



P92: THE SIDE EFFECTS OF INSECTICIDE EFFICIENT BIOCIDALS TO BENEFICIAL INSECTS

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Unaware usage of biocidal effects not only natural resources, environment and human health but also can damage beneficial insects which suppresses pests. Herein, the side effects of insecticide efficient biocidals to important beneficial insects was handled and measures on sustainable biocidal usages was discussed.

The side effects of Deltamethrin, Azadirachtin, Spinosad and Bacillus thuringiensis biocidals to certain important beneficial insects were evaluated with literature data.

Negative effects on natural enemies of biocidals can vary greatly depending on type of insect and active substance of biocidals. Besides the effects of death of the biocidal products in the natural enemies, negative effects at reproductive decline, reduced life expectancy, behavior of finding hosts and prey were determined experimentally in many studies. Many insecticides efficient biocidals which permitted to use in sustainable agriculture, caused to considerable side effects was also demonstrated in literature. Four biocidals used commonly were handled in this compilation. The maximum side effects to beneficial insects were determined in Spinosad followed by deltamethrin and azadirachtin. The minimum side effects to beneficial insects were determined in Bacillus thuringiensis.

Today the use of biocidals to solve the pest problem seems obligatory. However, taking into consideration as the only option the use of biocidals to solve the pest problem isn't the right approach. Many environmentally biocidals that are currently in use indicates significantly side effects. Side effects to beneficial insects should be taken into consideration in sustainable biocidal usages.

As a result of biological and behavioral studies, insecticides which indicate low side effects to beneficial insects will be proposed for sustainable pest control. So, protection of beneficial insects in ecosystem will be provided and so it will contribute to environment a sustainable pest control. Biocidal product usage needs expertness, for this reason required trainings should be given to biocidal operators.

Keywords: biocidal products, insecticide, beneficial insects, side effect