

〈 Summary 〉

Purpose& Contents	<p>In order to select an insecticide for bee vectoring use, the toxicity of several commercialized insecticides were tested to <i>Nesidiocoris tenuis</i> and <i>Orius strigicollis</i> adults under laboratory conditions. Most insecticides showed low toxicity and also gave less than 10% mortality against <i>Bombus pascuorum</i> workers. Especially, microbial biopesticides such as <i>Bacillus thuringiensis</i> subsp. <i>aizawai</i> NTO423 and <i>Bacillus thuringiensis</i> var. <i>kurstaki</i> were selected for bee vectoring use because of their low toxicity. In a tomato green house, the biopesticides showed more than 42% mortality against <i>Spodoptera litura</i> larvae on middle height tomato leaves but the efficacy was decreased when they were applied to top or lower leaves. After the insecticides were introduced into a distribution device, the behaviors of <i>B. pascuorum</i> workers were observed.</p>
Results	<p>We investigated the insect pests with visual inspection, sex pheromone trap, yellow sticky trap etc, which occur in farm weekend where the major vegetables are hot pepper, chinese cabbage, tomato, potato, eggplant, lettuce etc. The major insect pests in hot pepper are aphids, thrips, tobacco budworm, white fly, leaf mite, leaf miner etc. In addition, the major insects on tomato are aphids, thrips, tobacco budworm, white fly, leaf mite, and leaf miner, and in eggplant are leaf mite, white fly, aphids, 28-spotted potato ladybirds etc. Leaf mite has conformed peak density in the middle September and the middle October. In the case of white fly is in the middle August and middle September. Peak density of Aphid is in the middle October. In case of the 28-spotted potato ladybirds are from late July to late August. The general insect pests in lettuce are aphids, thrips, and white fly. Peak density of each pests are like this. Aphids is early June and early July, thrips are late July and early August, white fly is early October. But there are a little insect pest in lettuce grown in open field. The major pests of chinese cabbage is aphid, striped cabbage</p>