





## SUNFLOWER AND BEES: A VALUABLE LINK FOR AGRICULTURE AND BIODIVERSITY

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Organic oilseed crops are playing an increasingly important role in sustainable agricultural systems, with sunflower occupying a prominent position among them. This growing interest is driven both by the demand for healthy and eco-friendly products and by the search for plant-based protein sources as alternatives to meat, capable of meeting the needs of an ever-growing global population. Sunflower provides not only oil but also press cake, a protein-rich by-product currently used mainly for animal feed, which could potentially become a resource for human nutrition in the future.

In the Marche region, sunflower is an integral part of the agricultural landscape: a crop that adapts well to water-poor soils, is useful in crop rotations, is closely tied to local agricultural traditions, and has high scenic value. But its importance goes beyond agronomy: sunflower is also a melliferous plant, providing valuable nectar and pollen for bees, which are essential for honey production and colony health.

In recent years, however, the beekeeping sector has faced increasing challenges. The use of pesticides, the spread of parasites and pathogens, climate change, and the reduction of floral resources put bees under significant stress, particularly during the summer months when spontaneous blooms are scarce. Beekeepers are often forced to resort to migratory practices or supplemental feeding to ensure hive survival.

Sunflower could play a key role in this context, thanks to its summer flowering period, which coincides with a "dearth" period for pollinators. However, modern hybrid varieties, selected for oil yield, appear to provide less nectar than traditional accessions, thus limiting honey production. For this reason, the recovery and valorization of traditional sunflower varieties could represent a winning strategy: they would increase plant biodiversity, improve the resources available to bees, and strengthen the sustainability of organic agriculture.

In a region like Marche, where beekeeping encompasses thousands of hives and is recognized by regional law as a fundamental activity for biodiversity and landscape protection, integrating the needs of farmers and beekeepers becomes a priority. In this sense, sunflower stands out as a symbolic crop: not only for the oil it produces but also for its contribution to the vitality of rural ecosystems.

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