

THE ISRAEL SOCIETY FOR PLANT PROPAGATION¹ — A NEW DEVELOPMENT IN THE DYNAMIC ISRAELI HORTICULTURE

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Israel is a very small country — its area is somewhat smaller than the state of Massachusetts (7800 sq. miles), and its population somewhat less than the Boston metropolitan area (3.8 million). More than half of the land is desert. The rest of the country has a Mediterranean climate with hot, dry summers and cool, rainy winters. Rainfall varies from 30 inches in the north to 1 inch or less in the south.

Rapid development of the country's agriculture led to full usage of the available irrigation water by 1960. In the last 20 years (1960-1980), agricultural production has tripled without increasing the amount of water and land used (2). This intensification of agriculture was brought about by active endeavor through research and development as well as by the dynamic farming community.

Floriculture plays a leading role in the country's intensive horticulture. In 1979/80, 5800 farming families produced about 80 million dollars worth of flowers for export to Europe and the United States.

Although the main kinds of flowers produced are miniature carnations and roses, there has been a large increase in the last few years in the production of other floriculture crops (Table 1).

Table 1. Values (million U.S. dollars) of flowers and other floricultural commodities exported from Israel in 1975-1980.*

Product	Year				
	75/76	76/77	77/78	78/79	79/80
Roses	10	12	20	26	30
Carnations	6	12	22	26	30
Others	1	2	6	14	22
TOTAL	17	26	48	66	82

*Israeli Flower Grower Association (1980). The 31st meeting of the International Federation of Flower Growers Association — Tel Aviv 1980.

There is a great effort in the development of new and unique flower crops and other horticultural commodities. Recently much interest has been focused on propagation of plant material for export. High quality propagating material is presently being exported to Europe and the United States which include:

¹ The Israel Society for Plant Propagation. P.O. Box 2093, Rehovot, Israel.

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hybrid petunia seeds, the new outstanding paperwhite *Narcissus* bred in Israel, and other bulbs and corms. Rooted and unrooted cuttings of carnations and foliage plants, citrus and olive plants are also on the export list. Several modern tissue culture laboratories produce a wide range of plants for export as well as for the local market.

This dynamic involvement of farmers in nursery production brought about a need for the creation of *The Israel Society for Plant Propagation*. There are 250 members in our Society, including commercial plant propagators and nursery managers, some amateur plant propagators, research, teaching, and extension personnel.

The program of the meetings include a wide variety of subjects — some are very general and others deal with specific subjects (Tables 2, 3, and 4).

Table 2. The Israel Society for Plant Propagation: Proceedings of the First Meeting, May, 1979 (3).

R - Historical Outlines of the Nursery Industry in Israel.
 R - The Need for a Professional Society of Plant Propagators.
 R - Improvements and Developments in Rooting of Cuttings
 R - Industrialization of Plant Propagation and Nursery Management
 R - Growth Regulators in Plant Propagation and Nursery Management
 R - Questions and Answers — Panel of Experts
 - Business Meetings: Outlines for Organization

R = Presented by research personnel.

Table 3. The Israel Society for Plant Propagation, Proceedings of the Second Meeting — October 1979, (4).

R - "Isaiah's Vineyard Song: Allegory and Practice"
 R - Propagation Material: The Desirable and the Available.
 R - Control of Irrigation and Fertilization in Containers
 R - The Effect of Environmental Factors on the Rooting of Cuttings
 R - Propagation Problems with Palms
 C - Propagation of Disease-free *Gypsophylla*
 C - Hardening of Tissue Cultured Propagated Bromeliads and Ferns
 R - Production of Croton Cuttings: An Experimental Model
 C - Problems in Cactus Propagation
 C - Propagation of Shade Loving Plants
 R - Propagation of Bulb Crops
 R - Propagation of Grapevines by Traditional Methods
 C - Mist Propagation of Grapevine Cuttings with Leaves
 R - Rooting of Woody Apple-Rootstock Cuttings
 R - Apple-Rootstock Propagation by Tissue Culture
 R - Improved Rooting of Avocado Cuttings by Etiolation
 C - Avocado and Mango Problems and Achievements
 C - Growing Citrus Plants under Insect Proof Netting
 C & R - Questions and Answers — Panel of Experts.

C = Presented by commercial personnel.

R = Presented by research personnel.

Table 4. The Israel Society for Plant Propagation, Proceedings of the Third Meeting. October, 1980 (5).

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- R - Genetic Engineering and Agriculture in the Future.
 - R - Mycorrhiza and Nursery Production in the Future.
 - R - Light and Nursery Production.
 - R - Technology of Mist Propagation.
 - C - Woody Plant Propagation by Grafted Cuttings.
 - C - Incorporating Other Crops into Carnation Propagation Nurseries.
 - R - How to Import New Plants — The Quarantine Service.
 - C - Seed Propagated Pot Plants.
 - R - *In vitro* Propagation of Lilies.
 - R - Peach Propagation for Meadow Orchards.
 - C - Rooting of Citrus Cuttings in Aeroponics.
 - R - Etiolation Increases Rooting in Avocado
 - C - Rooting Grapevine Rootstocks.
 - C - Rooting Dwarf Apple Rootstocks.
 - C & R - Questions and Answers — Panel of Experts.
- Business meetings.
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C = Presented by commercial company personnel.

R = Presented by research personnel.

Many of our members are new in the nursery business. They are very dynamic and eager to learn. Experimentation and new innovations are common in our nurseries. New, sometimes sophisticated methods of propagation and production are often tried. Tissue culture, disease-free stock, insect-proof houses, hydroponics, aeroponics, new crops, air-root pruning and intensive cultivation are often used terms.

Exchange of ideas and information between our newly formed Society and *The International Plant Propagators' Society* is of mutual interest and benefit.

LITERATURE CITED

1. Israeli Flower Grower Association. The 31st meeting of the International Federation of Flower Growers Association, Tel Aviv, 1980.
2. Sher Hanan (ed.). Facts about Israel 30th Anniversary Edition. Israel Information Center. P.O. Box 13010, Jerusalem, Israel.
3. The Israel Society for Plant Propagation. Proceedings of the first meeting, May 5, 1979. The Israel Society for Plant Propagation, P.O. Box 2093, Rehovot, Israel.
4. The Israel Society for Plant Propagation. Proceedings of the second meeting, October 23, 1979. The Israel Society for Plant Propagation, P.O. Box 2083, Rehovot, Israel.
5. The Israel Society for Plant Propagation. Proceedings of the third meeting, October 16, 1980. The Israel Society for Plant Propagation, P.O. Box 2093, Rehovot, Israel.

Editor's Note: Joseph Cesarini moderated a group of short presentations on tricks and ideas in propagation and growing. The following papers by Carl Orndorff, Clayton Fuller and Ralph Shugert were part of that session.