

# Identification of Sex Pheromone from the Beet Armyworm, *Spodoptera exigua* (Lepidoptera: Noctuidae) in Korea

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The pheromone gland of the beet armyworm, *Spodoptera exigua*, a major pest on vegetables in Korea, was extracted during their calling period (about 3 hours after lights-off). Their GC analysis revealed the following 2 compounds: (*Z,E*)-9,12-tetradecadienyl acetate (*Z9E12*-14:Ac) and (*Z*)-9-tetradecen-1-ol (*Z9*-14:OH). Electroantennogram(EAG) assay revealed their biological activity.

Field trapping experiments were carried out to screen the best blend, in attracting male moths, from 10:00 to 0:10 of *Z9E12*-14:Ac and *Z9*-14:OH, during 2000. The 7:3 blend was found to be the most effective.

To elucidate a synergistic effect of *Z11*-16:Ac to male moths attracting, its different amounts (7:3:0, 7:3:1, 7:3:5, 7:3:10, 7:3:20) were set out in a welsh onion field. Of five amounts, 7:3:1 and 7:3:5 were found to be more effective than others, without any meaningful significant. *S. exigua* was attracted from 21:00 to 07:00, the peak of attracting time was from 03:00 to 05:00 in early morning.