

First successful mass rearing of Anthocorids (Heteroptera) on the Acarid Mould Mite, *Tyrophagus putrescentiae* SCHR. as new alternative prey

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It was noticed during summer 1989 and 1990 in Berlin that anthocorids were observed in some glass houses where thrips population became low or disappeared. This observation stimulated the idea of using certain species of the Family Anthocoridae, such as *Orius majesculus*, to control thrips in cultures under glass specially when infested with thrips in the flowers. Using natural preys (aphids or thrips or lepidopterous eggs) does not facilitate a mass production of the prey economically. We tested the mite, *Tyrophagus putrescentiae* as new laboratory prey for *O. majesculus* as well as for other anthocorid species. The predators completed their life cycle successfully on this prey within two weeks associated with low mortality among developmental stages. This prey could be easily produced in large numbers economically all over the year. Its production needs a very simple and inexpensive technique.

Start anthocorid material for the mass rearing was collected in summer from the following plants: thistle, *Cirsium arvense* (L.): stinging, *Urtica dioica* L. and mugwort, *Artemisia vulgaris* L.. The plants were vigorously shaken on large plates furnished with filter paper.

The fallen anthocorids were collected by means of an aspirator. Adults were separated from other developmental stages and transferred into special oviposition cages, while nymphs were transferred into rearing cages. Both adults and nymphs were supplied with sufficient numbers of different developmental stages of *T. putrescentiae* as prey grown on wheat bran. Wheat bran was provided to the cages as diet for the mite. This diet enables nymphs and adults of *Orius* spp. to crawl in between searching for the prey. Reaching adult stage, the flower bugs fly to the top of rearing units where they could be collected and transferred to oviposition cages. Eggs were inserted in different plant parts, also in wetted filter paper. They were collected twice a week and kept for hatching, thereafter in rearing cages.

The release of the anthocorids could be in all active stadia (adults and nymphs). The *Orius* spp. seemed to be effective in suppression of thrips populations in closed places where it can be released and colonized.