frequency of inspection, uncapping and removal by a single bee was greater in NH colonies. Honeybees that were registered uncapping and removing brood in NH colonies performed more than one visit to the cells more frequently than in NH colonies ($p = 0,0159$ for uncapping and $p = 0,1650$ for removal). Time invested for each bee to uncapping ($p = 0,0012$) and removal ($p = 0,0206$) was greater in NH colonies. From a total amount of 67 mummies, H colonies removed 98 % and NH 70 %. Filming allowed to describe the sequence of hygienic behavior.

HONEY MONITORING FOR PAENIBACILLUS LARVAE SUBSP. LARVAE SPORES IN THE STATE OF RIO GRANDE DO SUL, BRAZIL - 2003 TO 2004

No 453

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