EFFECT OF POLLEN SUBSTITUTES FEEDING ON SOME ACTIVITIES OF TWO HONEYBEE RACES

ABD EL SALAM, A. L.[1], I.S. EISSA [1], A.D.M. YOUSEF [1] AND R.A.H.MOHAMED[2]

1. Economic Entomology, Plant Protection Department, Fac.Agric., Al-Azhar Univ.
2. Sector of Production, ARC, Giza

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Abstract

The effect of pollen substitutes feeding on the activity of honeybee was investigated including two races: Fl Carniolan and Fl Italian honeybee. Some food materials of high protein, sugar, vitamins and minerals content locally available were used to increase colony population, pollen collection as well as honey and royal jelly production. The pollen substitutes were: A (chick pea), B (soybean). The results showed that there were no significant differences between honey productions in the two tested, races. The data showed that there was a significant differences between two treatment, A and B of Carniolan colonies, when the pollen gathering was studied, whereas there was no significant difference between all treatments in case of Italian colonies. There was a significant difference in royal jelly production among the tested pollen substitutes hives treatment of Carniolan and Italian colonies, while there were a significant differences between the two treatments in food consumption in the two-tested races in summer season.

INTRODUCTION

Supplementary feeding was developed by many investigators in order to increase the number of workers in the colony whenever needed to improve the productivity of commercial apiaries. Pollen, nectar and water are the usual diet of honeybee (Free, 1957). During a dearth period the number of bees colonies may decrease, adversely affecting the production of honey in the following season. Pollen substitute are often used to produce package bees, queens, and increase the number of foraging bees (Stanger & Laidlaw, 1974). Haydak (1967) found that soybean, dry milk and soybean flour makes adequate pollen substitute, but not equal pollen as feed bees. To overcome the shortage of pollen and nectar during the dearth period, various diets are provided as pollen substitute. A pollen substitute suggested by Steve (1981) consists of soybean flour (55%), sugar (25%), soybean (5%), milk powder (5%) and water (10%). There are various supplementary diets advocated and commercially available, but most appear to be variously nutritionally poor or