

# Pheromone lure for *Cydalima perspectalis*

## *Cydalima perspectalis*

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The box tree moth, *Cydalima perspectalis*, is native to East Asia. It was first recorded in Europe in 2007, in southwest Germany and The Netherlands. Since then it has been spreading towards many other European countries. Climate models predict further spread of the species in Europe, invading most areas except for Northern Fenno-Scandinavia, Northern Scotland and high mountain regions. In invaded regions, *Cydalima perspectalis* larvae feed on the leaves of box trees, *Buxus spp.*, resulting in defoliation. Severe defoliation will lead to death of the trees. The most significant damage, however, is done when larvae attack the bark of box trees causing the trees to dry out and die. The species is easily introduced accidentally with its host plant, which is extensively traded over Europe and therefore presents a serious threat. Besides cultural and economic effects, the most serious threat from *Cydalima perspectalis* is likely to be on the natural *Buxus* populations. (source: CABI datasheet *Cydalima perspectalis*, plus references within).

Preferred scientific name:	<i>Cydalima perspectalis</i> (Walker, 1859)
Other scientific names:	<i>Diaphania perspectalis</i> (Walker, 1859), <i>Glyphodes perspectalis</i> (Walker, 1859), <i>Palpita perspectalis</i> (Walker, 1859)
English name:	box tree moth
French name:	pyrale du buis
German name:	Buchsbaumzünsler
Spanish name:	polilla del boj

## The pheromone

The pheromone of *Cydalima perspectalis* has been first described (Japanese population) by Kawazu et al, 2007 as a mixture of (Z)-11-hexadecenal and (E)-11-hexadecenal. Mixtures of these compounds tested in Europe resulted in low trap catches. We believe this is due to a difference in sensitivity of the European population.

Kawazu, K., Honda, H., Nakamura, S., and Adati, T. 2007. Identification of sex pheromone components of the box tree pyralid, *Glyphodes perspectalis*. *J. Chem. Ecol.* 33:1978-1985.

Pherobank has re-examined the pheromone of *Cydalima perspectalis* in cooperation with Plant Research International (NL), Corvinus University of Budapest (HU), Julius Kühn Institute (DE), Landwirtschaftliches Technologiezentrum Augustenberg (DE) and CABI Bioscience (CH). This has resulted in the discovery of a reliable pheromone lure, capable of attracting this devastating moth in large numbers.



Adult *Cydalima perspectalis*



Typical damage (photo: Willem Stol)



642 moths in two funnel traps in two weeks (photo: Noémi Boros)

