

BIONEM – AN EFFECTIVE BIOLOGICAL PESTICIDE FOR THE CONTROL OF ROOT KNOT NEMATODES

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The ban of Methyl Bromide leaves growers with a serious problem of Root Knot Nematodes (RKN) in economically important crops. Many of the current alternatives are less effective against RKN, and some are highly toxic. Therefore, there is a need for effective, yet environmentally safe nematicides.

BioNem is a biological nematicide, based on a naturally occurring isolate of the bacteria *Bacillus firmus*, supplemented with non toxic additives. The powder formulation is stable at ambient conditions for at least two years. It is applied before planting in the planting row, and activated by irrigation.

The effectiveness of the biological product has been tested over several years under commercial field conditions on several crops including tomatoes, cucumbers, pepper and basil. BioNem applications reduced RKN infection and increased yield and plant growth when compared to the non treated control. The effect was comparable to that of much more toxic, chemical nematicides.

The product may be implemented in IPM programs for the control of soil borne pathogens. When preceded by an efficient control of fungal pathogens, nematode control by BioNem was found comparable with that of current fumigation agents.

BioNem is registered and marketed in Israel and registration is pending in additional countries. Suitable formulation of the same bacteria fulfilling the requirements of Organic Farming is registered and marketed in Israel under the name BioSafe.

Current efforts are directed to the development of a formulation that is suitable for application through the irrigation system, throughout the growing season.