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Design and Development of Smart Crop Protection Equipment

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Message from the Guest Editors

The application of crop protection equipment to spray chemical pesticides can significantly improve agricultural production efficiency, reduce manual labor intensity, and minimize the harm of pesticides to people. Based on the rapid development of information technology, plant phenotype, and advanced manufacturing, smart crop protection equipment is formed by deeply integrating emerging technologies such as big data, remote sensing, and artificial intelligence with the development of agricultural equipment.

This Special Issue aims to introduce innovative theories, methods and applications of smart crop protection technology and equipment. Topics of interest include, but are not limited to, the following: efficient and precise pesticide spraying technology and equipment; droplet deposition and drift control; construction and simulation of spray numerical model; remote sensing detection of crops, pests, diseases, and weeds; pesticide spraying decision; key components for precise spraying; crop protection robot; crop protection UAV and low-altitude and low-volume aerial pesticide application; low carbon drive and multi-machine collaboration for crop protection equipment; etc.

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Message from the Editor-in-Chief

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