Tuta absoluta: meeting the challenge of the tomato leafminer. Intercontinental Hotel, Addis Ababa, Ethiopia, November 26-28th, 2013
The IPM CRSP Tanzanian Team

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- Mr H. Mtui – Horticulture/PhD student
- Dr K. Mwajombe – Extension
- Mr Fred Magina – Entomologist, TaCRI
IPM CRSP activities on tomato

▪ The effect of postharvest treatments on tomato shelf life

The effect of varieties and chlorine concentration levels on tomato fruit shelf life
IPM CRSP activities on tomato

- Tomato production under open field and high tunnel growth conditions

Disease incidence values for different varieties grown in open field and high tunnel
IPM CRSP activities on tomato

- Tomato production under open field and high tunnel growth conditions
Pest invasions with implications of tomato and other Solanaceae

- Tanzania has recorded a number of invasive insect pest species, some of which are associated with tomato.

- Pests from Genus *Bactrocera* have been recorded in tomato and other Solanaceous hosts.
The melon fly *Bactrocera cucurbitae* was recorded in Tanzania centuries ago, attacking mostly cucurbitaceous plants.

However, farmers in Northern Tanzania, have recently reported losses due to *B. cucurbitae* in tomato.
Invaders ... Tephritids

• In 2004, the invasive *Bactrocera invadens* was reported from Tanzania in 2004. The host range of this species includes solanaceous hosts like egg plant, African egg plant and black nightshade.

• Application of pesticides in tomato may have limited detection of this pest in tomato.
Invaders .... Tephritids

• In 2006, the invasive *Bactrocera latifrons* was recorded in Tanzania. Detection surveys were conducted in 2007 by trapping and sampling solanaceous hosts along major highways.

• Positive hosts include tomato, African egg plant and black nightshade.
Invaders ...... Tephritids

*B. Latifrons* distribution in Tanzania
New discoveries …… Microlepids

• *Phyllonorycter mwatawalai* and *P. maererei* are among the microlepids recently described from Tanzania

• Distribution and host range these species is not well known, could include tomato.
Threats .... *Tuta absoluta*

- The tomato leaf miner, *Tuta absoluta* (Meyrick), is reported to be a serious pest of tomato and other solanaceous crops.

- This pest may cause losses as high as 80-100% in tomato.
The porous nature of the borders and cross border inter – relationships and migrations

Tanzania borders 8 countries in the mainland: Kenya, Uganda, Rwanda, Burundi, DRC, Malawi, Zambia and Mozambique

Threats .... *Tuta absoluta*
Lack of strong quarantine regulations or poor enforcement of available regulations as well unstable security in some African countries
Widespread availability and abundance of suitable hosts especially in the non-agricultural settings
Threats .... *Tuta absoluta*

- Chances for introduction and establishment of the pest are very high

- Activate surveillance program for this pest have to be activated

- Conduct awareness campaigns involving tomato farmers

- Nature of East African borders requires harmonisation of quarantine regulations
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