

PESTICIDES & BEES

Prof. Mohammad Alrababah

President of the Jordanian Beekeepers Association

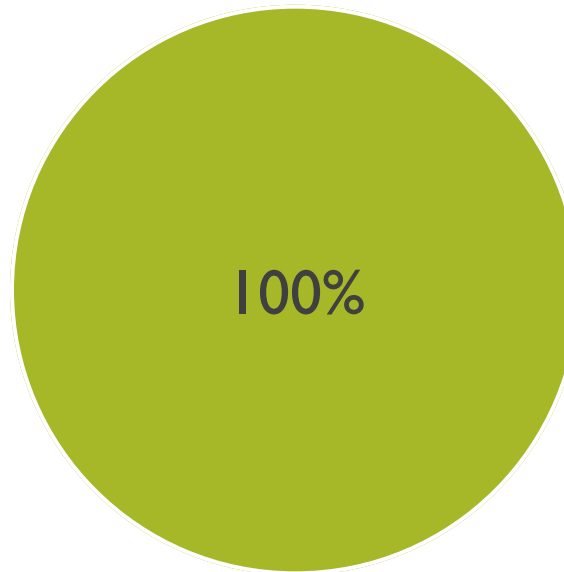
Information & Documentation

- Arab Organization for Agriculture Development
 - Lack of any information or data on bees and pesticides
- Ministries of Agriculture of most countries
 - Public information are either lacking or not clear

Countries that replied to the questionnaire

- Jordan
- Palestine
- Lebanon
- Tunisia
- Algeria

I-Do you have or know or receive communication about honey bee intoxication?

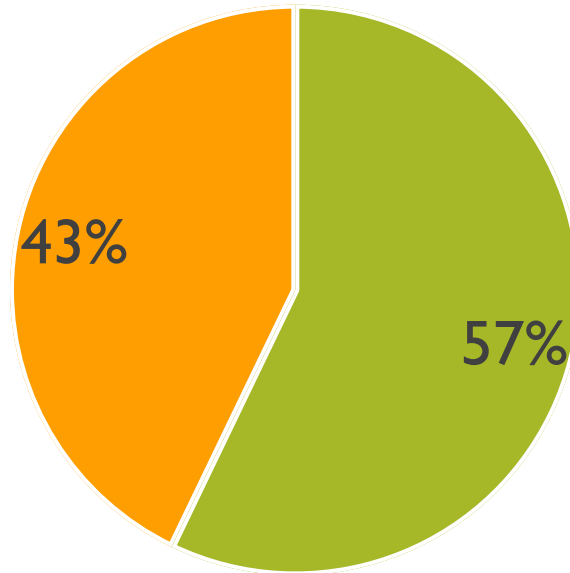


- Yes
- No

Region, Crop & Period of Intoxication

	Region	Crop	period
Jordan	Jordan Valley (Intensive Agriculture) Highland (irrigated and rainfed agriculture)	Citrus, olives, Pome fruits, Stone fruits, Vegetables, Cucurbitacea	Almost year round
Palestine	Intensive Agriculture	-	April – October
Lebanon	South Lebanon	Herbaceous plants	Jan-Feb
Tunisia	Cap Bon, Sahel, north	Citrus, vegetable crops, olive groves, fields of rapeseed	Spring, summer and autumn. Mortality of bees mostly associated with pest control campaigns (fruit fly and olive fly)
Algeria	All territories	-	-

Are the Neonicotinoids used in the country?



- Yes
- No
- Don't know

Neonicotinoids

Country	Acetamprid	Clothianidin	Imidacloprid	Nitenpyram (for Pets)	Nithiazine	thiacloprid	thiamethoxam
Jordan	All Neonics registered in Europe are allowed to register in Jordan						
Palestine	No info						
Lebanon	No info						
Tunisia	X		X			X	X
Algeria							X

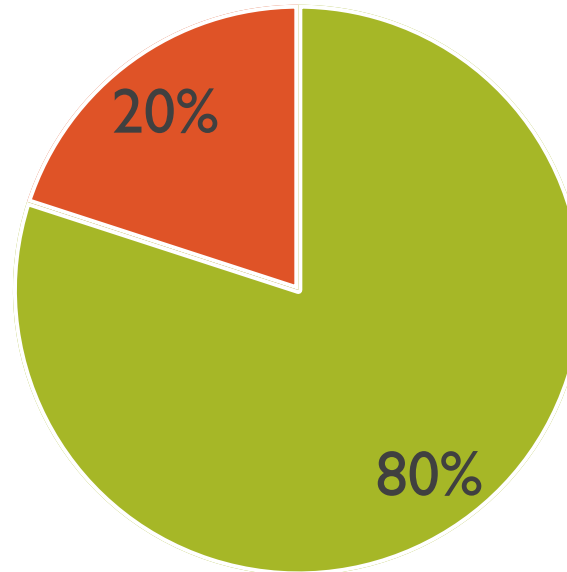
Do you know which pesticide category is causing bee mortality?

Country	Insecticide	Herbicide	Fungicide	Other Pesticides
Jordan	X	X	-	-
Palestine	X	X	-	-
Lebanon		X	-	-
Tunisia	X	-	-	-
Algeria	X	-	-	-

Can you quantify the damage caused by pesticides to bees?

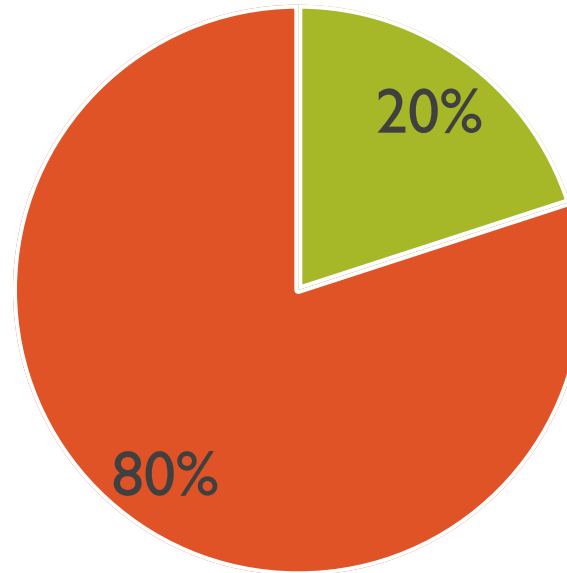
Country	Complete damage (colony losses) %	Partial damage (population decline) %
Jordan	10-20%	30-50%
Palestine	30%	
Lebanon	25%	
Tunisia	No info	No info
Algeria	No info	No info

Clear Pesticide Registration?



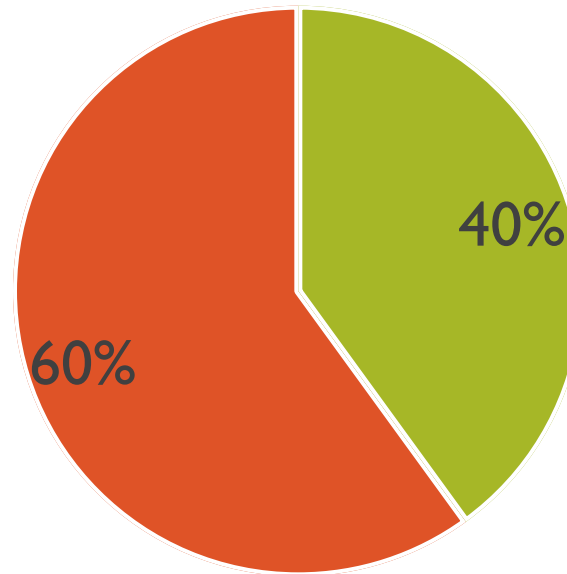
- Yes
- No

Regulation for Pesticide Use?



- Yes
- No

Can beekeepers claim compensation for damage caused to their apiaries by pesticides?



- Yes
- No

Recommendations

- North-South cooperation needed especially in research for the development of alternatives to chemical control against crop pests (organic methods)
- Raising
 - farmers' awareness of the proper use of pesticides
 - public awareness of the problems associated with pesticide use
- We need to develop beekeepers capabilities to deal with pesticides issues
- With regard to regulation:
 - A need to improve regulation and increase awareness among farmers, beekeepers and the public
 - Need for harmonization of legislation on the registration and use of pesticides in the countries of the southern Mediterranean
- Increase networking among beekeepers associations to communicate on issues related to pesticides and bee health
- Create database for pesticide use and their damage to bees

Conclusion

- Pesticide negative impact on honey bee is evident
- Neonicotinoids are becoming increasing threat to beekeepers even in the east and south Mediterranean
- Enough clear evidence of the damage to honey bees from neonicotinoids to initiate regulatory action
- Intensive agriculture is usually associated with pesticide use which is associated with bee damage
- Regulation for pesticide registration is enough but weak regulation on pesticide use and no legal protection for beekeepers
- Information is sparse and is lacking most of the time.

THANK YOU FOR YOUR
ATTENTION