

Developing mating disruptant of *Grapholita molesta*

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Mating disruption for insect prevention has been considered as Integrated Pest Management (IPM) all over the world. From above that, the artificial synthetic pheromone was used to attract male of insect that mistake that with real female pheromone. *Grapholita Molesta* (GM) is one of the major insects that lead to deterioration in fruit quality. In this study, mating disruption device was prepared for their fundamental prevention by designing controlled release device of GM pheromone. Wax materials and polymer films were used as dispenser material and the release pattern of the pheromone was observed at 30°C.

According to a reference, the minimum reaction amount of male insect affected from female pheromone is 0.908 $\mu\text{g}/\text{cm}^2/\text{day}$. Therefore, the quality of material as delivery device could be determined based on pheromone release pattern in each of polymer films. Also, UV block reagent was used for photostability considering degradation against climate change.

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