

Vertical Distribution of *Harmonia axyridis* (Pallas) Relative to Prey Aphid Distribution on Cucumber Plant

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Harmonia axyridis (Pallas) is a promising candidate as a biological control agent of aphids in Korea. Using *H. axyridis* field-collected and maintained in the laboratory ($25\pm 2^{\circ}\text{C}$, RH 40~60%, L:D 16:8), controlling effect and vertical distribution relative to prey aphid distribution on cucumber (*Cucumis sativus* var. winter long L.) were studied.

Each cucumber plant was allowed to infestation by 15 adult *A. gossypii* from the early stage and eggs of *H. axyridis* were released by different density (1) no release, (2) 20 eggs per plant, (3) 40 eggs per plant, (4) 60 eggs per cucumber plant within each treatment.

Hatched *H. axyridis* larva correlated their distribution with *A. gossypii* densities and vertical distribution, moving from lower leaves to upper leaves. There was controlling effect of prey density only in treatment of 60 eggs released per cucumber plant and showed low intrinsic increase rates of aphids. But could not control prey in low density for a long time.

Implement of biological control using *H. axyridis* against aphids in Korean field or greenhouse agriculture are further discussed.