CULTURAL METHODS FOR MANAGING NEMATODES ON ANNUAL CROPS IN CALIFORNIA

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A review of the literature indicates that previous generations of nematologists were all too happy to abandon or minimize research on cultural methods of nematode management in favor of working with the more successful soil fumigants. For example, in 1961, Gerald Thorne wrote in 'Principles of Nematology': "Those of us who had spent many years attempting to control nematodes by crop-rotation and cultural methods, often with futile, discouraging results, now realized the satisfaction of recommending D-D and EBD for the control of nematodes." Owing to the loss or restriction of use of nematicides, the use of cultural methods for nematode management has seen a resurgence of interest in recent years. Are we reinventing the wheel, or do we know something that Gerald Thorne didn't? The development of molecular techniques for identification of plant-parasitic nematodes to species, online databases to rapidly search out nematode resistant crops, computerized soil temperature monitoring equipment, computer models for calculating nematode degree days, and a greater understanding of nematode biology and population dynamics offer new tools to fine tune the use of cultural methods in certain nematode management scenarios.