



College : Faculty of Agriculture	Department : Economic Entomology	Cal No. :
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Dissertation Title COMPARATIVE STUDIES ON SOME SECONDARY PRODUCTS IN DIFFERENT RACES		
Dissertation Abstract (One page A4)		
<p>In the present investigation, comparative studies were carried out between the three races , Carniolan, Italian and F1 Italian hybrid and their secondary products such as pollen grains, propolis and wax in addition to honey which is the main product.</p> <p>These studies dealt with the efficiency of the three races and their promising characteristics. Certain biological, physiological and morphological aspects were considered concerning brood rearing activity, pollen and propolis gathering activity, wax secretion and honey production.</p> <p><u>1- Brood rearing activity</u></p> <ol style="list-style-type: none">1. Italian race was the outstanding race in worker brood production during the whole year, averaged 6101 square inch/colony/year. Meanwhile, Carniolan race produced 4395 sq. in/colony/year. On the other hand, F1 Italian was the inferior race, producing 3789 sq. in./colony/year.2. Three peaks of worker brood production had happened during the whole year. The first, the second and the third peak were in February, May and August, respectively- in accordance with the blooming of the main crops (Broad bean, Eucalyptus, Pea & Clover and Maize). <p><u>2- Stored pollen areas:</u></p> <ul style="list-style-type: none">• Italian race was outstanding in stored pollen activity, averaged 1354 sq. in./colony; contrary to F1 Italian which was the lowest races in production. As an illustration, insignificant differences between Italian and Carniolan races were noticed; in contrast, significant differences between both of (Carniolan and Italian) and F1 Italian were observed. <p><u>3- Pollen gathering activity:</u></p> <ol style="list-style-type: none">1- Italian race produced the highest amount of trapped pollen during the whole year, with an average 1697 gm./colony/year. Meanwhile, Carniolan race gave an average 1346 gm./colony/year. While, F1 Italian collected the lowest amount with an average 1213 gm./colony/year.2- All races recorded large amounts from maize, while recorded small amounts from pea. Italian bees collected highest amounts, 560, 480, 310, 267 and 80 gm/colony from maize, clover, broad bean, eucalyptus and pea, respectively. While, F1 Italian bees collected lowest amounts, 442, 362, 197, 161 and 51 gm/colony from the same sources, respectively. Insignificant differences between Carniolan and Italian bees in collecting the main pollen grains were found. <p><u>4- Propolis gathering activity:</u></p> <p>Propolis was gathered by three different methods, as the following: 1-Using wooden traps 2-Between frames 3- From feeders</p>		
Key words : (not more than Ten)		

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