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(54) Title: BIOLOGICAL INSECT CONTROL AGENTS EXPRESSING INSECT-SPECIFIC MITE TOXIN GENES, METHODS AND COMPOSITIONS

(57) Abstract

Provided herein are genetically engineered baculoviruses which express insect-specific toxins, preferably paralytic neurotoxins, under the regulatory control of strong promoters expressed early after infection and in a wide variety of insect cells. Particularly preferred insect-specific paralytic neurotoxins are those of insect-predacious mites, including *Pyemotes*. The genetically engineered baculoviruses of the present invention are improved over prior art viruses in that they produce efficacious insect-toxic levels of the neurotoxin at earlier times after infection, particularly in comparison to baculoviruses in which the toxin is expressed under the control of a polyhedrin or granulin promoter. Insect-toxic compositions are also provided and methods of insect control using these compositions are described.