

**Study on the applicability of biotechnical control in the fight against the grubby brown *Cydia splendana* (HB) in Madeira**

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**Cientific Responsible:**

Prof<sup>a</sup> Doutora Dora Pombo(aguin@uma.pt)

**Caracterization:**

The wormy chestnut (*Cydia splendana*) is the major pest of chestnut on the Madeira Island. In order to better understand this plague and select an effective pheromone in their capture, trials were conducted to monitor the bugging during the flight of this pest in 2004, 2005 and 2006 in the Nun's Valley, Garden of Serra and Serra de Água. These results confirm that the bugging of the nut is actually a curse that represents large losses in the production of brown and may reach infestation rates of around 50% in some localities and was also the only species of its kind caught in tests.

Tests conducted show that the pheromone biotechnical control using this type of substance can be a very useful tool in combating this scourge, and the six tested pheromones, those that showed better efficacy against our conditions were the pheromones of PHERONET and OECOs.

**Objectives:**

- Study of the population dynamics of the grubby brown (*Cydia splendana*) at three sites with the highest expression in the chestnut wood: Nuns Valley, Jardim da Serra and Serra d'Água;
- Conducting field tests for determining the effectiveness of pheromones from different brands, with a view to their applicability in biotech fight;
- Exploration for natural enemies of native chestnut and bugging investigation of their possible interest in biological control programs;
- Determination, under field conditions, the influence of climatic conditions (temperature, humidity, photoperiod, precipitation) at the time of emergence of adults, to predict the best opportunity to use pheromones;

- Training and dissemination of project results through dissemination activities, targeted to Madeira chestnut producers.

**Partners:**

Regional Agriculture and Rural Development of the Autonomous Region of Madeira

**Website:** <http://www.uma.pt/bichado.da.castanha>