

Forward

The Arabian Peninsula Regional Program (APRP) serves the seven countries of the Arabian Peninsula including Bahrain, Kuwait, Qatar, Saudi Arabia, Oman, UAE and Yemen. The program addresses three priority themes: I-Water resource management II-Rangeland and forages III-Protected Agriculture

This report is a consolidation of the technical report and papers of the NARS scientists presented at the Regional Technical Coordination Meetings (RTCM). For this season (2000 – 2001), there were two technical coordination meetings. The first one was held in Al Jaof, Saudi Arabia, for the Rangeland, Forage and Water themes. The second meeting was held in Kuwait for Protected Agriculture and Water themes. All reports presented at these meetings are compiled in this annual report with slight editing.

ICARDA-APRP would like to thank the Arab Fund for Economic and Social Development (AFESD), The International Fund for Agricultural Development (IFAD) and the OPEC Fund for International Development (OPEC) for the financial support they provided for this project

Particular thanks go to the Management and Scientists of the NARS of the APRP countries for their support. Special thanks go to the Ministry of Agriculture and Fisheries in UAE for hosting ICARDA – APRP office in Dubai.

Ahmad T. Moustafa
Acting Regional Coordinator
ICARDA-APRP

Forward	1
Major Achievements During the first year of Phase II, 2000 – 2001	3
Research Activities	6
I – Rangeland – Irrigated Forages and Water	6
The Role of Range & Animal Development Research Centre in Range-land Rehabilitation and seed Production in KSA	8
WATER USE EFFICIENCY OF MEDICAGO SATIVA & ATRIPLEX EUKOCLADA	10
Report on Forage production in Bahrain	12
Progress Report on Rangeland in KUWAIT	14
Assessment of Indigenous Rangeland Forage Species for Salinity Tolerance in Oman	17
Summary Report of different experiments of Rangeland Component in Oman	32
SEED PRODUCTION OF INDIGENOUS FORAGE & RANGELAND SPECIES IN OMAN	34
Introduction of Indigenous Forages in the Farming system of the UAE	41
A New Proposal for Establishment of Protected Areas as a step for Rehabilitation of Rangelands and Conservation of Wild Life in Qatar	44
Progress Report on Rangeland in Yemen	50
II Protected Agriculture and Water	53
Information Technology for the Arabian Peninsula	59
Expert System for the Management of Greenhouse Crops	62
Application of Soil Solarization and IPPM Programs for Protected Agriculture In Kuwait	65
Vertical Growing System for Strawberry in Kuwait	92
Evaluation and Comparison of Different Cooling Systems in Greenhouses	107
Adaptation of Soilless Growing techniques (open system) for the production of cucumber in plastic pots with different growing media (sand, perlite) under cooled greenhouse condition in Oman.	119
Integrated Management of Cucumber and Tomato Pests Under Protected Cultivation System: “Towards a safer crop”	125
Report on Joint Research activities with ICARDA on Protected Agriculture in Qatar	131
Application of IPPM in the Farmers Greenhouses for the Production of Cucamber	140
Study the Effect of Soilless Cultivation System on the Growth, Development & Yield of Cucumber Crop Grown in Greenhouse.in Yemen	151
Introduction of Protected Agriculture into Mountin Terraces in Al-Mahwain (Yemen)	159
Introduction of Protected Agriculture into terraces in Yareem District (central Highlands)	169
Capacity Building	178
PUBLICATIONS	187
Annex I	195
Annex II	197
Annex III	198
Annex IV	199
Annex V	200
Annex VI	203
Annex VII	206