

Foreword



Protected agriculture represents the most intensive and dynamic form of agricultural production. In the Arabian Peninsula, the adverse climatic conditions of harsh weather, scarcity of water and limited land resources necessitate the use of protected agriculture where environment and production-timing can be controlled and yield can be improved.

Investment in protected agriculture is high due to the cost of structures, good-quality water, hybrid seeds, specialized fertilizers, and chemical and biological control. To achieve and maintain high levels of production, well-trained technicians and managers are required. Well-designed greenhouses with sophisticated climate-control facilities can be very expensive, but can provide rich dividends. It is important to recognize that an efficient greenhouse industry can have a significant effect on the economy of a country.

Protected agriculture—with its associated growing systems—can minimize environmental degradation in a number of ways. Compared with field crop production, protected agriculture can:

1. significantly reduce the amount of water and fertilizers utilized in growing the product;
2. reduce and possibly eliminate the potential contamination of groundwater by fertilizers and pesticides;
3. provide the possibility of economically producing 'organic' products;
4. eliminate or minimize the use of toxic pesticides through the adoption of an improved integrated plant production and protection program aimed at preventing infestation and use of biological control methods.

To review the state-of-the-art of protected agriculture in the region, this workshop, the first of its kind, was organized by the Arabian Peninsula Regional Program (APRP) and financially supported by the Arab Fund for Economic and Social Development (AFESD) and the International Fund for Agricultural Development (IFAD). International experts in different aspects of protected agriculture, together with the regional experts, researchers and specialists from the Arabian Peninsula countries attended this meeting to exchange information and discuss the present and future for protected agriculture in the Arabian Peninsula.

The major aspects of protected agriculture addressed in this workshop were:

- Greenhouse design, structure and covering materials
- Growing systems in relation to water-use efficiency, fertigation and postharvest technology
- Integrated plant production and protection
- Regional networking for the exchange of experience and information.

The recommendations from this meeting form the basis for immediate and long-term strategies for protected-agriculture development in the Arabian Peninsula. The issue of communication and exchange of information was highlighted in the workshop and as a result a Regional Network for Protected Agriculture is being developed.

The meeting was mainly supported by AFESD and IFAD. The Food and Agriculture Organization of the United Nation (FAO) contributed partially by supporting the participation of two scientists and financing the editing of the proceedings. The workshop was organized locally by the Ministry of Municipal Affairs and Agriculture of Qatar and ICARDA.

It was a step in the right direction for the Arabian Peninsula Regional Program (APRP) of ICARDA and the national, regional and international experts to build a strong, technically sound and efficient protected-agriculture industry in the Arabian Peninsula. I trust that the following pages and the associated web-site will prove a valuable tool for all those involved in developing protected agriculture in the region as we move into the 21st century.

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