

Field Evaluation of Synthetic Pheromone Blends of the Rice Leaffolder Moth, *Cnaphalocrocis medinalis* (Lepidoptera: Crambidae)¹

Chung-Ta Liao² and Chau-Chin Hung³

ABSTRACT

Rice leaf folder, *Cnaphalocrocis medinalis* Guene, is a seriously insect pest in the cultivated periods of second-cropping rice. Field bioassays using three types of synthetic sex pheromone blends (Japanese blend: Z11-18:Ald (55 µg), Z13-18:Ald (500 µg), Z11-18:OH (120 µg) and Z13-18:OH (180 µg), Indian blend: Z11-16:Ac (50 µg) and Z13-18:Ac (500 µg) and Philippine blend: Z11-16:Ac (500 µg) and Z13-18:Ac (10 µg) based on geographic variations in sex pheromones) for the rice leaffolder moth, *Cnaphalocrocis medinalis* Guenée (Lepidoptera: Crambidae), were performed at different sites of Changhua and Taichung County in Taiwan. Results showed that only the Japanese blend attracted significant numbers of male *C. medinalis*, while the Indian and the Philippine blends only showed little attractiveness to the males. In addition, no *C. medinalis* adult was captured in the un-baited trap. Therefore, the Japanese blend was used for field evaluation to get the suitable condition for application. Pheromone lures stuffed in polyethylene microtube was better in attractiveness than rubber septum, and its effectiveness could last one month. More *C. medinalis* moths were caught in traps at heights of 0 m than at 0.2 and 0.4 m above rice plants level. The placement of traps were also affected the attractiveness of *C. medinalis* moths, and had significant different. Preliminary comparison of efficiency and the fluctuation pattern of *C. medinalis* moths catch between the pheromone traps and sweeping nets, they had similar trend in the field. The synthetic sex pheromone blend could be used as the tool for monitoring *C. medinalis* moths in Taiwan.

Keywords: rice leaf folder, *Cnaphalocrocis medinalis*, sex pheromone.

¹Contribution No. 0705 from Taichung DARES, COA.

²Assistant Researcher of Taichung DARES, COA.

³Associate Scientist of Agricultural Chemicals and Toxic Substances Research Institute, COA.