

**PROCEEDINGS OF THE SYMPOSIUM ON DRIP IRRIGATION IN
HORTICULTURE WITH FOREIGN EXPERTS PARTICIPATING**

September 30-th to October 4-th, 1980



Edited by

K. Slowik, D. Swietlik, K. Sitton

SKIERNIEWICE, POLAND

ORNAMENTAL PLANTS PRODUCTION IN POLAND

R.M. Rudnicki ^{1/}

Over the last 10 years ornamental horticulture in Poland has faced increasing demands for the improvement of production technology, for the extension of the internal market and the exportation of floricultural products. During this period a lot of investment was directed toward the construction of new greenhouses and plastic tunnels and in increasing the production of ornamental shrubs, trees, bulbous plants and other perennials. In parallel, the group of people conducting research in floriculture and ornamental horticulture steadily increased. In our Institute this group has now reached over 50, with scientists doing research in various fields of ornamental horticulture, since its initiation in 1969. Starting from October 1978, the Ministry of Agriculture has approved the change of the name of our Institute to the Research Institute of Pomology and Floriculture. It has obliged the institute to develop more extensively the research on floricultural and ornamental plants. The research on ornamental plants and floriculture was also extended in our agricultural university centers in Warszawa, Poznań, Kraków, Lublin and Bydgoszcz, where teaching the students about ornamental horticulture is the main duty of the scientific staffs there. All of these arrangements became necessary in order to satisfy the demands of floriculture producers for qualitatively new methods of production, organization, advisory and extension services of the Institute, which faces the increasing value of floricultural products in all of Polish horticulture.

It is believed that in 1979 the value of marketable horticultural products, including vegetables and fruits, reached a total of 32,9 billion zł. These products were obtained from a cultivation area close to 541 000 ha, whereas the production of ornamental horticulture, in terms of marketable products, was close to 8 billion zł from 5 182 ha, which means one-fifth of the entire horticultural production. Due to the fast urbanization of the country, growing numbers of family homes, and the increasing wealth of our citizens, the demand for flowers and ornamental plants continues to increase.

In the last 10 years, close to 1000 ha of new greenhouses were built in Poland, which gives at present, a total area of over 1 425 ha. Almost one third of this area is occupied with the production of cut flowers /372 ha/ and potted plants / 14 ha/, table 1. The greenhouse cut flower production is predominated by carnations. Other flowers, including gerberas, roses, chrysanthemums, anthurium, orchids and other miscellaneous flowers take up about 36 % of the greenhouse area occupied by all of floriculture.

It is estimated that the production of cut flowers, forced ones and potted plants, is about 30 % higher than registered by the Ministry of Agriculture. This is due to the fact that the efficiency of the production of small private farmers is higher than obligatory norms, and also some of the flowers are produced in very small, below 50 m², home greenhouses which are not taxed. We can also add about 20-30 % more cut and potted

1/ Deputy Director of the Research Institute of Pomology and Floriculture, 96-100 Skierniewice, Poland

Table 1. Areas of cultivation and number of flowers produced in greenhouses in Poland, in 1979

Species	Area in ha	Flowers in millions
Carnation	259	311
Gerberas	36	29
Roses	32	19
Chrysanthemums, fresias and other cut flowers	45	32
Forced bulbous plants	8	7
Potted plants	14	21
Mother plants, cuttings	10	90
T o t a l	404	419

flowers which are produced in plastic greenhouses. In these greenhouses mainly chrysanthemums, carnations and seedlings of other flowers cultivated in an open field are produced. Thus we can assume that the production of flowers in glass or plastic protected areas gives totally about 600 million flowers and potted plants, per year.

As the area occupied by greenhouses increased, so did the area in plastic tunnels, which is mostly used for early vegetables, tomatoes and cucumbers. Increasing costs of energy forced floriculturists in Poland to use non-heated, plastic greenhouses also for floricultural production, especially for carnations and chrysanthemums, in autumn. Increasing attention is paid to other flower species which can be profitably produced in a short cycle from spring to autumn.

Over 70 % of the flowers and ornamental plants are produced in comparably small private greenhouses and nurseries. In large state farms, often reaching an area of 10-30 ha, about 20 % of the flowers are produced, mainly carnations, gerberas and roses.

The export of cut flowers is comparably very small, and in 1978 their export had reached 25 million.

The cultivation of other ornamental plants has also been expanding in recent years. The area of cultivation of ornamental trees, shrubs, perennials, bulbous and tuberous plant and seed plantations reached over 2 600 ha in 1978 /Table 2/.

This is the production conducted under the auspices of the Ministry of Agriculture. These plants are also produced in the scope of the Ministry of Forestry and Ministry of Administration for the cities, and for the forests, recreation areas and city parks. The area of production in both these branches is about 1 000 ha. Many ornamental plants are also produced in small 0.03 - 0.05 ha, family recreation gardens and in home gardens smaller than 0.5 ha. All of these more than double the amount of plant material produced in the scope of the Ministry of Agriculture's registered production. Nonetheless, the market demands for ornamental shrubs, trees and perennials are still far from being fully satisfied.

Table 2. Production of other ornamental plants

Plant material	Area in ha	Numbers
Ornamental trees and shrubs	1650	13 mln
Rootstocks, seedlings perennials	150	21 mln
Bulbous and tuberous plants	220	25 mln
Seed plantation	645	37 tons
T o t a l	2665	59

I hope that this little introduction gives our guests at least a general impression of what Polish ornamental horticulture means. I am sure that through the excursions made available to you during the conference, you will have the opportunity to get in touch with some of the greenhouses and nurseries in our country. I hope you receive many good impressions and have flower-decorated, colorful journeys throughout our country.