





Technical Bulletin for: Potato Tuber Moth

Phthorimaea operculella (Zeller) • Lepidoptera, *Gelechiidae* • PHTOPE



DISTRIBUTION	Worldwide, wherever tubers or other hosts are grown.
HOSTS	Potato, Tomato, Eggplant, Tobacco, Bell pepper, Cape Gooseberry, Sugar beet
DESCRIPTION	
ADULT	Small and elongate, measuring about 10 mm in length with a wingspan of 15-17 mm. Pale brown in color with some darker marbling. Head, antennae and thorax are also brown in color, hindwings are pale gray
LARVAE	12-15 mm in length. White or yellow in color with a brown head and prothorax
EGGS	Typically, oval, smooth and pearly white to yellowish in color.
LIFE HISTORY	Generation time is 17 to 125 days depending on temperature, commonly one month. Adults take up to 10 days to mature, eggs 3 to 15 days, larvae 13 to 33 days and pupae 6 to 29 days. Several generations may form per year. Life cycle can continue in storage on tubers. Adult potato tuber moths are nocturnal and typically are not active until 1–2 hours after sunset. The eggs are laid singly or in batches on the leaves of the host plant, or on exposed tubers near the eye buds. A total of 40-290 eggs are laid. The larva at first bores into the petiole, or a young shoot or main leaf vein, and mines the leaf making a blotch. Later it bores into a tuber, making a long irregular gallery. On stored tubers feeding on the tubers begins immediately.

MONITORING INFORMATION

LURE ACTIVE INGREDIENTS, SUBSTRATE & FIELD LIFE	EZ-4,7-13Ac and EZZ-4,7,10-13Ac in a Red Rubber Septum. Lure longevity: 30 days.	
TRAP TO USE	Red Paper or Plastic Delta Trap	
MONITORING STRATEGY	Place traps above the crops to monitor adult emergence. Check with Cooperative Extension or Master Gardener for local information and recommendations.	
CULTURAL & PHYSICAL CONTROL	Ensure seed tubers are healthy and free of infestation before planting, as infested seed tubers are a primary vector of tuber moth infestation. Other methods such as harvesting as soon as possible, as well as planting crops at greater depths, are also recommended.	

Alpha Scents, Inc.
insect monitoring systems

Alpha Scents, Inc., 360 S. Sequoia Pkwy. Canby, OR 97013
TEL: 503-342-8611 • FAX: 314-271-7297 • sales@alphascents.com • www.alphascents.com