

Special Issue

Vector-Borne Plant Pathogens: Evolutionary, Ecological, and Molecular Insights into Tritrophic Associations

Message from the Guest Editors

Novel plant diseases represent a growing threat to global food security, yet the ecological and evolutionary mechanisms driving plant disease emergence remain poorly understood. Vector-borne pathogens often have higher transmission rates because their insect vectors can move rapidly between susceptible hosts across wide geographic areas. This increased mobility enhances exposure to new potential hosts, increasing the likelihood of host switching and disease emergence. This Special Issue aims to review the current state of knowledge on the ecology and evolution of vector-borne plant pathogens, including the molecular constraints and drivers of diversification in these complex associations.

We welcome a variety of contributions, including studies on the regional diversity of pathogen–vector–plant associations, the molecular determinants of vector or plant–pathogen interactions, and pathogen-induced host manipulation and its role in promoting host shifts and disease emergence, as well as research conducted in both agroecosystems and natural environments.

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Editor-in-Chief

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