

CONFORMITY OF LAVENDER FLOWERS AND SUNFLOWER ON PESTICIDE RESIDUES FOR ORGANIC BEEKEEPING

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Abstract

*The purpose of this scientific paper was to investigate the conformity of lavender and sunflower flowers in industrial agricultural fields, on the content of pesticide residues, for the practice of organic beekeeping. Scientific research was conducted in the Beekeeping Laboratory of the Institute of Zoology of the Academy of Sciences of the Republic of Moldova. In order to assess the conformity of honey flowers, regarding the content of pesticide residues, in order to practice organic beekeeping, lavender flowers (*Lavandula angustifolia*) and sunflower (*Helianthus annuus*) collected from industrial agricultural fields were researched. The results of the research showed that the site (field) with flowering lavender, researched by us, is compliant, in terms of pesticide residue content in the flowers of this etheric crop, and can be used for beekeeping and obtaining organic bee products, because neither in one of the flower samples tested did not detect any detectable residue concentrations of the 63 pesticides investigated. Based on this research we can predict that other lavender fields could be suitable for organic beekeeping, because the treatment of this etheric agricultural crop uses a small number of pesticides with low frequency of treatment. The site (field) with sunflower, researched by us, was heavily polluted with residues of some dangerous pesticides (Tiametoxam) in concentrations that exceed the MPL of EU norms by 82%. Therefore, the sunflower field is considered unsuitable for organic beekeeping and poses a danger of intoxication for both pollinators, especially honey bees and humans. Based on these, as well as other previous research, we can predict that other sunflower fields can be polluted with pesticide residues, being unsuitable for organic beekeeping, because in the treatment of this oily crop is often used a string of systemic pesticides.*

Key words: conformity, lavender, sunflower, residues, pesticides, organic beekeeping