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The Effects of Herbicides on the Soil Environment in Horticulture

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Message from the Guest Editor

Dear Colleagues,

The use of plant protection products is an essential part of horticulture. This reduces the competitive growth of weeds and the development of many diseases. Irrespective of the dosage method, the active substances in plant protection products reach the soil in varying amounts. Once in the soil, xenobiotics undergo various processes including sorption, migration, leaching, degradation, and biotransformation. Their presence in the soil environment undoubtedly affects the functioning of the ecosystem. They may affect changes in the population of microorganisms living in the place of entry of the compound, but they also influence the bioavailability of micro- and macro-elements, seed germination, the development of new plants, and the condition of bushes and fruit trees.

This SI will focus on evaluating the effects of residual herbicide compounds in soil on seed germination and crop development. In addition, very important aspects are the penetration of active substances into plants and the evaluation of changes in basic metabolic parameters, which make it possible to determine the level of oxidative stress caused by the presence of a chemical in the plant.









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Message from the Editor-in-Chief

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