



Carryover and Dissipation of Imidazolinone Herbicides Application and their Effect on Succeeding Following Crops: A Review

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Abstract: The persistence of herbicides in the soil depends on numerous factors such as organic matter, soil pH, herbicides doses, soil temperature, and soil moisture. These factors are responsible for rapid degradation of herbicides in soil. These residues are damaging non-tolerant crops cultivated in succession. Imidazolinone has a long persistence in the soil, which can cause phytotoxicity damage in non-tolerant crops, contaminate surface, and groundwater sources. The restricted knowledge, the lack of warning, and periods of limitations in the instructions for use of herbicides sold for sensitive crops grown in succession lead to the occurrence of a major damage to most cultivation fields. Imidazolinone residues in the soil which can cause unacceptable injury, in vegetable or others crops, can also decrease plants growth and productivity; leading to more heavy loss that may lead the farmer to leave his land. This review aims to elucidate information pertaining to imidazolinone herbicides residues, to explain the carryover effect in most vegetable crops, to understand the conspecific nature resistance mechanism, and to point out some sustainable techniques for the shift down imidazolinone herbicides residues in the soil.

Keywords: Imidazolinone, Carry over, Residues, Herbicide, Environment
