

# National programme of measures for the control of the tomato leafminer *Tuta absoluta* Meyrick (Lepidoptera)

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*The elaboration of the National Programme of Measures for Control of the Tomato Leafminer *Tuta absoluta* is required with the aim of limiting the losses and the spread of the pest in the country, through defining a package of measures for monitoring and control. This Programme is intended for specialists – agronomists and agricultural producers, in their activities related to the protection of plants from this pest.*

The tomato leafminer *Tuta absoluta* originates from South America and in recent years has spread to a number of countries on the European continent. In Bulgaria, the species was established for the first time in 2009, with the aid of pheromone traps in the regions of Plovdiv, Pazardzhik, Haskovo and in the area of the city of Sofia –

Slatina commodity exchange. In 2011, the aggressive pest was established on the territory of 21 districts in the country.

The tomato leafminer *Tuta absoluta* Meyrick, 1917 (Lepidoptera) is an extremely dangerous pest of tomatoes, and it also attacks eggplant, beans, potatoes, pepper, ornamental species from the family Solanaceae, black nightshade, thorn-apple and others. The caterpillar of *Tuta absoluta* mines the leaves, damages the stems and bores into the fruit of the plants, causing significant losses of the tomato crop in greenhouses and in the open field, with damage that can reach 100%. Damaged fruits are difficult to market and thus the export of quality produce is restricted.

The tomato leafminer is a multivoltine species with a high reproductive potential and, depending on environmental conditions, can develop up to 12 generations per year. The presence of a wide range of host plants in our country and the concealed way of life of the larvae additionally complicate the control of the pest and may cause enormous damage in tomato production, both in greenhouses and in the open field. Improper implementation of chemical control and frequent use of insecticides with a similar mode of action lead to the development of resistant populations. A large proportion of agricultural producers are not familiar and informed about the morphology, biology and damage caused by the tomato leafminer, as well as about the methods for its control. Sometimes control is carried out inadequately and not everywhere, with a complete lack of synchronisation between agricultural producers.

The National Programme has been developed on the basis of Art. 6, item 2 of the Plant Protection Act by the Ministry of Agriculture and Food,

Bulgarian Food Safety Agency – Directorate Plant Protection and Organic Production Control, the Central Plant Quarantine Laboratory and the Risk Assessment Centre; the Agricultural University in Plovdiv and the Institute of Plant Protection in Kostinbrod. It uses materials, scientific studies, data, tables, presentations and photographic material from EPPO (European and Mediterranean Plant Protection Organization), IRAC (The Insecticide Resistance Action Committee), USDA (United States Department of Agriculture), Russell IPM, Koppert Biological Systems, Biobest sustainable crop management and others.

The National Programme of Measures for the Control of the Tomato Leafminer *Tuta absoluta* Meyrick (Lepidoptera) can be found [\*\*HERE\*\*](#)