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MS Chem I

Allelochemicals: Nature's Untapped Herbicides

ABSTRACT

Allelopathy refers to the beneficial or harmful effects of one plant on another plant, both crop and weed species, by the release of chemicals called allelochemicals from plant parts. Commonly cited effects of allelopathy include reduced seed germination and seedling growth. Like

compounds, flavonoids, terpenoids, alkaloids, steroids, carbohydrates, and amino acids, with mixtures of different compounds sometimes having a greater allelopathic effect than individual compounds alone. Although derived from plants, allelochemicals may be more biodegradable than traditional herbicides but may also have undesirable effects on non target species, necessitating ecological studies before widespread use. For these reasons, this research is geared to probe on the nature of allelochemicals, introduce the concept of allelopathy and allelochemistry, investigate the action of these chemicals in known sites of action, cite specific examples and, mention potential applications as an alternative weed management strategy.

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