

## Special Issue

# Application of Essential Oils and Terpenoids in Weed, Pest and Plant Disease Control

### Message from the Guest Editor

Synthetic pesticides have been widely used to increase crop yield by reducing competition from weeds and pests. However, concerns about their environmental and health impacts have arisen. The terpenoids are naturally occurring compounds with potent pest-suppressing properties. These compounds, show promise as natural, sustainable alternatives to synthetic herbicides for pest control. This Special Issue aims to highlight the role of essential oils and terpenoids in integrated pest management (IPM) as sustainable alternatives to synthetic pesticides. It explores how these natural compounds, derived from plant secondary metabolism, can be used to control a range of pests. This Special Issue also aims to explore encapsulation technologies, which enhance the stability and controlled release of essential oils, and the mechanisms through which essential oils and terpenoids exert their effects, boosting their potential as bioherbicides, bioinsecticides, and bio fungicides. We invite original research articles or review articles presenting novel findings on the use of essential oils and terpenoids for controlling weeds, pests, and plant diseases in the field.

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### Guest Editor

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### Deadline for manuscript submissions

closed (30 November 2025)



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### Editor-in-Chief

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