SUMMARY
USAID Asia and Near East
Regional IPM and Pesticides Course
Amman, September 25–29, 2005
Prepared by The Cadmus Group, Inc.

This document summarizes the results of a course held from September 26–30, 2005, at the Dead Sea in Jordan. Training topics included USAID Regulation 22 CFR 216.3(b) (also known as Reg 216) requires that all USAID activities that have pesticide use associated with them receive, at minimum, an Initial Environmental Examination (IEE) to analyze and mitigate potentially dangerous impacts of the pesticides to human health and the environment. Training in safe pesticide use and integrated pest management is one of the most important mitigative measures available and recommended in all pesticide IEEs.

Course Objectives

USAID activities throughout the Asia Near East region focus on improving agricultural production, urban and greenhouse horticulture, and managing insect-borne human diseases. All of these types of activities require the input of pesticides to control pests. Training is highly recommended for all USAID project implementers who oversee policy and activities on pest control and pesticides so that they are used judiciously and safely. This course covered integrated pest management, integrated management of vectors of human and animal diseases, pesticide hazards, safety measures, toxicology, environmental fate for pesticides, the regulation and disposal of pesticides and Pesticide Evaluation Reports and Safer Use Action Plans (PERSUAPs).

Participants and Trainers

Participants included 28 USAID staff and representatives from partner organizations. Names and affiliations are listed in Table 1 below, which also shows details for faculty who contributed to the course. Jim Hester, Agency Environmental Coordinator, and John Wilson, Bureau Environmental Officer, were present at the course. The principal trainer was Dr Alan Schroeder. The participants were fortunate to have Dr. Buhssini from ICARDA teach at this training and provide cutting edge research results from IPM projects for the most important crops and pests in the region.

Table 1: Participants and Facilitators

No.	Name	Organization	Occupation	Country
Participants				
1	Azzad Aziz	Development Program for Iraq	Field Manager	Iraq
2	Alexandria Niewijk	USAID / Afghanistan	Population, Health and Nutrition Officer	Afghanistan

No.	Name	Organization	Occupation	Country
3	Shaif Al-Hamdany	USAID / Yemen	Senior Program Management Advisor	Yemen
4	Wadea Abdulsattar	USAID / Yemen	Economic Growth & Ag Specialist	Yemen
5	Paul Mason	USAID / Cambodia	Economic Growth & Development Officer	Cambodia
6	Eng. Zakaria Musallam	MOA	Agr Eng.	Jordan
7	Eng. Abdulla Musallam	MOA	Agr Eng.	Jordan
8	Eng. Maha Hadidi	MOA	Agr Eng.	Jordan
9	Eng. Na'el Kawaleet	MOA	Agr Eng.	Jordan
10	Eng. Shareef Al-Rawashdeh	NCARTT	Technology Transfer Specialist	Jordan
11	Eng. Hikmat Al-Tarawneh	NCARTT		Jordan
12	Eng. Amjad Al-Rawashdeh	NCARTT		Jordan
13	Eng. Mohammad Al-Kasasbeh	NCARTT		Jordan
14	Eng. Majeda Thneibat	NCARTT		Jordan
15	German Sabillon	Kafa'a		Jordan
16	Mohammad Sha'ban	Kafa'a	Agr Eng.	Jordan
17	Nabeel Maroun	Kafa'a	Agr Eng.	Jordan
18	Isam Nasr	Kafa'a	Agr Eng.	Jordan
19	Shadi El Azzam	Kafa'a	Agr Eng.	Jordan
20	Turki Saqer	Kafa'a	Agr Eng.	Jordan
21	Ahmad Al-Ulayyan	Kafa'a	Agr Eng.	Jordan
22	Ismail Twaissi	RIAL		Jordan
23	Hani Habbab	RIAL		Jordan
24	Ahmad Al-Khalidi	RIAL		Jordan
25	Nabal Qatan	RIAL		Jordan
26	Samer Bkearat	RIAL		Jordan
27	Ziad Ghzawi	RIAL		Jordan
28	Safwan Lubani	RIAL		Jordan
Trainers / Facilitators				
1	Alan Schroeder	The Cadmus Group	Pest and Pesticide Management	USA
2	John Wilson	USAID / Washington	ANE Bureau Environmental Officer	USA
3	James Hester	USAID / Washington	Agency Environmental Coordinator	USA
4	Barney Popkin	USAID / Washington	Water Resourses and Environmental Management	USA

No.	Name	Organization	Occupation	Country
			Consultant	
5	Kholoud Aranki	Ministry of Agriculture	Pesticide Registration	Jordan
6	Dr. Ayman Salti	Ministry of Agriculture	Medical Entomology, Parasitology	Jordan
7	Eng. Mahmoud Abu Shweimeh	Ministry of Agriculture	Pesticides and Bees	Jordan
8	Eng. Mazen Odeh	Farmer / IPM farm	Leading IPM Grower	Jordan
9	Dr. Marwan Abdul Wali	NCARTT	Toxicology & Environmental fate	Jordan
10	Dr. Madi Jaghbir	Free Lancer	Medical Doctor, Lecturer, Researcher	Jordan
11	Dr. Mustapha Buhssini	ICARDA / Syria	Entomology, Germplasm Program	Syria

Course Methodology

The course combined group exercises, field visits, and presentations by visiting lecturers. All group exercises got people active and thinking. Field exercise visits were interesting and informative. The pre-travel lecture on EurepGAP principles and procedures was very useful for understanding one of the sites.

About 95 percent of course expectations as expressed on the first day of training were fulfilled. Some participants sought more detail than the lectures might provide; this was provided in the form of handouts in the course binder. The course binder provided a good list of concise handouts on each of the topics discussed during training, and should be used for future training courses. The book on safe pest and pesticide management, in Arabic, was very much appreciated, as were the USDA ARS-donated handbooks in Arabic and English on pests of greenhouse crops.

A group exercise on safety poster production was suggested by Jim Hester, and followed, with good success. EPA Safety posters were produced in English and Arabic. Trainees commented that they have government-produced posters, but that none is as complete as the posters that were provided for trainees during this course.

Course Evaluation

The training was considered a success by all who attended. Specific comments for improvement are included in the “Training Evaluations” that are being compiled by Cadmus, to be attached. Trainees and USAID/Washington appreciated the production of training posters produced and distributed based upon EPA posters for safety.

Pre- and Post-Course Self Knowledge Evaluations

Participants were asked to evaluate their own knowledge in twenty-one areas related to pest management and pesticides. This method of determining progress was deemed superior to actual pre- and post-course exams of knowledge. Knowledge was self-evaluated on a scale ranging from 1 (none) to 5 (very good). Results of the pre- and post-course self-evaluations are summarized in Table 2 below. These evaluations show that the training improved trainees' understanding in each of the topic areas.

Table 2: Pre- and Post-Course Self Evaluations

Self-rating of participants' understanding of . . .	Class Average Before the Course	Class Average After the Course
USAID environmental requirements	2.4	3.9
International pops and PIC treaties*	1.7	3.6
Biological control of pests	3.1	3.9
Pest control by use of resistant plants	3.0	3.8
Pest control by agronomic methods**	3.0	3.8
Pest control by pesticides	3.5	4.1
Pest control by regulatory means	2.5	3.7
Integrated pest management method	3.4	4.3
Economic impact of pesticides use	3.0	4.0
Safer pesticide transport	2.9	4.1
Safer pesticide storage	3.6	4.3
Safer pesticide handling	3.5	4.2
Safer pesticide use	3.3	4.2
Safer pesticide clean up and disposal	3.3	4.0
Integrated pest management research	2.6	3.8
Pesticide hazards & toxicity to people	3.0	4.2
Pesticide poisoning medical care	2.4	4.1
Eurepgap	2.8	4.0
Where pesticides go in the environment	2.9	3.9
Vectors of animal diseases	2.2	3.7
Integrated vector management	1.9	3.7

*POPs = Persistent Organic Pollutants; PIC = Prior Informed Consent
**Agronomic methods = intercropping, trap cropping, crop rotation, cover crops, etc.

Out of a total evaluation ranking (on a scale of 1 to 5, with 5 for the highest score), the course received an overall ranking of 3.8 for both "How would you assess the overall quality of the course content?" and "Please rate and comment on the extent to which this course improved your understanding of environmental assessment." For "Course scheduling and organization" the overall response was 4.5; for "Course logistics and venue" the response was 4.3, and for "Content of participants' sourcebook" the response was 4.3.

General Comments

Twenty-five participants provided written comments along with their quantitative responses. Several expressed general appreciation:

"The course was very professional."

"It was full of new and important information."

"Nice job--especially nice mix of practical and theoretical, of field and lecture and engaged group activities."

"Thank you for a useful course."

Two respondents praised the timing of the workshop, one noting that it fell at the beginning of the growing season.

Ten respondents specifically praised the organization/logistical aspects of the course.

Areas for Improvement

Many the respondents provided comments that suggest general or specific areas for improvement. For example:

Seven respondents suggested including more field and practical training outside the classroom. One suggested that it would be valuable to take participants to sites both inside and outside the country to gain a wider perspective. One thought the course was too short.

One respondent complained of "technical subjects," while three thought the material was not advanced enough ("no new information"; "most of us know it") or that it should include more pure science. Another respondent complained that "the course was given for professionals in IPM and some of us are not professionals in IPM."

One respondent suggested doing a better job of selecting participants; another suggested screening participants for English skills, and complained that some presenters were just reading from slides. A third respondent appreciated the cultural sensitivity shown by the inclusion of local experts, but thought their presentations were "generally poor."

One respondent suggested including a lecture about an ideal farm in a European country that applied EurepGAP; another suggested including more material that addresses "RDS/216 requirements" and "IEE conditionalities." A third respondent suggested adding more material on Environmental Impact Assessments, and on "topics regarding environment & IPM policies and setup of programs"; the same respondent suggested repeating the course in another country.

Commenting on course scheduling and organization, one respondent thought that there was "much skipping around which could be confusing." Another thought the material on medical aspects of poisoning and first aid should come first.

One respondent suggested that it would be valuable to arrange for group transportation and organize a cultural excursion after training hours.

Improvements Reported by Participants

Eleven participants commented that the course improved their understanding of environmental assessment. For example:

> "As a nonspecialist in plant protection it improved my general knowledge about IPM and regulations."
>
> "It increased my awareness about IPM in terms of health."
>
> "Very good to understand that IPM is a policy of USAID. Gained new knowledge and understanding of POP, PIC, and EUREPGAP."

ANE/TS Support Services Task Order

This course was supported through core funds and technical assistance under the USAID Asia and Near East Bureau Office of Technical Support (ANE/TS) Support Services Task Order. For more information on services available through this Task Order, please contact Barney Popkin (202-712-1063) or John Wilson (202-712-4633).