

1996-44

**SUDAN and ICARDA:
Working for Food Security**

Adel El-Beltagy
Director General

International Center for Agricultural
Research in the Dry Areas

**How ICARDA is Working
with Ethiopia**

Adel El-Beltagy
Director General

International Center for Agricultural
Research in the Dry Areas

Vol. 21, No. 2, 1994

**LENS
NEWSLETTER**

THE INTERNATIONAL CENTER FOR AGRICULTURAL RESEARCH
IN THE DRY AREAS (ICARDA)

UNIVERSITY OF SASKATCHEWAN

**A Catalog of
Annual Wild Cicer Species**

L. D. Robertson, K. B. Singh and B. Ocampo

International Center for Agricultural Research in the Dry Areas

ICARDA Publications Catalog

ICARDA
SOCIAL SCIENCES SERIES
1

**Economic Returns from
Improved Wheat Technology
in Upper Egypt**

A. Ali Hassan
I. Ghannem
A. A. Ali
M. Munawar
M. B. Sulhi

Board of Trustees Presentation

26 - 27 April 1995

International Center for Agricultural Research in the Dry Areas

**Biodiversity
A Key to Food Security**

International Center for Agricultural
Research in the Dry Areas

ICARDA
SOCIAL SCIENCES SERIES
2

**Food and Feed Prospects to
2020 in the West Asia/North
Africa Region**

Thomas L. Northham,
Farouk Shoop

International Center for Agricultural
Research in the Dry Areas

**ICARDA
Caravan**

Issue No. 2 Winter 1995-96

Review of dryland agriculture

In this issue:
This resource
How security may be
the most pressing issue
in agriculture. ICARDA
is meeting the challenge
with satellite images to
help us find, and
harvest, water.

**Reaching out
to Central Asia
Levill**
A halcyon tale (rather
different) countries
A broad spectrum
National technology can
help identify good feed
stems.

**ICARDA in
the Americas**
Fighting the corrupt
merchants

Feed blocks
A new way to make
good feed

**Dryland Biodiversity Conservation
through
Natural Resource Management**

International Center for Agricultural Research in the Dry Areas
ICARDA

**Nile Valley Regional Program (NVRP):
A MODEL FOR
TECHNOLOGY TRANSFER**

Mahmoud B. Solh
Regional Coordinator, NVRP/ICARDA

ARC
Egypt

ARC
Ethiopia

ARC
Sudan

ICARDA

**THE ORIGIN OF
OUR DAILY BREAD**

International Center for Agricultural Research in the Dry Areas
International Plant Genetic Resources Institute

**International Center
for Agricultural Research
in the Dry Areas**

1994-1995 Supplement

About ICARDA

Established in 1977, the International Center for Agricultural Research in the Dry Areas (ICARDA) is governed by an independent Board of Trustees. Based at Aleppo, Syria, it is one of 16 centers supported by the Consultative Group on International Agricultural Research (CGIAR), which is an international group of representatives of donor agencies, eminent agricultural scientists, and institutional administrators from developed and developing countries who guide and support its work.

The CGIAR seeks to increase agricultural production, in a sustainable way, to feed the growing populations of the developing world. It aims to alleviate poverty and malnutrition and, consequently, contribute to human welfare and social stability.

ICARDA's mission is to meet the challenge posed by a harsh, stressful, and variable environment in which the productivity of winter rainfed agricultural systems must be increased to higher sustainable levels; in which soil degradation must be arrested and possibly reversed, and in which the quality of the environment needs to be assured. ICARDA meets this challenge through research, training, and dissemination of information in a mature partnership with the national agricultural research and development systems.

The Center has a world responsibility for the improvement of barley, lentil, and faba bean, and a regional responsibility in West Asia and North Africa for the improvement of wheat, chickpea, forage and pasture—with emphasis on rangeland improvement and small ruminant management and nutrition—and of the farming systems associated with these crops.

Much of ICARDA's research is carried out on a 948-hectare farm at its headquarters at Tel Hadya, about 35 km southwest of Aleppo. ICARDA also manages other sites where it tests material under a variety of agroecological conditions in Syria and Lebanon. However, the full scope of ICARDA's activities can be appreciated only when account is taken of the cooperative research carried out with many countries in West Asia and North Africa and elsewhere in the world.

The results of research are transferred through ICARDA's cooperation with national and regional research institutions, with universities and ministries of agriculture, and through the technical assistance and training that the Center provides. A range of training programs is offered extending from residential courses for groups to advanced research opportunities for individuals. These efforts are supported by seminars, publications, and specialized information services.

ICARDA
Publications Catalog
1994-1995 Supplement



International Center for Agricultural Research in the Dry Areas
P.O. Box 5466, Aleppo, Syria

© 1996 The International Center for Agricultural Research
in the Dry Areas

All rights reserved.

ICARDA encourages the fair use of this material.
Proper citation is requested.

Citation: ICARDA. 1996. ICARDA Publications Catalog, 1994-1995
Supplement. ICARDA, Aleppo, Syria. 71 pp. En.

ISBN: 92-9127-045-8

Printed at ICARDA

ICARDA
P.O. Box 5466, Aleppo, Syria
Phone: (963-21) 213477/225112/221512
Fax: (963-21) 213490/225105
Telex: 331208/331206 ICARDA SY

Note to Readers

This is the third supplement to the cumulative ICARDA publications Catalog 1977-1990. The first supplement for 1991 was published in 1993 and the second supplement for 1992-1993 was published in 1994. Citations are classified into eight categories, and listed by the year of publication. Theses produced with ICARDA's support are also listed.

Titles listed in this supplement can be obtained, subject to availability of stocks, by writing to ICARDA. The Depository Libraries listed in Appendix A hold all key publications of ICARDA and other international agricultural research centers and make them available to readers in their respective countries through interlibrary loan and photocopy services. Readers are encouraged to use the services of these libraries if their requests cannot be fulfilled by ICARDA due to non-availability of stocks.

This supplement was compiled using the UNESCO Micro CDS/ISIS software, and is merged with the ICAPUB database at ICARDA. Copies of this database are available to ICARDA cooperators on request.

Contents

Major Reports	1
Annual Reports	1
Program Reports	1
Regional Program Reports	2
Nile Valley Regional Program	2
North Africa Regional Program	3
West Asia Regional Program	3
Highland Regional Program (Pakistan)	4
Highland Regional Program (Turkey)	4
Latin America Regional Program	5
Syria/ICARDA Collaborative Program	5
Iran/ICARDA Collaborative Program	6
International Nursery Reports	6
Barley	6
Legumes	6
Program of Work and Budget	6
Specialized Publications	7
Newsletters/Periodicals	7
Workshop Proceedings and Reference Books	7
Occasional Reports	9
Research Reports	9
Training Publications	10
Training Manuals	10
Directories/Catalogs	11
Catalogs	11
Annotated Bibliographies	11
Miscellaneous	11
Information Brochures	11
CGIAR/Donor Information	11
Articles	12
Journal Articles	12
Newsletter Articles	24
Book Chapters and Conference Papers	25
Theses	48
Author Index	51
Subject Index	62
Appendix A	67

Major Reports

Annual Reports

- (0001) ICARDA, Aleppo (Syria). 1994. ICARDA annual report 1993. En. 128 pp., Ar. 128 pp.
- (0002) ICARDA, Aleppo (Syria). 1995. ICARDA annual report 1994. En. 128 pp., Ar. 128 pp.

Program Reports

- (0003) ICARDA, Aleppo (Syria). 1994. Cereal improvement program annual report 1993. En. 161 pp.
- (0004) ICARDA, Aleppo (Syria). 1995. Germplasm program: cereals annual report for 1994. En. 258 pp.
- (0005) ICARDA, Aleppo (Syria). 1994. Farm resource management program annual report 1993. En. 227 pp.
- (0006) ICARDA, Aleppo (Syria). 1995. Farm resource management program annual report 1994. En. 288 pp.
- (0007) ICARDA, Aleppo (Syria). 1994. Genetic resources unit annual report 1993. En. 116 pp.
- (0008) ICARDA, Aleppo (Syria). 1994. Legume program annual report 1993. En. 384 pp.
- (0009) ICARDA, Aleppo (Syria). 1995. Germplasm program: legumes annual report 1994. En. 316 PP.
- (0010) ICARDA, Aleppo (Syria). 1994. Pasture, forage and livestock program annual report 1993. En. 195 pp.
- (0011) ICARDA, Aleppo (Syria). 1994. Seed unit annual report 1993. En. 33 pp.
- (0012) ICARDA, Aleppo (Syria). 1995. Seed unit annual report 1994. En. 44 pp.

En, English; Ar, Arabic; Fr, French; Es, Spanish; De, German.

Regional Program Reports

Nile Valley Regional Program

(Available from: ICARDA, 15 G. Radwan Ibn El-Tabib Giza, 11th Floor, P.O. Box 2416, Cairo, Egypt)

- (0013) ICARDA, Cairo (Egypt). 1994. Nile Valley regional program barley annual report, 1993/94, sixth annual coordination meeting, 11-15 Sept 1994, Cairo, Egypt. En. 116 pp.
- (0014) ICARDA, Cairo (Egypt). 1994. Nile Valley regional program on cool-season food legumes and cereals: annual report 1992/93, Egypt. En. 157 pp.
- (0015) ICARDA, Cairo (Egypt). 1994. Nile Valley Regional Program on cool-season food legumes and cereals: proceedings of the seventh steering committee meeting, 29 Nov - 3 Dec 1994, Addis Ababa, Ethiopia. En. 60 pp.
- (0016) ICARDA, Cairo (Egypt). 1995. Nile Valley regional program highlights (1994/95) and workplan (1995/96): barley program. Regional coordination meeting, 24-27 Sept 1995, Aleppo, Syria. En. 33 pp.
- (0017) ICARDA, Cairo (Egypt). 1995. Nile Valley regional program barley annual report, 1994/95, annual coordination meeting, 10-14 Sept 1995, Cairo, Egypt. En. 131 pp.
- (0018) ICARDA, Cairo (Egypt). 1994. Nile Valley regional program on cool-season food legumes: annual report 1992/93, Ethiopia. En. 156 pp.
- (0019) ICARDA, Cairo (Egypt). 1994. Nile Valley regional program on cool-season food legumes and wheat—Sudan, bread wheat report, annual national coordination meeting, 28 Aug - 1 Sept 1994, Wad Medani, Sudan. En. 267 pp.
- (0020) ICARDA, Cairo (Egypt). 1994. Nile Valley regional program on cool-season food legumes and wheat—Sudan, food legumes report, annual national coordination meeting, 28 Aug - 1 Sept 1994, Wad Medani, Sudan. En. 356 pp.
- (0021) ICARDA, Cairo (Egypt). 1995. Nile Valley regional program on cool-season food legumes and wheat: annual report 1993/94, Sudan. En. 186 pp.
- (0022) ICARDA, Cairo (Egypt). 1994. Nile Valley regional program on cool-season food legumes and cereals, workplan and budget, 1993/94, Egypt. En. 143 pp.
- (0023) ICARDA, Cairo (Egypt). 1995. Nile Valley regional program on cool-season food legumes and cereals, workplan and budget, 1994/95, Egypt. En. 94 pp.

- (0024) ICARDA, Cairo (Egypt). 1994. Nile Valley regional program on cool-season food legumes and barley, workplan and budget, 1994/95, Ethiopia. En. 142 pp.
- (0025) ICARDA, Cairo (Egypt). 1994. Nile Valley regional program on cool-season food legumes and wheat, workplan and budget, 1994/95, Sudan. En. 63 pp.

North Africa Regional Program

(Available from: ICARDA, Immeuble STB Dalia 6, 1st Floor, Apt. 1, Tunis, Tunisia)

- (0026) ICARDA, Tunis (Tunisia). 1994. Mashreq/Maghreb project for the development of integrated crop/livestock production in West Asia and North Africa: workplan 1994/1995 in collaboration with the Moroccan, Libyan, Algerian and Tunisian agricultural research programs. En. 68 pp.

West Asia Regional Program

(Available from: ICARDA, P.O. Box 950764, Amman, Jordan)

- (0027) ICARDA, Amman (Jordan). 1994. West Asia regional program on increased productivity of barley, pasture and sheep: annual report 1992/93. En. 166 pp.
- (0028) ICARDA, Amman (Jordan). 1994. West Asia regional program on increased productivity of barley, pasture and sheep in the critical rainfall zones: workplan for 1994/1995 season. En. Ar. 184 pp.
- (0029) ICARDA, Amman (Jordan). 1994. West Asia regional program on increased productivity of barley, pasture and sheep: annual report 1993/94. En. 172 pp.
- (0030) ICARDA, Amman (Jordan). 1994. Mashreq project training and education: special report on Mashreq project sixth steering committee meeting, 7-8 Nov 1994, Amman, Jordan. En. 31 pp.
- (0031) Jaradat, A.A.; Haddad, N.I. 1994. Analysis and interpretation of Mashreq project findings (1990-1992): special report. Mashreq project: increased productivity of barley, pasture and sheep. ICARDA/IFAD/AFESD. 133 pp. ICARDA, Amman, Jordan. En. 133 pp.
- (0032) ICARDA, Amman (Jordan). 1995. The development of integrated crop/livestock production in West Asia and North Africa (Mashreq/Maghreb Project): the region, the project objectives, approach, target areas and work plans summary. AFESD/IFAD. En. 77 pp.
- (0033) ICARDA, Amman (Jordan). 1995. The development of integrated crop/livestock production in West Asia and North Africa (Mashreq/Maghreb Project):

detailed country work plans 1995/1996 growing season. ICARDA/IFAD/AFESD. En. 233 pp.

- (0034) Snobar, B.; Haddad, N. 1995. Food legume improvement project (1980-1992): project activities and achievements. General Knowledge Series 1/95. Ar, En. 59 pp. University of Jordan, Amman, Jordan.
- (0035) Sweidan, Y. 1995. The first annual technical report of Mashreq/Maghreb project for the development of integrated crop/livestock production in the 1994/95 season. Ministry of Agriculture and Agrarian Reform, Damascus (Syria)/ICARDA/IFAD/AFESD. Ar. 79 pp.

Highland Regional Program (Pakistan)

- (0036) Khan, M.A.; Sarfraz, A.; Jalil, S.A.; Mirza, Z.; Alvi, A.S. 1993. Germplasm evaluation in the arid highlands of Balochistan: 1993 annual report of the AZRI germplasm research group. MART/AZR project research report No. 80. En. 33 pp. Available from: Arid Zone Research Institute, PARC, P.O. Box 362, Quetta, Pakistan.
- (0037) Arid Zone Research Institute, Quetta (Pakistan). 1994. Land and range resource management issues and food security in Balochistan. En. 19 pp. Available from: Arid Zone Research Institute, PARC, P.O. Box 362, Quetta, Pakistan.
- (0038) Thomson, E.F. 1994. Management of agricultural research and technology/arid zone research component (MART/AZR)(MART project 391-0489): end of project report. En. 88 pp. Available from: Arid Zone Research Institute, PARC, P.O. Box 362, Quetta, Pakistan.

Highland Regional Program (Turkey)

(Available from: ICARDA, P.O. Box 39, EMEK, Ankara, Turkey)

- (0039) ICARDA, Ankara (Turkey). 1994. Development of small-scale farmers of Taurus mountains of Turkey. Highland regional program: Cukurova University/ICARDA Taurus Mountains Collaborative Project annual report 1991/92. En. 52 pp.
- (0040) ICARDA, Ankara (Turkey). 1995. Development of small-scale farmers of Taurus mountains of Turkey. Highland regional program: Cukurova University/ICARDA Taurus Mountains Collaborative Project annual report 1992/93. En. 40 pp.
- (0041) ICARDA, Ankara (Turkey). 1995. Enhancing productivity and sustainability

of crop production in the Mediterranean highlands. Highland Regional Program: EC/ICARDA Mediterranean Highlands Project (MED/94/b7-4080) work plan and budget - 1994/95. En. 19 pp.

- (0042) Materon, L.A.; Keatinge, J.D.H.; Beck, D.P.; Yurtsever, N.; Karuc, K.; Altintas, S. 1995. Survey of *Rhizobium* numbers and symbiotic effectiveness in the West Asian highlands. Final project report. En. 66 pp.

Latin America Regional Program ---

- (0043) ICARDA, Aleppo (Syria). 1994. Annual report for CIMMYT/ICARDA regional bread wheat nurseries 1991/92. En. 122 pp.
- (0044) ICARDA, Aleppo (Syria). 1994. Annual report for CIMMYT/ICARDA regional bread wheat yield trials 1991/92. En. 95 pp.
- (0045) ICARDA, Aleppo (Syria). 1994. Annual report for CIMMYT/ICARDA regional durum wheat nurseries 1991/92. En. 133 pp.
- (0046) ICARDA, Aleppo (Syria). 1994. Annual report for CIMMYT/ICARDA regional durum wheat yield trials 1991/92. En. 85 pp.
- (0047) ICARDA, Aleppo (Syria). 1995. Annual report for CIMMYT/ICARDA regional bread wheat yield trials 1992/93. En. 72 pp.
- (0048) ICARDA, Aleppo (Syria). 1995. Annual report for CIMMYT/ICARDA regional bread wheat nurseries 1992/93. En. 107 pp.
- (0049) ICARDA, Aleppo (Syria). 1995. Annual report for CIMMYT/ICARDA regional durum wheat nurseries 1992/93. En. 138 pp.
- (0050) ICARDA, Aleppo (Syria). 1995. Annual report for CIMMYT/ICARDA regional durum wheat yield trials 1992/93. En. 82 pp.
- (0051) ICARDA, Aleppo (Syria). 1995. Annual report for CIMMYT/ICARDA regional bread wheat observation nurseries 1993/94. En. 89 pp.
- (0052) ICARDA, Aleppo (Syria). 1995. Annual report for CIMMYT/ICARDA regional durum wheat observation nurseries 1993/94. En. 149 pp.

Syria/ICARDA Collaborative Program ---

- (0053) ICARDA, Aleppo (Syria). 1994. [ICARDA/Syria collaborative research and training program: annual report 1992/93]. Ar. 258 pp.

- (0054) ICARDA, Aleppo (Syria). 1995. [ICARDA/Syria collaborative research and training program: annual report 1993/94]. Ar. 226 pp.

Iran/ICARDA Collaborative Program

- (0055) Ministry of Agriculture, Agricultural Research Organization, Tehran (Iran) and ICARDA, Aleppo (Syria). 1995. Iran/ICARDA collaborative project and research and training program: third planning and coordination meeting 1995/96, 2-5 Sept 1995, Maragheh, Iran. En. 79 pp. ICARDA, Aleppo, Syria.

International Nursery Reports

Barley

- (0056) ICARDA, Aleppo (Syria). 1994. Annual report for the international barley nurseries 1991/92. En. 291 pp.
- (0057) ICARDA, Aleppo (Syria). 1995. Annual report for the international barley nurseries 1992/93. En. 173 pp.
- (0058) ICARDA, Aleppo (Syria). 1995. Annual report for the international barley yield trials 1992/93. En. 125 pp.
- (0059) ICARDA, Aleppo (Syria). 1995. Annual report for the international barley observation nurseries 1993/94. En. 138 pp.

Legumes

- (0060) ICARDA, Aleppo (Syria). 1994. International nursery report No. 15. Food legume nurseries 1990/91 En. 330 pp.

Program of Work and Budget

- (0061) ICARDA, Aleppo (Syria). 1994. ICARDA's program of work and budget 1995. En. 42 pp.
- (0062) ICARDA, Aleppo (Syria). 1995. ICARDA's program of work and budget 1996. En. 42 pp.

Specialized Publications

Newsletters/Periodicals

- (0063) ICARDA, Aleppo (Syria). 1994. Dryland Pasture and Forage Legume Network News. No. 10, En, 28 pp.
- (0064) ICARDA, Aleppo (Syria). 1995. Dryland Pasture, Forage and Range Network News. No. 11, En, 28 pp.
- (0065) ICARDA, Aleppo (Syria). 1993. FABIS Newsletter No. 33, En/Ar, 44 pp.
- (0066) ICARDA, Aleppo (Syria). 1994. FABIS Newsletter No. 34-35, En/Ar, 57 pp.
- (0067) ICARDA, Aleppo (Syria). 1994. Global Grain Legumes Drought Research Network (GGLDRN). Vol. 2, No. 1, En, 10 pp.; No. 2, En, 6 pp.
- (0068) ICARDA, Aleppo (Syria). 1995. ICARDA Caravan: Review of Dryland Agriculture. No. 1, En, 20 pp. En.
- (0069) ICARDA, Aleppo (Syria). 1994. LENS Newsletter Vol. 21, No. 1, En/Ar, 48 pp.
- (0070) ICARDA, Aleppo (Syria). 1994. LENS Newsletter Vol. 21, No. 2, En/Ar, 52 pp.
- (0071) ICARDA, Amman (Jordan). 1994. Mashreq Project Newsletter. No. 5, Ar, 20 pp.; No. 6, Ar, 24 pp. Available from: ICARDA, P.O. Box 950764, Amman, Jordan.
- (0072) ICARDA, Amman (Jordan). 1995. Mashreq project Newsletter. No. 7, Ar, 12 pp. Available from: ICARDA, P.O. Box 950764, Amman, Jordan.
- (0073) ICARDA, Aleppo (Syria). 1994. RACHIS Newsletter Vol. 13, No. 1-2, En/Ar, 59 pp.
- (0074) ICARDA, Aleppo (Syria). 1995. Seed Info, No. 8, En, 18 pp.

Workshop Proceedings and Reference Books

- (0075) Bounejmate, M. (ed.). 1994. La production fourragere dans la zone nord du Maroc: compte rendu de l'atelier de travail de Tanger. 21-24 Mar 1994, Tanger, Maroc. [The forage production in the northern zone of Morocco: proceedings of

the Tanger workshop. 21-24 Mar 1994, Tanger, Morocco]. Fr. 108 pp. Institut National de la Recherche Agronomique, Rabat, Morocco.

- (0076) Diekmann, M. 1994. Seed-borne pests and diseases of faba beans (*Vicia faba*). ICARDA/Danish Government Institute of Seed Pathology for Developing Countries. En. 56 pp. ICARDA, Aleppo, Syria.
- (0077) Diekmann, M. 1994. Epidemiology and geophytopathology of selected seed-borne diseases. En. 77 pp. ICARDA, Aleppo, Syria.
- (0078) Haddad, N.; Tutwiler, R. (eds.). 1994. Crop and livestock improvement in Mashreq region: proceedings of the Mashreq workshop on increased productivity of barley, pastures and sheep in the critical rainfall zones. 13-15 Dec 1992, Amman, Jordan. En. 347 pp. ICARDA, Aleppo, Syria.
- (0079) Hanson, J. (ed.). 1994. Seed production by small-holder farmers: proceedings of the ILCA/ICARDA research planning workshop. 13-15 June 1994, Addis Ababa, Ethiopia. 56 pp. ILCA, Addis Ababa, Ethiopia. En. 56 pp.
- (0080) IPA Agricultural Research Center, Baghdad (Iraq). UNDP, Amman (Jordan). ICARDA, Aleppo (Syria). 1994. Technology transfer in the production of cereals and legumes: proceedings of a workshop. IPA/UNDP/ICARDA. 20-22 Sept 1993, Mosul, Iraq. En. 263 pp. IPA Agricultural Research Center, Baghdad, Iraq.
- (0081) Telaye, A.; Bejiga, G.; Saxena, M.C.; Solh, M.B. (eds.). 1994. Cool-season food legumes of Ethiopia: proceedings of the first national cool-season food legumes review conference. ICARDA/Institute of Agricultural Research. 16-20 Dec 1993, Addis Ababa, Ethiopia. En. 440 pp. ICARDA, Aleppo, Syria.
- (0082) Van Slageren, M.W. 1994. Wild wheats: a monograph of *Aegilops* L. and *Amblyopyrum* (Jaub. & Spach) Eig (Poaceae). Wageningen Agricultural University/ICARDA. En. 513 pp. Agricultural University, Wageningen, Netherlands.
- (0083) Ahmad, S.I. 1995. Legume seed technology: proceedings of the train-the trainer course on legume seed production. FSCD/ICARDA. 5-14 Apr 1994, Sahiwal, Pakistan. En. 192 pp. Federal Seed Certification Department, Sahiwal, Pakistan. ISBN: 969-37-0142-9.
- (0084) Ahmed, S.I. (ed.). 1995. Legume seed health testing: proceedings of the training course. FSCD/ICARDA. 14-20 Mar 1995, Islamabad, Pakistan. En. 66 pp. Federal Seed Certification Department, Islamabad, Pakistan.
- (0085) Di Fonzo, N.; Kaan, F.; Nachit, M. 1995. Durum wheat quality in the Mediterranean region: proceedings of the seminar on durum wheat quality in the Mediterranean region. CIHEAM/ICARDA/CIMMYT. 17-19 Nov 1993, Zaragoza,

Spain. Serie A: Seminaires Mediterraneens, No. 22, Options Mediterraneennes. En, Fr. 284 pp. CIHEAM, Zaragoza, Spain. ISSN 1016-121-X.

- (0086) Furtado, J.I.R. dos; Van Schoonhoven, A.; Hamed, S. (eds.). 1995. Sustainable agricultural development in the dry areas of West Asia and North Africa. Report on natural resources and environmental management in the dry areas of West Asia and North Africa. EDI/ICARDA/AOAD. 16-27 Feb 1992, Aleppo, Syria. En. 110 pp. ICARDA, Aleppo, Syria.
- (0087) Hussain, A.; Samad, A.; Ibrahim, M.; Latif, M.; Ashraf, M.; Ilhamuddin. 1995. Wheat and barley varieties of Pakistan. ICARDA, Aleppo, Syria and National Seed Registration Department, Islamabad, Pakistan. 105 pp. NSRD, Islamabad, Pakistan.
- (0088) ICARDA, Amman (Jordan). 1995. Regional symposium on integrated crop-livestock systems in the dry areas of West Asia and North Africa: abstracts. IFAD/UNDP/AFESD/ICARDA. 6-8 Nov 1995, Amman, Jordan. Ar, En. 80 pp. ICARDA, Amman, Jordan.
- (0089) Keatinge, J.D.H.; Kusmenoglu, I. 1995. Autumn-sowing of lentil in the highlands of West Asia and North Africa: proceedings of the workshop on "towards improved winter-sown lentil production for the West Asian and North African highlands." Ministry of Agriculture and Rural Affairs, Turkey/British Overseas Development Administration Plant Sciences Research Programme, UK/University of Reading, UK/ICARDA, Aleppo, Syria. 12-13 Dec 1994, Antalya, Turkey. En. 125 pp. Central Research Institute for Field Crops, Ankara, Turkey.

Occasional Reports

Research Reports

- (0090) Bahhady, R. 1994. Lifestyle of Syrian bedouin women: past and present. Differences between younger and older bedouin women. En. 16 pp. ICARDA, Aleppo, Syria.
- (0091) Beg, A. 1994. Status and potential of some oilseed crops in the WANA region: special study report. En. 38 pp. ICARDA, Aleppo, Syria.
- (0092) Aw-Hassan, A.; Ghanem, E.; Ali, A.A.; Mansour, M.; Solh, M.B. 1995. Economic returns from improved wheat technology in upper Egypt. ICARDA Social Science Paper No. 1. En. 31 pp. ICARDA, Aleppo, Syria. ICARDA Social Science Papers.
- (0093) Beg, A. 1995. Oilseed crops research and production in Iran. En. 26 pp. ICARDA, Aleppo, Syria.

- (0094) Nordblom, T.L.; Shomo, F. 1995. Food and feed prospects to 2020 in the West Asia/North Africa region. ICARDA Social Science Paper No. 2. En. 56 pp. ICARDA, Aleppo, Syria. ICARDA Social Science Papers.
- (0095) Rodriguez, A. 1995. Challenges for the agricultural sector in developing Mediterranean countries. ICARDA Social Science Paper No. 3. En. 35 pp. ICARDA, Aleppo, Syria. ICARDA Social Science Papers.
- (0096) Singh, M.; Grando, S.; Ceccarelli, S. 1995. Analysis of sets of yield trials having common checks: a computational approach using GENSTAT. Project 4: spring barley. En. 27 pp. Biometric Report No. 3/1995.
- (0097) Singh, M.; Malhotra, R.S.; Ceccarelli, S. 1995. Precision of mean of lines selected from populations of breeding material. Project 4: spring barley and project 12: dry peas. En. 22 pp. Biometric Report No. 2/1995.
- (0098) Tutwiler, R.N. 1995. The great chickpea challenge: introducing winter sowing in the Mediterranean region. ICARDA Social Science Paper No. 4. En. 30 pp. ICARDA, Aleppo, Syria. ICARDA Social Science Papers.

Training Publications

Training Manuals

- (0099) Beniwal, S.P.S.; Baya'a, B.; Weigand, S.; Makkouk, K.; Saxena, M.C. 1994. Field guide to lentil diseases and insect pests. Ar. 107 pp. ICARDA, Aleppo, Syria.
- (0100) Kamel, A.H.; Misri, G. 1994. Principaux ravageurs du ble et de l'orge: guide d'identification au champ. [Field manual of major pests of wheat and barley]. Fr. 95 pp. ICARDA, Aleppo, Syria.
- (0101) Porceddu, E.; Damania, A.B. 1994. Les strategies d'échantillonnage pour la conservation de la variabilité des ressources génétiques chez les cultures à graines. [Sampling strategies for conserving variability of genetic resources in seed crops]. Fr. 33 pp. ICARDA, Aleppo, Syria. Manuel Technique no. 17.
- (0102) Christiansen, S.; Haidar, I.; Bou Moghleb, W. 1995. Manual for the MAKTabi/ICARDA thresher. Ar. En. 21 pp.

Directories/Catalogs

Catalogs

- (0103) ICARDA, Aleppo (Syria). 1994. ICARDA publications catalog, 1992-1993 supplement. En. 57 pp.
- (0104) ICARDA, Aleppo (Syria). 1995. WANA seed directory (West Asia and North Africa) with organizations and names. En. 85 pp. Seed Network Publication No. 9/95.
- (0105) ICARDA, Aleppo (Syria). 1995. WANA catalogue of field and seed standards, cereals and legumes. En. 80 pp.
- (0106) Robertson, L.D.; Singh, K.B.; Ocampo, B. 1995. A catalog of annual wild *cicer* species. En. 171 pp. ICARDA, Aleppo Syria.

Annotated Bibliographies

- (0107) CIMMYT/ICARDA. 1995. Literature update on wheat, barley, and triticale, Jan-Feb Vol 1, No. 1, 92 pp., No. 2, 122 pp., No. 3, 117 pp., No. 4, 115 pp., No. 5, 113 pp. En. CIMMYT, Mexico City, Mexico.

Miscellaneous

Information Brochures

- (0108) ICARDA, Aleppo (Syria). 1994. Computer system policies and procedures. En. 27 pp.
- (0109) ICARDA, Aleppo (Syria). 1995. Il cece in cucina: ricette da tutto il mondo. It. 51 pp.

CGIAR/Donor Information

- (0110) ICARDA, Aleppo (Syria). 1994. Board of trustees presentation, 11-12 May 1993. En. 77 pp.
- (0111) ICARDA, Aleppo (Syria). 1994. ICARDA in the news 1993 (a compilation of media stories on ICARDA). En. 40 pp.

- (0112) ICARDA, Aleppo (Syria). 1994. Ties that bind, No. 5: Japan and ICARDA. En. 16 pp.
- (0113) El-Beltagy, A. 1995. How ICARDA is working with Ethiopia. En. 10 pp.
- (0114) El-Beltagy, A. 1995. Sudan and ICARDA: working for food security. En. 12 pp.
- (0115) ICARDA, Aleppo (Syria). 1995. Change of Director General, 23 January 1995. Ar., En. 61 pp.

Articles

Journal Articles

- (0116) Udupa, S.M.; Sharma, A.; Sharma, R.P.; Pai, R.A. 1993. Narrow genetic variability in *Cicer arietinum* L. as revealed by RFLP analysis. Journal of Plant Biochemistry and Biotechnology 2: 83-86.
- (0117) Ahsan-ul-Haq, M.; Singh, K.B.; Abidin, Z.; Ahmad, M.S. 1994. Mutation studies in chickpea (*Cicer arietinum* L.) III. Selection of mutants in M2 generation. Pakistan Journal of Agricultural Sciences 31(1): 13-22.
- (0118) Al-Thahabi, S.A.; Yasin, J.Z.; Abu-Irmaileh, B.E.; Haddad, N.I.; Saxena, M.C. 1994. Effect of weed removal on productivity of chickpea (*Cicer arietinum* L.) and lentil (*Lens culinaris* Med.) in a Mediterranean environment. Journal of Agronomy and Crop Science 172(5): 333-341.
- (0119) Aleator, V.A.; Abd El-Moneim, A.; Goodchild, A.V. 1994. Evaluation of the seeds of selected lines of three *Lathyrus* spp for B-N-oxalylamino-l-alanine (BOAA), tannins, trypsin inhibitor activity and certain *in-vitro* characteristics. Journal of the Science of Food and Agriculture 65(2): 143-151.
- (0120) Aleator, V.A.; Goodchild, A.V.; Abd El Moneim, A.M. 1994. Nutritional and antinutritional characteristics of selected *Vicia* genotypes. Animal Feed Science and Technology 47(1-2): 125-139.
- (0121) Ali Dib, T.; Monneveux, P.; Acevedo, E.; Nachit, M.M. 1994. Evaluation of proline analysis and chlorophyll fluorescence quenching measurements as drought tolerance indicators in durum wheat (*Triticum turgidum* L. var. *durum*). Euphytica 79(1-2): 65-73.
- (0122) Ali, Z.I.; Mahalakshmi, V.; Singh, M.; Ortiz-Ferrara, G.; Peacock, J.M. 1994. Variation in cardinal temperatures for germination among wheat (*Triticum aestivum*) genotypes. Annals of Applied Biology 125(2): 367-375.

- (0123) Bayaa, B.; Erskine, W.; Abbas, A. 1994. Evaluating different methods for screening lentil germplasm for resistance to lentil wilt caused by *F. oxysporum* f. sp. *lentis*. Arab Journal of Plant protection 12(2): 83-91. Ar.
- (0124) Bayaa, B.; Erskine, W.; Hamdi, A. 1994. Response of wild lentil to *Ascochyta fabae* f.sp. *lentis* from Syria. Genetic Resources and Crop Evolution 41(2): 61-65.
- (0125) Bond, D.A.; Jellis, G.J.; Rowland, G.G.; Le Guen, J.; Robertson, L.D.; Khalil, S.A.; Li-Juan, L. 1994. Present status and future strategy in breeding faba beans (*Vicia faba* L.) for resistance to biotic and abiotic stresses. Euphytica 73(1-2): 151-166.
- (0126) Ceccarelli, S. 1994. Specific adaptation and breeding for marginal conditions. Euphytica 77(3): 205-219.
- (0127) Ceccarelli, S.; Erskine, W.; Hamblin, J.; Grando, S. 1994. Genotype by environment interaction and international breeding programmes. Experimental Agriculture 30(2): 177-187.
- (0128) Chen, F.Q.; Prehn, D.; Hayes, P.M.; Mulrooney, D.; Corey, A.; Vivar, H. 1994. Mapping genes for resistance to barley stripe rust (*Puccinia striiformis* f. sp. *hordei*). Theoretical and Applied Genetics 88(2): 215-219.
- (0129) Christiansen, S.; Cocks, P.S. 1994. Changes in seed bank size and botanical composition of medic pastures in rotation with barley in north-west Syria. Al-Awamia 87: 141-148.
- (0130) Clement, S.L.; El-Din Sharaf El-Din, N.; Weigand, S.; Lateef, S.S. 1994. Research achievements in plant resistance to insect pests of cool season food legumes. Euphytica 73(1-2): 41-50.
- (0131) Comeau, A.; Makkouk, K.M.; Ahmad, F.; Saint-Pierre, C.A. 1994. Bread wheat x *Agrotricum* crosses as a source of immunity and resistance to the PAV strain of barley yellow dwarf luteovirus. Agronomie 14(3): 153-160.
- (0132) Dakheel, A.J.; Makdis, F.; Safi, S.; Peacock, J.M.; Naji, I. 1994. Effects of glaucousness and awns on transpiration efficiency in durum wheat isolines. Aspects of Applied Biology 38: 21-130.
- (0133) Dakheel, A.J.; Peacock, J.M.; Naji, I.; Acevedo, E. 1994. Carbon isotope discrimination and water use efficiency in barley under field conditions. Aspects of Applied Biology 38: 173-183.
- (0134) Dakheel, A.J.; Radosevich, S.R.; Barbour, M.G. 1994. Effects of temperature and moisture on growth, interference and photosynthesis of *Bromus tectorum* and *Taeniatherum asperum*. Weed Research 34(1): 11-22. Fr.

- (0135) Damania, A.B. 1994. *In situ* conservation of biodiversity of wild progenitors of cereal crops in the Near East. *Biodiversity Letters* 2: 56-60.
- (0136) Di Vito, M.; Greco, N.; Halila, H.M.; Mabsoute, L.; Labdi, M.; Beniwal, S.P.S.; Saxena, M.C.; Singh, K.B.; Solh, M.B. 1994. Nematodes of cool-season food legumes in North Africa. *Nematologia Mediterranea* 22(1): 3-10.
- (0137) Di Vito, M.; Greco, N.; Oreste, G.; Saxena, M.C.; Singh, K.B.; Kusmenoglu, I. 1994. Plant parasitic nematodes of legumes in Turkey. *Nematologia Mediterranea* 22(2): 245-251.
- (0138) Elings, A.; Van Keulen, H. 1994. Durum wheat landraces from Syria. IV. Simulation of growth and development. *European Journal of Agronomy* 3(1): 71-83.
- (0139) Erskine, W.; Hussain, A.; Tahir, M.; Bahksh, A.; Ellis, R.H.; Summerfield, R.J.; Roberts, E.H. 1994. Field evaluation of a model of photothermal flowering responses in a world lentil collection. *Theoretical and Applied Genetics* 88(3-4): 423-428.
- (0140) Erskine, W.; Smartt, J.; Muchlbauer, F.J. 1994. Mimicry of lentil and the domestication of common vetch and grass pea. *Economic Botany* 48(3): 326-332.
- (0141) Erskine, W.; Tufail, M.; Russell, A.; Tyagi, M.C.; Rahman, M.M.; Saxena, M.C. 1994. Current and future strategies in breeding lentil for resistance to biotic and abiotic stresses. *Euphytica* 73(1-2): 127-135.
- (0142) Filo, S.; Goodchild, A.V.; Treacher, T.T. 1994. Effects of body condition and level of nutrition before mating on fertility of Awassi ewes. *Animal Production* 58(3): 483-484.
- (0143) Francis, C.M.; Bounejmate, M.; Robertson, L.D. 1994. Observations on the distribution and ecology of *Vicia* and *Lathyrus* species in northern Morocco. *Al Awamia* (84): 17-27.
- (0144) Ghazal, H.M.; Haloubi, A.N.; Osman, A.E. 1994. A study on the performance and nutritional value of some legumes in ley farming with barley. *Research Journal of Aleppo University - Agricultural Sciences Series* 22: 9-22. Ar. English summary.
- (0145) Goodchild, A.V.; Jaby El-Haramein, F.; Treacher, T.T. 1994. Predicting the voluntary intake of barley straw with near-infra-red reflectance spectroscopy. *Animal Production* 58(3): 455.
- (0146) Goodchild, A.V.; McMeniman, N.P. 1994. Intake and digestibility of low quality roughages when supplemented with leguminous browse. *Journal of Agricultural Science, Cambridge* 122(1): 151-160.

- (0147) Habib, L.; Hayfa, S.; Ryan, J. 1994. Phosphorus solubility changes with time in organically amended soil in a Mediterranean environment. *Communications in Soil Science and Plant Analysis* 25(19-20): 3281-3290.
- (0148) Haq, M.A.; Singh, K.B.; Abidin, Z.; Ahmed, M.S. 1994. Mutation studies in chickpea (*Cicer arietinum* L.). III. Selection of mutation in M2 generation. *Pakistan Journal of Agricultural Sciences* 31: 13-22.
- (0149) Herbert, F.; Thomson, E.F.; Capper, B.S. 1994. Effect of genotype on the morphological characteristics, chemical composition and feeding value of nine barley straws, and responses to soya-bean meal supplementation. *Animal Production* 58(1): 117-126.
- (0150) Jaby El-Haramain, F.; Adleh, B. 1994. Bread in Syria. *Food Reviews International* 10(4): 419-436.
- (0151) Kaddour, A.S.; Malhotra, R.S.; Arslan, S. 1994. Inheritance of cold tolerance in peas. *Research Journal of Aleppo University, Agricultural Sciences Series* 22: 13-23. Ar,
- (0152) Kahl, G.; Kaemmer, D.; Weising, K.; Kost, S.; Weigand, F.; Saxena, M.C. 1994. The potential of gene technology and genome analysis for cool season food legume crops: theory and practice. *Euphytica* 73(1-2): 177-189.
- (0153) Keatinge, J.D.H. 1994. Agricultural change in Turkey: an example for the Mediterranean region? *MEDIT* (2): 19-24.
- (0154) Kumari, S.G.; Makkouk, K.M. 1994. Evaluation of different ELISA procedures for the detection of pea seed-borne mosaic potyvirus and broad bean stain comovirus in lentil leaf extracts. *Arab Journal of Plant Protection*: 11(2): 86-91. Ar.
- (0155) Lashermes, P.; Blake, T.; Ceccarelli, S. 1994. Identification of polymorphisms in reference barley genotypes based on the polymerase chain reaction. *Journal of Genetics and Breeding* 48(3): 207-210.
- (0156) Li-Juan, L.; Hanqing, Y.; Saxena, M.C.; Robertson, L.D. 1994. Breeding of faba bean of high yielding variety. *Acta Agriculturae Zhejiangensis* 6(4): 230-233.
- (0157) Lister, R.M.; Aboul-Ata, A.E.; El-Daoudi, Y.H.; Marshall, D.; Makkouk, K.; Satour, M.M.; Ghanem, E.; Burnett, P.A. 1994. Serotyping of barley yellow dwarf virus isolates from Egypt. *Phytopathologia Mediterranea* 33(2): 152-157.
- (0158) Mahalakshmi, V.; Grando, S.; Naji, I.; Ceccarelli, S.; Peacock, J.M. 1994. Improving water use efficiency of cultivated barley by introgression with *Hordeum vulgare* ssp. *spontaneum*. What promise does it hold? *Aspects of Applied Biology* 38: 145-151.

- (0159) Makkouk, K.M. 1994. Viruses and viral diseases of cool-season food legumes in West Asia and North Africa. *IPA Journal for Agricultural Research (Iraq)*: 4(1): 98-115.
- (0160) Makkouk, K.M.; Comeau, A. 1994. Evaluation of various methods for the detection of barley yellow dwarf luteovirus by the tissue-blot immunoassay and its use for BYDV detection in cereals inoculated at different growth stages. *European Journal of Plant Pathology* 100: 71-80.
- (0161) Makkouk, K.M.; Comeau, A.; Ghulam, W. 1994. Resistance to barley yellow dwarf luteovirus in *Aegilops* species. *Canadian Journal of Plant Science* 74(3): 631-634.
- (0162) Makkouk, K.M.; Comeau, A.; St-Pierre, C.A. 1994. Screening for barley yellow dwarf luteovirus resistance in barley on the basis of virus movement. *Journal of Phytopathology* 141(2): 165-172.
- (0163) Makkouk, K.M.; Rizkallah, L.; Madkour, M.; El-Sherbeeney, M.; Kumari, S.G.; Amriti, A.W.; Solh, M.B. 1994. Survey of faba bean (*Vicia faba* L.) for viruses in Egypt. *Phytopathologia Mediterranea* 33(3): 207-211.
- (0164) Mamluk, O.F.; Nachit, M.M. 1994. Sources of resistance to common bunt (*Tilletia foetida* and *T. caries*) in durum wheat. *Journal of Phytopathology* 142(2): 122-130.
- (0165) Materon, L.A. 1994. Delayed inoculation and competition of *Rhizobium meliloti* in annual *Medicago* species. *Applied Soil Ecology* 1: 255-260.
- (0166) Mmbaga, M.T.; Steadman, J.R.; Roberts, J.J. 1994. Interaction of bean leaf pubescence with rust urediniospore deposition and subsequent infection density. *Annals of Applied Biology* 125(2): 243-254.
- (0166a) Mouhanna, A.M.; Makkouk, K.M.; Ismail, I.D. 1994. Survey of virus diseases of wild and cultivated legumes in the coastal region of Syria. *Arab Journal of Plant Protection* 12(1): 12-19.
- (0167) Newbold, C.J.; El Hassan, S.M.; Wallace, R.J.; Chen, X-B.; Goodchild, A.V.; Arthaud, L. 1994. Influence of African multipurpose trees on activity of rumen of protozoa and bacteria *in vitro*. *Animal Production* 58(3): 461. (Abstract).
- (0168) Nordblom, T.L.; Pannell, D.J.; Christiansen, S.; Nersoyan, N.; Bahhady, F. 1994. From weed to wealth? Prospects for medic pastures in the Mediterranean farming system of north-west Syria. *Agricultural Economics* 11(1): 29-42.
- (0169) Ortiz Ferrara, G. 1994. Experiences, difficulties and prospects for stress resistance breeding in wheat in WANA. *Melhoramento* 33(1): 105-118.

- (0170) Osman, A.E.; Cocks, P.S.; Bahhady, F. 1994. Response of Mediterranean grassland to phosphate and stocking rates: livestock production. *Journal of Agricultural Science, Cambridge* 123(3): 319-326.
- (0171) Ratinam, M.; Abd El Moneim, A.M.; Saxena, M.C. 1994. Assessment of sensitivity to frost in *Ochrus* chickling (*Lathyrus ochrus* (L.) D.C.) by chlorophyll fluorescence analyses. *Journal of Agronomy and Crop Science* 173(5): 338-344.
- (0172) Ratinam, M.; Abd El Moneim, A.M.; Saxena, M.C. 1994. Variations in sugar content and dry matter distribution in roots and their associations with frost tolerance in certain forage legume species. *Journal of Agronomy and Crop Science* 173(5): 345-353.
- (0173) Reynolds, M.P.; Sayre, K.D.; Vivar, H.E. 1994. Intercropping wheat and barley with N-fixing legume species: a method for improving ground cover, N-use efficiency and productivity in low input systems. *Journal of Agricultural Science, Cambridge* 123(2): 175-183.
- (0174) Rihawi, S.; Goodchild, A.V.; Owen, E.; Termanini, A.; Treacher, T.T. 1994. Grazing of barley stubble by sheep in Syria: effect of stocking rate and supplementation on selective intake of stubble fractions. *Animal Production* 58(3): 478-479.
- (0175) Rodriguez, A. 1994. Rangeland production systems in highland Balochistan, Pakistan. *Rangelands* 16(1): 21-24.
- (0176) Ryan, J.; Abdel Monem, M.; Amri, A. 1994. Barley and nitrogen fertilization in Morocco's semi-arid zone. *Al Awamia* (85): 3-14.
- (0177) Ryan, J.; El Gharous, M.; Nsarellah, N. 1994. Nitrogen application timing for dryland Moroccan cereals. *Al Awamia* (85): 15-23.
- (0178) Ryan, J.; Garabet, S. 1994. Soil test standardization in West Asia-North Africa region. *Communications in Soil Science and Plant Analysis* 25(9-10): 1641-1653.
- (0179) Saxena, N.P.; Saxena, M.C.; Ruckenbauer, P.; Rana, R.S.; El-Fouly, M.M.; Shabana, R. 1994. Screening techniques and sources of tolerance to salinity and mineral nutrient imbalances in cool season food legumes. *Euphytica* 73(1-2): 85-93.
- (0180) Schnell, H.; Linke, K.H.; Sauerborn, J. 1994. Trap cropping and its effect on yield and *Orobanche crenata* Forsk. infestation on following pea (*Pisum sativum* L.) crops. *Tropical Science* 34(3): 306-314.
- (0181) Simane, B.; Van Keulen, H.; Stol, W.; Struik, P.C. 1994. Application of a crop growth model (SUCROS-87) to assess the effect of moisture stress on yield potential of durum wheat in Ethiopia. *Agricultural Systems* 44(3): 337-353.

- (0182) Singh, K.B.; Malhotra, R.S.; Halila, M.H.; Knights, E.J.; Verma, M.M. 1994. Current status and future strategy in breeding chickpea for resistance to biotic and abiotic stresses. *Euphytica* 73(1-2): 137-149.
- (0183) Singh, K.B.; Reddy, M.V. 1994. Registration of eight ascochyta blight-resistant, early maturing, large-seeded chickpea germplasms. *Crop Science* 34(5): 1416-1417.
- (0184) Singh, K.B.; Weigand, S. 1994. Identification of resistant sources in *cicer* species to *Liriomyza cicerina*. *Genetic Resources and Crop Evolution* 41(2): 75-79.
- (0185) Smith, P.J. 1994. Identifying research priorities in developing countries. *Agricultural Systems* 45(4): 455-468.
- (0186) Solh, M.B. 1994. Breeding for stress tolerance in cool-season food legumes (K.B. Singh and M.C. Saxena, eds.): Book review. *Field Crops Research* 38(2): 123-124.
- (0187) Tahir, M.; Valkoun, J. 1994. Genetic diversity in wheat - an international approach in its evaluation and utilization. *Wheat Information Service* (78): 1-12.
- (0188) Treacher, T.T.; Bahhady, F.; Heritani, H.; Termanini, A. 1994. A comparison of the performance of Turkish and Syrian strains of Awassi ewes at two levels of nutrition. *Animal Production* 58(3): 478.
- (0189) Van Hazewijk, M.J.; Linke, K.H.; Lopez-Granados, F.; Al-Menoufi, O.A.; Garcia-Torres, L.; Saxena, M.C.; Verkleij, J.A.C.; Pieterse, A.H. 1994. Seasonal changes in germination response of buried seeds of *Orobanche crenata* Forsk. *Weed Research* 34(5): 369-376.
- (0190) Veneklaas, E.J.; Peacock, J.M. 1994. Growth, biomass allocation and water use efficiency of two wheat cultivars in a Mediterranean environment; a pot experiment under field conditions. *Plant and Soil* 162(2): 241-247.
- (0191) Veneklaas, E.; Van den Boogaard, R. 1994. Leaf age-structure effects on plant water use and photosynthesis of two wheat cultivars. *New Phytologist* 128: 331-337.
- (0192) Wahbi, A.; Mazid, A.; Jones, M.J. 1994. An example of the farming systems approach: the fertilization of barley in farmer and researcher managed trials in northern Syria. *Experimental Agriculture* 30(2): 171-176.
- (0193) Wery, J.; Silim, S.N.; Knights, E.J.; Malhotra, R.S.; Cousin, R. 1994. Screening techniques and sources of tolerance to extremes of moisture and air temperature in cool season food legumes. *Euphytica* 73(1-2): 73-83.

- (0194) White, P.F.; Nersoyan, N.K.; Christiansen, S. 1994. Nitrogen cycling in a semi-arid Mediterranean region: changes in soil N and organic matter under several crop/livestock production systems. *Australian Journal of Agricultural Research* 45(6): 1293-1307.
- (0195) Yau, S.K.; Hamblin, J. 1994. Relative yield as a measure of entry performance in variable environments. *Crop Science* 34(3): 813-817.
- (0196) Yau, S.K.; Ortiz-Ferrara, G. 1994. Regression and cluster analysis of elite wheat lines grown in rain-fed environments. *Journal of Genetics and Breeding* 48(2): 183-190.
- (0197) Abd-El-Moncim, A.M.; Saxena, M.C. 1995. Demand for meat and milk in WANA increases urgent need for feed from forage legumes. *Diversity* 11(1-2): 120-121.
- (0198) Abou-Zeid, N.; Erskine, W.; Bayaa, B. 1995. Preliminary screening of lentil for resistance to downy mildew. *Arab Journal of Plant Protection* 13(1): 17-19.
- (0199) Annicchiarico, P.; Pecetti, L.; Damania, A.B. 1995. Relationships between phenotypic variation and climatic factors at collecting sites in durum wheat landraces. *Hereditas* 122(2): 163-167.
- (0200) Bayaa, B.; Erskine, W.; Hamdi, A. 1995. Evaluation of a wild lentil collection for resistance to vascular wilt. *Genetic Resources and Crop Evolution* 42(3): 231-235.
- (0201) Ceccarelli, S.; Grando, S.; Van Leur, J.A.G. 1995. Barley landraces of the Fertile Crescent offer new breeding options for stress environments. *Diversity* 11(1-2): 112-113.
- (0202) El-Awad, A.; Goodchild, A.V.; Guersoy, O. 1995. Effects of underfeeding Awassi ewes in late pregnancy and early lactation on body weight changes and milk production. *Annales de Zootechnie* 44(Supplement): 319.
- (0203) El-Naimi, M.; Mamluk, O.F. 1995. Occurrence and virulence of wheat rusts in Syria. *Arab Journal of Plant Protection* 13(2): 76-82.
- (0203a) Franz, A.; Makkouk, K.M.; Vetten, H.J. 1995. Faba bean necrotic yellows virus naturally infects *phaseolus* Bean and cowpea in the coastal area of Syria. *Journal of phytopathology* 143: 319-320.
- (0204) Goodchild, A.V.; Termanini, A.; Said, I.; Bluemmel, M. 1995. Using sheep preference, near infrared reflectance and laboratory tests for predicting voluntary intake from small samples of barley straw. *Annales de Zootechnie* 44(Supplement): 44.

- (0205) Gowda, C.L.L.; Singh, S.C.; Sethi, S.C.; Singh, K.B.; Rao, B.V.; Rahman, M.M.; Kumar, J.; Rahman, M.A. 1995. Registration of 'ICCV 10' chickpea. *Crop Science* 35(2): 588.
- (0206) Grando, S.; Ceccarelli, S. 1995. Seminal root morphology and coleoptile length in wild (*Hordeum vulgare* ssp. *spontaneum*) and cultivated (*Hordeum vulgare* ssp. *vulgare*) barley. *Euphytica* 86: 73-80.
- (0206a) Horn, N.M.; Makkouk, K.M.; Kumari, S.G.; Van den Heuvel, J.F.J.M.; Reddy, D.V.R. 1995. Survey of chickpea (*Cicer arietinum* L.) for chickpea stunt disease and associated viruses in Syria, Turkey and Lebanon. *Phytopathologia Mediterranea* 34: 192-198.
- (0207) Inagaki, M.N.; Tahir, M. 1995. Comparison of crossabilities of tetraploid wheat with *Hordeum bulbosum* and maize. *Cereal Research Communications* 23(4): 339-343.
- (0208) Ismail, S.F.; Mamluk, O.F.; Azmech, M.F. 1995. New pathotypes of common bunt of wheat from Syria. *Phytopathologia Mediterranea* 34: 1-6.
- (0209) Jones, M.J.; Singh, M. 1995. Yields of crop dry matter and nitrogen in long-term barley rotation trials at two sites in northern Syria. *Journal of Agricultural Science, Cambridge* 124: 389-402.
- (0209a) Katul, L.; Vetten, H.J.; Lesemann, D.E.; Maiss, E.; Makkouk, K.M. 1995. Diagnostic methods for the detection of faba bean necrotic yellows virus, a circular ssDNA virus. *EPPO Bulletin* 25: 329-336.
- (0210) Keatinge, J.D.H.; Beck, D.P.; Materon, L.A.; Yurtsever, N.; Karuc, K.; Altuntas, S. 1995. The role of rhizobial biodiversity in legume crop productivity in the West Asian highlands. IV. *Rhizobium ciceri*. *Experimental Agriculture* 31: 501-507.
- (0211) Keatinge, J.D.H.; Materon, L.A.; Beck, D.P.; Yurtsever, N.; Karuc, K.; Altuntas, S. 1995. The role of rhizobial biodiversity in legume crop productivity in the West Asian highlands. I. Rationale, methods and overview. *Experimental Agriculture* 31: 473-483.
- (0212) Keatinge, J.D.H.; Qi, A.; Kusmenoglu, I.; Ellis, R.H.; Summerfield, R.J.; Erskine, W.; Beniwal, S.P.S. 1995. Defining critical weather events in the phenology of lentil for winter sowing in the west Asian highlands. *Agricultural and Forest Meteorology* 74: 251-263.
- (0213) Keatinge, J.D.H.; Qi, A.; Kusmenoglu, I.; Ellis, R.H.; Summerfield, R.J.; Erskine, W.; Beniwal, S.P.S. 1995. Using genotypic variation in flowering responses to temperature and photoperiod to select lentil for the west Asian highlands. *Agricultural and Forest Meteorology* 78: 53-65.

- (0213a) Kumari, S.G.; Makkouk, K.M. 1995. Variability among twenty lentil genotypes in seed transmission rates and yield loss induced by pea seed-borne mosaic potyvirus infection. *Phytopathologia Mediterranea* 34: 129-132.
- (0214) Labhilili, M.; Joudrier, P.; Gautier, M. 1995. Characterization of cDNAs encoding *Triticum durum* dehydrins and their expression patterns in cultivars that differ in drought tolerance. *Plant Science* 112: 219-230.
- (0215) Mahalakshmi, V.; Yau, S.K.; Ryan, J.; Peacock, J.M. 1995. Boron toxicity in barley (*Hordeum vulgare* L.) seedlings in relation to soil temperature. *Plant and Soil* 177: 151-156.
- (0215a) Makkouk, K.M.; Dafalla, G.; Hussein, M.; Kumari, S.G. 1995. The natural occurrence of chickpea chlorotic dwarf geminivirus in chickpea and faba bean in the Sudan. *Journal of Phytopathology* 143: 465-466.
- (0215b) Makkouk, K.M.; Kumari, S.G. 1995. Transmission of broad bean stain comovirus and broad bean mottle bromovirus by weevils in Syria. *Journal of Plant Diseases and Protection* 102: 136-139.
- (0215c) Makkouk, K.M.; Kumari, S.G. 1995. Screening and selection of faba bean (*Vicia faba* L.) germplasm for resistance to bean yellow mosaic potyvirus. *Journal of Plant Diseases and Protection* 102(5): 461-466.
- (0216) Malhotra, R.S.; Robertson, L.D.; Saxena, M.C. 1995. Stability of performance of determinate faba bean (*Vicia faba* L.). *Journal of Genetics and Breeding* 49: 1-8.
- (0217) Mamluk, O.F.; Gilchrist, D.G.; Singh, M. 1995. Variation in virulence in isolates of *Mycosphaerella graminicola* from six geographical wheat-growing regions. *Phytopathologia Mediterranea* 34: 45-51.
- (0218) Materon, L.A.; Keatinge, J.D.H.; Beck, D.P.; Yurtsever, N.; Karuc, K.; Altuntas, S. 1995. The role of rhizobial biodiversity in legume crop productivity in the West Asian highlands. II. *Rhizobium leguminosarum*. *Experimental Agriculture* 31(4): 485-491.
- (0219) Materon, L.A.; Keatinge, J.D.H.; Beck, D.P.; Yurtsever, N.; Karuc, K.; Altuntas, S. 1995. The role of rhizobial biodiversity in legume crop productivity in the West Asian highlands. III. *Rhizobium meliloti*. *Experimental Agriculture* 31(4): 493-499.
- (0220) Materon, L.A.; Ryan, J. 1995. Rhizobial inoculation and phosphorus and zinc nutrition for annual medics adapted to Mediterranean environments. *Agronomy Journal* 87(4): 692-698.

- (0221) Mayer, M.; Gland, A.; Ceccarelli, S.; Geiger, H.H. 1995. Comparison of doubled haploid lines and F2 bulks for the improvement of barley in the dry areas of North Africa. *Plant Breeding*: 114: 45-49.
- (0222) Mosaad, M.G.; Ortiz-Ferrara, G.; Mahalakshmi, V.; Fischer, R.A. 1995. Phyllochron response to vernalization and photoperiod in spring wheat. *Crop Science* 35: 168-171.
- (0223) Mosaad, M.G.; Ortiz-Ferrara, G.; Mahalakshmi, V.; Hamblin, J. 1995. Leaf development and phenology of *Triticum aestivum* and *T. durum* under different moisture regimes. *Plant and Soil* 170(2): 377-381.
- (0224) Mossad, M.G.; Ortiz-Ferrara, G.; Mahalakshmi, V. 1995. Tiller development and contribution to yield under different moisture regimes in two *Triticum* species. *Journal of Agronomy and Crop Science* 174: 173-180.
- (0225) Nishikawa, H.; Gruner, L.; Giangaspero, M.; Tabbaa, D. 1995. Parasite nematode infections in Awassi adult sheep: distribution through Syrian farm flocks. *Veterinary Research* No. 26: 162-167.
- (0226) Robertson, L.D. 1995. Faba bean genetic resources at ICARDA. *Grain Legumes* (8): 25-26.
- (0227) Robertson, L.D.; El-Sherbeeny, M.H. 1995. Autofertility in a pure-line faba bean (*Vicia faba* L.) germplasm collection. *Genetic Resources and Crop Evolution* 42: 157-163.
- (0228) Robertson, L.D.; Francis, C. 1995. CLIMA: an international partnership. *Diversity* 11(1-2): 25.
- (0229) Rodriguez, A.; Ali, I.; Shah, N.A.; Afzal, M.; Mustafa, U. 1995. Price expectations of sheep and goats by producers and intermediaries in Quetta market, Pakistan. *Agricultural Economics* 12: 79-90.
- (0230) Rodriguez, A.; Mayer, L. 1995. Development of sheep fattening schemes in highland Balochistan, Pakistan. *Small Ruminant Research* 18(3): 193-200.
- (0231) Ryan, J.; Abdel Monem, M.; Mergoum, M.; Azzaoui, A. 1995. Nitrogen and phosphorus fertilization of triticale varieties in the Settat area of Chaoui. *Al Awamia* (88): 93-101.
- (0232) Ryan, J.; Materon, L.A.; Christiansen, S. 1995. Networks for research collaboration in the dryland West Asia-North Africa region. *Journal of Natural Resources and Life Sciences Education* 24(2): 155-160.
- (0233) Salem, M.A.; Snobar, B.A. 1995. A socio-economic study on technology adoption and its impact on lentil and chickpea production in Jordan. *Dirasat* 22(3): 689-706.
- (0234) Singh, K.B.; Bejiga, G.; Saxena, M.C.; Singh, M. 1995. Transferrability of

- chickpea selection indices from normal to drought-prone growing conditions in a Mediterranean environment. *Journal of Agronomy and Crop Science* 175(1): 57-63.
- (0235) Singh, K.B.; Erskine, W. 1995. Modern research conducted on ancient chickpea and lentil crops. *Diversity* 11(1-2): 116-118.
- (0236) Singh, K.B.; Malhotra, R.S.; Saxena, M.C. 1995. Additional sources of tolerance to cold in cultivated and wild *Cicer* species. *Crop Science* 35(50): 1491-1497.
- (0237) Singh, M.; Ceccarelli, S. 1995. Estimation of heritability using variety trials data from incomplete blocks. *Theoretical and Applied Genetics* 90(1): 142-145.
- (0238) Singh, M.; Hinkelmann, K. 1995. Partial diallel crosses in incomplete blocks. *Biometrics* 51: 1302-1314.
- (0239) Singh, M.; Saxena, N.P.; Saxena, M.C. 1995. Estimation of pinnule area in chickpea leaves: an errors-in-variables approach. *Journal of Applied Statistics* 22(1): 37-43.
- (0240) Solh, M.B. 1995. The Nile Valley Regional Program. *Diversity* 11(1-2): 24.
- (0241) Tabbaa, D.; Giangaspero, M.; Nishikawa, H. 1995. Seroepidemiological survey of border disease (BD) in Syrian Awassi sheep. *Small Ruminant Research* 15(3): 273-277.
- (0242) Thomson, E.F.; Bahhady, F.A. 1995. A model-farm approach to research on crop-livestock integration. I. Conceptual framework and methods. *Agricultural Systems* 49(1): 1-16.
- (0243) Thomson, E.F.; Bahhady, F.A. 1995. A model-farm approach to research on crop-livestock integration. II. Experimental results. *Agricultural Systems* 49(1): 17-30.
- (0244) Thomson, E.F.; Bahhady, F.A.; Nordblom, T.L.; Harris, H.C. 1995. A model farm approach to research on crop-livestock integration. III. Benefits of crop-livestock integration and a critique of the approach. *Agricultural Systems* 49(1): 31-44.
- (0245) Valkoun, J.; Robertson, L.D.; Konopka, J. 1995. Genetic resources at the heart of ICARDA mission throughout the Mediterranean region. *Diversity* 11(1-2): 23-26.
- (0246) Venora, G.; Ocampo, B.; Singh, K.B.; Saccardo, F. 1995. Karyotype of the kabuli-type chickpea (*Cicer arietinum* L.) by image analysis system. *Caryologia* 48(2): 147-155.

- (0247) Yau, S.K. 1995. Regression and AMMI analyses of genotype x environment interactions: an empirical comparison. *Agronomy Journal* 87(1): 121-126.
- (0248) Yau, S.K.; Nachit, M.M.; Ryan, J.; Hamblin, J. 1995. Phenotypic variation in boron-toxicity tolerance at seedling stage in durum wheat (*Triticum durum*). *Euphytica* 83(3): 185-191.

Newsletter Articles

- (0249) Nachit, M.M.; Baum, M. 1993. Network for integrated research on durum wheat improvement in the Mediterranean region. *RACHIS* 12(1-2): 60-63.
- (0250) Haq, M.A.; Singh, K.B. 1994. Induction of cold tolerance in kabuli chickpea (*C. arietinum* L.) through induced mutations. *Mutation Breeding Newsletter* 41: 6-7.
- (0251) Kantar, F.; Hebblethwaite, P.D.; Pilbeam, C.J. 1994. Imbibition damage in faba bean lines near-isogenic for flower color. *FABIS Newsletter* (34-35): 21-26.
- (0252) Mouhanna, A.M.; Makkouk, K.M.; Ismail, I.D. 1994. Preliminary screening of lentil genotypes for resistance to faba bean necrotic yellows virus. *LENS Newsletter* 21(2): 41-43.
- (0253) Tahir, M.; Shevtsov, V. 1994. New hull-less barley germplasm for high-altitude areas. *RACHIS* 13(1-2): 43-46.
- (0254) Tahir, M.; Shevtsov, V.; Pashayani, H.; Ottekin, A.; Tosun, H.; Akar, T. 1994. Stress tolerance in winter and facultative barley. *RACHIS* 13(1-2): 5-11.
- (0255) Yau, S.K.; Hamblin, J.; Ryan, J. 1994. Phenotypic variation in boron toxicity tolerance in barley, durum and bread wheat. *RACHIS* 13(1-2): 20-25.
- (0256) Malhotra, R.S.; Singh, K.B.; Saxena, M.C. 1995. Effect of nitrogen fertilizer application on cold tolerance in chickpea. *International Chickpea and Pigeonpea Newsletter* (2): 24-25.
- (0257) Omar, M.; Singh, K.B. 1995. Development of early mutants with ascochyta blight resistance or leaf miner resistance. *International Chickpea and Pigeonpea Newsletter* (2): 10-11.
- (0258) Singh, K.B.; Saxena, M.C.; Varma, S. 1995. Working with nature for higher chickpea yields. *Development and Cooperation* 2: 22-23.
- (0259) Yau, S.K.; Ryan, J.; Nachit, M.; Ortiz-Ferrara, G.; Hamblin, J. 1995. Screening for boron toxicity resistance in durum and bread wheat. *Annual Wheat Newsletter* 40: 205-206.

Book Chapters and Conference Papers

- (0260) Bos, L.; Makkouk, K.M. 1993. Plant viruses as pests of quarantine significance in seed. Pages 133-139 *in* Quarantine for Seed: Proceedings of the Workshop on Quarantine for Seed in the Near East, FAO Plant Production and Protection Paper 119, 2-9 Nov 1991, Aleppo, Syria (S.B. Mathur and H.K. Manandhar, eds.). FAO, Rome, Italy.

- (0261) Diekmann, M. 1993. Seed health testing and treatment of germplasm at the International Center for Agricultural Research in the Dry Areas (ICARDA). Pages 40-47 *in* Quarantine for Seed: Proceedings of the Workshop on Quarantine for Seed in the Near East, FAO Plant Production and Protection Paper 119, 2-9 Nov 1991, Aleppo, Syria (S.B. Mathur and H.K. Manandhar, eds.). FAO, Rome, Italy.

- (0262) Diekmann, M. 1993. Geophytopathology of some seed-borne diseases. Pages 247-261 *in* Quarantine for Seed: Proceedings of the Workshop on Quarantine for Seed in the Near East, FAO Plant Production and Protection Paper 119, 2-9 Nov 1991, Aleppo, Syria (S.B. Mathur and H.K. Manandhar, eds.). FAO, Rome, Italy.

- (0263) Erskine, W.; Saxena, M.C. 1993. Opportunities for collaboration between ICARDA and CLAN. Pages 125-127 *in* Cereals and Legumes: An Asian Perspective. Summary Proceedings of the CLAN Country Coordinators' Consultative Meeting, 29 Sept - 1 Oct 1993, Patancheru, India (C.L.L. Gowda and A. Ramakrishna, eds.). ICRISAT, Patancheru, India.

- (0264) Gintzburger, G. 1993. Durabilite du developpement fourrager et pastoral et ressources phyto-genetiques en zones mediterraneennes semi arides et arides. Pages 51-78 *in* Amelioration Pastorale et Production Fourragere dans le Maghreb: Actes du Seminaire Regional (M. Tazi and A. El Gharbaoui, eds.), 19-20 Feb 1993, Meknes, Morocco. La Direction de l'Elevage, Ministere de l'Agriculture et de la Mise en Valeur Agricole and l'Organisation des Nations Unies pour l'Alimentation et l'Agriculture. INRA, Meknes, Maroc. Fr.

- (0265) Hanounik, S.B.; Bayaa, B. 1993. Seed-borne diseases of faba bean and lentil. Pages 48-56 *in* Quarantine for Seed: Proceedings of the Workshop on Quarantine for Seed in the Near East, FAO Plant Production and Protection Paper 119, 2-9 Nov 1991, Aleppo, Syria (S.B. Mathur and H.K. Manandhar, eds.). FAO, Rome, Italy.

- (0266) Mamluk, O.F. 1993. Seed-borne diseases of wheat and barley. Pages 40-47 *in* Quarantine for Seed: Proceedings of the Workshop on Quarantine for Seed in the Near East, FAO Plant Production and Protection Paper 119, 2-9 Nov 1991, Aleppo, Syria (S.B. Mathur and H.K. Manandhar, eds.). FAO, Rome, Italy.

- (0267) Mathur, S.B.; Diekmann, M. 1993. International spread and interception of seed-borne pests. Pages 5-12 in *Quarantine for Seed: Proceedings of the Workshop on Quarantine for Seed in the Near East*, FAO Plant Production and Protection Paper 119, 2-9 Nov 1991, Aleppo, Syria (S.B. Mathur and H.K. Manandhar, eds.). FAO, Rome, Italy.
- (0268) Bahaddy, F.; Ferdawi, A.; Thomson, E.F.; Singh, M.; Christiansen, S. 1994. ICARDA's experiences with on-farm forage legume trials. Pages 145-146 in *Conference sur le Theme Acquis et Perspectives de la Recherche Agronomique dans les Zones Arides et Semi-Arides du Maroc. Resumes - Abstracts*, INRA/MIAC-USAID, 24-27 May 1994, Rabat, Maroc (M. Karrou, F. Nassif, M. El Bouhssini and M. Gharous, eds.). INRA, Rabat, Morocco. En, Fr. (Abstract).
- (0269) Bahhady, F.; Goodchild, A.; Heritani, H.; Termanini, A.; Treacher, T. 1994. Comparison of the performance of Turkish and Syrian strains of Awassi ewes at two levels of nutrition. Pages 230-236 in *Crop and Livestock Improvement in Mashreq Region: Proceedings of the Mashreq Workshop on Increased Productivity of Barley, Pastures and Sheep in the Critical Rainfall Zones*, 13-15 Dec 1992, Amman, Jordan (N. Haddad and R. Tutwiler, eds.). ICARDA, Aleppo, Syria.
- (0270) Beniwal, S.P.S.; Trapero-Casas, A. 1994. Integrated control of diseases of cool season food legumes. Pages 642-665 in *Expanding the Production and Use of Cool Season Food Legumes: Proceedings of the Second International Food Legume Research Conference on Pea, Lentil, Faba Bean, Chickpea, and Grasspea*, 12-16 Apr 1992, Cairo, Egypt (F.J. Muehlbauer and W.J. Kaiser, eds.). Kluwer Academic Publishers, Dordrecht, the Netherlands.
- (0271) Bezdicsek, D.F.; Quinn, M.A.; Forse, L.; Beck, D.P.; Weigand, S. 1994. Cloning *Bacillus thuringiensis* toxin genes for control of nodule-feeding insects. Pages 738-752 in *Expanding the Production and Use of Cool Season Food Legumes: Proceedings of the Second International Food Legume Research Conference on Pea, Lentil, Faba Bean, Chickpea, and Grasspea*, 12-16 Apr 1992, Cairo, Egypt (F.J. Muehlbauer and W.J. Kaiser, eds.). Kluwer Academic Publishers, Dordrecht, Netherlands.
- (0272) Bond, D.A.; Jellis, G.J.; Rowland, G.G.; Le Guen, J.; Robertson, L.D.; Khalil, S.A.; Li-Juan, L. 1994. Present status and future strategy in breeding faba beans (*Vicia faba* L.) for resistance to biotic and abiotic stresses. Pages 592-616 in *Expanding the Production and Use of Cool Season Food Legumes: Proceedings of the Second International Food Legume Research Conference on Pea, Lentil, Faba Bean, Chickpea, and Grasspea*, 12-16 Apr 1992, Cairo, Egypt (F.J. Muehlbauer and W.J. Kaiser, eds.). Kluwer Academic Publishers, Dordrecht, the Netherlands.
- (0273) Bos, L.; Makkouk, K.M. 1994. Insects in relation to virus epidemiology in cool season food legumes. Pages 305-332 in *Expanding the Production and Use of*

Cool Season Food Legumes: Proceedings of the Second International Food Legume Research Conference on Pea, Lentil, Faba Bean, Chickpea, and Grasspea, 12-16 Apr 1992, Cairo, Egypt (F.J. Muehlbauer and W.J. Kaiser, eds.). Kluwer Academic Publishers, Dordrecht, the Netherlands.

- (0274) Campbell, C.G.; Mehra, R.B.; Agrawal, S.K.; Chen, Y.Z.; Abdel Moneim, A.M.; Khawaja, H.I.T.; Yadov, C.R.; Tay, J.U.; Araya, W.A. 1994. Current status and future strategy in breeding grasspea (*Lathyrus sativus*). Pages 617-630 in *Expanding the Production and Use of Cool Season Food Legumes: Proceedings of the Second International Food Legume Research Conference on Pea, Lentil, Faba Bean, Chickpea, and Grasspea, 12-16 Apr 1992, Cairo, Egypt* (F.J. Muehlbauer and W.J. Kaiser, eds.). Kluwer Academic Publishers, Dordrecht, the Netherlands.
- (0275) Ceccarelli, S. 1994. Interaction between national and international breeding programs. Pages 85-96 in *Crop and Livestock Improvement in Mashreq Region: Proceedings of the Mashreq Workshop on Increased Productivity of Barley, Pastures and Sheep in the Critical Rainfall Zones, 13-15 Dec 1992, Amman, Jordan* (N. Haddad and R. Tutwiler, eds.). ICARDA, Aleppo, Syria.
- (0276) Ceccarelli, S. 1994. Strategies in varieties development and varieties adoption. Pages 5-22 in *Technology Transfer in the Production of Cereals and Legumes: Proceedings of a Workshop, IPA Agricultural Research Center/UNDP/ICARDA, 20-22 Sept 1993, Mosul, Iraq*. IPA Agricultural Research Center, Baghdad, Iraq.
- (0277) Clement, S.L.; El-Din-Sharaf El-Din, N.; Weigand, S.; Lateef, S.S. 1994. Research achievements in plant resistance to insect pests of cool season food legumes. Pages 290-304 in *Expanding the Production and Use of Cool Season Food Legumes: Proceedings of the Second International Food Legume Research Conference on Pea, Lentil, Faba Bean, Chickpea, and Grasspea, 12-16 Apr 1992, Cairo, Egypt* (F.J. Muehlbauer and W.J. Kaiser, eds.). Kluwer Academic Publishers, Dordrecht, the Netherlands.
- (0278) Di Vito, I.M.; Greco, N.; Singh, K.B.; Saxena, M.C.; Kusmenoglu, I. 1994. Plant-parasitic nematodes of legumes in Turkey. Pages 413-414 in *Proceedings of the 9th Congress of the Mediterranean Phytopathological Union, Turkish Phytopathological Society and Mediterranean Phytopathological Union, 18-24 Sept 1994, Kusadasi - Aydin, Turkey*. Turkish Phytopathological Society, Bornova, Izmir, Turkey.
- (0279) Dieckmann, J. 1994. Utilization of straw as mulch (soil cover) and its effect on the reduction of water losses by evaporation from the soil. Page 13 in *Report on the Workshop on Regional Cooperative Project for Research, Development and Training on Agricultural Residues Utilization in the Near East, AARINENA/UNESCO/AOAD/FAO-RNEA, 27-30 Mar 1994, Damascus, Syria*. FAO, Cairo, Egypt.

- (0280) Diekmann, J.; Bansal, R.K.; Monroe, G.E. 1994. Developing and delivering mechanization for cool season food legumes. Pages 517-528 in *Expanding the Production and Use of Cool Season Food Legumes: Proceedings of the Second International Food Legume Research Conference on Pea, Lentil, Faba Bean, Chickpea, and Grasspea*, 12-16 Apr 1992, Cairo, Egypt (F.J. Muehlbauer and W.J. Kaiser, eds.). Kluwer Academic Publishers, Dordrecht, the Netherlands.
- (0281) El Bouhssini, M.; Lhaloui, S.; Hatchett, J.; Amri, A.; Jlibene, M.; Nsarellah, N.; Nachit, M.; Mergoum, M.; Benlahbib, O. 1994. Genetic control of cereal insects in the semi-arid and arid regions of Morocco. Pages 116-117 in *Conference sur le Theme Acquis et Perspectives de la Recherche Agronomique dans les Zones Arides et Semi-Arides du Maroc. Resumes - Abstracts*, INRA/MIAC-USAID, 24-27 May 1994, Rabat, Maroc (M. Karrou, F. Nassif, M. El Bouhssini and M. Gharous, eds.). INRA, Rabat, Morocco. En, Fr. (Abstract).
- (0282) El Hadi, M.; Kraft, J.M.; Beniwal, S.P.S. 1994. Incidence of *Fusarium* wilt of chickpea and variability of the pathogen in Morocco. Page 127 in *Conference sur le Theme Acquis et Perspectives de la Recherche Agronomique dans les Zones Arides et Semi-Arides du Maroc. Resumes - Abstracts*, INRA/MIAC-USAID, 24-27 May 1994, Rabat, Maroc (M. Karrou, F. Nassif, M. El Bouhssini and M. Gharous, eds.). INRA, Rabat, Morocco. En, Fr. (Abstract).
- (0283) El Yamani, M.; Amri, A.; Comeau, A.; St-Pierre, C.A.; Makkouk, K.; Bencharki, B. 1994. Resistance of barley yellow dwarf in Morocco. Pages 107-108 in *Conference sur le Theme Acquis et Perspectives de la Recherche Agronomique dans les Zones Arides et Semi-Arides du Maroc. Resumes - Abstracts*, INRA/MIAC-USAID, 24-27 May 1994, Rabat, Maroc (M. Karrou, F. Nassif, M. El Bouhssini and M. Gharous, eds.). INRA, Rabat, Morocco. En, Fr. (Abstract).
- (0284) Erskine, W.; Tufail, M.; Russell, A.; Tyagi, M.C.; Rahman, M.M.; Saxena, M.C. 1994. Current and future strategies in breeding lentil for resistance to biotic and abiotic stresses. Pages 559-571 in *Expanding the Production and Use of Cool Season Food Legumes: Proceedings of the Second International Food Legume Research Conference on Pea, Lentil, Faba Bean, Chickpea, and Grasspea*, 12-16 Apr 1992, Cairo, Egypt (F.J. Muehlbauer and W.J. Kaiser, eds.). Kluwer Academic Publishers, Dordrecht, the Netherlands.
- (0285) Franz, A.; Vetten, H.J.; Makkouk, K.M. 1994. Development and application of monoclonal antibodies for the detection of faba bean necrotic yellows virus. Pages 45-46 in *Proceedings of the 9th Congress of the Mediterranean Phytopathological Union, Turkish Phytopathological Society and Mediterranean Phytopathological Union*, 18-24 Sept 1994, Kusadasi - Aydin, Turkey. Turkish Phytopathological Society, Bornova, Izmir, Turkey.
- (0286) Garabet, S.; Wood, M.; Ryan, J. 1994. Nitrogen dynamics in a Mediterranean environment: implications for rainfed and irrigated cereals. Page 71 in *Agronomy Abstracts*. 1994 Annual Meetings of the American Society of Agronomy, Crop

Science Society of America, Soil Science Society of America, 13-18 Nov 1994, Seattle, Washington, USA. American Society of Agronomy, Madison, WI, USA. (Abstract: Division A-6-International Agronomy).

- (0287) George, E.; Kothari, S.K.; Li, X.-L.; Weber, E.; Marschner, H. 1994. VA mycorrhiza: benefits to crop plant growth and costs. Pages 832-846 *in* Expanding the Production and Use of Cool Season Food Legumes: Proceedings of the Second International Food Legume Research Conference on Pea, Lentil, Faba Bean, Chickpea, and Grasspea, 12-16 Apr 1992, Cairo, Egypt (F.J. Muehlbauer and W.J. Kaiser, eds.). Kluwer Academic Publishers, Dordrecht, the Netherlands.
- (0288) Goebel, W. 1994. Agro-ecological characterization (ICARDA/INRA[Morocco]/DMN[Morocco]/METEOROLOJI[Turkey]). Pages 35-38 *in* Roundtable on Land and Water Management: Proceedings Actes, 13-15 Dec 1993, Cairo, Egypt (G. Cliche, ed.). IDRC, Regional Office for North Africa and the Middle East, P.O. Box 14 Orman, Giza, Cairo, Egypt.
- (0289) Goodchild, A.V.; Treacher, T.; Rihawi, S.; Termanini, A. 1994. Recent work at ICARDA on the quality of feeds and supplementation strategies. Pages 167-179 *in* Crop and Livestock Improvement in Mashreq Region: Proceedings of the Mashreq Workshop on Increased Productivity of Barley, Pastures and Sheep in the Critical Rainfall Zones, 13-15 Dec 1992, Amman, Jordan (N. Haddad and R. Tutwiler, eds.). ICARDA, Aleppo, Syria.
- (0290) Haddad, N. 1994. Highlights on Mashreq project methodology and achievements. Pages 165-179 *in* Technology Transfer in the Production of Cereals and Legumes: Proceedings of a Workshop, IPA Agricultural Research Center/UNDP/ICARDA, 20-22 Sept 1993, Mosul, Iraq. IPA Agricultural Research Center, Baghdad, Iraq.
- (0291) Harris, H.C.; Nordblom, T.L.; Rodriguez, A.; Smith, P. 1994. Experience of the use of systems analysis in ICARDA. Pages 295-302 *in* Opportunities, Use, and Transfer of Systems Research Methods in Agriculture to Developing Countries: Proceedings of an International Workshop on Systems Research Methods in Agriculture in Developing Countries, Systems Approaches for Sustainable Agricultural Development, Vol 3, 22-24 Nov 1993, the Hague, the Netherlands (P. Goldsworthy and F. Penning de Vries, eds.). Kluwer Academic Publishers, Dordrecht, the Netherlands.
- (0292) Herridge, D.F.; Rupela, O.P.; Serraj, R.; Beck, D.P. 1994. Screening techniques and improved biological nitrogen fixation in cool season food legumes. Pages 472-492 *in* Expanding the Production and Use of Cool Season Food Legumes: Proceedings of the Second International Food Legume Research Conference on Pea, Lentil, Faba Bean, Chickpea, and Grasspea, 12-16 Apr 1992, Cairo, Egypt (F.J. Muehlbauer and W.J. Kaiser, eds.). Kluwer Academic Publishers, Dordrecht, the Netherlands.

- (0293) Johansen, C.; Baldev, B.; Brouwer, J.B.; Erskine, W.; Jermyn, W.A.; Li-Juan, L.; Malik, B.A.; Miah, A.A.; Silim, S.N. 1994. Biotic and abiotic stresses constraining productivity of cool season food legumes in Asia, Africa and Oceania. Pages 175-194 in *Expanding the Production and Use of Cool Season Food Legumes: Proceedings of the Second International Food Legume Research Conference on Pea, Lentil, Faba Bean, Chickpea, and Grasspea*, 12-16 Apr 1992, Cairo, Egypt (F.J. Muehlbauer and W.J. Kaiser, eds.). Kluwer Academic Publishers, Dordrecht, the Netherlands.
- (0294) Jones, M.J. 1994. Crop sequence options. Pages 13-27 in *Crop and Livestock Improvement in Mashreq Region: Proceedings of the Mashreq Workshop on Increased Productivity of Barley, Pastures and Sheep in the Critical Rainfall Zones*, 13-15 Dec 1992, Amman, Jordan (N. Haddad and R. Tutwiler, eds.). ICARDA, Aleppo, Syria.
- (0295) Jones, M.J. 1994. Research problem identification for effective technology transfer. Pages 114-119 in *Technology Transfer in the Production of Cereals and Legumes: Proceedings of a Workshop*, IPA Agricultural Research Center/UNDP/ICARDA, 20-22 Sept 1993, Mosul, Iraq. IPA Agricultural Research Center, Baghdad, Iraq.
- (0296) Kahl, G.; Kaemmer, D.; Weising, K.; Kost, S.; Weigand, F.; Saxena, M.C. 1994. The potential of gene technology and genome analysis for cool season food legume crops: theory and practice. Pages 705-725 in *Expanding the Production and Use of Cool Season Food Legumes: Proceedings of the Second International Food Legume Research Conference on Pea, Lentil, Faba Bean, Chickpea, and Grasspea*, 12-16 Apr 1992, Cairo, Egypt (F.J. Muehlbauer and W.J. Kaiser, eds.). Kluwer Academic Publishers, Dordrecht, the Netherlands.
- (0297) Keatinge, J.D.H.; Kusmenoglu, I.; Sakar, D. 1994. Addressing production constraints for cool season food legumes in West Asia and North Africa through on-farm research: problems and ways forward. Pages 890-898 in *Expanding the Production and Use of Cool Season Food Legumes: Proceedings of the Second International Food Legume Research Conference on Pea, Lentil, Faba Bean, Chickpea, and Grasspea*, 12-16 Apr 1992, Cairo, Egypt (F.J. Muehlbauer and W.J. Kaiser, eds.). Kluwer Academic Publishers, Dordrecht, the Netherlands.
- (0298) Kharrat, M.; Halila, M.H. 1994. *Orobanche* species on faba bean (*Vicia faba* L.) in Tunisia: problems and management. Parasitism of two faba bean varieties as affected by different seed inoculum levels of *Orobanche crenata* and *O. foetida*. Pages 639-643 in *Biology and Management of Orobanche: Proceedings of the Third International Workshop on Orobanche and Related Striga Research*, 8-12 Nov 1993, Amsterdam, Netherlands (A.H. Pieterse, J.A.C. Verkleij and S.J. ter Borg, eds.). Royal Tropical Institute, Amsterdam, the Netherlands.

- (0299) Kharrat, M.; Halila, M.H.; Beniwal, S.P.S. 1994. Parasitism of two faba bean varieties as affected by different seed inoculum levels of *Orobanche crenata* and *O. foetida*. Pages 343-348 in *Biology and management of Orobanche: Proceedings of the Third International Workshop on Orobanche and Related Striga Research*, 8-12 Nov 1993, Amsterdam, Netherlands (A.H. Pieterse, J.A.C. Verkleij and S.J. ter Borg, eds.). Royal Tropical Institute, Amsterdam, the Netherlands.
- (0300) Kraft, J.M.; Haware, M.P.; Jimenez-Diaz, R.M.; Bayaa, B.; Harrabi, M. 1994. Screening techniques and sources of resistance to root rots and wilts in cool season food legumes. Pages 268-289 in *Expanding the Production and Use of Cool Season Food Legumes: Proceedings of the Second International Food Legume Research Conference on Pea, Lentil, Faba Bean, Chickpea, and Grasspea*, 12-16 Apr 1992, Cairo, Egypt (F.J. Muehlbauer and W.J. Kaiser, eds.). Kluwer Academic Publishers, Dordrecht, the Netherlands.
- (0301) Makkouk, K.M.; Kumari, S.G.; Ghulam, W. 1994. Tissue-blot immunoassay, a sensitive, quick and economical test for the detection of plant viruses. Pages 3-4 in *Proceedings of the 9th Congress of the Mediterranean Phytopathological Union, Turkish Phytopathological Society and Mediterranean Phytopathological Union*, 18-24 Sept 1994, Kusadasi - Aydin, Turkey. Turkish Phytopathological Society, Bornova, Izmir, Turkey.
- (0302) Makkouk, K.M.; Lesemann, D.E.; Saari, E.E.; Altay, F.; Suzen, B.; Bolat, N.; Braun, H.J.; Payne, T.S.; Beniwal, S.P.S. 1994. Identity of and screening for resistance to a new soil-borne virus affecting wheat in Turkey. Page 271 in *Proceedings of the 9th Congress of the Mediterranean Phytopathological Union, Turkish Phytopathological Society and Mediterranean Phytopathological Union*, 18-24 Sept 1994, Kusadasi - Aydin, Turkey. Turkish Phytopathological Society, Bornova, Izmir, Turkey.
- (0303) Mamdouh, Q.; Haddad, N. 1994. [The effect of full-package production technology on barley production in Jordan]. Pages 50-64 in *Crop and Livestock Improvement in Mashreq Region: Proceedings of the Mashreq Workshop on Increased Productivity of Barley, Pastures and Sheep in the Critical Rainfall Zones*, 13-15 Dec 1992, Amman, Jordan (N. Haddad and R. Tutwiler, eds.). Ar. ICARDA, Aleppo, Syria.
- (0304) Mamluk, O.F. 1994. Remarks on the proposed concept of a "North-South Center for Development Research (ZEF)". Pages 98-104 in *"Wissenschaft im Interkulturellen Dialog: Dokumentation des Symposiums"*, 13-14 Dec 1993, Bonn, Germany. Rheinische-Friedrich-Wilhelms-Universität Bonn, Bonn, Germany.
- (0305) Mamluk, O.F.; Van Slageren, M.W. 1994. Sources of resistance to wheat diseases in *Aegilops* and *Amblyopyrum* spp. Pages 269-270 in *Proceedings of the 9th Congress of the Mediterranean Phytopathological Union, Turkish Phyto-*

pathological Society and Mediterranean Phytopathological Union, 18-24 Sept 1994, Kusadasi - Aydin, Turkey. Turkish Phytopathological Society, Bornova, Izmir, Turkey.

- (0306) Materon, L.; Ryan, J. 1994. Nutritional and adaptation constraints to Mediterranean pasture medicago species. Page 71 in *Agronomy Abstracts*. 1994 Annual Meetings of the American Society of Agronomy, Crop Science Society of America, Soil Science Society of America, 13-18 Nov 1994, Seattle, Washington, USA. American Society of Agronomy, Madison, WI, USA. (Abstract: Division A-6-International Agronomy).
- (0307) Materon, L.; Zaklouta, M. 1994. Symbiotic relationships and nitrogen fixation in annual medicago species. Pages 65-79 in *Recent Developments in Biological Nitrogen Fixation Research in Africa* (M. Sadiki and A. Hilali, eds.). IAV Hassan II, Rabat, Morocco.
- (0308) Mazid, A.; Tutwiler, R.; Sweidan, Y.; Khneifis, A. 1994. [Effectiveness of Mashreq project demonstrations in Syria]. Pages 296-309 in *Crop and Livestock Improvement in Mashreq Region: Proceedings of the Mashreq Workshop on Increased Productivity of Barley, Pastures and Sheep in the Critical Rainfall Zones*, 13-15 Dec 1992, Amman, Jordan (N. Haddad and R. Tutwiler, eds.). Ar. ICARDA, Aleppo, Syria.
- (0309) Mergoum, M.; Nsarellah, N.; Nachit, M. 1994. Screening durum wheats for root rot (*Fusarium culmorum* and *Cochliobolus sativus*) resistance in Morocco. Page 115 in *Conference sur le Theme Acquis et Perspectives de la Recherche Agronomique dans les Zones Arides et Semi-Arides du Maroc. Resumes - Abstracts*, INRA/MIAC-USAID, 24-27 May 1994, Rabat, Maroc (M. Karrou, F. Nassif, M. El Bouhssini and M. Gharous, eds.). INRA, Rabat, Morocco. En, Fr. (Abstract).
- (0310) Mergoum, M.; Ryan, J.; Nsarellah, N. 1994. Performance of triticale in the drought-prone Moroccan regions. Page 99 in *Conference sur le Theme Acquis et Perspectives de la Recherche Agronomique dans les Zones Arides et Semi-Arides du Maroc. Resumes - Abstracts*, INRA/MIAC-USAID, 24-27 May 1994, Rabat, Maroc (M. Karrou, F. Nassif, M. El Bouhssini and M. Gharous, eds.). INRA, Rabat, Morocco. En, Fr. (Abstract).
- (0311) Mmbaga, M.T.; Kababbeh, S.; Singh, K.B. 1994. Pathogenic variability and resistance to ascochyta blight in chickpea. Pages 257-259 in *Proceedings of the 9th Congress of the Mediterranean Phytopathological Union, Turkish Phytopathological Society and Mediterranean Phytopathological Union*, 18-24 Sept 1994, Kusadasi - Aydin, Turkey. Turkish Phytopathological Society, Bornova, Izmir, Turkey.
- (0312) Mmbaga, M.T.; Khedy, W.; Kababbeh, S. 1994. Ascochyta blight (*Ascochyta rabiei* (Pass.) Labr.) of chickpea (*Cicer arietinum* L.) in Syria: primary infec-

- tion and disease spread. Pages 125-127 in *Proceedings of the 9th Congress of the Mediterranean Phytopathological Union, Turkish Phytopathological Society and Mediterranean Phytopathological Union, 18-24 Sept 1994, Kusadasi - Aydin, Turkey. Turkish Phytopathological Society, Bornova, Izmir, Turkey.*
- (0313) Nordblom, T.L.; Shomo, F. 1994. Livestock and feed in WANA: past, present and future. Pages 35-59 in *Board of Trustees Presentation, 11-12 May 1993, Aleppo, Syria. ICARDA, Aleppo, Syria.*
- (0314) Nordblom, T.; Shomo, F.; Boughlala, M.; Goebel, W.; Harris, H.; El Mourid, M.; Ambri, A.; El Oumri, M.; Farihane, H.; El Ouali, A.; Jmyi, A. 1994. Farmer interview methods and crop-growth simulation for yield-gap estimation in Morocco. Pages 685-686 in *Systems-oriented Research in Agriculture and Rural Development: Proceedings of an International Symposium, 21-25 Nov 1994, Montpellier, France (M. Sebillotte, ed.). CIRAD-SAR, Montpellier cedex 1, France.*
- (0315) Nsarellah, N.; Nachit, M. 1994. Breeding durum wheat for the semi-arid areas of Morocco. Pages 95-96 in *Conference sur le Theme Acquis et Perspectives de la Recherche Agronomique dans les Zones Arides et Semi-Arides du Maroc. Resumes - Abstracts, INRA/MIAC-USAID, 24-27 May 1994, Rabat, Maroc (M. Karrou, F. Nassif, M. El Bouhssini and M. Gharous, eds.). INRA, Rabat, Morocco. En. Fr. (Abstract).*
- (0316) Nsarellah, N.; Nachit, M.; Mergoum, M. 1994. Factors affecting durum wheat performance under early and mid season drought stress. Page 97 in *Conference sur le Theme Acquis et Perspectives de la Recherche Agronomique dans les Zones Arides et Semi-Arides du Maroc. Resumes - Abstracts, INRA/MIAC-USAID, 24-27 May 1994, Rabat, Maroc (M. Karrou, F. Nassif, M. El Bouhssini and M. Gharous, eds.). INRA, Rabat, Morocco. En. Fr. (Abstract).*
- (0317) Oglah, M.; Mamdouh, Q.; Khraisat, I.; Tutwiler, R.; Haddad, N. 1994. Effectiveness of Mashreq barley demonstrations in Jordan. Pages 287-295 in *Crop and Livestock Improvement in Mashreq Region: Proceedings of the Mashreq Workshop on Increased Productivity of Barley, Pastures and Sheep in the Critical Rainfall Zones, 13-15 Dec 1992, Amman, Jordan (N. Haddad and R. Tutwiler, eds.). ICARDA, Aleppo, Syria.*
- (0318) Osman, A.E.; Shalla, M.A. 1994. Use of edible shrubs in pasture improvement under Mediterranean environment in northern Syria. Pages 255-258 in *Halophytes as a Resource for Livestock and for Rehabilitation of Degraded Lands: Proceedings of the International Workshop on Halophytes for Reclamation of Saline Wastelands and as a Resource for Livestock Problems and Prospects, UNEP/University of Adelaide, Australia, 22-27 Nov 1992, Nairobi, Kenya (V.R. Squires and A.T. Ayoub, eds.). Kluwer Academic Publishers, Dordrecht, the Netherlands.*

- (0319) Oweis, T.; Pala, M.; Ryan, J. 1994. Responses of Mediterranean durum and bread wheat cultivars to varying nitrogen, planting date and supplemental irrigation. Page 71 in *Agronomy Abstracts. 1994 Annual Meetings of the American Society of Agronomy, Crop Science Society of America, Soil Science Society of America, 13-18 Nov 1994, Seattle, Washington, USA. American Society of Agronomy, Madison, WI, USA. (Abstract: Division A-6-International Agronomy).*
- (0320) Oweis, T.; Taimeh, A. 1994. Overall evaluation of on-farm water harvesting systems in the arid regions. Pages 763-781 in *International Conference on Land and Water Resources Management in the Mediterranean region, Volume III: Integrated Land and Water Resources Management, WRC, CIHEAM/LAM-B/IWRA, 4-8 Sept 1994, Valenzano, Italy. Istituto Agronomico Mediterraneo, Valenzano Bari, Italy.*
- (0321) Pala, M.; Saxena, M.C.; Papastylianou, I.; Jaradat, A.A. 1994. Enhancing the use of cool season food legumes in different farming systems. Pages 130-143 in *Expanding the Production and Use of Cool Season Food Legumes: Proceedings of the Second International Food Legume Research Conference on Pea, Lentil, Faba Bean, Chickpea, and Grasspea, 12-16 Apr 1992, Cairo, Egypt (F.J. Muehlbauer and W.J. Kaiser, eds.). Kluwer Academic Publishers, Dordrecht, the Netherlands.*
- (0322) Pieterse, A.H.; Garcia-Torres, L.; Al-Menoufi, O.A.; Linke, K.H.; Ter Borg, S.J. 1994. Integrated control of the parasitic angiosperm *Orobanche* (Broomrape). Pages 695-702 in *Expanding the Production and Use of Cool Season Food Legumes: Proceedings of the Second International Food Legume Research Conference on Pea, Lentil, Faba Bean, Chickpea, and Grasspea, 12-16 Apr 1992, Cairo, Egypt (F.J. Muehlbauer and W.J. Kaiser, eds.). Kluwer Academic Publishers, Dordrecht, the Netherlands.*
- (0323) Reynolds, M.P.; Sayre, K.D.; Vivar, H.E. 1994. Intercropping small grains with legume species under reduced N fertility to improve ground cover, nitrogen use efficiency and productivity. Pages 5a, 702-703 in *15th World Congress of Soil Science, 10-16 Jul 1994, Acapulco, Mexico.*
- (0324) Rodriguez, A.; Goebel, W. 1994. Impact of fertilizer pricing policies on barley-livestock production systems in North-West Syria. Pages 877-882 in *Proceedings of the Agricultural Policy Workshop, International Symposium on Systems-Oriented Research in Agriculture and Rural Development, 21-25 Nov 1994, Montpellier, France. CIRAD-SAR, Montpellier, France.*
- (0325) Ryan, J.; Masri, S.; Habib, L.; Pala, M. 1994. Long-term phosphorus fertilization over a rainfall gradient in dryland farming systems of northwestern Syria. Pages 369-370 in *the Transactions of the 15th World Congress of Soil Science, Volume 5b: Commission IV: Poster Sessions, International Society of Soil Science and Mexican Society of Soil Science, 10-16 Jul 1994, Acapulco, Mexico. Mexican Society of Soil Science, Acapulco, Mexico.*

- (0326) Salkini, A.; Oweis, T. 1994. Farming systems approach to research and technology transfer of supplemental irrigation: ICARDA's experience in Syria. Pages 1083-1101 *in* International Conference on Land and Water Resources Management in the Mediterranean region, Volume III: Integrated Land and Water Resources Management, WRC, CIHEAM/LAM-B/IWRA, 4-8 Sept 1994, Valenzano, Italy. Istituto Agronomico Mediterraneo, Valenzano Bari, Italy.
- (0327) Salkini, A.; Oweis, T. 1994. Rationalization of ground water use for supplemental irrigation in Syria: environmental and socioeconomic considerations. Page 29 *in* The Regional Conference on Conserving Arab Natural Resources, 31 Oct - 3 Dec, Douha, Qatar. AOAD, Khartoum, Sudan. Ar.
- (0328) Saxena, M.C.; Abd El-Moneim, A.M. 1994. Place and role of legumes in livestock production in West Asia and North Africa. Pages 60-72 *in* Board of Trustees Presentation, 11-12 May 1993, Aleppo, Syria. ICARDA, Aleppo, Syria.
- (0329) Saxena, M.C.; Gizaw, A.; Rik, M.A.; Ali, M. 1994. Crop and soil management practices for mitigating stresses caused by extremes of soil moisture and temperature. Pages 633-641 *in* Expanding the Production and Use of Cool Season Food Legumes: Proceedings of the Second International Food Legume Research Conference on Pea, Lentil, Faba Bean, Chickpea, and Grasspea, 12-16 Apr 1992, Cairo, Egypt (F.J. Muehlbauer and W.J. Kaiser, eds.). Kluwer Academic Publishers, Dordrecht, the Netherlands.
- (0330) Saxena, N.P.; Saxena, M.C.; Ruckebauer, P.; Rana, R.S.; El-Fouly, M.M.; Shabana, R. 1994. Screening techniques and sources of tolerance to salinity and mineral nutrient imbalances in cool season food legumes. Pages 457-471 *in* Expanding the Production and Use of Cool Season Food Legumes: Proceedings of the Second International Food Legume Research Conference on Pea, Lentil, Faba Bean, Chickpea, and Grasspea, 12-16 Apr 1992, Cairo, Egypt (F.J. Muehlbauer and W.J. Kaiser, eds.). Kluwer Academic Publishers, Dordrecht, the Netherlands.
- (0331) Singh, K.B.; Malhotra, R.S.; Halila, M.H.; Knights, E.J.; Verma, M.M. 1994. Current status and future strategy in breeding chickpea for resistance to biotic and abiotic stresses. Pages 572-591 *in* Expanding the Production and Use of Cool Season Food Legumes: Proceedings of the Second International Food Legume Research Conference on Pea, Lentil, Faba Bean, Chickpea, and Grasspea, 12-16 Apr 1992, Cairo, Egypt (F.J. Muehlbauer and W.J. Kaiser, eds.). Kluwer Academic Publishers, Dordrecht, the Netherlands.
- (0332) Snobar, B.A.; Abi Antoun, M.; Haddad, N.I.; Tawil, M.; Silkini, A.B. 1994. On-farm research addressing lentil farmers' constraints in West Asia. Pages 911-925 *in* Expanding the Production and Use of Cool Season Food Legumes: Proceedings of the Second International Food Legume Research Conference on Pea, Lentil, Faba Bean, Chickpea, and Grasspea, 12-16 Apr 1992, Cairo, Egypt (F.J. Muehlbauer and W.J. Kaiser, eds.). Kluwer Academic Publishers, Dordrecht, the Netherlands.

- (0333) Solh, M.B.; Halila, H.M.; Hernandez-Bravo, G.; Malik, B.A.; Mihov, M.I.; Sadri, B. 1994. Biotic and abiotic stresses constraining the productivity of cool season food legumes in different farming systems: specific examples. Pages 219-230 in *Expanding the Production and Use of Cool Season Food Legumes: Proceedings of the Second International Food Legume Research Conference on Pea, Lentil, Faba Bean, Chickpea, and Grasspea*, 12-16 Apr 1992, Cairo, Egypt (F.J. Muehlbauer and W.J. Kaiser, eds.). Kluwer Academic Publishers, Dordrecht, the Netherlands.
- (0334) Stanforth, A.; Sprent, J.I.; Brockwell, J.; Beck, D.P.; Moawad, H. 1994. Biological nitrogen fixation: basic advances and persistent agronomic constraints. Pages 821-831 in *Expanding the Production and Use of Cool Season Food Legumes: Proceedings of the Second International Food Legume Research Conference on Pea, Lentil, Faba Bean, Chickpea, and Grasspea*, 12-16 Apr 1992, Cairo, Egypt (F.J. Muehlbauer and W.J. Kaiser, eds.). Kluwer Academic Publishers, Dordrecht, the Netherlands.
- (0335) Treacher, T.; Goodchild, A.V. 1994. Small ruminant management in West Asia and North Africa: present and future. Pages 73-75 in *Board of Trustees Presentation*, 11-12 May 1993, Aleppo, Syria. ICARDA, Aleppo, Syria.
- (0336) Treacher, T.T.; Goodchild, A.; Bahhady, F.; Filo, S. 1994. Improving performance of Awassi flocks by modifying feeding. Pages 157-166 in *Crop and Livestock Improvement in Mashreq Region: Proceedings of the Mashreq Workshop on Increased Productivity of Barley, Pastures and Sheep in the Critical Rainfall Zones*, 13-15 Dec 1992, Amman, Jordan (N. Haddad and R. Tutwiler, eds.). ICARDA, Aleppo, Syria.
- (0337) Tutwiler, R.; Haddad, N. 1994. The Mashreq project approach to technology transfer: strategy and practice. Pages 276-286 in *Crop and Livestock Improvement in Mashreq Region: Proceedings of the Mashreq Workshop on Increased Productivity of Barley, Pastures and Sheep in the Critical Rainfall Zones*, 13-15 Dec 1992, Amman, Jordan (N. Haddad and R. Tutwiler, eds.). ICARDA, Aleppo, Syria.
- (0338) Tutwiler, R.N.; Amine, M.; Solh, M.B.; Beniwal, S.P.S.; Halila, M.H. 1994. Approaches to overcoming constraints to winter chickpea adoption in Morocco, Syria, and Tunisia. Pages 899-910 in *Expanding the Production and Use of Cool Season Food Legumes: Proceedings of the Second International Food Legume Research Conference on Pea, Lentil, Faba Bean, Chickpea, and Grasspea*, 12-16 Apr 1992, Cairo, Egypt (F.J. Muehlbauer and W.J. Kaiser, eds.). Kluwer Academic Publishers, Dordrecht, the Netherlands.
- (0339) Van Gastel, A.J.G.; Bahl, P.N.; Faki, H.; Plancquaert, P.; Nassib, A.M.; Snobar, B.A. 1994. Provisions for agronomic inputs for cool season food legumes in some developing countries (discussion session). Pages 495-503 in *Expanding the Production and Use of Cool Season Food Legumes: Proceedings of the Sec-*

and International Food Legume Research Conference on Pea, Lentil, Faba Bean, Chickpea, and Grasspea, 12-16 Apr 1992, Cairo, Egypt (F.J. Muehlbauer and W.J. Kaiser, eds.). Kluwer Academic Publishers, Dordrecht, the Netherlands.

- (0340) Vivar, H.E. 1994. Mejoramiento de Cebada contra enfermedades. Pages 26-29 *in* Memorias Sobre el Taller Sobre Resistencia Duradera en Cultivos Alto-Andinos de Bolivia, Colombia, Ecuador y Peru, 30 May - 3 June 1994, Quito, Ecuador (L.H. Broers, ed.). Es.
- (0341) Weigand, S.; Lateef, S.S.; El-Din Sharaf El-Din, N.; Mahmoud, S.F.; Ahmed, K.; Ali, K. 1994. Integrated control of insect pests of cool season food legumes. Pages 679-694 *in* Expanding the Production and Use of Cool Season Food Legumes: Proceedings of the Second International Food Legume Research Conference on Pea, Lentil, Faba Bean, Chickpea, and Grasspea, 12-16 Apr 1992, Cairo, Egypt (F.J. Muehlbauer and W.J. Kaiser, eds.). Kluwer Academic Publishers, Dordrecht, the Netherlands.
- (0342) Wery, J.; Silim, S.N.; Knights, E.J.; Malhotra, R.S.; Cousin, R. 1994. Screening techniques and sources of tolerance to extremes of moisture and air temperature in cool season food legumes. Pages 439-456 *in* Expanding the Production and Use of Cool Season Food Legumes: Proceedings of the Second International Food Legume Research Conference on Pea, Lentil, Faba Bean, Chickpea, and Grasspea, 12-16 Apr 1992, Cairo, Egypt (F.J. Muehlbauer and W.J. Kaiser, eds.). Kluwer Academic Publishers, Dordrecht, the Netherlands.
- (0343) Zoghalmi, A.; Hassan, H.; Robertson, L.D. 1994. Collecte etude eco-geographique des especes spontanees de legumineuses fourrageres et pastorales en Tunisie. [Collect and eco-geographic survey of forage and pasture legumes in Tunisia]. Pages 29-30 *in* the Seventh Arab Scientific Conference of Biological Sciences: Biodiversity and Environment, Abstracts, 4-7 Nov 1994, Hammam-Sousse, Tunisia (A. Raies, ed.). Ste des Sciences Naturelles de Tunisia, Tunis, Tunisia. Fr.
- (0344) Abd El Moneim, A.; Saxena, M. 1995. Developing cultivated forage legumes for improved yield and quality to feed livestock in the dry areas. Page 33 *in* Regional Symposium on Integrated Crop-Livestock Systems in the Dry Areas of West Asia and North Africa: Abstracts, IFAD/UNDP/AFESD/ICARDA, 6-8 Nov 1995, Amman, Jordan. ICARDA, Aleppo, Syria.
- (0345) Abdalla, O.S.; Pena, R.J.; Autrique, J.E.; Nachit, M.M. 1995. Durum wheat breeding and quality improvement at CIMMYT Mexico. Pages 133-141 *in* Durum Wheat Quality in the Mediterranean Region: Proceedings of the Seminar on Durum Wheat Quality in the Mediterranean Region, CIHEAM/ICARDA/CIMMYT, 17-19 Nov 1993, Zaragoza, Spain (N. di Fonzo, F. Kaan, and M. Nachit, eds.). Serie A: Seminaires Mediterraneens, No. 22, Options Mediterraneennes. CIHEAM, Zaragoza, Spain.

- (0346) Abdel Hadi, Z.M.H. 1995. Development of information technology and systems. 10 pages in the First National Workshop for Users of Agricultural Information and Documentation Services, NCIAD/IDRC/ICARDA, 4-6 Nov 1995, Arab Cultural Center, Damascus, Syria. NCAID, Damascus, Syria. Ar.
- (0347) Al-Hamzaoui, S. 1995. Technical information processing. 11 pages in the First National Workshop for Users of Agricultural Information and Documentation Services, NCIAD/IDRC/ICARDA, 4-6 Nov 1995, Arab Cultural Center, Damascus, Syria. NCAID, Damascus, Syria.
- (0348) Bahhady, F.; Christiansen, S.; Harris, H.; Thomson, E. 1995. Performance of Awassi lambs grazing common vetch in on-farm and on-station trials. Page 4 in Interdrought: Integrated Study on Drought Tolerance of Higher Plants: Proceedings of First International Meeting, INRA/ENSA/OSTROM/CIRAD, 30 Aug - 2 Sept 1995, Montpellier, France. INRA, Montpellier, France.
- (0349) Banisadr, N.; Tahir, M. 1995. Heat and cold tolerance in *Triticum aestivum* L. and *T. Turgidum* var. durum from Iran. Pages 471-477 in Proceedings of the Eighth International Wheat Genetics Symposium, Vol 1 (Z.S. Li, Xin, Z.Y., S.Y. Chen, K.W. Yuan, D.W. Cao and X.P. An). Eighth International Wheat Genetics Symposium, 20-25 July 1993, Beijing, China. China Agricultural Sciencetech Press, Beijing, China.
- (0350) Beniwal, S.P.S.; Kaiser, W.J.; Dalkiran, H. 1995. Biotic constraints to the production of lentils and their management in the highlands of West Asia and North Africa. Pages 84-94 in Autumn-sowing of Lentil in the Highlands of West Asia and North Africa: Proceedings of the Workshop on Towards Improved Winter-sown Lentil Production for the West Asian and North African Highlands, Ministry of Agriculture and Rural Affairs, Turkey/British Overseas Development Administration Plant Sciences Research Programme, UK/University of Reading, UK/ICARDA, Aleppo, Syria, 12-13 Dec 1994, Antalya, Turkey (J.D.H. Keatinge and I. Kusmenoglu, eds.). Central Research Institute for Field Crops, Ankara, Turkey.
- (0351) Bishaw, Z. 1995. Components of seed quality. Pages 123-132 in Legume Seed Technology: Proceedings of Train-the-Trainer Course on Legume Seed Production, FSCD/ICARDA, 5-14 Apr 1994, Sahiwal, Pakistan (S.I. Ahmad, ed.). FSCD, Sahiwal, Pakistan.
- (0352) Bishaw, Z. 1995. Legume seed storage. Pages 145-155 in Legume Seed Technology: Proceedings of Train-the-Trainer Course on Legume Seed Production, FSCD/ICARDA, 5-14 Apr 1994, Sahiwal, Pakistan (S.I. Ahmad, ed.). FSCD, Sahiwal, Pakistan.
- (0353) Bishaw, Z.; Van Gastel, A.J.G. 1995. Field inspection methodology. Pages 102-114 in Legume Seed Technology: Proceedings of Train-the-Trainer Course on Legume Seed Production, FSCD/ICARDA, 5-14 Apr 1994, Sahiwal, Pakistan (S.I. Ahmad, ed.). FSCD, Sahiwal, Pakistan.

- (0354) Ceccarelli, S.; Grando, S.; Booth, R.H. 1995. International breeding programmes and resource-poor farmers: crop improvement in difficult environments. Pages 99-116 *in* Participatory Plant Breeding: Proceedings of a Workshop on Participatory Plant Breeding, IDRC/FAO/CPRO-DLO-CGN/IPGRI, 26-29 July 1995, Wageningen, The Netherlands (P. Eyzaguirre and M. Iwanaga, eds.). IPGRI, Rome, Italy.
- (0355) Christiansen, S.; Bou Moghleb, W.; Gintzburger, G.; Mitri, M.; Optiz, U. 1995. Allocation du Centre International pour la Recherche Agricole dans les Zones Arides (ICARDA). Pages 149-160 *in* La Production Fourragere dans la Zone Sais - Zaers: Compte Rendu de l'Atelier de Travail, Ministere de l'Agriculture et de la Mise en valeur Agricole/INRA/ICARDA, 4-6 Apr 1995, Meknes, Maroc. INRA, Rabat, Maroc. Fr.
- (0356) D'Ovidio, R.; Tanzarella, O.A.; Lafiandra, D.; Porceddu, E. 1995. Identification of durum wheat cultivars with good and poor quality by PCR-based markers. Pages 241-247 *in* Durum Wheat Quality in the Mediterranean Region: Proceedings of the Seminar on Durum Wheat Quality in the Mediterranean Region, CIHEAM/ICARDA/CIMMYT, 17-19 Nov 1993, Zaragoza, Spain (N. di Fonzo, F. Kaan, and M. Nachit, eds.). Serie A: Seminaires Mediterraneens, No. 22, Options Mediterraneennes. CIHEAM, Zaragoza, Spain.
- (0357) Diekmann, M. 1995. Control of storage pests in food legumes. Pages 169-178 *in* Legume Seed Technology: Proceedings of Train-the-Trainer Course on Legume Seed Production, FSCD/ICARDA, 5-14 Apr 1994, Sahiwal, Pakistan (S.I. Ahmad, ed.). FSCD, Sahiwal, Pakistan.
- (0358) Einfeldt, C.H.P.; Ceccarelli, S.; Gland-Zwergler, A.; Geiger, H.H. 1995. Influence of heterogeneity and heterozygosity on yield under drought stress conditions. Page II2 *in* Interdrought: Integrated Study on Drought Tolerance of Higher Plants: Proceedings of First International Meeting, INRA/ENSA/OSTROM/CIRAD, 30 Aug - 2 Sept 1995, Montpellier, France. INRA, Montpellier, France.
- (0359) El-Ahmed, A.; Asaad, S. 1995. Field inspection, seed certification, and standards for seed-borne diseases in seed production. Pages 115-122 *in* Legume Seed Technology: Proceedings of Train-the-Trainer Course on Legume Seed Production, FSCD/ICARDA, 5-14 Apr 1994, Sahiwal, Pakistan (S.I. Ahmad, ed.). FSCD, Sahiwal, Pakistan.
- (0360) El-Ahmed, A.; Asaad, S. 1995. Important seed-borne diseases of food legume crops, diagnosis and control. Pages 133-136 *in* Legume Seed Technology: Proceedings of Train-the-Trainer Course on Legume Seed Production, FSCD/ICARDA, 5-14 Apr 1994, Sahiwal, Pakistan (S.I. Ahmad, ed.). FSCD, Sahiwal, Pakistan.
- (0361) El-Ahmed, A.; Asaad, S. 1995. Methods of seed health testing. Pages 156-160 *in* Legume Seed Technology: Proceedings of Train-the-Trainer Course on Le-

gume Seed Production, FSCD/ICARDA, 5-14 Apr 1994, Sahiwal, Pakistan (S.I. Ahmad, ed.). FSCD, Sahiwal, Pakistan.

- (0362) El-Ahmed, A.; Asaad, S. 1995. Seed treatment. Pages 179-186 *in* Legume Seed Technology: Proceedings of Train-the-Trainer Course on Legume Seed Production, FSCD/ICARDA, 5-14 Apr 1994, Sahiwal, Pakistan (S.I. Ahmad, ed.). FSCD, Sahiwal, Pakistan.
- (0363) El-Ahmed, A.; Asaad, S. 1995. Disease-free quality seed production. Pages 3-6 *in* Legume Seed Health Testing: Proceedings of the Training Course, FSCD/ICARDA, 14-20 Mar 1995, Islamabad, Pakistan. Federal Seed Certification Department, Islamabad, Pakistan.
- (0364) El-Ahmed, A.; Asaad, S. 1995. Field inspection, seed certification and standards for seed-borne diseases. Pages 7-14 *in* Legume Seed Health Testing: Proceedings of the Training Course, FSCD/ICARDA, 14-20 Mar 1995, Islamabad, Pakistan. Federal Seed Certification Department, Islamabad, Pakistan.
- (0365) El-Ahmed, A.; Asaad, S. 1995. Legume diseases of quarantine object: diagnosis and detection. Pages 15-20 *in* Legume Seed Health Testing: Proceedings of the Training Course, FSCD/ICARDA, 14-20 Mar 1995, Islamabad, Pakistan. Federal Seed Certification Department, Islamabad, Pakistan.
- (0366) El-Ahmed, A.; Bhutta, R. 1995. Legume seed health testing methods. Pages 54-62 *in* Legume Seed Health Testing: Proceedings of the Training Course, FSCD/ICARDA, 14-20 Mar 1995, Islamabad, Pakistan. Federal Seed Certification Department, Islamabad, Pakistan.
- (0367) El-Beltagy, A. 1995. West Asia and North Africa. Pages 120-124 *in* A 2020 Vision for Food, Agriculture, and the Environment: Speeches Made at an International Conference, IFPRI/National Geographic Society, 13-15 June 1995, Washington, D.C., USA. IFPRI, Washington, D.C., USA.
- (0368) Erskine, W. 1995. Plant morphology in lentil: genetic variation and its exploitation. Pages 244-245 *in* Proceedings of the 2nd European Conference on Grain Legumes: Improving Production and Utilisation of Grain Legumes, 9-13 July 1995, Copenhagen, Denmark. L' Association Europeenne des Proteagineux (AEP), Paris, France.
- (0369) Erskine, W.; Muehlbauer, F.J. 1995. Lentil adaptation to highland winter-sown environments in West Asia and North Africa. Pages 51-62 *in* Autumn-sowing of Lentil in the Highlands of West Asia and North Africa: Proceedings of the Workshop on "Towards Improved Winter-sown Lentil Production for the West Asian and North African Highlands", Ministry of Agriculture and Rural Affairs, Turkey/British Overseas Development Administration Plant Sciences Research Programme, UK/University of Reading, UK/ICARDA, Aleppo, Syria, 12-13 Dec 1994, Antalya, Turkey (J.D.H. Keatinge and I. Kusmenoglu, eds.). Central Research Institute for Field Crops, Ankara, Turkey.

- (0370) Eujayl, I.; Baum, M.; Erskine, W.; Pehu, E.; Muchlbauer, F.J. 1995. Development of a genetic linkage map for lentil based on RAPD markers. Pages 440-441 in *Proceedings of the 2nd European Conference on Grain Legumes: Improving Production and Utilisation of Grain Legumes*, 9-13 July 1995, Copenhagen, Denmark. L' Association Europeenne des Proteagineux (AEP), Paris, France.
- (0371) Falchetti, M.L.; Infantino, A.; Porta-Puglia, A.; Singh, K.B. 1995. Evaluation of wild *cicer* species for resistance to Fusarium wilt. Pages 94-95 in *Proceedings of the 2nd European Conference on Grain Legumes: Improving Production and Utilisation of Grain Legumes*, 9-13 July 1995, Copenhagen, Denmark. L' Association Europeenne des Proteagineux (AEP), Paris, France.
- (0372) Firingioglu, H.; Christiansen, S.; Lamont, E.J.; Unal, S.; Beniwal, S.P.S. 1995. A novel participative approach for management and rehabilitation of village common pastures in the central highlands of Turkey. Page 3 in *Interdrought: Integrated Study on Drought Tolerance of Higher Plants: Proceedings of First International Meeting*, INRA/ENSA/OSTROM/CIRAD, 30 Aug - 2 Sept 1995, Montpellier, France. INRA, Montpellier, France.
- (0373) Firingioglu, H.; Karagullu, N.; Unal, S.; Abdel-Moncim, A.; Beniwal, S.P.S. 1995. Improving feed legumes for the central highlands of Turkey. Page 34 in *Regional Symposium on Integrated Crop-Livestock Systems in the Dry Areas of West Asia and North Africa: Abstracts*, IFAD/UNDP/AFESD/ICARDA, 6-8 Nov 1995, Amman, Jordan. ICARDA, Aleppo, Syria.
- (0374) Gintzbürger, G. 1995. Allocution du Centre International pour la Recherche Agricole dans les Zones Arides (ICARDA). Pages 5-7 in *La Production Fourragère dans la Zone Sais - Zaers: Compte Rendu de l'Atelier de Travail*, Ministère de l'Agriculture et de la Mise en valeur Agricole/INRA/ICARDA, 4-6 Apr 1995, Meknes, Maroc. INRA, Rabat, Maroc. Fr.
- (0375) Gintzbürger, G.; Nordblom, T.; Osman, A. 1995. Agro-pastoral systems, feed calendars and feed resources in the Arab countries of the Mediterranean region. Page 2 in *Regional Symposium on Integrated Crop-Livestock Systems in the Dry Areas of West Asia and North Africa: Abstracts*, IFAD/UNDP/AFESD/ICARDA, 6-8 Nov 1995, Amman, Jordan. ICARDA, Aleppo, Syria.
- (0376) Gintzbürger, G.; Sbata, A. 1995. Introducing the ley-farming system in western Libya: an arid Mediterranean environment. Page 11 in *Regional Symposium on Integrated Crop-Livestock Systems in the Dry Areas of West Asia and North Africa: Abstracts*, IFAD/UNDP/AFESD/ICARDA, 6-8 Nov 1995, Amman, Jordan. ICARDA, Aleppo, Syria.
- (0377) Goebel, W. 1995. Adding stochasticity to GIS: stochastic regional models. Working paper No. 13. Pages 225-242 in *Co-Ordination and Harmonisation of Databases and Software for Agroclimatic applications*, FAO Agrometeorology Series. FAO, Rome, Italy.

- (0378) Goodchild, A.V. 1995. Is it worth while selecting for high cereal straw quality in the WANA region?. Page 46 in *Regional Symposium on Integrated Crop-Livestock Systems in the Dry Areas of West Asia and North Africa: Abstracts*, IFAD/UNDP/AFESD/ICARDA, 6-8 Nov 1995, Amman, Jordan. ICARDA, Aleppo, Syria.
- (0379) Grando, S.; Ceccarelli, S. 1995. *Hordeum spontaneum* improves performance of barley under drought. Page 97 in *Adaptation in Plant Breeding XIV EUCARPIA Congress, Abstracts* (M. Raatikainen, ed.). 31 July - 4 Aug, Jyväskylä, Finland. University of Jyväskylä, Finland. (Abstract).
- (0380) Gregg, B.; Van Gastel, A.J.G.; Homeyer, B.; Holm, K.; Gomaa, A.S.A.; Abdel Wanise, M.S. 1995. Roguing seed fields. Pages 84-93 in *Legume Seed Technology: Proceedings of Train-the-Trainer Course on Legume Seed Production*, FSCD/ICARDA, 5-14 Apr 1994, Sahiwal, Pakistan (S.I. Ahmad, ed.). FSCD, Sahiwal, Pakistan.
- (0381) Hamadeh, S.; Shomo, F.; Hamud, R.; Nordblom, T.; Goodchild, T.; Darwish, R.; Barbour, E. 1995. Bioeconomics of small ruminant production in Lebanon. Page 51 in *Regional Symposium on Integrated Crop-Livestock Systems in the Dry Areas of West Asia and North Africa: Abstracts*, IFAD/UNDP/AFESD/ICARDA, 6-8 Nov 1995, Amman, Jordan. ICARDA, Aleppo, Syria.
- (0382) Harris, H.C. 1995. Long-term trials on soil and crop management at ICARDA. Pages 447-472 in *Soil Management Experimental Basis for Sustainability and Environmental Quality. Advances in Soil Science* (R. Lal and B.A. Stewart, eds.). CRC Press, Boca Raton, USA.
- (0383) Harris, H.C.; Ryan, J.; Treacher, T.T.; Matar, A. 1995. Nitrogen in dryland farming systems common in north-western Syria. Pages 323-335 in *Livestock and Sustainable Nutrient Cycling in Mixed Farming Systems of Sub-Saharan Africa: Proceedings of an International Conference*, 22-26 Nov 1993, Addis Ababa, Ethiopia (J.M. Powel, S. Fernandez-Rivera, T.O. Williams and C. Renard, eds.). Volume II: Technical Papers. ILCA, Addis Ababa, Ethiopia.
- (0384) Impiglia, A.; Nachit, M.M.; Lafiandra, D.; Porceddu, E. 1995. Effect of gliadin and glutenin components on gluten strength in durum wheat. Pages 167-172 in *Durum Wheat Quality in the Mediterranean Region: Proceedings of the Seminar on Durum Wheat Quality in the Mediterranean Region*, CIHEAM/ICARDA/CIMMYT, 17-19 Nov 1993, Zaragoza, Spain (N. di Fonzo, F. Kaan, and M. Nachit, eds.). Serie A: Seminaires Mediterraneens, No. 22, Options Mediterraneennes. CIHEAM, Zaragoza, Spain.
- (0385) Kayyal, H.; Abu Hamze, H.; Jarrah, M.; Nachit, M.M. 1995. Durum wheat production and quality in Syria. Pages 127-132 in *Durum Wheat Quality in the Mediterranean Region: Proceedings of the Seminar on Durum Wheat Quality*

in the Mediterranean Region, CIHEAM/ICARDA/CIMMYT, 17-19 Nov 1993, Zaragoza, Spain (N. di Fonzo, F. Kaan, and M. Nachit, eds.). Serie A: Seminaires Mediterraneens, No. 22, Options Mediterraneennes. CIHEAM, Zaragoza, Spain.

- (0386) Keatinge, J.D.H.; Qi, A.; Kusmenoglu, I.; Ellis, R.H.; Summerfield, R.J.; Erskine, W.; Beniwal, S.P.S. 1995. Selecting lentil genotypes for winter-sowing in the Turkish highlands. Pages 142-143 in *Proceedings of the 2nd European Conference on Grain Legumes: Improving Production and Utilisation of Grain Legumes*, 9-13 July 1995, Copenhagen, Denmark. L' Association Europeenne des Proteagineux (AEP), Paris, France.
- (0387) Kharrat, M.; Halila, M.H.; Beniwal, S.P.S.; Solh, M. 1995. Yield stability in faba bean (*Vicia faba* L. var. Minor). Pages 228-229 in *Proceedings of the 2nd European Conference on Grain Legumes: Improving Production and Utilisation of Grain Legumes*, 9-13 July 1995, Copenhagen, Denmark. L' Association Europeenne des Proteagineux (AEP), Paris, France.
- (0388) Leybourne, M.; Ghassali, F.; Osman, A.; Nordblom, T.; Gintzburger, G. 1995. The utilization of fodder shrubs (*Atriplex* spp., *Salsolavermiculata*) by agropastoralists in the northern Syrian steppe. Page 63 in *Regional Symposium on Integrated Crop-Livestock Systems in the Dry Areas of West Asia and North Africa: Abstracts*, IFAD/UNDP/AFESD/ICARDA, 6-8 Nov 1995, Amman, Jordan. ICARDA, Aleppo, Syria.
- (0389) Maliha, N.; Hindawi, K. 1995. Introduction to information and documentation centers: their importance, development and services. 17 pages in *the First National Workshop for Users of Agricultural Information and Documentation Services*, NCIAD/IDRC/ICARDA, 4-6 Nov 1995, Arab Cultural Center, Damascus, Syria. NCAID, Damascus, Syria. Ar.
- (0390) Materon, L.; Ryan, J. 1995. Field significance of inoculation, phosphorus and zinc for common Mediterranean pasture and forage legumes. Page 44 in *Agronomy Abstracts. 1995 Annual Meetings of the American Society of Agronomy, Crop Science Society of America, Soil Science Society of America*, 29 Oct - 3 Nov 1995, St. Louis, Missouri, USA. American Society of Agronomy, Madison, WI, USA. (Abstract: Division A-6-International Agronomy).
- (0391) Merah, O.; Araus, J.L.; Nachit, M.; Monneveux, P. 1995. Leaf osmotic potential, relative water content and leaf-excised water loss as screening criteria for drought tolerance in durum wheat. Page X17 in *Interdrought: Integrated Study on Drought Tolerance of Higher Plants: Proceedings of First International Meeting*, INRA/ENSA/OSTROM/CIRAD, 30 Aug - 2 Sept 1995, Montpellier, France. INRA, Montpellier, France.
- (0392) Nachit, M.M.; Baum, M.; Impiglia, A.; Ketata, H. 1995. Studies on some grain quality traits in durum wheat grown in Mediterranean environments. Pages 181-187 in *Durum Wheat Quality in the Mediterranean Region: Proceedings of*

the Seminar on Durum Wheat Quality in the Mediterranean Region, CIHEAM/ICARDA/CIMMYT, 17-19 Nov 1993, Zaragoza, Spain (N. di Fonzo, F. Kaan, and M. Nachit, eds.). Serie A: Seminaires Mediterraneens, No. 22, Options Mediterraneennes. CIHEAM, Zaragoza, Spain.

- (0393) Naji, M.; Al-Taieb, G.; Maqboul, R. 1995. Effect of planting method and crop rotation on rainfed barley productivity in zone three (Hasakeh). Pages 8-9 in Regional Symposium on Integrated Crop-Livestock Systems in the Dry Areas of West Asia and North Africa: Abstracts, IFAD/UNDP/AFESD/ICARDA, 6-8 Nov 1995, Amman, Jordan. ICARDA, Aleppo, Syria.
- (0394) Nordblom, T.; Arab, G.; Osman, A.; Gintzburger, G. 1995. April 1995 survey of bedouin groups with contracts to graze the government rangeland plantation at Msragha, Aleppo province, Syria. Page 64 in Regional Symposium on Integrated Crop-Livestock Systems in the Dry Areas of West Asia and North Africa: Abstracts, IFAD/UNDP/AFESD/ICARDA, 6-8 Nov 1995, Amman, Jordan. ICARDA, Aleppo, Syria.
- (0395) Osman, A.; Bahlady, F. 1995. Rehabilitation of marginal land using phosphate and grazing management. Page 59 in Regional Symposium on Integrated Crop-Livestock Systems in the Dry Areas of West Asia and North Africa: Abstracts, IFAD/UNDP/AFESD/ICARDA, 6-8 Nov 1995, Amman, Jordan. ICARDA, Aleppo, Syria.
- (0396) Pape, A.; Doppler, W.; Nordblom, T. 1995. The contribution of women to labour and the decision-making processes in bedouin farming systems in northern Syria. Page 77 in Regional Symposium on Integrated Crop-Livestock Systems in the Dry Areas of West Asia and North Africa: Abstracts, IFAD/UNDP/AFESD/ICARDA, 6-8 Nov 1995, Amman, Jordan. ICARDA, Aleppo, Syria.
- (0397) Ryan, J.; Masri, S.; Garabet, S. 1995. Geographic distribution of soil test values in Syria and their relationship with crop response. Page 6 in 1995 International Symposium on Soil and Plant Analysis: Quality of Soil and Plant Analysis in View of Sustainable Agriculture and the Environment, Soil and Plant Analysis Council/International Agricultural Centre/Agricultural University, 5-10 Aug 1995, Wageningen, the Netherlands. Agricultural University, Wageningen, the Netherlands.
- (0398) Ryan, J.; Masri, S.; Garabet, S.; Pata, M. 1995. Soil nitrogen and organic matter changes in long-term rainfed cereal-legume trials in northwest Syria. Page 44 in Agronomy Abstracts. 1995 Annual Meetings of the American Society of Agronomy, Crop Science Society of America, Soil Science Society of America, 29 Oct - 3 Nov 1995, St. Louis, Missouri, USA. American Society of Agronomy, Madison, WI, USA. (Abstract: Division A-6-International Agronomy).
- (0399) Ryan, J.; Singh, M.; Yau, S.K. 1995. Excess boron in Syrian soils and implications for crop growth. Pages 64-66 in Third International Meeting on Red Medi-

terranean Soils: Summary Papers, Soil Science Society of Greece/Agricultural University of Athens/Aristotle University of Thessaloniki/International Society of Soil Science, May 1995, Chalkidiki, Greece (C. Kosmas, A. Mizara, N. Danalatos and N. Yassoglou, eds.). Soil Science Society of Greece, Athens, Greece.

- (0400) Salkini, A.B.; Hamali, S.; Haraga, S.; Nasr, T. 1995. Cereals production systems in Libya: practice and potentials for improvement. Page 14 *in* Workshop on Food Security in Libya (1) Cereals, Meat and Fishery, 16-18 July 1995, Tripoli, Libya, University of Al-Fateh. University of Al-Fateh, Tripoli, Libya Ar. (Abastact).
- (0401) Saxena, N.P.; Johansen, C.; Saxena, M.C. 1995. Global grain legumes drought research network. Page XI5 *in* Interdrought: Integrated Study on Drought Tolerance of Higher Plants: Proceedings of First International Meeting, INRA/ENSA/OSTROM/CIRAD, 30 Aug - 2 Sept 1995, Montpellier, France. INRA, Montpellier, France.
- (0402) Shomo, F.; Nasser, S.; Malkei, G.; Bahhady, F.; Christiansen, S.; Pannell, D.; Nordblom, T. 1995. Preliminary economic analysis of medic pasture and other dryland crops in two-year rotations with wheat in northeast Syria. Page 10 *in* Regional Symposium on Integrated Crop-Livestock Systems in the Dry Areas of West Asia and North Africa: Abstracts, IFAD/UNDP/AFESD/ICARDA, 6-8 Nov 1995, Amman, Jordan. ICARDA, Aleppo, Syria.
- (0403) Singh, M.; Yau, S.K.; Hamblin, J.; Porceddu, E. 1995. Inter-site transferrability of crop varieties. Page 1112 *in* Bulletin of the International Statistical Institute - Contributed Papers 50th Session, Book 2. ISI, Beijing, China.
- (0404) Sorrells, M.E.; Barbosa, J.; Nachit, M.M.; Ketata, H.; Autrique, E. 1995. Relationships among 81 durum genotypes based on RFLPs, gliadins, parentage, and quality traits. Pages 249-262 *in* Durum Wheat Quality in the Mediterranean Region: Proceedings of the Seminar on Durum Wheat Quality in the Mediterranean Region, CIHEAM/ICARDA/CIMMYT, 17-19 Nov 1993, Zaragoza, Spain (N. di Fonzo, F. Kaan, and M. Nachit, eds.). Serie A: Seminaires Mediterraneens, No. 22, Options Mediterraneennes. CIHEAM, Zaragoza, Spain.
- (0405) Summerfield, R.J.; Erskine, W.; Ellis, R.H.; Keatinge, J.D.H. 1995. Prediction of photothermal flowering responses in a world lentil (*Lens culinaris*) collection. Pages 146-147 *in* Proceedings of the 2nd European Conference on Grain Legumes: Improving Production and Utilisation of Grain Legumes, 9-13 July 1995, Copenhagen, Denmark. L' Association Europeenne des Proteagineux (AEP), Paris, France.
- (0406) Tahir, M.; Ketata, H. 1995. Rate and duration of grain filling in *Triticum* species and its breeding implications. Pages 1145-1148 *in* Proceedings of the Eighth International Wheat Genetics Symposium, Vol 2 (Z.S. Li, Z.Y. Xin, S.Y. Chen, K.W. Yuan, D.W. Cao and X.P. An). Eighth International Wheat Genetics Sym-

posium, 20-25 July 1993, Beijing, China. China Agricultural Sciencetech Press, Beijing, China.

- (0407) Tahir, M.; Pashayani, H.; Kashour, G. 1995. Barley improvement for feed and forage use to increase livestock production. Page 25 *in* Regional Symposium on Integrated Crop-Livestock Systems in the Dry Areas of West Asia and North Africa: Abstracts, IFAD/UNDP/AFESD/ICARDA, 6-8 Nov 1995, Amman, Jordan. ICARDA, Aleppo, Syria.
- (0408) Thomson, E.; Mirza, S.; Rafique, S.; Afzal, J.; Rasool, I.; Rehman, A.; Ershad, M.; Hussain, A. 1995. Utilization of fourwing saltbush for the arid rangelands of highland Balochistan. Page 61 *in* Regional Symposium on Integrated Crop-Livestock Systems in the Dry Areas of West Asia and North Africa: Abstracts, IFAD/UNDP/AFESD/ICARDA, 6-8 Nov 1995, Amman, Jordan. ICARDA, Aleppo, Syria.
- (0409) Treacher, T.T.; Rihawi, S.; Owen, E. 1995. Utilization of barley stubble by Awassi sheep. Page 47 *in* Regional Symposium on Integrated Crop-Livestock Systems in the Dry Areas of West Asia and North Africa: Abstracts, IFAD/UNDP/AFESD/ICARDA, 6-8 Nov 1995, Amman, Jordan. ICARDA, Aleppo, Syria.
- (0410) Tutwiler, R.; Haddad, N.; Thomson, E. 1995. Crop-livestock integration in drier areas: a fading illusion. Page 79 *in* Regional Symposium on Integrated Crop-Livestock Systems in the Dry Areas of West Asia and North Africa: Abstracts, IFAD/UNDP/AFESD/ICARDA, 6-8 Nov 1995, Amman, Jordan. ICARDA, Aleppo, Syria.
- (0411) Tutwiler, R.; Martini, M.; Khneifs, A.; Sweidan, Y. 1995. Adoption of improved barley production technologies in Syria. Page 71 *in* Regional Symposium on Integrated Crop-Livestock Systems in the Dry Areas of West Asia and North Africa: Abstracts, IFAD/UNDP/AFESD/ICARDA, 6-8 Nov 1995, Amman, Jordan. ICARDA, Aleppo, Syria.
- (0412) Tutwiler, R.; Martini, M.; Kriesat, I.; Mamdouh, Q.; Haddad, N. 1995. Adoption of improved barley production technology in Jordan. Page 80 *in* Regional Symposium on Integrated Crop-Livestock Systems in the Dry Areas of West Asia and North Africa: Abstracts, IFAD/UNDP/AFESD/ICARDA, 6-8 Nov 1995, Amman, Jordan. ICARDA, Aleppo, Syria.
- (0413) Tutwiler, R.N. 1995. Discovering the quality incentive for increasing durum production in West Asia and North Africa. Pages 203-212 *in* Durum Wheat Quality in the Mediterranean Region: Proceedings of the Seminar on Durum Wheat Quality in the Mediterranean Region, CIHEAM/ICARDA/CIMMYT, 17-19 Nov 1993, Zaragoza, Spain (N. di Fonzo, F. Kaan, and M. Nachit, eds.). Serie A: Seminaires Mediterraneens, No. 22, Options Mediterraneennes. CIHEAM, Zaragoza, Spain.

- (0414) Van Gastel, A.J.G. 1995. Formal and informal seed programs. Pages 18-25 in *Legume Seed Technology: Proceedings of Train-the-Trainer Course on Legume Seed Production*, FSCD/ICARDA, 5-14 Apr 1994, Sahiwal, Pakistan (S.I. Ahmad, ed.). FSCD, Sahiwal, Pakistan.
- (0415) Van Gastel, A.J.G. 1995. Seed quality control system. Pages 70-73 in *Legume Seed Technology: Proceedings of Train-the-Trainer Course on Legume Seed Production*, FSCD/ICARDA, 5-14 Apr 1994, Sahiwal, Pakistan (S.I. Ahmad, ed.). FSCD, Sahiwal, Pakistan.
- (0416) Van Gastel, A.J.G. 1995. Seed fumigation. Page 74 in *Legume Seed Technology: Proceedings of Train-the-Trainer Course on Legume Seed Production*, FSCD/ICARDA, 5-14 Apr 1994, Sahiwal, Pakistan (S.I. Ahmad, ed.). FSCD, Sahiwal, Pakistan.
- (0417) Van Gastel, A.J.G. 1995. Seed production of food legumes. Pages 75-83 in *Legume Seed Technology: Proceedings of Train-the-Trainer Course on Legume Seed Production*, FSCD/ICARDA, 5-14 Apr 1994, Sahiwal, Pakistan (S.I. Ahmad, ed.). FSCD, Sahiwal, Pakistan.
- (0418) Van Gastel, A.J.G. 1995. Seed certification. Pages 94-101 in *Legume Seed Technology: Proceedings of Train-the-Trainer Course on Legume Seed Production*, FSCD/ICARDA, 5-14 Apr 1994, Sahiwal, Pakistan (S.I. Ahmad, ed.). FSCD, Sahiwal, Pakistan.
- (0419) Van Gastel, A.J.G.; Bishaw, Z. 1995. Variety maintenance. Pages 52-62 in *Legume Seed Technology: Proceedings of Train-the-Trainer Course on Legume Seed Production*, FSCD/ICARDA, 5-14 Apr 1994, Sahiwal, Pakistan (S.I. Ahmad, ed.). FSCD, Sahiwal, Pakistan.
- (0420) Van Gastel, A.J.G.; Bishaw, Z. 1995. Legume seed cleaning. Pages 161-168 in *Legume Seed Technology: Proceedings of Train-the-Trainer Course on Legume Seed Production*, FSCD/ICARDA, 5-14 Apr 1994, Sahiwal, Pakistan (S.I. Ahmad, ed.). FSCD, Sahiwal, Pakistan.
- (0421) Van Schoonhoven, A. 1995. Towards improved winter-sown lentil production for the West Asian and North African highlands. Pages 1-3 in *Autumn-sowing of Lentil in the Highlands of West Asia and North Africa: Proceedings of the Workshop on Towards Improved Winter-sown Lentil Production for the West Asian and North African Highlands*, Ministry of Agriculture and Rural Affairs, Turkey/British Overseas Development Administration Plant Sciences Research Programme, UK/University of Reading, UK/ICARDA, Aleppo, Syria, 12-13 Dec 1994, Antalya, Turkey (J.D.H. Keatinge and I. Kusmenoglu, eds.). Central Research Institute for Field Crops, Ankara, Turkey.
- (0422) White, P.; Goodchild, A.V.; Treacher, T.T.; Ryan, J. 1995. Nitrogen intake and losses by sheep on *Medicago* spp and barley pastures in northern Syria. Pages 183-189 in *Livestock and Sustainable Nutrient Cycling in Mixed Farming Sys-*

tems of Sub-Saharan Africa: Proceedings of an International Conference, 22-26 Nov 1993, Addis Ababa, Ethiopia (J.M. Powele, S. Fernandez-Rivera, T.O. Williams and C. Renard, eds.). Volume II: Technical Papers. ILCA, Addis Ababa, Ethiopia.

- (0423) Yau, S.K.; Ryan, J.; Saxena, M.C. 1995. Tolerance to excess soil boron in barley, durum and bread wheat. Page 75 in *Adaptation in Plant Breeding XIV EUCARPIA Congress. Abstracts* (M. Raatikainen, ed.). 31 July - 4 Aug, Jyväskylä, Finland. University of Jyväskylä, Finland. (Abstract).

Theses

- (0424) Sayed, M.H. 1990. [Ecological study of important wild genetic resources of wheat and barley]. University of Aleppo (Syria). Thesis (M.Sc.). Ar. 235 pp. English summary.
- (0425) Alamee, J. 1991. Use of *Hordeum spontaneum* in barley breeding under stress conditions. Lebanese University (Lebanon). Thesis (M.Sc.). En. 74 pp.
- (0426) Holobi, A.N. 1993. Agronomic and ecological evaluation of some native legumes at two locations in Syria. Aleppo University (Syria). Thesis (M.Sc.). Ar. 141 pp. English summary.
- (0427) Abdel Fattah, R.Y. 1994. Survey of fungal pathogens transmitted by wheat seeds in Jordan. University of Jordan (Jordan). Thesis (M.Sc.). En. 85 pp. Arabic summary.
- (0428) Abdel Malik, A.M. 1994. Intake, degradability, passage rate and digestibility of wheat straw, barley straw and sorghum stover fed with protein and urea supplements by sheep. University of Gezira (Sudan). Thesis (Ph.D.). En. 207 pp.
- (0429) Dauro, D. 1994. Les trèfles annuels des hauts plateaux Ethiopiens: etude de la regeneration des peuplements et utilisation agronomique [Annual *Trifolium* spp. of the Ethiopian highlands: study on the regeneration of plant population and potential agronomic utilization]. Universite de Montpellier II (France). Thesis (Ph.D.). Fr. 225 pp. English summary.
- (0430) Filo, S. 1994. Effect of feeding, system and level, on some productive and re-productive characteristics of Awassi ewes. Aleppo University (Syria). Thesis (M.Sc.). Ar. 249 pp. English summary.
- (0431) Ibrahim, A.M.H. 1994. Association of morphophysiological traits with grain yield under heat-stressed conditions in bread wheat (*Triticum aestivum*, Desf.). American University of Beirut (Lebanon). Thesis (M.Sc.). En. 75 pp.
- (0432) Ibrahim, H. 1994. Tolerance and adaptation of chickpea to heat stress. Alexandria University (Egypt). Thesis (Ph.D.). En. 152 pp.

- (0433) Kumari, S.M.G. 1994. A study on seed-borne viruses of lentil in Syria. Tishreen University (Syria). Thesis (M.Sc.). Ar. 105 pp. English summary.
- (0434) Mazid, A.M.M. 1994. Factors influencing adoption of new agricultural technology in dry areas of Syria. University of Nottingham (United Kingdom). Thesis (Ph.D.). En. 505 pp.
- (0435) Mitri, J. 1994. Medic pasture establishment using pods sown into barley in the year prior to the pasture phase. Lebanese University (Lebanon). Thesis (M.Sc.). En. 45 pp. French summary.
- (0436) Mouhanna, A.M. 1994. Survey of virus diseases of wild and cultivated legumes in the coastal region of Syria. Tishreen University (Syria). Thesis (M.Sc.). Ar. 133 pp.
- (0437) Nasser, S.N. 1994. Agricultural systems analysis in dry land areas: Al-Hassakhe province. Damascus University (Syria). Thesis (M.Sc.). Ar. 196 pp. English summary.
- (0438) Optiz, U. 1994. Die Etablierung von *Medicago*-Weiden durch die Aussaat ganzer Hulsen in einer Weide-Gerste-Rotation in Syrien. University of Leipzig (Germany). Thesis (M.Sc.). De. 45 pp.
- (0439) Pape, A. 1994. Der Beitrag der Frauen in Arbeits- und Entscheidungsprozessen von Bedouinenfamilien: Ein Beispiel aus Syrien [The contribution of women to labor and decision making processes in Bedouin families: an example from Syria]. University of Hohenheim (Germany). Thesis (M.Sc.). DE. 111 pp.
- (0440) Pecher, S. 1994. Beeinflussung der Stickstoffaufnahme von Gerste Durch Leguminosenstroh und va Mykorrhiza im Trockenfelddbau. University of Hohenheim (Germany). Thesis (M.Sc.). De. 87 pp.
- (0441) Suleiman, A.A.A. 1994. Moisture content and some physical properties of vertisols under different tillage and crop residue management practices. University of Jordan (Jordan). Thesis (M.Sc.). En. 85 pp.
- (0442) Van Hezewijk, M.J. 1994. Germination ecology of *Orobanche crenata* - implications for cultural control measures. Vrije Universiteit te Amsterdam (Netherlands). Thesis (Ph.D.). En. 162 pp. Dutch summary.
- (0443) Adlan, M.A.M. 1995. Response of chickpea nodulation, nitrogen fixation and growth to salinity. American University of Beirut (Lebanon). Thesis (M.Sc.). En. 115 pp.
- (0444) Al-Hamad, M.N. 1995. Variation and co-variation in segregating populations in lentils. University of Jordan (Jordan). Thesis (M.Sc.). En. 85 pp. Arabic summary.

- (0445) Ali, H.K. 1995. The effect of field location, basic cations, phosphorus and irrigation on the cooking quality of lentils. American University of Beirut (Lebanon). Thesis (M.Sc.). En. 80 pp.
- (0446) Arslan, S. 1995. Improving productivity and tolerance to cold in peas for forage and dry seeds by using the genetic stock of 10 genotypes and 4 wild species in Syria. University of Aleppo (Syria). Thesis (M.Sc.). Ar. 136 pp.
- (0447) El-Awad, A.I. 1995. Effect of nutrition in late pregnancy and early lactation on the milk production in Awassi ewes. University of Cukurova (Turkey). Thesis (M.Sc.). En. 94 pp.
- (0448) Garabet, S. 1995. Fertilizer use efficiency and nitrogen dynamics in rainfed and irrigated wheat under a Mediterranean-type climate. University of Reading (United Kingdom). Thesis (Ph.D.). En. 283 pp.
- (0449) Kattach, G. 1995. Phenological and physiological characterization of native legumes in the Syrian steppe. Justus-Liebig-Universitaet Giessen (Germany). Thesis (Ph.D.). De. 212 pp. English Summary.
- (0450) Kusmenoglu, I. 1995. [A research on development of screening method for winter hardiness and association of winter hardiness with morphologic traits and isozyme markers in lentil. SELCUK Universitesi (Turkey). Thesis (Ph.D.). Tr. 181 pp.
- (0451) Labdi, M. 1995. Etude de l'heredite de la resistance a l'anthracnose (*Ascochyta rabiei*) chez le pois chiche (*Cicer arietinum*). Ecole Nationale Supérieure Agronomique de Montpellier (France). Thesis (Ph.D.). Fr. 107 pp. English summary.
- (0452) Nour, S.M. 1995. Diversite des souches nodulant le pois-chiche (*Cicer arietinum* L.) caracterisation genetique, phenotypique fonctionnelle et implications taxonomique. L'Université Claude-Bernard-Lyon I (France). Thesis (Ph.D.). Fr. 151 pp.
- (0453) Ocampo, B. 1995. Study on the interspecific relationships among the annual *cicer* species for the improvement of chickpea *Cicer arietinum*. Universidad de Cordoba (Spain). Thesis (Ph.D.). En. 224 pp.
- (0454) Tambal, H.A.A. 1995. Extent of variability in flower number per inflorescence in lentil (*Lens culinaris* Medikus.). American University of Beirut (Lebanon). Thesis (M.Sc.). En. 103 pp.
- (0455) Van den Boogard, H.A.G.M. 1995. Variation among wheat cultivars in efficiency of water use and growth parameters. Universiteit Utrecht (The Netherlands). Thesis (Ph.D.). En. 155 pp.

Author Index

- | | | |
|--|------------------------------|---|
| Abbas, A.
123 | Adleh, B.
150 | Al-Taieb, G.
393 |
| Abd El Moncim, A.M.
119, 120, 171, 172, 197,
274, 328, 344., 373 | Afzal, J.
408 | Al-Thahabi, S.A.
118 |
| Abdalla, O.S.
345 | Afzal, M.
229 | Alamee, J.
425 |
| Abdel Fattah, R.Y.
427 | Agrawal, S.K.
274 | Aletor, V.A.
119, 120 |
| Abdel Hadi, Z.M.H.
346 | Ahmad, F.
131 | Ali Dib, T.
121 |
| Abdel Monem, M.
176, 231 | Ahmad, M.S.
117 | Ali, A.A.
092 |
| Abdel Wanise, M.S.
380 | Ahmad, S.I.
083 | Ali, H.K.
445 |
| Abi Antoun, M.
332 | Ahmed, K.
341 | Ali, I.
229 |
| Abidin, Z.
117, 148 | Ahmed, M.S.
148 | Ali, K.
341 |
| Abou-Zeid, N.
198 | Ahmed, S.I.
084 | Ali, M.
329 |
| Aboul-Ata, A.E.
157 | Ahsan-ul-Haq, M.
117 | Ali, Z.I.
122 |
| Abu Hamze, H.
385 | Akar, T.
254 | Altay, F.
302 |
| Abu-Irmailch, B.E.
118 | Al-Hamad, M.N.
444 | Altuntas, S.
042, 210, 211, 218, 219 |
| Acevedo, E.
121, 133 | Al-Hamzaoui, S.
347 | Alvi, A.S.
036 |
| Adlan, M.A.M.
443 | Al-Menoufi, O.A.
189, 322 | Ambri, A.
314 |

- Amine, M.**
338
- Amri, A.**
176, 281, 283
- Amriti, A.W.**
163
- Annicchiarico, P.**
199
- Arab, G.**
394
- Araus, J.L.**
391
- Araya, W.A.**
274
- Arslan, S.**
151, 446
- Arthaud, L.**
167
- Asaad, S.**
359, 360, 361, 362, 363,
364, 365
- Ashraf, M.**
087
- Autrique, J.E.**
345, 404
- Aw-Hassan, A.**
092
- Azmeh, M.F.**
208
- Azzaoui, A.**
231
- Bahaddy, F.**
268
- Bahhady, F.A.**
168, 170, 188, 242, 243,
244, 268, 269, 336, 348,
395, 402
- Bahhady, R.**
090
- Bahksh, A.**
139
- Bahl, P.N.**
339
- Baldev, B.**
293
- Banisadr, N.**
349
- Bansal, R.K.**
280
- Barbosa, J.**
404
- Barbour, E.**
381
- Barbour, M.G.**
134
- Baum, M.**
249, 370, 392
- Bayaa, B.**
099, 123, 124, 198, 200,
265, 300
- Beck, D.P.**
042, 210, 211, 218, 219,
271, 292, 334
- Beg, A.**
091, 093
- Bejiga, G.**
081, 234
- Bencharki, B.**
283
- Beniwal, S.P.S.**
099, 136, 212, 213, 270,
282, 299, 302, 338, 350,
372, 373, 386, 387
- Benlahbib, O.**
281
- Bezdicck, D.F.**
271
- Bhutta, R.**
366
- Bishaw, Z.**
351, 352, 353, 419, 420
- Blake, T.**
155
- Bluemmel, M.**
204
- Bolat, N.**
302
- Bond, D.A.**
125, 272
- Booth, R.H.**
354
- Bos, L.**
260, 273
- Bou Moghlebay, W.**
102, 355
- Boughlala, M.**
314
- Bounejmate, M.**
075, 143

Braun, H.J. 302	Cousin, R. 193, 342	El Hassan, S.M. 167
Brockwell, J. 334	D'Ovidio, R. 356	El Mourid, M. 314
Brouwer, J.B. 293	Dakhecl, A.J. 132, 133, 134	El Ouali, A 314
Burnett, P.A. 157	Dalkiran, H. 350	El Oumri, M. 314
Campbell, C.G. 274	Damania, A.B. 101, 135, 199	El Yamani, M. 283
Capper, B.S. 149	Darwish, R. 381	El-Ahmed, A. 359, 360, 361, 362, 363, 364, 365, 366
Ceccarelli, S. 096, 097, 126, 127, 155, 158, 201, 206, 221, 237, 275, 276, 354, 358, 379	Dauro, D. 429	El-Awad, A.I. 202, 447
Chen, F.Q. 128	Di Fonzo, N. 085	El-Beltagy, A. 113, 114, 367
Chen, X-B. 167	Di Vito, I.M. 136, 137, 278	El-Daoudi, Y.H. 157
Chen, Y.Z. 274	Dieckmann, J. 279, 280	El-Din Sharaf El-Din, N. 130, 277, 341
Christiansen, S. 102, 129, 168, 194, 232, 268, 348, 355, 372, 402	Dickmann, M. 076, 077, 261, 262, 267, 357	El-Fouly, M.M. 179, 330
Clement, S.L. 130, 277	Doppler, W. 396	El-Naimi, M. 203
Cocks, P.S. 129, 170	Einfeldt, C.H.P. 358	El-Sherbeeney, M.H. 163, 227
Comeau, A. 131, 160, 161, 162, 283	El Bouhssini, M. 281	Elings, A. 138
Corey, A. 128	El Gharous, M. 177	Ellis, R.H. 139, 212, 213, 386, 405
	El Hadi, M. 282	Ershad, M. 408

- | | | |
|---|---|---|
| Erskine, W.
123, 124, 127, 139, 140,
141, 198, 200, 212, 213,
235, 263, 284, 293, 368,
369, 370, 386, 405 | Gautier, M.
214 | 167, 174, 202, 204, 269,
289, 335, 336, 378, 381,
422 |
| Eujayl, I.
370 | Geiger, H.H.
221, 358 | Gowda, C.L.L.
205 |
| Faki, H.
339 | George, E.
287 | Grando, S.
096, 127, 158, 201, 206,
354, 379 |
| Falchetti, M.L.
371 | Ghanem, E.
092, 157 | Greco, N.
136, 137, 278 |
| Farihane, H.
314 | Ghassali, F.
388 | Gregg, B.
380 |
| Ferdawi, A.
268 | Ghazal, H.M.
144 | Gruner, L.
225 |
| Filo, S.
142, 336, 430 | Ghulam, W.
161, 301 | Guersoy, O.
202 |
| Firingioglu, H.
372, 373 | Giangaspero, M.
225, 241 | Habib, L.
147, 325 |
| Fischer, R.A.
222 | Gilchrist, D.G.
217 | Haddad, N.I.
031, 034, 078, 118, 290,
303, 317, 332, 337, 410,
412 |
| Forse, L.
271 | Gintzburger, G.
264, 355, 374, 375, 376,
388, 394 | Haidar, I.
102 |
| Francis, C.M.
143, 228 | Gizaw, A.
329 | Halila, M.H.
136, 182, 298, 299, 331,
333, 338, 387 |
| Franz, A.
203a, 285 | Gland, A.
221 | Haloubi, A.N.
144 |
| Furtado, J.I., Dos R.
086 | Gland-Zwerger, A.
358 | Hamadeh, S.
381 |
| Garabet, S.
178, 286, 397, 398, 448 | Goebel, W.
288, 314, 324, 377 | Hamali, S.
400 |
| Garcia-Torres, L.
189, 322 | Gomaa, A.S.A.
380 | Hamblin, J.
127, 195, 223, 248, 255,
259, 403 |
| | Goodchild, A.V.
119, 120, 142, 145, 146, | |

Hamdi, A. 124, 200	Herbert, F. 149	Inagaki, M.N. 207
Hamed, S. 086	Heritani, H. 188, 269	Infantino, A. 371
Hammad, R. 381	Hernandez-Bravo, G. 333	Ismail, I.D. 166a, 252
Hanounik, S.B. 265	Herridge, D.F. 292	Ismail, S.F. 208
Hanqing, Y. 156	Hindawi, K. 389	Jaby El-Haramain, F. 145, 150
Hanson, J. 079	Hinkelmann, K. 238	Jalil, S.A. 036
Haq, M.A. 148, 250	Holm, K. 380	Jaradat, A.A. 031, 321
Haraga, S. 400	Holobi, A.N. 426	Jarrah, M. 385
Harrabi, M. 300	Homeyer, B. 380	Jellis, G.J. 125, 272
Harris, H.C. 244, 291, 314, 348, 382, 383	Horn, N.M. 206a	Jermyn, W.A. 293
Hassan, H. 343	Hussain, A. 087, 139, 408	Jimenez-Diaz, R.M. 300
Hatchett, J. 281	Ibrahim, A.M.H. 431	Jlibene, M. 281
Haware, M.P. 300	Ibrahim, H. 432	Jmyi, A. 314
Hayes, P.M. 128	Ibrahim, M. 087	Johansen, C. 293, 401
Hayfa, S. 147	Ilhamuddin 087	Jones, M.J. 192, 209, 294, 295
Hebblethwaite, P.D. 251	Impiglia, A. 384, 392	Joudrier, P. 214

- | | | |
|--|--|---|
| Kaan, F.
085 | Ketata, H.
392, 404, 406 | Kusmenoglu, I.
089, 137, 212, 213, 278,
297, 386, 450 |
| Kababbeh, S.
311, 312 | Khalil, S.A.
125, 272 | Labdi, M.
136, 451 |
| Kaddour, A.S.
151 | Khan, M.A.
036 | Labhilili, M.
214 |
| Kaemmer, D.
152, 296 | Kharrat, M.
298, 299, 387 | Lafiandra, D.
356, 384 |
| Kahl, G.
152, 296 | Khawaja, H.I.T.
274 | Lamont, E.J.
372 |
| Kaiser, W.J.
350 | Khedy, W.
312 | Lashermers, P.
155 |
| Kamel, A.H.
100 | Khneifis, A.
308, 411 | Lateef, S.S.
130, 277, 341 |
| Kantar, F.
251 | Khraisat, I.
317 | Latif, M.
087 |
| Karagullu, N.
373 | Knights, E.J.
182, 193, 331, 342 | Le Guen, J.
125, 272 |
| Karuc, K.
042, 210, 211, 218, 219 | Konopka, J.
245 | Lesemann, D.E.
209a, 302 |
| Kashour, G.
407 | Kost, S.
152, 296 | Leybourne, M.
388 |
| Kattach, G.
449 | Kothari, S.K.
287 | Lhaloui, S.
281 |
| Katul, L.
209a | Kraft, J.M.
282, 300 | Li, X.-L.
287 |
| Kayyal, H.
385 | Kriesat, I.
412 | Li-Juan, L.
125, 156, 272, 293 |
| Keatinge, J.D.H.
042, 089, 153, 210, 211,
212, 213, 218, 219, 297,
386, 405 | Kumar, J.
205 | Linke, K.H.
180, 189, 322 |
| | Kumari, S.G.M.
154, 163, 206a, 213a,
215a, 215b, 215c, 301,
433 | Lister, R.M.
157 |

Lopez-Granados, F. 189	Mansour, M. 092	Mergoum, M. 231, 281, 309, 310, 316
Mabsoute, L. 136	Maqboul, R. 393	Miah, A.A. 293
Madkour, M. 163	Marschner, H. 287	Mihov, M.I. 333
Mahalakshmi, V. 122, 158, 215, 222, 223, 224	Marshall, D. 157	Mirza, S. 408
Mahmoud, S.F. 341	Martini, M. 411, 412	Mirza, Z. 036
Maiss, E. 209a	Masri, S. 325, 397, 398	Misri, G. 100
Makdis, F. 132	Matar, A. 383	Mitri, J. 435
Makkouk, K.M. 099, 131, 154, 157, 159, 160, 161, 162, 163, 166a, 203a, 206a, 209a, 213a, 215a, 215b, 215c, 252, 260, 273, 283, 285, 301, 302	Materon, L.A. 042, 165, 210, 211, 218, 219, 220, 232, 306, 307, 390	Mitri, M. 355
	Mathur, S.B. 267	Mmbaga, M.T. 166, 311, 312
Malhotra, R.S. 097, 151, 182, 193, 216, 236, 256, 331, 342	Mayer, L. 230	Moawad, H. 334
Maliha, N. 389	Mayer, M. 221	Monneveux, P. 121, 391
Malik, B.A. 293, 333	Mazid, A.M.M. 192, 308, 434	Monroe, G.E. 280
Malkei, G. 402	McMeniman, N.P. 146	Mosaad, M.G. 222, 223, 224
Mamdouh, Q. 303, 317, 412	Mehra, R.B. 274	Mouhanna, A.M. 166a, 252, 436
Mamluk, O.F. 164, 203, 208, 217, 266, 304, 305	Merah, O. 391	Muchlbauer, F.J. 140, 369, 370
		Mulrooney, D. 128

- | | | |
|---|---|--|
| Mustafa, U.
229 | Oglah, M.
317 | Peacock, J.M.
122, 132, 133, 158, 190,
215 |
| Nachit, M.M.
085, 121, 164, 248, 249,
259, 281, 309, 315, 316,
345, 384, 385, 392, 404,
391 | Omar, M.
257 | Pecetti, L.
199 |
| Naji, I.
132, 133, 158 | Optiz, U.
355, 438 | Pecher, S.
440 |
| Naji, M.
393 | Oreste, G.
137 | Pehu, E.
370 |
| Nasr, T.
400 | Ortiz-Ferrara, G.
122, 169, 196, 222, 223,
224, 259 | Pena, R.J.
345 |
| Nasser, S.N.
402, 437 | Osman, A.E.
144, 170, 318, 375, 388,
394, 395 | Pieterse, A.H.
189, 322 |
| Nassib, A.M.
339 | Ottekin, A.
254 | Pilbeam, C.J.
251 |
| Nersoyan, N.K.
168, 194 | Oweis, T.
319, 320, 326, 327 | Plancquaert, P.
339 |
| Newbold, C.J.
167 | Owen, E.
174, 409 | Porceddu, E.
101, 356, 384, 403 |
| Nishikawa, H.
225, 241 | Pai, R.A.
116 | Porta-Puglia, A.
371 |
| Nordblom, T.L.
094, 168, 244, 291, 313,
314, 375, 381, 388, 394,
396, 402 | Pala, M.
319, 321, 325, 398 | Prehn, D.
128 |
| Nour, S.M.
452 | Pannell, D.J.
168, 402 | Qi, A.
212, 213, 386 |
| Nsarellah, N.
177, 281, 309, 310, 315,
316 | Papastylianou, I.
321 | Quinn, M.A.
271 |
| Ocampo, B.
106, 246, 453 | Pape, A.
396, 439 | Radosevich, S.R.
134 |
| | Pashayani, H.
254, 407 | Rafique, S.
408 |
| | Payne, T.S.
302 | Rahman, M.A.
205 |

Rahman, M.M. 141, 205, 284	Rowland, G.G. 125, 272	Sarfraz, A. 036
Rana, R.S. 179, 330	Ruckenbauer, P. 179, 330	Satour, M.M. 157
Rao, B.V. 205	Rupela, O.P. 292	Sauerborn, J. 180
Rasool, I. 408	Russell, A. 141, 284	Saxena, M.C. 081, 099, 118, 136, 137, 141, 152, 156, 171, 172, 179, 189, 197, 216, 234, 236, 239, 256, 258, 263, 278, 284, 296, 321, 328, 329, 330, 344, 401, 423
Ratinam, M. 171, 172	Ryan, J. 147, 176, 177, 178, 215, 220, 231, 232, 248, 255, 259, 286, 306, 310, 319, 325, 383, 390, 397, 398, 399, 422, 423	Saxena, N.P. 179, 239, 330, 401
Reddy, D.V.R. 206a	Saari, E.E. 302	Sayed, M.H. 424
Reddy, M.V. 183	Saccardo, F. 246	Sayre, K.D. 173, 323
Rehman, A. 408	Sadri, B. 333	Sbeta, A. 376
Reynolds, M.P. 173, 323	Safi, S. 132	Schnell, H. 180
Rihawi, S. 174, 289, 409	Said, I. 204	Serraj, R. 292
Rik, M.A. 329	Saint-Pierre, C.A. 131	Sethi, S.C. 205
Rizkallah, L. 163	Sakar, D. 297	Shabana, R. 179, 330
Roberts, E.H. 139	Salem, M.A. 233	Shah, N.A. 229
Roberts, J.J. 166	Salkini, A.B. 326, 327, 332, 400	Shalla, M.A. 318
Robertson, L.D. 106, 125, 143, 156, 216, 226, 227, 228, 245, 272, 343	Samad, A. 087	
Rodriguez, A. 095, 175, 229, 230, 291, 324		

Sharma, A. 116	Sprent, J.I. 334	Tay, J.U. 274
Sharma, R.P. 116	St-Pierre, C.A. 162, 283	Telaye, A. 081
Shevtsov, V. 253, 254	Stanforth, A. 334	Ter Borg, S.J. 322
Shomo, F. 094, 313, 314, 381, 402	Steadman, J.R. 166	Termanini, A. 174, 188, 204, 269, 289
Silim, S.N. 193, 293, 342	Stol, W. 181	Thomson, E.F. 038, 149, 242, 243, 244, 268, 348, 408, 410
Simane, B. 181	Struik, P.C. 181	Tosun, H. 254
Singh, K.B. 106, 117, 136, 137, 148, 182, 183, 184, 205, 234, 235, 236, 246, 250, 256, 257, 258, 278, 311, 331, 371	Suleiman, A.A.A. 441	Trapero-Casas, A. 270
Singh, M. 096, 097, 122, 209, 217, 234, 237, 238, 239, 268, 399, 403	Summerfield, R.J. 139, 212, 213, 386, 405	Treacher, T.T. 142, 145, 174, 188, 269, 289, 335, 336, 383, 409, 422
Singh, S.C. 205	Suzen, B. 302	Tufail, M. 141, 284
Smartt, J. 140	Sweidan, Y. 035, 308, 411	Tutwiler, R. 078, 098, 308, 317, 337, 338, 410, 411, 412, 413
Smith, P.J. 185, 291	Tabbaa, D. 225, 241	Tyagi, M.C. 141, 284
Snobar, B.A. 034, 233, 332, 339	Tahir, M. 139, 187, 207, 253, 254, 349, 406, 407	Udupa, S.M. 116
Solh, M.B. 081, 092, 136, 163, 186, 240, 333, 338, 387	Taimch, A. 320	Unal, S. 372, 373
Sorrells, M.E. 404	Tambal, H.A.A. 454	Valkoun, J. 187, 245
	Tanzarella, O.A. 356	Van den Boogaard, R. 191
	Tawil, M. 332	

Van den Boogard, H.A.G.M. 455	Venora, G. 246	Weising, K. 152, 296
Van den Heuvel, J.F.J.M. 206a	Verkleij, J.A.C. 189	Wery, J. 193, 342
Van Gastel, A.J.G. 339, 353, 380, 414, 415, 416, 417, 418, 419, 420	Verma, M.M. 182, 331	White, P.F. 194, 422
Van Hazewijk, M.J. 189, 442	Vetten, H.J. 203a, 209a, 285	Wood, M. 286
Van Keulen, H. 138, 181	Vivar, H.E. 128, 173, 323, 340	Yadov, C.R. 274
Van Leur, J.A.G. 201	Wahbi, A. 192	Yasin, J.Z. 118
Van Schoonhoven, A. 086, 421	Wallace, R.J. 167	Yau, S.K. 195, 196, 215, 247, 248, 255, 259, 399, 403, 423
Van Slageren, M.W. 082, 305	Weber, E. 287	Yurtsever, N. 042, 210, 211, 218, 219
Varma, S. 258	Weigand, F. 152, 296	Zaklouta, M. 307
Veneklaas, E.J. 190, 191	Weigand, S. 099, 130, 184, 271, 277, 341	Zoghlami, A. 343

Subject Index

AGRICULTURE IN GENERAL

068, 107, 112, 263, 355

Agricultural Research

001, 002, 003, 004, 005, 006, 007, 008, 009, 011, 012, 038, 053,
054, 092, 094, 095, 098, 110, 113, 114, 185, 249, 367

Geography

115

TRAINING, EXTENSION AND INFORMATION

Extension

039, 040, 053, 054, 100, 297, 308, 317, 337

Documentation and Information

063, 064, 103, 104, 105, 107, 108, 111, 346, 347, 382, 389

ADMINISTRATION AND LEGISLATION

Public Administration

061, 062

AGRICULTURAL ECONOMICS, DEVELOPMENT AND RURAL SOCIOLOGY

Agricultural Economics and Policies

022, 023, 024, 025, 037, 092, 094

Labour and Employment

439

Development Economics and Policies

080, 092, 094, 098, 187, 233, 280, 290, 295, 304, 308, 317, 326,
337, 422, 434

Production Economics

092, 094

Organization, Administration and Management of Agricultural Enterprises or Farms

026, 027, 028, 029, 030, 031, 032, 033, 035, 079, 339

Rural Sociology

090, 095, 113, 114

Trade, Marketing and Distribution

229, 324

PLANT SCIENCE AND PRODUCTION

Crop Husbandry

001, 002, 003, 004, 005, 006, 008, 009, 010, 013, 014, 015, 016, 017, 018, 019, 020, 021, 022, 023, 024, 025, 026, 027, 028, 029, 030, 031, 032, 033, 034, 035, 037, 038, 041, 043, 044, 045, 046, 047, 048, 049, 050, 051, 052, 055, 056, 057, 058, 059, 060, 065, 066, 069, 070, 071, 072, 073, 075, 078, 080, 081, 086, 088, 089, 091, 092, 093, 094, 098, 110, 118, 122, 129, 140, 153, 175, 181, 195, 196, 210, 211, 218, 219, 224, 232, 240, 243, 244, 258, 263, 268, 275, 290, 297, 303, 306, 308, 310, 313, 316, 317, 318, 319, 321, 328, 329, 332, 333, 338, 344, 348, 350, 354, 355, 369, 372, 373, 374, 375, 376, 378, 379, 381, 382, 385, 387, 388, 393, 394, 395, 396, 400, 401, 402, 405, 407, 408, 409, 410, 411, 412, 413, 421, 426, 429, 435, 454

Seed production

011, 012, 074, 079, 083, 084, 119, 129, 261, 351, 352, 353, 357, 359, 360, 361, 362, 363, 366, 380, 414, 415, 416, 417, 418, 419, 420

Fertilizing

176, 177, 192, 220, 231, 256, 292, 319, 325, 334, 383, 443, 448

Irrigation

319, 327

Cropping Patterns and Systems

005, 006, 129, 168, 173, 180, 194, 294, 321, 323, 326, 383, 422, 437, 438

Plant Genetics and Breeding

004, 007, 009, 036, 082, 087, 101, 106, 116, 117, 123, 126, 127, 128, 135, 138, 139, 141, 148, 151, 152, 155, 156, 169, 171, 172, 179, 182, 183, 184, 186, 187, 193, 195, 196, 197, 198, 199, 201, 205, 207, 209, 213, 214, 216, 221, 226, 227, 228, 234, 235, 236, 237, 238, 240, 245, 246, 247, 248, 250, 251, 252, 253, 254, 255, 257, 258, 259, 264, 271, 272, 274, 275, 276, 281, 283, 284, 292, 296, 309, 315, 330, 331, 342, 343, 345, 349, 354, 356, 358, 368, 370, 379, 386, 391, 404, 405, 406, 424, 425, 444, 450, 452, 453, 454, 455

Plant Ecology

126, 134, 143, 151, 189, 195, 196, 354, 422, 424, 426

Plant Structure

212, 368, 449

Plant Physiology and Biochemistry

132, 133, 158, 215, 222, 391, 431

Plant Physiology - Nutrition

119, 133, 158, 171, 190, 191, 222

Plant Physiology - Growth and Development

138, 160, 189, 190, 206, 213, 223, 239, 293, 330, 449

PLANT PROTECTION

Pests of Plants

100, 130, 136, 137, 184, 257, 267, 270, 271, 273, 277, 281, 284, 331, 333, 341

Plant Diseases

076, 077, 099, 100, 123, 124, 128, 131, 141, 154, 157, 159, 160, 161, 162, 163, 164, 166, 166a, 182, 183, 198, 200, 203, 203a, 206a, 208, 209a, 213a, 215a, 215b, 215c, 217, 252, 257, 260, 262, 265, 266, 270, 273, 282, 283, 284, 285, 287, 299, 300, 301, 302, 305, 309, 311, 312, 331, 333, 340, 364, 365, 371, 427, 433, 436, 440, 451

Miscellaneous Plant Disorders

141, 169, 171, 172, 182, 186, 193, 214, 222, 248, 254, 255, 256, 259, 272, 329, 401, 432

Weeds and Weed Control

118, 180, 189, 298, 299, 322, 442

ANIMAL SCIENCE, PRODUCTION AND PROTECTION

Animal Husbandry

010, 026, 027, 028, 029, 030, 031, 032, 033, 035, 071, 072, 078, 088, 110, 170, 188, 202, 242, 243, 244, 289, 328, 335, 336, 344, 348, 372, 373, 375, 376, 378, 381, 388, 393, 394, 395, 396, 402, 407, 408, 409, 410, 411, 412, 430

Animal Feeding

142, 144, 145, 146, 167, 174, 188, 202, 204, 224, 230, 242, 269, 289, 313, 318, 336, 428, 430

Animal Physiology - Nutrition

202, 447

Animal Physiology - Growth and Development

269

Animal Diseases

225, 241

AGRICULTURAL MACHINERY AND ENGINEERING

Agricultural Machinery and Equipment

102, 280, 446

NATURAL RESOURCES AND ENVIRONMENT

Water Resources and Management

320

Soil Classification and Genesis

397, 399

Soil Chemistry and Physics

178, 181, 223, 279, 329, 441

Soil Biology

042, 165, 173, 179, 194, 210, 211, 218, 219, 286, 307, 382, 390

Soil Fertility

147, 179, 279, 383, 390, 397, 398, 399, 423, 443, 448, 382

Meteorology and Climatology

288, 293, 342, 377

PROCESSING AND AGRICULTURAL PRODUCTS**Food Processing and Preservation**

109, 150, 445

Food Composition

384

Feed Composition

120, 144, 149, 167

METHODOLOGY**Mathematical and Statistical Methods**

195, 196, 238

Surveying Methods

096, 097, 291, 403

Appendix A

Depository Libraries

The following depository libraries hold all ICARDA publications and make them available to other libraries under normal interlibrary loan and photocopy services.

Aide-Documentaliste
Centre de Documentation
Institut National de la Recherche
Agronomique d'Algerie
PB 115 (Belfort)
El Harrach
Algiers
ALGERIA

Assistant Agricultural Officer/Information
Department of Agriculture
P.O. Box N3028
Nassau
BAHAMAS

International Relations and Library
Section
Agricultural Affairs
Ministry of Commerce and Agriculture
P.O. Box 251
Manamah
BAHRAIN

Director
Agricultural Information Centre
Bangladesh Agric. Res. Council
Farmgate
Airport Road
Dhaka 1215
BANGLADESH

Directeur
Departement de la Recherche
Agronomique
B.P. 884
Cotonou
BENIN

Faculte des Sciences Agronomiques de
Gembloux - Bibliotheque Centrale
Passage des Deportes, 2
B-5800 Gembloux
BELGIQUE
Fax 32/(0)81/614544

Assistant Director (Research)
Department of Agriculture
P.O.Box 119
Thimpu
BHUTAN

Library Officer
Department of Agricultural Research
Private Bag 0033
Gaborone
BOTSWANA

Head, Department of Information and
Documentation
EMBRAPA - DID
SAIN-Parque Rural - W3 Norte - Final
Caixa Postal 040315
70770 Brasilia DF
BRAZIL

Libraries Division
Agriculture Canada
Ottawa K1A 0C5
CANADA
Telex 533283 canagric ott

Head Librarian
Biblioteca Central
Instituto de Investigaciones Agropecuarias
Casilla 439
Correo 3, Santiago
CHILE

Director, Sciencetech Documentation and
Information Centre
Chinese Academy of Agr. Sciences
30, Baishiquiao Lu West Suburb
Beijing 100081
CHINA

Biblioteca
Ministerio de Agricultura y Ganaderia
Apdo Postal 1-10090
San Jose
COSTA RICA

Library
Agricultural Research Institute
Ministry of Agriculture and Natural
Resources
P.O. Box 2016
Nicosia
CYPRUS

Centre de Documentation Agricole
Ministere de l'Agriculture et du
Developpement Rural
B.P. 453
Djibouti
DJIBOUTI

Documentalista
Departamento de Informatica Y
Documentacion
Inst. Nacional de Investigaciones
Agropecuarias
Apartado 2.600
Quito
ECUADOR

Librarian, Information Services
Institute of Agricultural Research
P.O. Box 2003
Addis Ababa
ETHIOPIA

Library
Research Division
Ministry of Primary Industries
P.O. Box 77
Nausori
FIJI

Helsinki University
Library of Agriculture
Viikki
SF-00710 Helsinki
FINLAND
Telex 122352 humk sf
Telefax (90)708 5011

Chef du Service Central IST
Avenue du Val de Montferrand
BP 5035
34032 Montpellier Cedex
FRANCE
Telex 480 762f

Bibliotheksdirektor
Zentralbibliothek der Landbauwissen
schaft
Nussallee 15a
Postfach 2460
D-5300 Bonn 1
Germany
Fax (0228) 73-3281

Coordinator, GHASTINET
National Science & Technology
Library & Documentation Centre
Council for Scientific and Industrial
Research
P.O.Box M.32
Accra
GHANA

Centro de Documentacion (CEDICTA)
Instituto de Ciencia y Tecnologia
Agricolas
Kilometro 21.5
Carretera a Amatitlan
Barcenas
Villa Nueva
GUATEMALA

Librarian/Documentalist
National Agricultural Research Institute
Central Agricultural Research Station
Mont Repos, E.C.D.
GUYANA

Head, Library Services
Indian Agricultural Research Institute
Pusa
New Delhi 110012
INDIA

Head, Agricultural Scientific Info. and
Documentation Center
Ministry of Agriculture
P.O. Box 19835-111
Tehran
IRAN

AGLINET International Center
FAO of the United Nations
Via della Terme di Caracalla
00100 Rome
ITALY
Telex: 610 181 FAO I

Head
Library Services
Kenya Agricultural Research Inst.
P.O. Box 30148
Nairobi
KENYA

Library
ICIFE
P.O. Box 30772
Nairobi
KENYA
Telex 22053 ICIFE
25066 DUDU

Director, Library
Rural Development Administration
250 Seodun
Suweon 441-707
KOREA (R. OF)

Assistant Librarian
Library, Agricultural Research Division
P.O. Box 829
Maseru 100
LESOTHO

Reference Librarian
Department of Agricultural Research
P.O. Box 158
Lilongwe
MALAWI

Central Library
Malaysian Agric. Research and
Development Institute
P.O. Box 12301
Kuala Lumpur
MALAYSIA

Chef, Division de Documentation et
Information
Institut d'Economie Rurale
B.P. 258
Bamako
MALI

Directeur General
Centre National de la Recherche
Agronomique et de
Developpement Agricole
B.P. 22
Kaedi
MAURITANIA

Jefe
Biblioteca Central
Universidad Autonoma Chapingo
Edo. de Mexico
56230 Chapingo
MEXICO

Librarian
Institute of Agriculture
Yezin
Pyinmana 05282
MYANMAR

Library
Agricultural University
Postbus 9100
6700 HA Wageningen
THE NETHERLANDS
Telex 45015 blhwg nl

Central Library of Research
National Agricultural Research and
Services Centre
Khumaltar
Lalipur
NEPAL

Agricultural Librarian
Library, Institute for Agricultural Research
Ahmadu Bello University
P.M.B. 1044
Samaru
Zaria
NIGERIA

The Library of the Agricultural University
of Norway
P.O. Box 12
N-1432 Aas-NLH
NORWAY
Telex (56)77125 nlhbi n

Library
Agriculture Research Division
Department of Agriculture and Livestock
P.O. Box 417
Konedobu
PAPUA NEW GUINEA

Program Manager
Scientific Literature Service
Philippine Council for Agriculture,
Resources and Forestry
P.O. Box 376, Laguna
Los Banos
PHILIPPINES

Library
Ministry of Agriculture
Manoel Street
Castries
SAINT LUCIA

Library
Agricultural Research Department
Ministry of Agriculture and Water
Riyadh 11195
SAUDI ARABIA

Documentaliste
Bibliotheque
Institut Senegalais de Recherches
Agricoles
BP 3120
Dakar
SENEGAL

Deputy Director of Research
Central Agricultural Res. Station
Research Directorate
Ministry of Agriculture
Mogadishu
SOMALIA

Jefe del Servicio de Documentacion,
Biblioteca y Publicaciones
Jose Abascal, 56, 4a planta
28003-Madrid
SPAIN

Head, Library Services
Central Library
Department of Agriculture
P.O. Box 47
Peradeniya
SRI LANKA

Director
Arab Centre for Agricultural Documenta-
tion and Information
Arab Org. for Agric. Development
P.O. Box 474
Khartoum
SUDAN

Senior Librarian and Head
SUD-AGRIC Centre
Agricultural Research Corporation
P.O. Box 126
Wad Medani
SUDAN

Library
Agricultural Research Division
Malkerns Research Station
P.O.Box 4
Malkerns
SWAZILAND

Librarian
National Agricultural Documentation
Center
Directorate of Agricultural Scientific
Research
P.O. Box 113
Douma, Damascus
SYRIA

Librarian
Council of Agriculture
37 Nanhai Road
Taipei 10728
TAIWAN

Scientific Information Officer
Information and Documentation Unit
Ministry of Agriculture and Livestock
Development
P.O. Box 9761
Dar es Salaam
TANZANIA

Director
Library, Kasetsart University
Bangkheng
Bangkok 10900
THAILAND

Documentaliste
Bibliotheque
Institut National de la Recherche
Agronomique de Tunisie
Rue 7050
2080 Ariana
TUNISIA

Natural Resources Institute
Library, Central Avenue
Chatham Maritime
Kent ME4 4TB
UNITED KINGDOM
Telephone: 0634 880088

Research Director
Agricultural Research Project
Ministry of Agriculture & Fisheries
P.O. Box 176
Ras Al-Khaimah
UNITED ARAB EMIRATES

US Department of Agriculture
National Agricultural Library
Serials Unit, Room 002
Beltsville, MD 20705
USA

Library
Agricultural Research Authority
Ministry of Agric. and Fisheries
P.O. Box 87148
Dhamar
REPUBLIC OF YEMEN

Director
Agricultural Documentation Center
Ministry of Agriculture and Agrarian
Reform
Khormaksar
Aden 105
REPUBLIC OF YEMEN

Librarian
Department of Agriculture
Mount Makulu Research Station
Private Bag 7
Chilanga
ZAMBIA

Head, Information Services
Department of Research and Specialist
Services
Post Bag 8108
Causeway
ZIMBABWE

