

Insecticidal and Antifeeding Activities of Cordycepin Derived from Natural *Cordyceps militaris* Fruit-body

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The insecticidal and antifeeding activities of *Plutella xylostella* (L.) to natural *Cordyceps militaris* Link. Pt. (Ascomycotina: Clavicipitaceae) cultured on pupae of *Bombyx mori* L. (Lepidoptera: Bombycidae) were examined using leaf-dipping bioassay. The insecticidal and antifeeding activities were much more pronounced in the *Cordyceps* fruitbody than in the silkworm pupae. The biologically active constituent of the *Cordyceps* fruitbody was characterized as cordycepin (3'-deoxyadenosine) by spectroscopic analysis. In a test with the larvae, cordycepin gave 100% mortality at 1000 and 800 ppm, respectively. This compound revealed potent and moderate antifeeding activity at 1000 and 600 ppm, respectively. The *Cordyceps* fruitbody merit further study as potential insect-control agents.

