

**Control Efficacy of Entomopathogenic Nematode,
Steinernema carpocapsae Weiser against Tobacco cutworm,
Spodoptera litura Fabricius and Beet armyworm,
Spodoptera exigua Hübner on Chinese Cabbage under
Greenhouse and Field Conditions**

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Tobacco cutworm (TC), *Spodoptera litura* Fabricius, and beet armyworm (BA), *Spodoptera exigua* Hubner, are well known polyphagous insect pests which give serious damage on vegetables and ornamental plants throughout the world. Those have become major insect pests on almost upland crops since middle 1980's in Korea. The larvae of those insects are very difficult to control because of its high resistance to insecticides except during their early stages. For developing environmental friendly control method of those insects for agricultural safely production, control efficacy of entomopathogenic nematode, *Steinernema carpocapsae* (SC) Weiser, was evaluated on the larvae of TC and BA of Chinese cabbage at different spraying times under greenhouse and open field conditions in Milyang. Control efficacies of SC against TC under greenhouse were in the range of 58 to 93% during late July to late September, and 38 to 64% during early October to late October. Control efficacies, however, of SC against TC at field condition were in the range of 60 to 90% during late July to late September, and 39 to 52% at early October. On the other hand, control efficacies of SC against BA between greenhouse and field were 79 to 94% and 73 to 90% during late August to late September, and 51% and 42% at early October, respectively. Accordingly, SC was very effective to control both TC and BA although their control efficacies were significantly depending upon air temperature while was not effective in the control of CW. Therefore, SC was considered as promising biological control agent against TC and BA during middle summer to middle fall seasons in Korea.