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Effects of Antimicrobial Agents on the Survival and Development of Larvae of Pimpla turionellae L. (Hymenoptera: Ichneumonidae) Reared on an Artificial Diet

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Abstract: The effects of 13 antimicrobial agents that have different structures and modes of action, on the survival and development of the hymenopterous endoparasitoid, Pimpla turionellae L., were investigated by rearing the larvae aseptically on chemically defined synthetic diets. These effects varied according to their kind and dietary levels. The agents tested exerted their effects generally during the post-larval development of the insect. The post-larval survival and development were negatively affected by most of the agents tested at certain levels. The antimicrobial agents tested also affected the larval development but had no significant effects on the larval survival of the insect. The larvae showed a wide tolerance against both the kind and dietary levels of the agents. None of the agents tested were toxic to the larvae. Sodium benzoate and nystatin at low levels had positive effects on the food consumption of the larvae.

Key Words: Pimpla turionellae, Antimicrobial agents, Insect, Endoparasitoid

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