Tyrophagus putrescentiae AND Acarus sp. AS NEW ALTERNATIVE FOODS FOR JUVENILES OF Orius majusculus (HEMIPTERA, ANTHOCORIDAE) Tyrophagus putrescentiae E Acarus sp. COMO NOVO ALIMENTO ALTERNATIVO PARA A FASE IMATURA DE Orius majusculus (HEMIPTERA, ANTHOCORIDAE)

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The predator Orius majusculus is one of the most common natural enemies used for biological control of pests affecting vegetable crops, for example, trips, aphids and spider mites. It is an omnivore: immatures and adults can feed on different trophic levels. The density of this predator may be enhanced by the provision of alternative foods, especially when preys are scarce. Eggs of the moth Ephestia kuehniella have been extensively used as such an alternative food and have been suggested to improve the biological control of pests by O. majusculus. However, these eggs are expensive and here we aim to find cheaper alternative foods. We measured juvenile development and survival of the predator on five alternative foods: Artemia (food for small fish), pollen (from sweet corn), Tyrophagus putrescentiae, Carpoglyphus lactis and Acarus sp. The alternative foods were supplied *ad libitum*, three times a week. The newly hatched nymphs (L1) of predators were transferred individually to leaf discs of chrysanthemum (4.7 cm), which were kept in Petri dishes containing an agar solution and one of the alternative foods (control: no alternative food). We show that T. putrescentiae and Acarus sp. are as good a food source for juvenile survival of O. majusculus as is E. kuhniella. Artemia, pollen and C. lactis were less suitable food sources. These results demonstrate that alternative and cheaper foods can be used for juvenile development of this predator.

Key-word: Biocontrol, omnivore, thrips. Financial support: CNPq, FAPEMIG & CAPES.