PRINCIPLES OF RISK ASSESMENT FOR BENEFICIAL FAUNA ON INTRODUCTION OF GM PLANTS

Summary

Greenhouse and laboratory experiments reported have included DKc307 maize cultivar with Cry 1Ab gene (MON 810) as the GM reference crop and cv. Monumental, its isogenic line as representative of the first trophic level and a) *Ephestia kuhniella* Zell. and its parasitoid *Venturia canescens*, b) *Rhopalosiphum padi* L. and parasitic *Aphidius colemani* Viereck as the second and third level relations.

No significant differences in larval survival of *E. kuhniella* on MON 810 flour in comparison to its non — GM isoline was observed, however, the average weight of larvae reared on MON 810 flour was significant lower. This effect did not affect the level of parasitation by *V. canescens*. The results clearly showed that grain and flour made of MON 810 during their storage should be less infected by the moth larvae and the role of parasitoid even stronger.

It was confirmed that Cry 1Ab toxin did not showed a toxic effect on *R. padi* aphids feeding on MON 810. In addition they developed higher (but not significantly) populations on the transgenic plants, both in the winter and summer greenhouse tests. Higher aphids' parasitation level by *A. colemani* was observed on MON 810 in the summer tests and on cv. Monumental in the winter bio-assays, indicating an effect of season on the tri-trophic relations.