

Special Issue

Recent Trends towards Genetics-Based Methods for Pest Management in Agroecosystems

Message from the Guest Editors

In agro-ecosystems, many insects are key pests that cause serious economic losses to agricultural production. Therefore, pest management is crucial for protecting food security. Conventional control methods, particularly the use of chemical insecticides, have often failed to prevent the enormous damage caused by insect pests. As a result, genetics-based methods for pest management have been developed as alternative control to chemical insecticides. This Special Issue covers a range of topics related to genetics-based methods or techniques for pest management in agroecosystems. It includes the development of insect-resistant genetically modified (IRGM) crops using techniques such as RNAi, CRISPR/Cas9 editing, or other genetically modified methods. The Special Issue also explores the control efficacy and ecological risks of IRGM crops in field applications, as well as the use of genetic diversity in insect-resistant crops for pest management. This Special Issue welcomes all kinds of papers related to genetics-based methods for pest management, including research articles, short communications, reviews, and method introductions.

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Editor-in-Chief

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