



JORDAN
WEED MANAGEMENT
COURSE



1986





Capsule Summary

Event:

Jordan Weed Management Course

Dates:

January 12-29, 1986

Sponsored and/or supported by:

Ministry of Agriculture, Jordan
International Program Support Office, Washington State University
International Plant Protection Center, Oregon State University
U.S. Agency for International Development
Jordan Valley Agricultural Services Project

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*Instructor (left) presents
weed identification data
to participant group.*





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Acronyms

- AID - U.S. Agency for International Development
- IPM - Integrated pest management
- IPPC - International Plant Protection Center
- JVAS - Jordan Valley Agricultural Services Project
- MOA - Ministry of Agriculture (Jordan)

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Narrative Summary

BACKGROUND

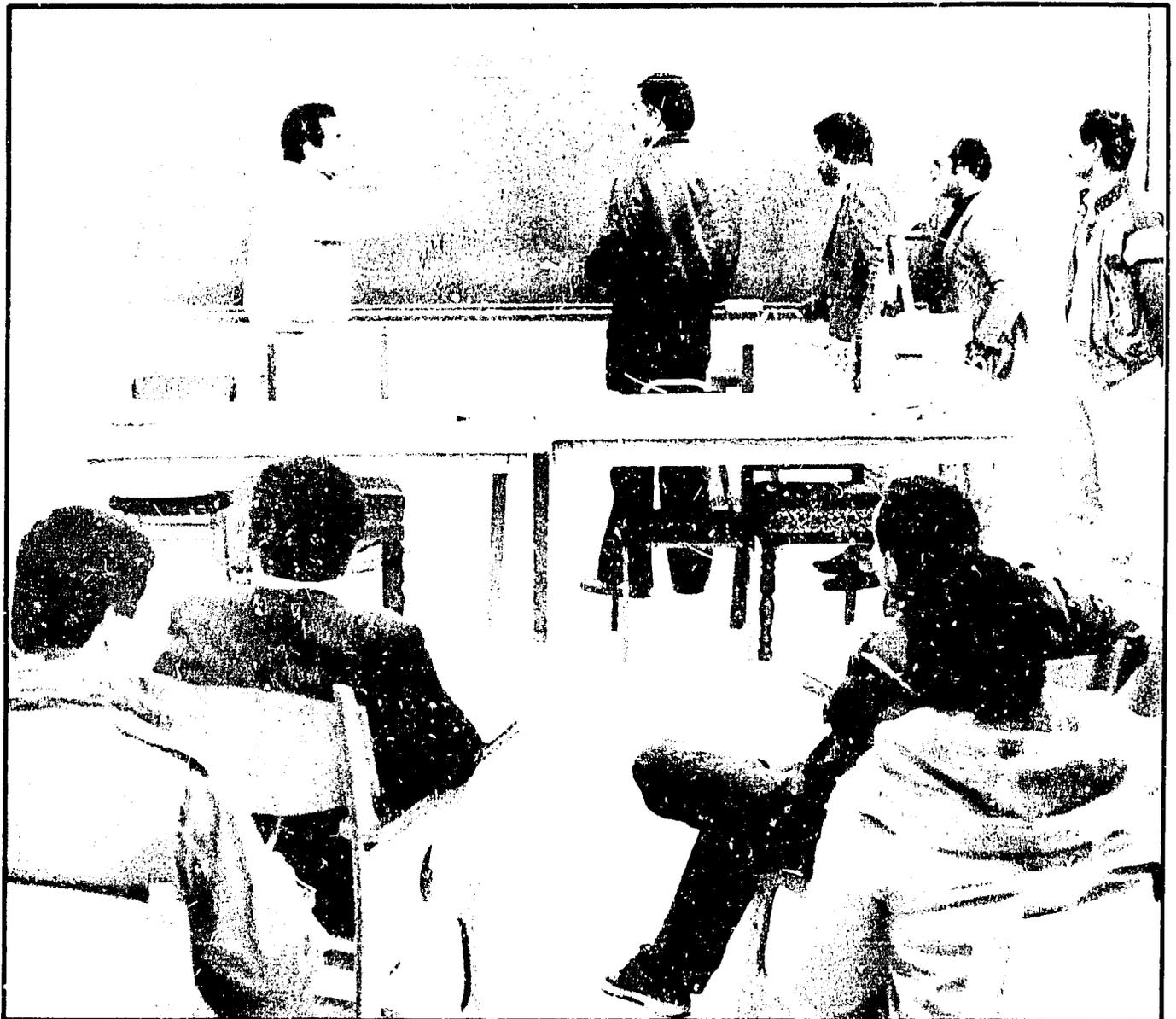
The need for an intensive weed management training course in Jordan was first discussed during 1984 meetings between Drs. R.F. Harwood, Chief of Party, Jordan Valley Agricultural Services Project through Washington State University, and B.L. Pollack, U.S. Agency for International Development agricultural specialist. AID supports both the JVASP and the ongoing Weed Management Project conducted by the International Plant Protection Center at Oregon State University, for which Dr. Pollack served as monitor.

Approval for the course was granted and, in April 1984, IPPC senior weed scientist L.C. Burrill visited Jordan to discuss the nature of the course and initiate detailed planning and arrangements.

It was agreed that the Jordan course would be held in early 1986 and would be conducted in a manner similar to previous successful training courses presented by IPPC. MOA and JVASP staff would organize the event.

During the course, lever-operated knapsack sprayers were assembled and used in various exercises.





An instructor (pointing) and participants worked together during classroom sessions.

THE COURSE

Training sessions were conducted at the Jordan Valley Research and Training Farm of the University of Jordan. Housing and food service for the course participants and instructors were provided at the station in addition to teaching rooms, field space, and plastic-house facilities.

The course was officially opened January 12, 1986, with comments by Dr. Ghazi Kona'an, JVASP Director; Dr. Mahmoud Duwairi, Dean, Faculty of Agriculture, University of Jordan; and, Mwaffaq Saudi, Assistant Under-secretary, Ministry of Agriculture.

Twenty seven participants representing the extension service of the MOA and JVASP, the University of Jordan, and the private sector were on hand for the course opening.

Dr. Barakat Abu Irmaileh, Weed Control Specialist at the University of Jordan and Acting Chairman of the University's Plant Protection Department, functioned in numerous roles--co-organizer, instructor, and contact person. IPPC provided three other weed scientist instructors: Dr. C. Elmore, Dr. R. William, and L.C. Burrill.



Participants conducted experiments to simulate effect of rainfall "wash-off" on herbicides and observed the results.

The course combined an intensive blend of weed management principles with research and demonstration techniques. Formal classroom discussions were supplemented with field activities and visits to farmers' fields. A high level of involvement by the participants was stressed through the course.

During the closing ceremony the participants were honored by the presence and comments of Dr. Mahmoud Duwairi, and the Undersecretary of Agriculture, Dr. Salem Al Louzi. Certificates of achievement were presented to 26 participants on the final day of the course.

Visitors and interested observers during the course included Dr. J.L. Osbun, Dean, College of Agriculture and Home Economics, Washington State University, and Dr. R.O. Butler, Washington State University coordinator for the JVASP.





Topics and Activities

A wide range of weed management principles and issues were presented and discussed. Along with classroom sessions, participants engaged in "hands-on" field activities.

- o Pre-course examination
- o Sprayer calibration
- o Field research techniques
- o Herbicide calculations
- o Safe use of pesticides
- o Definition of weeds
- o Losses due to weeds
- o Weed identification
- o Weed biology and dissemination
- o Pesticide registration in Jordan
- o Principles of weed control
- o Physical and cultural control of weeds
- o Weed control with herbicides
- o Herbicide classification
- o Principles of herbicide selectivity
- o Spray nozzles and screens
- o Calibrating motorized sprayers
- o Factors affecting foliage-applied herbicides
- o Factors affecting soil-applied herbicides
- o Miscellaneous application methods
- o Soil tillage equipment
- o Herbicide families
- o Use of ethyl bromide
- o Weed population shifts
- o Tour of farmers' fields - vegetable crops
- o Tour of farmers' fields - citrus and banana
- o Solarization for pest control
- o Research evaluation methods
- o Group preparation and presentation of selected assignments
- o IPM and weed control



Participant (left) and instructor review a question about weed management during the course.



Course participants recorded herbicide-caused symptoms for various test species.



Demonstration experiments were evaluated during a session in a plastic-house.



Participants, instructors, officials, and guests associated with the 1986 Jordan Weed Management Course gathered for a group photo.



Participants, instructors, officials, and guests associated with the 1986 Jordan Weed Management Course gathered for a group photo.

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Participants

Twenty seven participants representing the extension service of the MOA and JVASP, the University of Jordan, and the private sector attended the course.

Muhammad Mustafa Younis Jalboush	Deir Alla Agr. Research Station Deir Alla
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Emin Dauod Dawik	P.O. Box 4290 Amman
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Nassor S. Garaiben	Irbid-Howara
Bilal Fathi Arafat	King Tala St., Arafat Bazar Amman
Yousef Ramadan	Dept. of Agriculture Ramtha
Abdullah Kanan	Irbid - Kafrjayez
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Jamal Al-Rushaidat	P.O. Box 1035 Irbid
Motassem M. Obidat	P.O. Box 226 Amman
Taisir Ibrahim Mohammad Shalan	P.O. Box 15140 Amman



*A pause for refreshments
and a lighter moment.*



Instructors

Individuals serving as the major instructors and organizers for the course were:

- Dr. Barakat Abu Innaileh, Weed Control Specialist, University of Jordan.
- Dr. C. Elmore, Extension Specialist in weed control, Department of Botany, University of California, Davis, CA, USA.

- Dr. R. William, Extension Specialist in weed control, Department of Horticulture, Oregon State University, Corvallis, OR, USA.
- L.C. Burrill, Weed Control Specialist, International Plant Protection Center, Oregon State University, Corvallis, OR, USA.



The course's instructors discuss strategy in the field.



Materials

Each participant was given a copy of several publications covering important weed science topics. Additional relevant reference books were added to the library of the JVASP.

Titles included:

- Communication of Weed Science in Developing Countries by Williams
- Factors Influencing Herbicide Performance
- Field Manual For Weed Control Research by Burrill, Cardenas, Locatelli
- Guidelines for the Safe and Effective Use of Pesticides (GIFAP)
- Knapsack Sprayers; Use, Maintenance, and Accessories by Fraser and Burrill
- Technical Assistance Bulletin on Spray Nozzles (IPPC)
- Technical Assistance Bulletin on Spray Shields for Knapsack Sprayers (IPPC)
- Teejet Spray Manual Catalog (Spraying Systems Co.)
- Weed Crop Competition by Zimdahl
- Applied Weed Science by Ross and Lembi
- Agricultural Chemicals: Book II Herbicides by Thomson
- Weeds of Jordan

Groups of participants measured out trial research plots.





Participants' Recommendations

At the conclusion of the 3-week course, participants were invited to offer their recommendations regarding the course.

1. More time should be given for the course, but each day should be less intensive.
2. There is a need in Jordan for more courses of this type.
3. When possible, courses should be taught in Arabic.
4. Course participants should be given incentives to attend.

5. Following the course, participants should be provided equipment, herbicide supplies, and information so that the knowledge may be used more effectively.
6. There should be stronger ties between the Ministry of Agriculture and the University of Jordan.

During a field trip, participants visited a vegetable farmer in the southern Jordan Valley and discussed weed management strategies and methods.



It is hereby certified that

.....
having satisfactorily participated in the

WEED MANAGEMENT TRAINING COURSE

conducted at University of Jordan Research—Jordan Valley
January 12 to 30, 1986
is duly awarded this



Certificate of Achievement

.....
Dr. Salem Al Louzi
Undersecretary
Ministry of Agriculture

Shazi Kaph'an
.....
Shazi Kaph'an
Director
Jordan Valley Agricultural
Department

R. F. Harwood
.....
Dr. R. F. Harwood
Chief of Party
Jordan Valley Agricultural
Services Project

L. C. Burgh
.....
L. C. Burgh
Senior Weed Scientist
International Plant
Protection Centre



Acknowledgements

The course instructors acknowledge the fine support by Mr. Husein Elmosa, Manager of the University of Jordan Farm and his staff.

Thanks, also, to Dr. R. Butler and staff of the International Program Support Office at Washington State University for excellent support during the organizational stages of the course.



A participant checks the results of a herbicide selectivity experiment conducted during the course.