





Technical Bulletin for: Sunflower Moth

Homoeosoma electellum (Hulst) • Lepidoptera: Pyralidae • HOMELE



DISTRIBUTION	North America and South America.
HOSTS	Sunflower is the primary host. Secondary hosts include Rosering gaillardia, Golden crownhead, Goldenmane, Lanceleaf gaillardia, Englemann daisy, Twoleaf senna, Big flower, Gumweed, African marigold, French marigold and others.
DESCRIPTION	
ADULT MOTH	Grayish – 8-12mm in length.
LARVAE	Pale yellowish, turning to brown or purple.
EGGS	Pearly white, elliptical, 0.63 to 0.80mm long.
LIFE HISTORY	Eggs hatch within 3-5 days; Larva (4-5 instars) with the 1st being = 4 days, the 2nd = 3-5 days, the 3rd = 5 days, the 4th = 1-3 days, and the 5th = 10-12 days. Pupa pupate in soil for 6-7 days, and the adult lives a couple of weeks. Diapause depends on both temperature and photoperiod and is induced more readily at 21°C with less than 10hrs light. Diapausing prepupae cannot survive at 5°C for more than 7 consecutive days. Therefore, they are absent north of roughly 40°N latitude. Nondiapausing larvae die after 1 day at 10°C but 33% of diapausing larvae survive to pupate after 7 days at 10°C.

MONITORING INFORMATION

LURE ACTIVE INGREDIENT, SUBSTRATE & FIELD LIFE	(Z,E)-9,12-Tetradecadien-1-ol on a red septum. Field life: four (4) weeks. 
TRAP TO USE	Paper or Plastic Delta 
MONITORING STRATEGY	Pheromone trapping of moths should be used only to determine whether moths are emerging and present in the area because trap catches are not a reliable way to determine treatment thresholds. Traps should be placed in or near field edges. Check traps weekly or more frequently if time permits. Change sticky liners as needed. Check with Cooperative Extension or Master Gardener for local information and recommendations.
CULTURAL & PHYSICAL CONTROL	Studies on planting times in Nebraska, Texas, and Georgia showed that early planted sunflowers had smaller infestations of sunflower moth. A Kansas study found that delaying planting until the middle of June reduced sunflower moth infestations and with no significant loss in yield.

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