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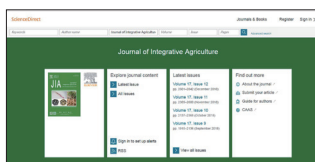
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**COVER**



Biofumigation is an increasingly viable method for the control of plant-parasitic nematodes (PPNs) and offers an alternative to synthetic nematicides, including methyl bromide. PPNs damage crop yield and quality worldwide, with the financial toll of the pest estimated to be more than US\$100 billion annually. The process of biofumigation acts through the growth and incorporation of specific plant material, often sourced from the *Brassicaceae* family, into the soil, where plants or plant byproducts release nematotoxic isothiocyanates. Cover photo demonstrates one method of biofumigation control of PPNs. In this example, a biofumigant crop is grown to an optimal life stage, macerated to release glucosinolates and myrosinase, and then tilled under to break down and release glucosinolate hydrolysis products. The illustration was provided by Rebecca Brennan from the University of Massachusetts Amherst, USA. See pages 1680–1690 for a review article evaluating research endeavors exploring the utility of biofumigation and seeking to provide a cost-benefit assessment of the status of biofumigation for the control of PPNs.