REPELLANCY EFFECT OF CERTAIN PLANT EXTRACTS AND OILS AGAINST HOUSE SPARROW BIRD AND HEAD INSECTS IN SORGHUM FIELDS.

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ABSTRACT

The efficacy of seven plant extracts and five plant oils were tested as repellents to house sparrow bird, *Passer domesticus niloticus* and three head worms; *Autoba (Eublemma) gayneri*, *Cryptoblabes gnidiella* and *Pyroderces simplex* on Dorado variety under field conditions in Sids Agric. Res. Station, Beni-Sueif Governorate during 2005 and 2006 seasons. This work revealed that, the bird damage was generally clearly higher for grains during the mature stage (8.6- 45.9%) than those of the dough stage (2.1-8.2%). The plant extracts and oils caused a grain yield protection from the bird damage as 36.3-69.7 and 27.4-81.2% as well as, in the same time decreased the insect numbers with about 3.8-100.0% during the two considered stages, respectively. The plant extracts showed a higher efficiency against the sparrow bird in the mature than in dough stage, the vise was happened with the oils. Effects of the plant extracts differed according to the insect species. In this respect, cumin WE was the best against all insects, depressed their populations, in general, with about 42.0-79.1 and 68.4- 100% in the two years, respectively. On the other side, the lowest efficiency was from wormwood AE (26.7- 34.0% decrease) and lupine WE (6.9-29.7%) in the first and second seasons, respectively. While the neemix oil, was relatively the strongest in the first year, depressed the insect population with about 38.7-54.9%, the lupine oil was the strongest in the second season (35.1-81.3%). Coriander oil showed the least effect, 3.8-53.2% depression only.

Key words: House sparrow bird; Head insects; Sorghum; Plant extracts; Oils.