

Special Issue

Smart Spraying Technology in Orchards: Innovation and Application

Message from the Guest Editors

This Special Issue explores how smart spraying technology, driven by sensor and image recognition systems, can revolutionize orchard management by optimizing pesticide use, minimizing environmental impact, and ensuring the quality and safety of agricultural products. By enabling real-time monitoring of orchard environments, pest infestations, and disease outbreaks, smart spraying technology allows for precise, targeted applications that reduce pesticide residues and waste, ensuring effective deposition on fruit tree targets. This Issue will focus on the latest innovations and evaluations of smart spraying systems, with a particular emphasis on improving the efficiency of pest and disease monitoring, reducing application volumes, and enhancing precision. We welcome interdisciplinary research spanning agriculture, agricultural machinery, artificial intelligence, and botany. Contributions may address the development and application of smart spraying technologies, the assessment of environmental impacts, and the effectiveness of these technologies across various fruit tree species. Topics may also include IoT- and big data-based spraying management.

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Message from the Editor-in-Chief

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