

Ephestia elutella (Hübner)

(Tobacco moth, warehouse moth)





Fam. Pyralidae

General information: Common primary pest in grain, cocoa, and tobacco warehouses; lives in moderate climates; up to 3 generations per year.

Infested products: Cereals, grain products, dried fruits, nuts, almonds, cocoa beans, chocolate, tobacco, animal feed, herbal drugs

Related species: Almond moth (*E. cautella*) and Mediterranean flour moth (*E. kuehniella*)

Total development: 60 – 70 days at 20 °C and approx. 70 % relative humidity

Egg	Larva	Pupa	Adult (moth)
			
6 to 7 days	30 to 60 days	10 to 45 days	14 to 21 days
<ul style="list-style-type: none"> - up to 0.3 x 0.5 mm - yellowish white - finely textured surface - one female lays up to 300 eggs 	<ul style="list-style-type: none"> - up to 15 mm long - different color variations (white, light pink, yellowish) with dark spots at base of hairs, brown head capsule - 5 larval instars - Grown larvae leave stored products for pupation and overwinter 	<ul style="list-style-type: none"> - up to 10 mm - light to dark brown - pupation occurs in a cocoon 	<ul style="list-style-type: none"> - up to 10 mm long and up to 17 mm wing span - greyish brown to blue, forewings glossy with lighter horizontal stripes, hind-wing whitish grey. Wing coloration is lost with age, so it is not a clear determinant

Damage: In tobacco leaves, only the midrib and stronger side veins remain, sweet tobaccos low in nicotine are preferred, impurities by feces, webbings, larval skins, etc.

Prevention: Thorough cleaning and cleanliness in warehouses; short storage times; cool, insect-proof and dry storage

Early detection: Monitoring traps for male moths based on pheromones (female sexual pheromones); monitoring sticky traps; visual inspection (webbings on surface of infested storage goods and in packaging)

Control: Use of authorized pesticides (please, refer to the database: www.bvl.bund.de); contact insecticides (Fogging, spraying), fumigation, use of beneficial organisms such as *Trichogramma evanescens* egg parasitoids or *Habrobracon hebetor* larval parasitoids at low levels of infestation.