

# Biodiversity of Epigeic Spiders in Genetically Modified (Bt) and Conventional (non-Bt) Potato Fields in Bulgaria

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**Abstract:** Investigations on epigeic spiders in potato fields were conducted in Bulgaria in 2000, 2001 and 2004. Pitfall traps were used to compare biodiversity of spiders in *Bacillus thuringiensis* (Bt), and conventional (non-Bt) potato cultivars. A total of 7128 individuals from 85 species of spiders were collected. The species *Titanoeca veteranica*, *Haplodrassus aenus*, *Chalcoscirtus nigrinus* and *Zodarion epirense* are new to the Bulgarian fauna. The species *Pardosa agrestis*, *Oedothorax apicatus*, *Trichoncoides piscator*, *Araeoncus humilis*, *Erigone dentipalpis* and *Meioneta rurestris* are present in all years, at all fields of investigations. *Pardosa agrestis* represented 79 – 84% of all spider species in 2000 and 2004. No negative effect of Bt potatoes on spiders could be detected. The insecticidal treatments in non-Bt cultivars also had no direct effect on epigeic spiders. The analyses of data confirmed the hypothesis of similarity of the epigeic spider's fauna in Bt and non-Bt potato fields.

**Key-words:** spiders, Bt potatoes, non-Bt potatoes, insecticides