Special Issue

Current and Future Technologies for Improving and Re-establishing Mechanical and Low-Input Weed Control

Message from the Guest Editors

Mechanical weed control has been used for centuries. Its labor intensity, combined with its small application window, has decreased its benefits compared with other methods such as herbicides. Nowadays, interest in mechanical weed control has been re-established. It can be used as an alternative to reduce the in-field chemical inputs and residues in the food chain, which are demanded by both society and legislation. It can also be a tool for reducing herbicide resistance weed populations and, under the proper usage, improve the soil characteristics during the cultivation period. New technologies, such as sensor information, advanced recognition systems, big data, and neural networks also have applications in mechanical weed control. Robotic implements and swarms of robots can also be used for that purpose. In this Special Issue, we invite the submission related to the utilization of novel methodologies and new technologies for mechanical weed control and other purposes related to decreasing the use of chemicals. The usage of different perception and actuation technologies for improving mechanical weed control and its integration into farm management are also welcome.

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