

Conservation and augmentative biological control of FAW in Egypt

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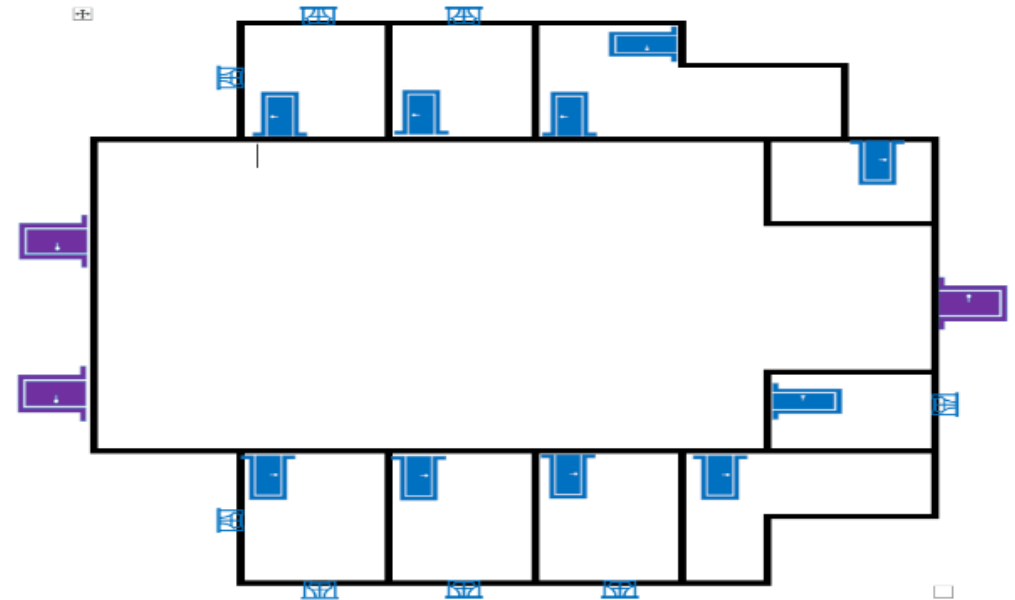


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BioLab~Shandaweel

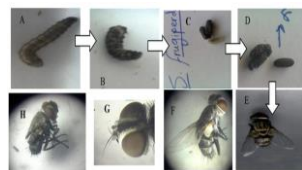
- Located in Sohag Gov., Upper Egypt, approximately 500 km from Cairo.
- A teamwork consisting of 2 researchers, 5 technicians and 3 trainees.
- upscaled by FAO as part of TCP/EGY/3706 project.
- Four alternative hosts, *Spodoptera frugiperda* (FAW), *S. littoralis* (CLW), *Agrotis ipsilon* (BCW) and *Sitotroga cerealella* are being mass reared
- Three egg parasitoid include *Telenomus remus*, *Trichogramma minutum* and *T. evanescens* are being mass reared



- 40 ha. in 5 locations

1st Survey for FAW natural enemies.

Three Larval Parasitoids detected from
infected FAW larvae



Exorista sorbillans
(Wiedemann)
Diptera; Tachinidae



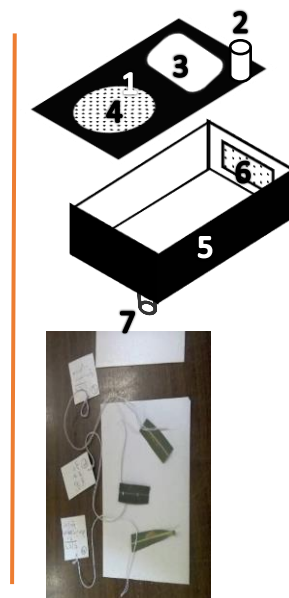
Pseudogonia rufifrons
(Wiedemann)
Diptera; Tachinidae



Microplitis sp.
Hymenoptera: Braconidae

T. evanescens on FAW (Laboratory)

Effect of *T. evanescens* on FAW eggs in
laboratory.



Up to
20%

T. evanescens on FAW (simi field)

Effect of *T. evanescens* on FAW eggs,
Semi-field.



Up to
5%



Sept. 2019



Aug-Nov. 2019



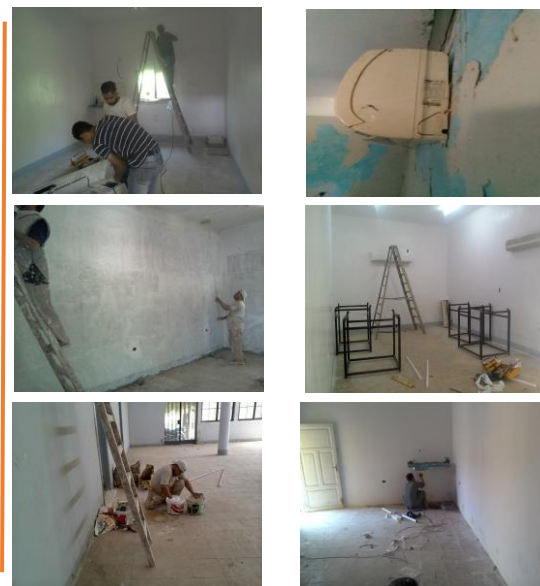
Dec. 2019

Delegation visit of experts from ICPIPE



Feb. 2020

Comprehensive maintenance and restoration of the Lab.



Jun.-Aug. 2020

Installation of new power supply adapter and air conditioners



Jun.-Nov. 2020



Receiving scientific equipment from FAO



Panel discussion on the dangers of FAW on Shendaweel Research Station Crops



Training on Fall Armyworm (FAW) biology, behavior, monitoring and integrated management

300 participants on 12 location at upper Egypt



Jan. 2021



Feb. 2021



Jun.-Aug. 2021

Training on Biocontrol of FAW

37 Participants



Official inauguration of the BioLab-Shandaweel high-level delegation from FAO + MoALR



Training on mass rearing of egg parasitoids

33 participants



Training on mass rearing of biopesticides

30 participants



Oct. 2021



Nov. 2021



Nov. 2021



Dec. 2021

Visit the Syrian delegation

Biological control activities on FAW



Visit to Jordan

Inauguration of the first biological
control laboratory in Jordan



First release of *T. remus* in Egypt

Qena and Sohag Govs.
10 hectares were treated in 2022



7 Feb. 2022



9 Feb. 2022



1-23 May. 2022

Attend a workshop in Mauritania and deliver a lecture on bio control



Visit from FAO HQ Mr. Xia, Yassin and Al-Jubouri



Delegation from Saudi Arabia Biological control activities on FAW



Jun. 2022



last Jun. 2022



Sept. 2022

High level delegation from FAO HQ and another ORGs

Luxor Demonstration fields

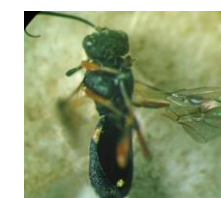


Harvesting maize experiments for FAW Biological Control

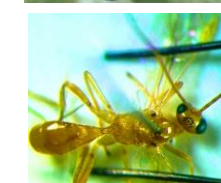


3rd Survey of FAW natural enemies (GA)

- North Upper Egypt in Beni Suef Governorate
- North of Al-Dalta, Kafr El-Sheikh Governorate



*Chelonus
insularis*



*Meteorus
laphygmae*



*Megaselia
scalaris*



Oct. 2022



Oct. 2022



Oct. 2022

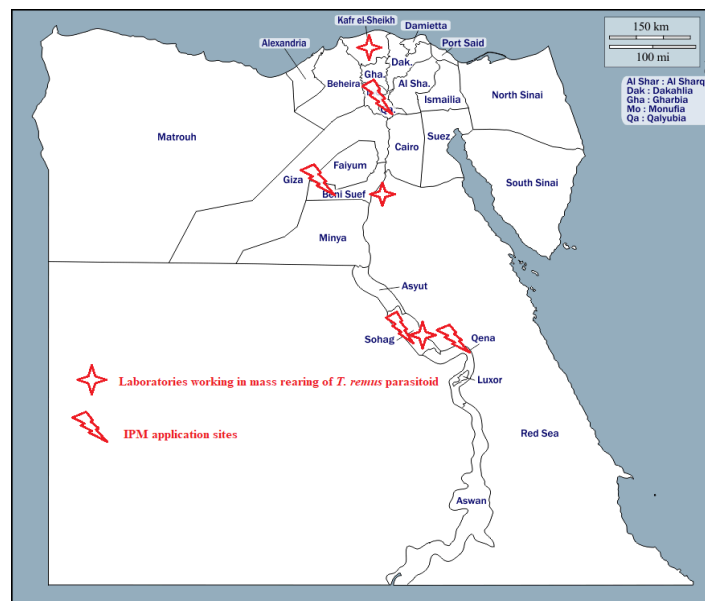
Theoretical / practical training courses on mass rearing of NA

Giza
BaniSuif
Kafr ElSheekh

Transfer of *T. remus* mass rearing tech.

Three laboratories were selected to mass rear *T. remus* and follow up the release in the nearby areas

Follow-up of the mass rearing and release of egg parasitoids



Dec. 2022

Implementation of IPM for early maize crops

Qena Gov.



Implementation of IPM for early maize crops

BaniSuif Gov.



Implementation of IPM for early maize crops

Qalyobia Gov.



April. 2023

The IPM system followed in early maize plantations



Good Agricultural practices

Egg mass collection once (7 worker/ha.)

Using ASH on plants



Use Bt , (PROTECTO), at rate
1000 g/ha.

After 15 and 30 days of
germination



Release of 25000 *T. remus*
parasitoid/ha. after 10 days of
germination for three times



Recommended pesticide is
ready to use in case of high
infestation





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