EFFECTS OF DIFFERENT ATTRACTIVE SOURCES ON THE ABUNDANCE OF OLIVE PREDATORY ARTHROPODS AND POSSIBLE ENHANCEMENT OF THEIR ACTIVITY AS PREDATORS ON EGGS OF *PRAYS OLEAE* BERN.

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The aims of this work were to study the effects of different attractive sources on the abundance of predatory arthropods in an ecological olive grove and to quantify predation on eggs of the olive moth, *Prays oleae* Bern. as consequence of a potential enhancement of predators. The experimental work was done in 2003 in an olive grove of about 80 years located near Mirandela (Northeast of Portugal). The effect of different attractive sources (sugars, yeast autolysate, acid-hydrolyzed L-tryptophan, hydrolyzed protein, honey) - alone or in combination - were tested in eleven treatments. The sources were sprayed in two consecutive rows of trees on the interior side of the tree covering half of the canopy. The experiments were done at two times: the first was carried out on April 22nd in coincidence with the flower generation of the olive moth; the second was done on June 3rd in coincidence with the fruit generation. In this second experiment, only the most promising treatments were applied (5 in total). The effects of the sources on the abundance of predators were evaluated 3, 7 and 15 days after spraying by the beating technique. Predation on *P. oleae* eggs was evaluated by inspecting samples of flower clusters or fruits from 15 trees per treatment. The number of vital, hatched, parasitized, predated and dead eggs was counted. The data were analyzed by ANOVA following by Tukey multiple range test.

More than 5780 specimens were collected belonging to the orders Neuroptera, Heteroptera, Coleoptera and Aranea. The results suggest that L-tryptophan and hydrolyzed protein were attractive to the *Miridae* and *Coccinellidae* families, especially to the genus *Anthocoris*, *Deraeocoris*, *Rhizobius* and *Scymnus* with significantly differences between treatments. Chrysopidae were more abundant in the L-tryptophan treatments, but not significantly different. The predation rates on *P. oleae* eggs were higher in hydrolyzed protein ($p = 0.0011$) in comparison to the others treatments.