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Abstracts: Poster

4.12.P Interactions between *Bombus terrestris* and glyphosate-treated plants: are bees at risk of herbicide exposure?

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Abstract

Exposure to agricultural pesticides is often cited as one of the primary drivers of pollinator decline. Most of the research has been focused on the impacts of insecticides but herbicides have been receiving more attention for their potential implications for bee health. However, little is known about how pollinators are being exposed to herbicides, whether it is through direct contact with herbicides during spraying, foraging on herbicide-treated plants or contact with herbicide residues within the wider environment. We examined the interactions between bumble bees (*Bombus terrestris*) and herbicide-treated plants, comparing behavior of bees when offered a choice between glyphosate-treated and untreated plants. We aimed to determine whether bees avoid herbicide-treated plants, thus reducing their potential exposure to herbicides.

Individual foragers were released into an exclusion cage containing four *Phacelia tanacetifolia* plants: two sprayed with glyphosate and two untreated plants. We measured the frequency and duration of nectar feeding, pollen collecting and investigation (inspection but not foraging) of plants. We tested interactions between the bumble bees and plants which had been freshly sprayed (within 24 hours) and again once the glyphosate had begun to translocate within the plant – but before any significant physical effects began to appear (48 hours). Here, we present the preliminary results from this study.