#### Regional Workshop on

Evaluation of the Farmer Field School (FFS) for Anchoring Sustainable Integrated Pest Management By Small Farm Holders in the NENA Region

### IRAQ جمهورية العراق



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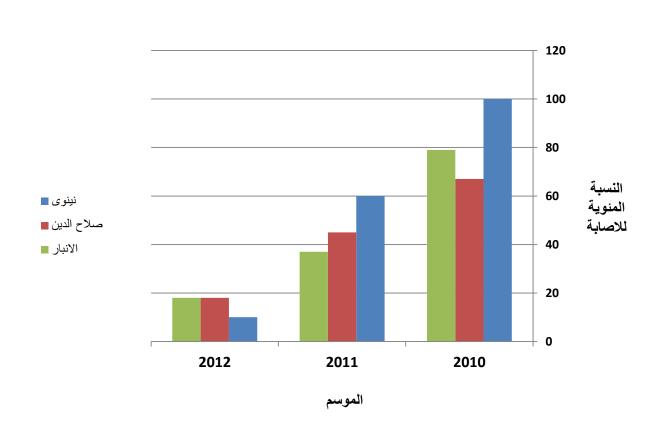




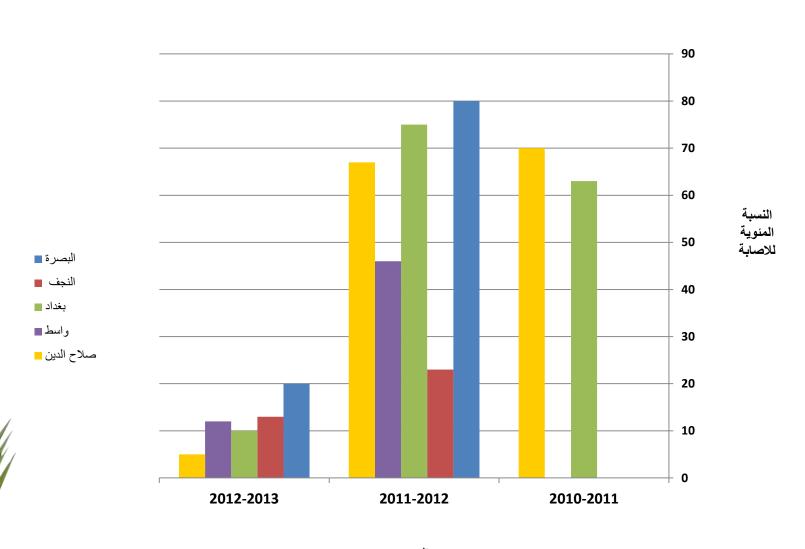
## FAO regional IPM project/Tuta absoluta (by the former National Project Coordinator)

- ☐ Iraq unfortunately did n't join FAO Tuta Regional Project but It established an IPM National Project for three years which was designed to validate the effectiveness of commercially available techniques as well as development of a national IPM model.
- □ A national PhD dissertation was completed on development of a national Tuta IPM program which resulted on registration of eight (8) important parasitoids & predators as well as assessment and recommendations of IPM package.
- ☐ Below we share with you some data on the epidemiology of Tuta in Iraq pre & post the implementation of the National IPM Program.

## الحالة الوبائية لحفار الطماطم Tuta absoluta في حقول الطماطم المكشوفة للأعوام 2010- 2013



### الحالة الوبائية لحفار الطماطم Tuta absoluta في بيوت الطماطم المحمية للأعوام 2010- 2013



الموسم

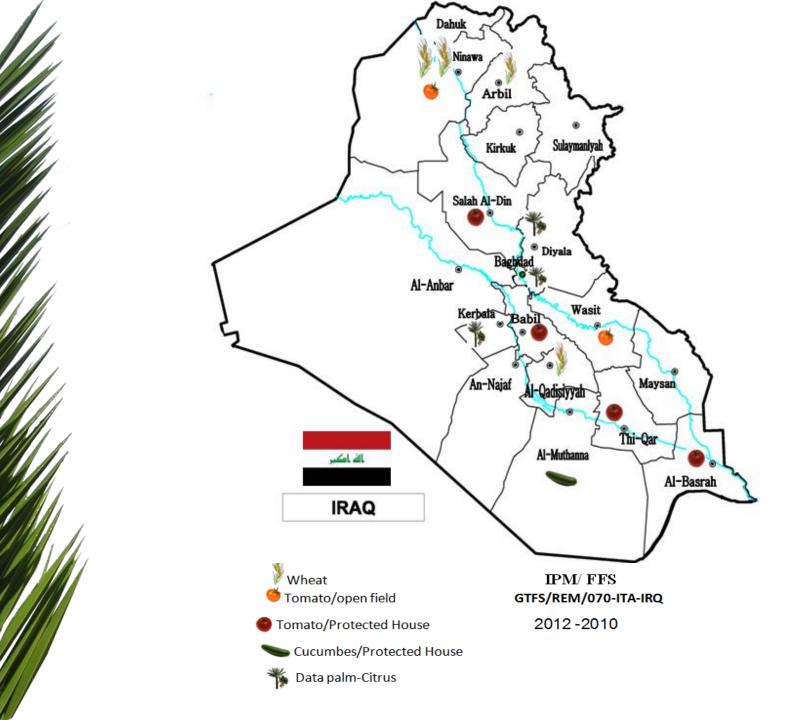


## Situation of FFS in the country (past and present)

- **❖Prior to this project Iraq extension activities were conducted on traditional bases.**
- **❖Iraq formerly had joined the regional project at the end of 2009.**
- ❖ According to the submitted national work plan the project was officially initiated on Jan.16<sup>th</sup> 2010 & coordination between ICARDA & FFS project started on 2010-2011.
- ❖ Twenty six (26) variety FFSs were established which targeted 496 (beneficiary farmers) on the major crops Wheat (Rain Feed & Irrigated) Date Palm Citrus, Protected & Open Fields Tomato, Cucumber & Watermelon.
- **❖ Numerous activities were implemented they are namely:** 
  - ➤ Training (Nationally & abroad ) Over a 104 Facilitators & Potential Facilitators.
  - ➤ Qualifying 6 Master Trainers (TOT) on IPM Techniques & FFS Concept & Methodology.
  - ➤ Co Financing Special Advance training of 12 Nationals on IPM, Bio-Fertilizers, Organic Farming Legislations, Bio agents Production Technology & Composting Techniques.
- **❖** Conducting 20 different Field's Day.
- ❖ On Feb. 23-26 -2014 an Advance Training Course on FFS Approach and future perspectives was conducted for TOTs.
- Significant Reduction on Chemical Pesticides & Fertilizers (50- 100 %) & Consequently a profound cost Decrease as well as noticeable Increase in the Yields.
- ❖ Endless Problems & Obstacles namely; Security, Political Instability, Farmer's Irrelevant daily problems, Subsidy Policy, Lack of National Extension Foundation, Shortage of Human Resources, Over involvement of NPD & his assistance. Currently we are suffering from shortage of Funds.

#### List of FFS/IPM & Their Distribution over Different Governorates of Iraq

N	ο.	Governorate	Region	Crop	No. Farmers		
1	L	Baghdad	Tarmiya	Date palm & Citrus	16		
2	2	Dayalaa	Buhriz	Date palm & Citrus	15		
3	3	Karbalaa	Al-Hur	Date palm & Citrus	20		
4	1	Diwaniya	Salahiya	Wheat / Irrigated Sys.	20		
5	5	Nineveh	Alkush	Wheat/ Rain Fed	19		
e	5	Nineveh	Talafar	Wheat/ Rain Fed	20		
7	7	Erbil	Darash	Wheat / Rain Fed	16		
8	3	Basrah	Nashwa	Tomato/ protected Houses	25		
g	•	Thi Qar	Garaf	Tomato/ protected Houses	21		
1	0	Muthanna	Warkaa	Cucumber /protected Houses	20		
1	1	Babel	Almashroa	Tomato/ protected Houses	20		
1	2	Dayalaa	Muqdadia	Watermelon/ Open Field	20		
1	3	Salah aldeen	Balad	Tomato/ protected Houses	20		
1	4	Nineveh	Eadhiya	Tomato/ Open Field	20		
1	5	Diwaniya	Saniya	Date palm	20		
1	6	Nineveh	faida	Tomato/ Open Field	20		
1	7	Basrah	Shat alarab	Tomato/ protected Houses	24		
1	8	Thi Qar	Garaf	Cucumber / protected Houses	20		
1	9	Thi Qar	Garaf	Cucumber / protected Houses	20		
2	0	Muthanna	Warkaa	Cucumber /protected Houses	20		
2	1	Muthanna	Warkaa	Cucumber /protected Houses	20		
2	2	Muthanna	Warkaa	Cucumber /protected Houses	20		
2	3	Salah aldeen	Balad	Stone fruit	20		
2	4	Babel	Almashroa	Cucumber / protected Houses	20		
2	5	Babel	Almashroa	Cucumber/ protected Houses	20		
2	6	Al anbar	Heet	Cucumber/ protected Houses	20		
		Total					



## Brief impact (with figures) of the IPM-FFSs

**Table 1: First Season Outcome of Dywaniya wheat FFS 2011.** 

No	Activity	IPM	Local practice (LP)
1	Fertilizer (Urea)	100 kg/ D*	200 kg /D
2	Fertilizer (NPK)	80 kg /D	160 kg / D
3	Insecticides	None	1 application
4	Herbicides	None	1 application
5	Total cost	32500 ID**	85000 ID
6	Yield	710 kg /D	625 kg / D
7	Total value	511200	450000
8	Net Income	478700 ID	365000 ID

<sup>\*</sup>D= Donum 2500 m<sup>2</sup>

<sup>\*\*</sup>ID= Iraqi Dinar

<sup>\*\*\*</sup>According to local price 720000 ID / to

Table 2: Output of first season of Nineveh /Talaafar wheat FFS June 2011.

No	Activity	IPM	Local practice (LP)
1	Fertilizer (Urea)	60 kg/ D	200 kg /D
2	Fertilizer (NPK)	40 kg /D	200 kg / D
3	Insecticides	None	None
4	Herbicides	None	1 application
5	Total cost	18000 ID	85000 ID
6	Yield	600 kg /D	500 kg / D
7	Total (Gross) value	432000 ID	360000 ID
8	Net Income	414000 ID	275000 ID

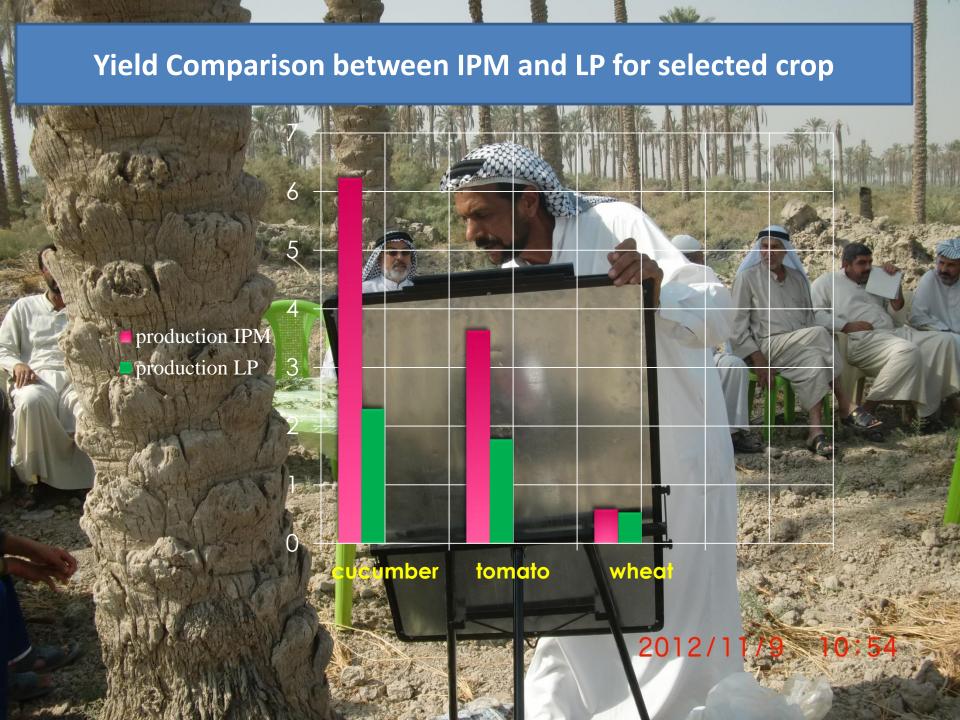
<sup>\*</sup>D= Donum 2500 m<sup>2</sup>

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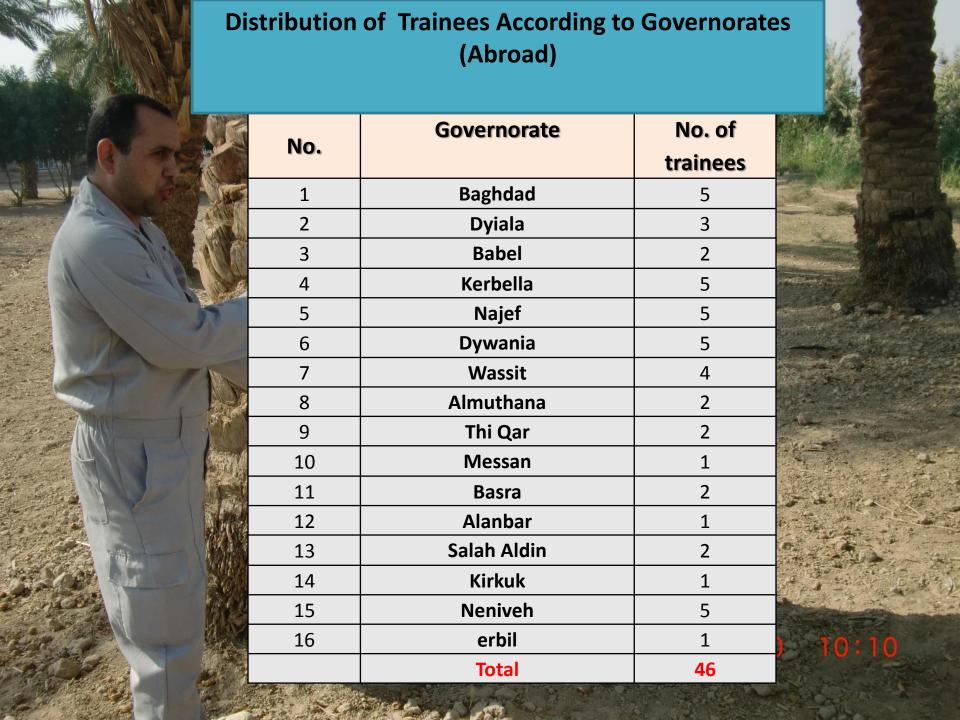
<sup>\*\*\*</sup>According to local price 720000 ID / to

### Project Output in terms of Pesticides and & Chemical Fertilizer Reduction (Farmer's Fields Data)

Crops	Insecticide		% Red.	Fungicides % Rec	% Red	herbicides		% Red.	Chemicals fertilizer		% Red.	
	IPM	LP		IPM	LP		IPM	LP		IPM	LP	
Cucumber	2	9	77.7	1	4	75	0	0	0	6	12	50
Tomato	2	17	88.2	1	6	83.3	0	0	0	5	13	61.5
wheat	0	1	100	0	0	0	0	1	100	50	100	50
Date palm & citrus	0	4	100	0	0	0	0	0	0	-	-	-



# 4. Institutional capacities and infrastructure in the country to sustain the IPM and FFS





## Background and context of IPM in the country;

## Some of IPM practices at FFS Sites





**Soil Solarization** 







Compost + *Trichoderma* sp.
On Protected Tomato & Cucumber
Prouction















Farmer at Kerbella FFS Releasing Clitostethus sp. to Control Jasmine Whitefly on Citrus

### **Conclusion**

This Project and its outputs were made possible through the Generous Trust Fund from the Italian Government. We are grateful to them twice for the fund first and for choosing the Wright Project second. Based on Field's Data That IPM/FFS Approach have Passed "The Validation Stage" Successfully because it had been tested under diverse conditions from Basrah (down South) to Erbil (up North). Today All Stakeholders; Decision Makers Univ. Prof., Extension, Pl. Prot. Specialists and Farmers Knew & Believe in IPM &FFS. For The First time In Iraq We Heard Some Farmers Requesting Skills & Knowledge Instead of Chemical Subsidy. Our Field Data had proven that IPM/ FFS Program is the Ideal extension approach for Wheat, Protected Vegetable & Dates Production Problems. It was too early for Iraq and other countries whom joined the regional project late to terminate the project because we needs more time and experience and will have a "Gap" before we can conduct a national project as a self dependent.

#### Recommendations

- Sustainability of IPM/FFS approach could be vitalized by a strong coordination system between National Programs and New Regional Project through which we can attract other countries in the region.
- On the regional level there are a wide range accumulated knowledge and experience and has to be utilized by other countries through a feasible System.
- Since we beileve in the continuity of the Regional Project we suggest contacting regional organisations such as AOAD (Arab leagues) to financially support such vital project.

