Status of the tomato borer, *Tuta absoluta* (Merycik) in Egypt from 2009/2011

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Table 1,Tomato main timing of plantations in Egypt

Tomato plantations	Nursery timing	Transfer timing
Early summer	1st Jan.	Mid Feb.
Normal summer	Mid Feb.	early April
Nili	June/July /Aug.	July/Aug./Sept.
Winter	Sept./Otob.	Oct.Nov.

Table 2 , Movement of *Tuta absoluta* from border of Libia to inside Egypt in 2009-2011

Governorate	2009		2010		2011	
	% Establish.	No. Sprays	% Establish.	No. Sprays	% Establish.	No. Sprays
Maras matrooh	**40**	**7**	**80**	**9**	**100**	**15-20**
Alexandria			**70**	**7**	**100**	**15-20**
Bohira			**60**	**7**	**100**	**15-20**
Qurbia			**50**	**7**	**100**	**14-16**
Sharkia			**50**	**7**	**100**	**20-25**
Qlupia			**40**	**7**	**100**	**14-16**
Dimiatte			**40**	**6**	**100**	**14-16**
Mansoura			**30**	**6**	**100**	**14-16**
Ismalia			**30**	**6**	**100**	**15-20**
Dakhlia			**30**	**6**	**100**	**20-24**
kafar sheik			**30**	**6**	**100**	**20-25**
Giza			**20**	**6**	**100**	**15-20**
Fayom					**100**	**15-20**
Beni=swif					**100**	**15-20**
Minia					**100**	**15-20**
Assiut					**100**	**8--12**
Sohage					**100**	**15-20**
Kena					**100**	**14-18**
Aswan					**100**	**13-15**

Table 3 ,A star chart importance of taxonomic list of all tomato pests in Egypt

Pest	Importance	Pest	Importance
Insects		**Diseases**	
Gryllotalpa gryllotalba	xxx	***Leveillula taurica***	xxxx
Agrotis ipsilon	xxx	***Alternaria solani***	xxxx
Pentodon bispinosus	x	***Phytophthora infestans***	xxxx
Bemisia tabaci	xxxxx	***Stemphylium spp***	xxx
Mysus persicae	xxxx	***Fulvia fulva***	xx
Aphis gossypii	xxxx	***Cladosporium fulvum***	xx
Nezara viridula	xx	***Rhizoctonia solani***	xx
Emposasca spp	xx	***Fusarium oxysporum***	xxx
Spodoptera littoralis	xxxx	***Verticillium dahlia***	xxx
Autographa spp	xxx	**(Yellow leaf virus)**	xxxx
Heliothis armigera	xxx	**(cucumber mosaic virus**	xxxx
Phthorimeae operculella	xx	**Nematodes**	
Tuta absoluta	xxxxx	***Meloidogyne spp***	xx
Mites			
Tetranychus urticae	xxxx		

White fly and aphids are transmitting virus

x= not dominant
xx= no control
xxx= may be there is a chemical control
xxxx= Chemical control is a must

xxxxx=Chemical control with more than 5 sprays

Leaf minor

Diptera	Crop
Agromizidae	
Liriomyza. trifolii	Bean,Peas , phasolia, clover
L.solani	eggplant
L.brassica	beans
Melanogromiza sojae	Phasolia, peas
Anthomyiidae	
Pegomia mixta	Sugar beet
Ephydridae	
Hydrellia prosternalis	Rice
Cecidomyidae	
Dasineura oleae	Olive

Leaf and fruit minor

Lepidoptera	Crop
Gelechiidae	
Tuta absluta	Tomato
Phthorimaea operculela	Potato
Gracillariidae	
Pylloconitis citrella	Citrus

Citrus,potato and tomato

Larva of citrus leafminor,of PTW and of Tuta

Quick movement of TUTA

Overlapping periods of planting tomato within the same year in addition the climatic conditions , allow the favorite tomato host plant available all year round. The last allowed quick movement of this insect pest .Egypt is planting tomato 4-5 times /one

No.of sprays used

. Majority of farmers sprayed every 4-5 days /season with minimum and maximum number of sprays 8 and 25 sprays, respectively.

Egyptian farmers use IGR to face difficult insect pests

Insect growth regulator was one essential partner as tank mix. with one POs or PYs or Carbamates. Farmers used cheap generic products and/or smuggled ones that not match WHO/FAO equivalence and mostly have impurities exceed the allowed limit.

Farmer satisfaction

No single or mixture product can stop spraying process and satisfy farmer .New products are expensive .

Effective products

- The following active substances are claimed to be effective against this pest and elongate the interval of spray to be every 7-10 days; spinosad , spinetoram , indoxicarb thiacloprid ,emamectin benzoate ,chlorphenpyr ,and pyridalyl in addition to the insect growth regulators (IGRS).
- IGRs applied were lufenuron ,methoxyfenozide,chromofenozide and teflubenzuron.
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