

III INTERNATIONAL Chestnut Congress



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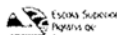
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PHEROMONAL AND SEASONAL ACTIVITY OF THREE *CYDIA* SPP. IN FRANCE

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Pheromone attraction of *Cydia splendana* was studied in 2003 in two chestnut orchards in France (Dordogne and Gard), using blends containing 10 µg of E8,E10-12:Ac (E,E) alone or combined with 0.5, 2 or 10 µg of Z8,E10-12:Ac (Z,E). An additional blend containing 2 µg of E,E and 10 µg of Z,E was also tested. All these blends were renewed after 2 weeks and retested during two additional consecutive periods. Irrespective of the region or the flight period, the addition of Z,E to E,E stimulated the attraction of *C. splendana* males in a dose-dependent manner. However, when the ratio of E,E/Z,E was 2:10, the attraction of *C. splendana* males was strongly inhibited. Whether the Z,E isomer is synthesized by *C. splendana* females remains to be determined.

Two other species, *C. ulicetana* (Dordogne) and *C. fagiglandana* (Gard), representing together 4 % of the total catch, were also attracted to these blends. While *C. ulicetana* responded equally to all blends, most *C. fagiglandana* were attracted to the E,E isomer as blends containing Z,E were inhibitory. Not only did the three *Cydia* species differ in their pheromonal response but they also appeared to be temporally separated since *C. fagiglandana* became less abundant as the flight activity of *C. splendana* progressed, while the opposite was observed for *C. ulicetana*.

Three successive peaks of *C. splendana* males, observed towards the end of the flight period in Dordogne, were probably the result of moth invasions, an aspect that deserves consideration when interpreting male trap catches of this important chestnut pest.