

# Organic Production – Protection and Increase of Biodiversity

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An indigenous biodiversity is very important for ecosystem stability and productivity. In the last few decades biodiversity intensive degradation is predominantly the result of exhaustive agricultural production practices. Habitat destruction, efforts to achieve uniformity at all levels, the implementation of tight crop rotation and excessive use of synthetic substances (fertilizers, pesticides and other) in agriculture affected the loss of biodiversity in ecosystems (Ugrenović et al., 2012).

In the beginning of the organic farming system development, biodiversity was considered one of the key issues, as important as soil fertility (Haas, 2012). Application of the organic production methods protects and enhances biodiversity: conserving local populations, introducing less represented species in production, introducing wider crop rotation (increase of biodiversity in time), using cover crops, intercropping and caving floral belts. Compared to conventional farms, the increase in biodiversity at organic farms is about 35% (Gabriel et al., 2013). Important functional groups: plants, beneficial insects (pollinators, predators, parasitoids) and micro-organisms, are getting more prevalent in organic production, thus encouraging ecosystem services, such as pest control (Krauss, et al., 2011), providing nitrogen with symbiotic nitrogen fixation (Ugrenović & Filipović 2017; Popović et al., 2019). Such an understanding of biodiversity protection and promotion for the organic producer is a logical and economically reasonable approach, which makes it more competitive and more sustainable.

To prevent the loss of biodiversity and ecosystem degradation, the EU in 2011 published an „EU Biodiversity Conservation Strategy to 2020” aimed at „restoring lost biodiversity and accelerating the EU's transition to a resource efficient and green economy”.

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Figure 1: The erosion of biodiversity by agricultural intensification (Photo by: Ugrenović, 2008).



Figure 2: Destruction of cover crop mustard of roller (Photo by: Ugrenović, 2019).



Figure 3: Floral belt at the organic agriculture (Photo by: Ugrenović, 2018).



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