

## SURVEY OF INFESTATIONS IN DOMESTIC AND RETAIL PREMISES BY THE INDIAN MEAL MOTH, *PLODIA INTERPUNCTELLA* IN JAPAN

M. HIRAO

Hirao Biological Institute, 1765-147 kita, Shizuoka, Japan

Many kinds of processed foods kept in kitchen areas are attacked by stored product insects, especially the Indian meal moth in Japan. Any sign of infestation by the insect causes complaints to food manufacturers. Infestations by stored product insects are possible at all food handling stages. Much data of infestations at food processing plants and warehouses have been published, but few at retail stores and consumer's house. Pheromone traps baited with (*Z,E*)-9,12-tetradecadienyl acetate were used for trapping at 85 retail food stores in 17 cities in 1990, at 40 houses in Shizuoka city, Japan in 1993 and at 120 houses in 28 cities throughout Japan in 1994. Of trapped moths, 95.5% were *Plodia interpunctella*, 2.8% *Cadra cautella* and 0.7% *Anagasta kuehniella*. Of 85 retail stores, 63.5% were infested. Of 160 houses throughout Japan, 90.6% of inside of houses and 92.5% of outside were infested by these Phyticine moths. In Japan, the Indian meal moth is a common household insect and food packaging should be insect-resistant to protect it from insect attack. Due to the widespread presence of the Indian meal moth outside buildings, protection from flying insect invasion into food plants is an important part of a pest management programme.