A STUDY ON THE ROLE OF SOME AGRICULTURAL WILD AND DOMESTIC VERTEBRATES AS TRANSMITTERS OF STORED PRODUCTS PESTS

BY

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B.Sc. Agric. Sc . (Entomology), Ain Shams University , 1998

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ABSTRACT

Tarek Sherif Hafez: A Study on the Role of Some Agricultural Wild and Domestic Vertebrates As Transmitters of Stored Products Pests. Unpublished M.Sc. thesis, Department of Plant Protection, Faculty of Agriculture, Ain Shams University, 2005.

Random samples of poultry food, litter and feather of chickens, ducks, pekeeny ducks, geese, pigeons and rabbits litter (domestic animals) and quails, rozella birds, zebra birds and cockatiel birds (wild animals) were collected monthly from poultry farms, farmer's houses and public houses at Giza, Qualubyia, and Minufyia Governorates during summer, autumn and winter of 2001. Mites belonging to twenty-seven families of four suborders; viz., Gamasida, Actinedida, Acaridida and Oribatida plus the hypopal stage of family Acaridae, were collected. The highest number of mites was collected from Qualubyia (22228.5 mites belonging to 21 families), followed by Minufyia (11380.6 mites belonging to 10 families) and Giza (6903.7 mites belonging to 13 families).

An average of 9110.4 mites (belonging to 22 families), 24367.5 mites (belonging to 21 families) and 7034.9 mites (belonging to 8 families) were extracted from samples collected during summer, autumn and winter, respectively.

The total number of mites associated with birds feather (chickens, ducks, pekeeny ducks, quails, goose and zebra birds) was 3854.8 mites, belonging to Acaridae, Ascidae, Cheyletidae, Glycyphagidae and Pyroglyphidae.

Mites associated with rabbits litter were as high as 9822.4 belonging to 14 families and the hypopal stage. The average number of mites associated with bird's litter was 26391.8 mites belonging to 25 families. Of these, an average of 3491.5 mites belonging to 7 families was associated with the wild birds. The total number of mites associated with litter of domestic birds was 22900.3 mites belonging to 25 families.

The average number of mites infesting poultry food (stored and leftover food) was 443.8 mites belonging to 6 families. Of these 48.8 mites belonging to two families (Cheyletidae and Acaridae) found associated with stored food. While 395 mites belonging to 6 families were found in leftover food. The highest number of mites recorded in the leftover food was 311 mites belonging to family Acaridae.

Declaration of the role of the animals under investigation and their habitat as a source of stored product mites also the dominance of occurrence of the recorded mite families were discussed in details.

Key words: poultry houses, agricultural wild vertebrates, agricultural domestic vertebrates, mites, gamasida, actinedida, acaridida, oribatida, litter, feather, stored food.

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