





Technical Bulletin for: Diamondback Moth

Plutella xylostella (Linnaeus) • Lepidoptera: Plutellidae • PLAIDE



DISTRIBUTION	Europe, Asia, Africa, the Americas, Australia, New Zealand and Hawaii.
HOSTS	Nearly all cruciferous vegetable crops are attacked, especially broccoli, brussels sprouts, cabbage, Chinese cabbage, cauliflower, collard, kale, kohlrabi, mustard, radish, turnip and watercress.
DESCRIPTION	
ADULT MOTH	The adult is a small, slender, grayish-brown moth with pronounced antennae. It is about 6mm long and marked with a broad cream or light brown band along the back.
LARVAE	The larvae are colorless in the first instar, but thereafter are green. Larvae grow from about 1.7 mm to 11.2mm at maturity.
EGGS	Yellow or pale green, oval and flattened, and measure 0.44mm long and 0.26mm wide.
LIFE HISTORY	Total development time from the egg to pupal stage averages 25 to 30 days, depending on weather, with a range of about 17 to 51 days. The number of generations varies from 4, in cold climates such as southern Canada, to perhaps 8 to 12 in the south. Overwintering survival is positively correlated with the abundance of snowfall in northern climates.

MONITORING INFORMATION

LURE ACTIVE INGREDIENTS, SUBSTRATE & FIELD LIFE	(Z)-11-Hexadecenyl acetate, (Z)-11-Hexadecen-1-ol, (Z)-11-Hexadecenal and (Z)-11-Tetradecen-1-ol on a red septum. Field life: four (4) weeks. 
TRAP TO USE	Paper or Plastic Delta Trap 
MONITORING STRATEGY	Traps should either be positioned at 50cm above the ground or moved with the crop canopy. If more than one trap is being placed in a field, leave at least 100 meters between traps. Check with Cooperative Extension or Master Gardener for local information and recommendations.
CULTURAL & PHYSICAL CONTROL	Crucifer crops with overhead sprinkle irrigation tend to have fewer diamondback moth larvae than drip or furrow-irrigated crops. Crop diversity can influence abundance of diamondback moth. Larvae generally are fewer in number, and more heavily parasitized, when crucifer crops are interplanted with another crop or when weeds are present. Surrounding cabbage crops with two or more rows of more preferred hosts such as collard and mustard can delay or prevent the dispersal of diamondback moth into cabbage crops.

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