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Insect Dynamics: Modeling in Insect Pest Management

Guest Editor:

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Message from the Guest Editor

Dear Colleagues,

Insect pests share a common attribute. Their densities and genetic profiles often change rapidly in space and time. Management tactics that ignore this feature of their life histories are usually based upon unidimensional tactics, such as the sole use of pesticides, which are not integrated with cultural, biological, or behavioral methods of control and are certain to fail in the long term.

This Special Issue is focused on the use of modeling, specifically, conceptual, statistical, numerical, or simulation methods that provide the basis for a more integrated and sustainable pest management system either for a single pest or a complex of several pests associated with an agroecosystem.

Submitted papers should present the ecological background and pest dynamics that are integral to the focal pest or pests and then describe the modeling approach used to investigate pest dynamics from a management perspective. The results are expected to enhance or design a new sustainable pest management strategy or provide a new view of the pest dynamics that may aid in future pest management tactics.



