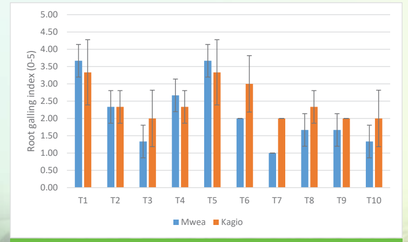
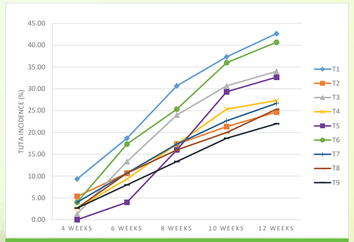
Project outputs:
Year 1

- A total of 300 smallholder farmers and 5 ministry of agriculture officials were engaged and trained on biological control and Integrated Pest Management practices
- A comprehensive cross-sectional survey report documenting the current status of Tuta absoluta and Fusarium wilt-root-knot nematode complex in Kirinyaga County-Kenya. From this two scientific papers have been drafted for submission to open access journals
- Fusarium wilt and root knot nematode isolates from samples collected during the survey were identified through morphological and molecular characterization
- Successfully completed first season on-farm trials with some of the developed packages showing great potential for managing the target pests



Effect of integrating different control products on tomato root galling index.



Effect of integrating different pest control products (T1-T9) on Tuta absoluta incidence on tomato

Next steps

- Set up of second season on-farm trials to further validate results
- Demonstration trials and farmer trainings in order to build capacity of target beneficiaries
- Dissemination of project results for wider reach and impact through stakeholder engagement

Acknowledgement

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Integrated Pest Management for *Tuta absoluta* and Fusarium wilt-root knot nematode complex affecting Tomato production in Kenya.

KOPPERT BIOLOGICAL SYSTEMS

NWO
Netherlands Organisation for Scientific Research
WOTRO Science for Global Development

Background

The project seeks to Develop, Validate and Disseminate Integrated Pest Management Packages for Tomato leaf miner (Tuta absoluta) and Fusarium wilt-root-knot nematode complex affecting tomato production in Kenya.

We started with an inception workshop in September 2015 that brought together different stakeholders from the agricultural industry including scholars, researchers, extension practitioners, private sector players, government organisations, NGOs and other development partners. This provided a platform for consultative discussion on the goal, objectives and activities of the project prior to its implementation. This acted as an initial step towards involving key stakeholders in the tomato production value chain and sector.

We started with an inception workshop in September 2015 that brought together different stakeholders from the agriculture industry

Implementing the ARF Tomato project

A baseline survey geared towards establishing and authenticating the current status of diversity and identity of Tomato leafminer (Tuta absoluta) and Fusarium wilt-root-knot nematode complex was carried out in Kirinyaga County.

Parallel to this, on-farm scientific trials were set up in Mwea and Kagio sites in Kirinyaga County to validate the developed Integrated Pest Management (IPM) packages for management of tomato leafminer (Tuta absoluta) and Fusarium wilt-root-knot nematode complex

On-farm scientific trials were set up in Mwea and Kagio sites in Kirinyaga County

Two farmer field days were organised in the different sites with a view to showcase and train farmers and other stakeholders on the different approaches for management of the mentioned pests and disease.

> Through this project, my knowledge and practical experience on biological control has been improved. The use of Trianum for Fusarium wilt and Mass trapping methods for Tuta absoluta was a real eye opener on how we can minimize the use of synthetic pesticides.

Tomato farmer, Mwea, Kenya

> It was quite interesting to see mass trapping of Tuta absoluta using pheromone traps. What I liked about it is that you are able to see the insects being lured and trapped. The technologies being promoted will go a long way in minimizing the use of harsh chemical pesticides, and this is good for the health of my family.

Tomato farmer, Kagio, Kenya