Special Issue

Remote Sensing Applications for Pest Detection in Agriculture

Message from the Guest Editor

Pests, including weeds and invertebrate pests, are the major source of crop yield loss worldwide. Weeds compete with crops for nutrients and water. Invertebrate pests, such as locusts, aphids and snails, consume corps and spread disease. Effective control of pest is critical for maximising crop yields and meeting quality standards at harvest. However, currently, the agricultural industry is highly reliant on "broad-spectrum" pesticides to control pests. As a result, the overuse of pesticides has resulted in pests developing resistance to pesticides. It also pollutes our environment and threatens food safety. In precision agriculture, if the location, time, species and populations of pests in the fields were available, instead of heavily relying upon pesticide, site specific weed management (SSWM) or integrated pest management (IPM) would use the optimized combination of mechanical, chemical, biological and genetic tools to control pests. Therefore, pest detection is a prerequisite of SSWM and IPM.

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Message from the Editor-in-Chief

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