First record of *Tuta absoluta* (Meyrick, 1917) (Lepidoptera: Gelechiidae) in Burkina Faso

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During a survey on plant protection practices conducted in March 2016, several tomato leafminers were captured in vegetable crops at Goinré site (Ouahigouya) in the northern region of Burkina Faso. Adult specimens were identified as *Tuta absoluta* Meyrick (Lepidoptera: Gelechiidae) based on male genitalia. This is the first record of this important tomato pest in Burkina Faso. Thanks to favourable climatic conditions encountered in Burkina Faso, it is likely that this pest will spread rapidly in the territory. Moreover, it is now known for its insecticide resistance and ability to develop on alternative host plants. We expect producers to perform additional chemical treatments, leading to increasing risks, including operator exposure to pesticides, environmental pollution and residues on vegetables. The presence of *T. absoluta* in Burkina Faso may also have economic impacts associated with export of tomato fruit to neighbouring countries.

Native to South America, the tomato leafminer, *Tuta absoluta* (Meyrick) (Lepidoptera: Gelechiidae) is a widespread invasive species damaging economically important tomato crops (*Solanum lycopersicum* Linnaeus; Solanaceae) (Desneux et al. 2010). The main host plant of *T. absoluta* is tomato, but this pest also attacks other crop plants of the Solanaceae family including potato (*Solanum tuberosum* Linnaeus), eggplant (*Solanum melongena* Linnaeus) and pepper (*Capsicum annum* Linnaeus) (Bloem & Spaltenstein 2011; Wyckhuys et al. 2013). It is also reported on many solanaceous weeds including *Atropa belladonna* Linnaeus, *Datura stramonium* Linnaeus, *Lycium chilense* Bertero, *Nicotiana glauca* Graham, *Solanum dulcamara* Linnaeus and *Solanum nigrum* Linnaeus (EPPO 2005; Bloem & Spaltenstein 2011; Wyckhuys et al. 2013; Rey et al. 2014). Females lay eggs on aerial parts of their host plants and a single female can lay a total of about 260 eggs during her lifetime (Torres et al. 2001; EPPO 2005; Wyckhuys et al. 2013; Rey et al. 2014; Bawin et al. 2015a, 2015b). *Tuta absoluta* has a high reproductive potential and there may be 10–12 generations per year (EPPO 2005; Desneux et al. 2010; Bloem & Spaltenstein 2011; Allache et al. 2012; Guery 2015). Larvae feed vigorously on the plant, producing large galleries in leaves, fruits, and can cause a yield loss of 100% (EPPO 2005; Bloem & Spaltenstein 2011; Wyckhuys et al. 2013). The management of this species is further complicated by its resistance to many insecticides (Siqueira et al. 2000a, b; Siqueira et al. 2001; Lietti et al. 2005; Silva et al. 2011; Roditakis et al. 2015).

The spread of *T. absoluta* can occur through transportation of the plants, fruits and infested means of transport (harvest box), as well as wind and flight. Infestation of successive crops may occur by the presence of pupae in soil, in weeds, or other host plants, and crop residues (Bloem & Spaltenstein 2011; Rey et al. 2014).

In northern Africa, *T. absoluta* has been reported in Algeria (2008), Morroco (2008), Egypt (2009), Libya (2009) and Tunisia (2009) (Abbes et al. 2014; Choug & Medjoud-Bensaad 2014; Rey et al. 2014). In 2012, it was found in Ethiopia, Niger, Senegal and Sudan (Pfeiffer et al. 2013; Brévault et al. 2014), but this species has previously never been reported in Burkina Faso. This paper aims to report the first record of *Tuta absoluta* in Burkina Faso.

In March 2016, during investigations on plant protection practices in tomato crops of the northern...