Parasitism of *Cotesia plutellae* Enhanced AcMNPV Pathogenesis Against Diamondback Moth, *Plutella xylostella*

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An endoparasitoid wasp, *Cotesia plutellae*, has been known as an effective biological control agent against diamondback moth, *Plutella xylostella*. When the wasps parasitize *P. xylostella*, they induce host physiological alterations such as antimetamorphosis and immunodepression. We hypothesized that the parasitized *P. xylostella* is in immunodepressive state and susceptible to other pathogenic agents including baculovirus. When orally fed with *Autographa californica* multi-capsid nucleo-polyhedrovirus (AcMNPV), the parasitized *P. xylostella* exhibited significantly more susceptible than the non-parasitized. To explain the depressed antiviral capacity after parasitization, we are now analyzing immune responses of *P. xylostella* in response to AcMNPV.

Key words: *Cotesia plutellae*, *Plutella xylostella*, AcMNPV, parasitism, immune