DAFM Plant Pest Factsheet

Thaumatotibia leucotreta false codling moth (FCM)

EU Priority Pest!

Fig 1: Adult female (L) and male (R) *Thaumatotibia leucotreta*

Pest Characteristics

- **Pest:** *Thaumatotibia leucotreta*
- **Common name:** false codling moth (FCM)
- **Hosts:** *Thaumatotibia leucotreta* is a polyphagous species. In its current distribution it feeds on many hosts of agricultural importance such as *Capsicum* spp.(pepper), *Citrus* spp., *Gossypium* sp.(cotton), Punica granatum (pomegranate), *Prunus persica* (peach), *Solanum melongena* (aubergine) and *Zea mays* (maize).
- **Invasive Risk:** Ireland is currently not considered at risk for the outdoor establishment of this tortrix species. Of the major hosts of relevance to Ireland, only protected (e.g. glasshouse) crops of *Capsicum* spp. are likely at risk. The risk of entry is high given the numerous interceptions of *T. leucotreta* that are reported every year into the EU.
- **Entry Pathways:** The most likely introduction of *T. leucotreta* is through import of infested fruit or cut flowers particularly on *Capsicum* spp., *Citrus* spp., and *Rosa* spp. commodities where most interceptions have occurred.
- **Impact:** Larvae feed inside the fruits and flowers buds. Economic losses could occur in Ireland given there is a very low tolerance for damage to *Capsicum* crops. Impacts would likely be short term considering the pest requires an all year-round availability of fruit/ host plants, this should limit its capacity for ongoing establishment in glasshouse situations.
- **Symptoms:** Small pale pink larvae on/inside the fruit (Fig 2 a) may indicate presence of *T. leucotreta.* Symptoms can include entrance or exit holes, protruding frass, discoloration of the fruit skin and rotting (b - d)

Fig 2: (a) larvae of *T. leucotreta* (b) entrance hole and rotting on pepper (c) larvae damage in centre of rose and (d) external symptoms on orange with entrance hole. More photos are available on the EPPO Database

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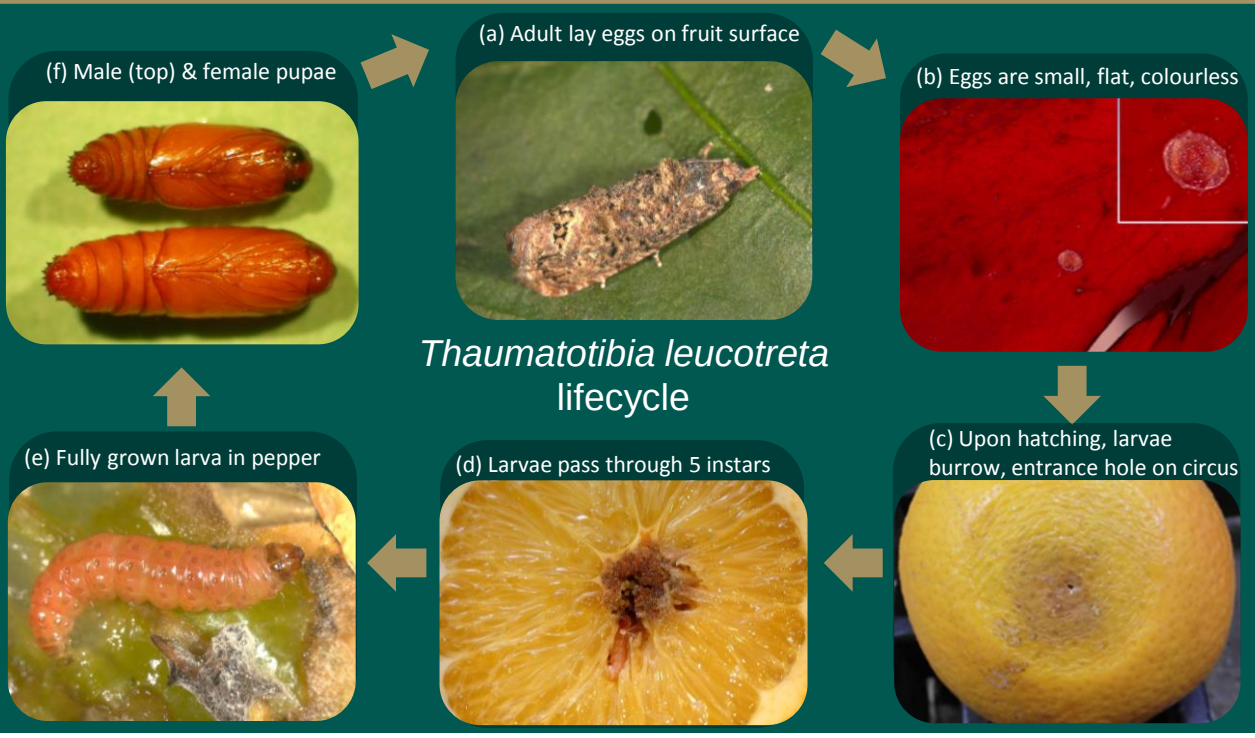

- **Lifecycle:** *Thaumatotibia leucotreta* is multivoltine and the life cycle proceeds from (a & b above) the laying of eggs on the surface of smooth fruit or on flower buds (c & d), after hatching larvae bore into the fruit and go through five larval instars (e), upon maturity the larvae exit the fruit and drop to the ground where they enter the pupal stage. Adults then emerge without any diapause. Females are inactive during the day, fly at night and attract the males by means of pheromones. It takes, on average, 42–46 days to complete the life cycle at the optimum temperature of 25°C.
- **Adaptability:** The pest is adapted for warm climates and is cold sensitive. Therefore, only protected glasshouse cultivation is at risk in Ireland.
- **Dispersal:** *Thaumatotibia leucotreta is* a moderate disperser generally only completing short distance flights between host plants. Long distance natural spread is not a feature of the species.
- **Distribution:** The moth is currently present in many Sub-Saharan Africa countries. Outside of Africa, the pest is present in Israel (Fig 3).
- **If suspected:** DAFM perform annual surveys for *T. leucotreta* . If you find suspected symptoms/specimens, please submit images (and preserve the specimen) to DAFM at: plantpestreport@agriculture.gov.ie

Photo credits: Fig 1 © Todd M. Gilligan and Marc E. Epstein, TortAI: Tortricids of Agricultural Importance, USDA APHIS PPQ, Bugwood.org; Fig 2 (a) © Plant Health Laboratory, DAFM. Fig 2 (b), (c), Lifecycle (b), (c), (d), (e), (f) © EPPO Standard PM 7/129 (1) (EPPO, 2019); Fig 2 (d), Lifecycle (a) © EPPO *T. leucotreta* images repository

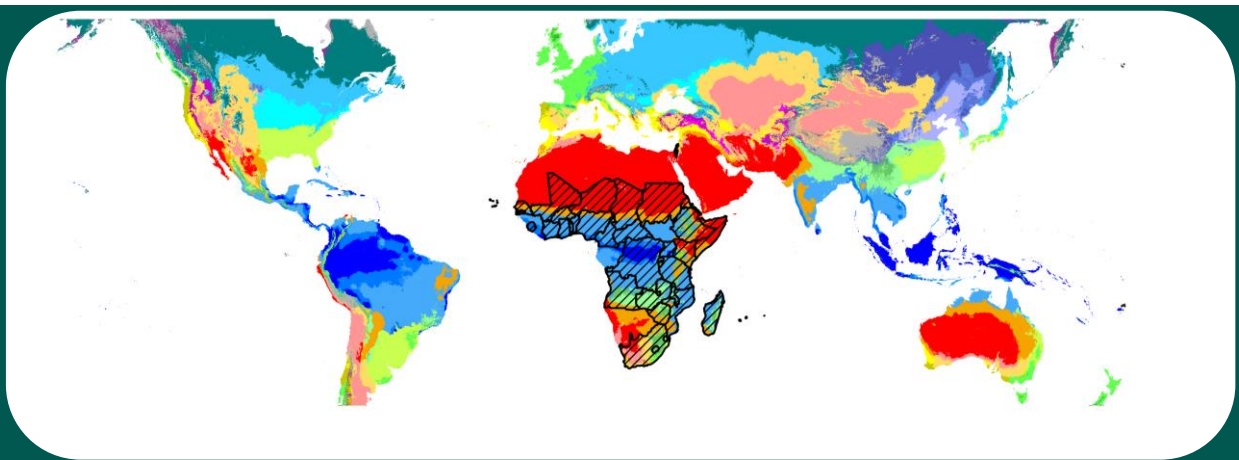

Fig 3: Known world distribution of *T. leucotreta* (cross hatched areas) overlaid on regional climate classifications

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