



EFFECTS AND RISK ANALYSIS OF INSECTICIDES USED IN DUTCH AGRICULTURAL SYSTEMS ON NON- TARGET INSECTS

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Abstract

The possibility of insecticides playing a role in the decrease of common butterfly species and dragonfly species is reviewed in this study. A preliminary risk analysis was performed based on the current use of insecticides in the Netherlands and on toxicity data obtained from literature. Larvae of common Dutch butterflies proved to be extremely sensitive to insecticides currently used in Dutch agricultural systems. This risk analysis showed that larvae of butterflies in field margins would not survive a spray on nearby crop. Aquatic larvae of dragonfly species appear to be less sensitive to insecticides and are therefore better protected by risk limits for the aquatic environment. However, monitoring programs demonstrate that these risk limits are seriously being exceeded. This may result in concentrations that can be of risk for dragonfly species.

It is concluded that the current use of insecticides in the Netherlands is of potential risk for butterflies common in field margins.

Keywords: non-target-species, insects, insecticides, risk analysis, toxicity

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