

RESEARCH NOTE

Report of South American tomato moth, *Tuta absoluta* (Meyrick) from Odisha

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ABSTRACT: South American tomato moth, *Tuta absoluta* is one of the major destructive invasive pests globally. Though the pest was reported from India during 2014 and spread to various states including north-eastern states, there was no information regarding its occurrence from the state of Odisha. A survey was carried out in tomato fields and vegetable markets located in and around Bhubaneswar for the incidence of the pest on tomato. Market surveys conducted during last week of October 2018 revealed up to 4.5 per cent of tomato fruits in the vegetable market were damaged by *Tuta*. The farmers and traders were unaware about this new pest and its damage symptoms. Further surveys about the incidence of this pest and awareness about this pest and its management options are being attempted.

Keywords: *Tuta absoluta*, fruit damage, Odisha

The South American tomato moth or South American tomato leaf miner, *Tuta absoluta* (Meyrick) (Lepidoptera: Gelechiidae), is native to South America, causing devastating damage to tomato, *Solanum lycopersicum* L. In India, it was first reported from Karnataka (Sridhar *et al.*, 2014) and Maharashtra, and presently is becoming a serious threat to tomato production in both greenhouse and outdoor production. Recently, the pest has been detected in Tamil Nadu, Andhra Pradesh, Telangana, Gujarat, Delhi, Chhattisgarh *etc.* (Shashank *et al.*, 2016; Sridhar *et al.*, 2015, Taram *et al.*, 2016).

Other than tomato, *Tuta* can cause damage to other solanaceous crops like potato, brinjal *etc.* Being a newly invaded pest there is a lack of awareness about its damage symptoms and its potential damage. Though the pest is reported from neighbouring states of Odisha, *viz.*, Andhra Pradesh and Chhattisgarh, there were no reports about the occurrence of *T. absoluta* from the state of Odisha. In order to ascertain the presence/absence of the pest, a survey was carried out in tomato fields and vegetable markets located in and around Bhubaneswar (latitude 20° 17' 45.8124" N; longitude 85° 49' 28.3404" E). During the survey, old symptoms of the *T. absoluta* were observed on tomato leaves in the fields surveyed in villages adjacent to Bhubaneswar-Khurda Road including Jatani *etc.* However, when the vegetable markets near Orissa University of Agriculture and Technology and City market, Bhubaneswar were surveyed, on an average, 4.5 % of tomato fruits were observed to be damaged with

characteristic symptoms like pin size holes made by *T. absoluta* followed by secondary infection and rotting of the fruits. Few live larvae also could be observed on these infested fruits. When enquired about the pest damage, the traders were totally unaware about the pest and its damage symptoms and told that the tomatoes are from the neighbouring villages like Jatni *etc.* In general, farmers will be separating the damaged fruits at farm gate itself. Because of lack of knowledge about the new pest and characteristic small holes made by *Tuta* larva on fruits, they are escaping the grading step at farm gate level and reaching vegetable markets. *Tuta* larvae collected from fresh fruits in the vegetable market were brought to laboratory and reared till adult emergence and taxonomic identity was confirmed as *T. absoluta*. There is a need for imparting awareness to the tomato farmers about this pest and its management through integrated approaches before it reaches alarming proportions and causing significant damage to tomato crop.

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