

Ornamental plants in Hungary

Part I. Protected cultivation

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Summary: Between 1950–1989, the production and trade of ornamental plants in Hungary was characterised by meeting the demands of the home and that of the Eastern-Block market and by a minimal external trade with the Western countries. After the socio-economical changes in 1989/90, the trade of flowers gradually became liberalised and the Hungarian growers had to face the concurrency of steadily increasing import from the West and from all over the World. This tendency coincided with the physical and mental degradation (outdating) of most of the glasshouses, along with the decline of several former large growers of the communist type (state or cooperative), the appearance and growth of new private companies and the building (rebuilding) of new plastic houses and (mainly second-hand) glasshouses. In spite of the above-listed problems, the production as a whole did not (or only slightly) decrease and/or even an increase occurred in many areas mainly in the open-ground production. In 1998, the protected flower cultivation comprised round 110 ha of glasshouses, 180–220 ha of plastic structures and 3–5 ha of frames, with the main crops as follows: cut flowers and cut foliage 220–240 ha; pot plants (with geraniums) 30–40 ha; bedding plants (without geraniums) 20–25 ha; “transit”-greenhouses (for redistribution only) 3–5 ha; other (eg. propagation of woody ornamentals) 3–5 ha. The structure of open-ground production was as follows: Total 1150–1210 ha, including: Nursery products: woody ornamentals 880 ha; perennials 10–15 ha; rose bushes 30–35 ha. Other open-ground crops: flower bulbs 50–60 ha; dried flowers 130–140 ha; open-ground cut flowers 25–30 ha; flower seed 30–35 ha; (biennial) bedding plants 10–15 ha.

Introduction

Ornamental plants have been and still are considered as a kind of luxury in Hungary. Although it is not quite true, the production of ornamentals got always no or minimal support in comparison with the other “decent” agricultural and horticultural crops. An exception was made only with the woody ornamentals that clearly served the society, e.g. the environmental plantings in green areas.

This paper is dealing with the development of production and trade in Hungary since the 2nd World War, which had 3 main phases:

- From the World War 2 till the changes in 1989–90,
- From the changes in 1989–90 till 1997–98,
- The present state.

1. *From the World War 2 to 1989–90*, (during the communist era) the production was characterised by a predominant self-supply and a minimal external trade mainly with the neighbouring communist countries. During this period, there was a permanent increase of flower consumption and the flower-growing greenhouse areas, respectively (Table 1.).

Table 1 Protected areas of Floriculture in Hungary between 1965–1998 (Nagy, 1986, Schmidt, 1998)

	1965	1975	1980	1990	1995	1998
Glasshouses	11	80	120	150	100	110
Cold frames	91	24	20	10	5	3
Plastic houses	–	–	20	200	210	220

The export consisted mainly of open-ground products: ornamental trees and shrubs, rose bushes, dried flowers. Glasshouse plants (mainly cut flowers) were exported in relatively small amounts to the neighbouring eastern countries, especially to the Soviet Union. A limited western export was realised just in order to obtain the necessary foreign currency for the imported modern techniques and propagation materials. The international trade was strictly monopolised and concentrated in the hand of a few state-owned companies (Nagy, 1986).

2. *After the socio-economical changes in 1989–90*, external trade of ornamental plants became gradually liberalised.

As a result of this process, more and more imported plants appeared in the market, grown either in Western Europe or in any other corner of the World – anyway, under more favourable climatic or economical conditions. Their range included cut-flowers and pot-flowers (a concurrence to the home production), flower bulbs, cuttings and other propagation materials (a good biological base for better production), speciality flowers from the tropics and nursery products in a limited amount. In the same time, the traditional foreign market of neighbouring communist countries had dramatically shrunk as it was unable to pay.

Unfortunately, these changes coincided with a mass degradation (physical or economical) of glasshouses built between 1965–1975.

This processes affected most adversely *the protected cultivation* (greenhouse flower crops): The glasshouse area decreased by 30–35 % because of the closing (pulling down) of the outdated old structures. In the same time, the area of plastic houses (owned mainly by the private sector) started to increase. This increase came partially from new construction and partially from shifting of some growers from vegetables to flower growing.

Since 1994, a new growth of glasshouse areas had started, mainly by import and construction of “second-hand” glasshouses pulled down in Western Europe. These glasshouses are “modern” (or modernised) in comparison with the old Hungarian houses, but are not new at all. With their extensive import and construction an outdated technical situation is established in Hungary for the next two decades. Quite recently, a limited construction of brand-new glass-houses also started so the situation is slowly improving.

The open-ground production (ornamental nurseries, perennials, dried flowers, etc.), as a whole, survived the changes with no or only minimal losses and practically no decrease of growing areas.

3. The present situation

The present growing areas and the main crops of Hungarian ornamental plant industry are given in *Tables 2.* and *3.* The total production value in 1999 is estimated at 35 billion Hungarian Forints (HUF).

The export was 14.1 million sfr in 1998 and the import 29.0 million sfr (AIPH-UNION FLEURS, 1999).

Table 2 Production areas of protected ornamental crops in Hungary, 1998. (estimated and ammended after the data of AIPH-UNION FLEURS, 1998; *Jámborné Benczúr* 1997; *Retkes* 1997; *Steinhauser* 1997; *Schmidt* 1997 és 1998/b; *Zalay* 1997.)

According to the kind of protection:	Area in ha
Glasshouses (high glass)	110 ha
Plastic houses	180–220 ha
Cold or heated frames (low glass)	3–5 ha
Protected areas altogether:	~280–325 ha
According to crops:	
Cut flowers and cut greens	220–240 ha
Pot plants (foliage and flowers, including geraniums)	30–40 ha
Annual bedding plants (without geraniums)	20–25 ha
“Transit”-greenhouses (used for selling only)	3–5 ha
Others, such as propagation facilities for woody plants, etc.	3–5 ha
Protected areas, total:	~280–325 ha

Table 3 Production areas of open-ground ornamental crops in Hungary, 1998. (after *Vinis*, 1996; *OMMI*, 1999; *Gerzson*, 1998; *Lévai*, 1998; *Szántó*, 1998; *Schmidt*, 1998/c.

Plant group	Cropping area
Woody nursery stock (trees, shrubs, conifers)	880 ha
Herbaceous perennials	10–15 ha
Rose bushes	30–35 ha
Flower bulbs and corms	50–60 ha
Dried flowers	130–140 ha
Open-ground cut flowers and cut greens	25–30 ha
Flower seed	30–35 ha
Biennial bedding plants	10–15 ha
Open ground, total:	1155–1210 ha

Regions of ornamental plant production:

The main growing regions of the country are as follows:

1. *South Hungary* (below the line of Kecskemét-Szarvas-Békéscsaba)

- Glasshouse cut flowers
- Dried flowers
- Nursery plants (rose bushes, deciduous trees and shrubs, perennials)
- Flower bulbs.

2. *Budapest and surroundings*

- Greenhouse plants (pot-flowers, pot-greens, cut-flowers)
- Bedding plants
- Tree nurseries.

3. *North-West, around the town of Győr*

- Cut flowers

4. *Western- and Sout Western Hungary*

- Ornamental trees, shrubs and conifers (more than half of the total production in Hungary!)
- Pot-flowers and bedding plants.

The trade with ornamental products is carried out through flower halls (one big and 4 smaller ones in Budapest and 14 local flower halls in the towns around the country); garden centres, plant centres and flower shops, a total of about 3500. (*Eke*, 1999; *Zalay*, 1999.)

The flower consumption of the public is still cyclic (*Schmidt*, 1997), with selling peaks at the traditional flower-presenting days:

- Valentine Day (14th February)
- Women's Day (8th March)
- Easter (Generally in April)
- Mothering Day (the first Sunday of May)
- The Day of All Saints (2nd November)
- Christmas (24–25th December)
- New Year

Other traditional peaks in flower-consumption are the so called “notable name days”: Elisabeth Day, Katherine Day, Maria Day, etc. It is to note, however, that the fashion of names and the buying habits are changing. Generally, the flower consumption is getting more and more regular in Hungary.

A short description of the main ornamental plant groups

1. Protected cultivation

1.1. Cut flowers and cut foliage

The protected cropping areas are as follows (*Steinhauser*, 1997):

Carnations: 60–65 ha (about 100 million stems per year)

Gerberas: 40–45 ha (60–65 million stems per year)

Roses: 30–35 ha (40–45 million stems per year)

Bulb flowers: 20–25 ha (50–60 million stems per year)

Chrysanthemums

(mainly for

late autumn): 30–35 ha (20–25 million stems per year)
 Other flowers
 (Alstroemeria,
 Lysianthus,
 Freesia etc.): 40–45 ha (60–70 million stems per year)
 Cut foliage and
 Gypsophyla 15 ha

Total: 220–240 ha (300–350 million stems per year)

1.2. Pot plants (pot flowers and pot-grown foliage plants)

Growing area (total of glass and plastic): 20–30 ha (Retkes, 1997)

Produced amount: 12–16 million pots per year (without pelargoniums) plus 2.5–3 million pots of pelargoniums.

The main cultures are as follows:

Flowering crops: African violets (*Sanpaulia*), cyclamens, begonias, calanchoes, poinsettias.

Foliage plants: and philodendrons, ficuses, sinningias, ferns.

The two largest producers of pot plants are the Sasad company in Budapest and the Kertész cooperative in Szombathely. Most of the pot-grown foliage plants are micropropagated in Hungarian labs.

1.3. Bedding plants

The production of bedding plants in Hungary comprises round 35 millions of annual and 10 millions of biennial bedding flowers. About one quarter of this amount is planted in public green areas, the rest is used by privates. The annuals are grown under 25–30 ha of plastic- and glass-houses, the biennials on about 10 ha of open ground. (Szántó, 1997) The bulk of the production comes from small (in many case only part-time) growers. There are only 12 growers that produce more than half millions plants per year.

The market of bedding plants, as a whole, is increasing in Hungary. People are planting more and more flowers in their gardens and tend to by more and more rather than to grow them at home. (Earlier, in the villages, people grew almost exclusively all of their own flowers by themselves). The demand for balcony plants and for graveyard plantings is steadily increasing.

There is a change in the sortiment as well: Generally, the number of species (which was quite large earlier) is decreasing but the number of varieties (cultivars) within the remaining species is decreasing. This process is promoted both by the seed companies and by the growers who tend to simplify and uniformize their production. The leading crops are *Petunia*, *Begonia*, *Impatiens*, *Salvia*, *Tagetes* from the annuals, and *Viola wittrockiana* hybrids (pansies) from biennials.

A new trend is brought by the fashion of balcony plants, with more and more hanging flowers like *Colibrachoa*, *Plectranthus*, *Helichrisum*, *Bidens*, *Bacopa*, hanging *Verbenas*, hanging *Lantana* and others.

Another tendency is the predominant use of propagation materials and cultivars offered by international seed

companies. These cultivars are not always better from the traditional Hungarian ones (whose breeding for stress-tolerance – at the National Fruit and Flower Research and Development Company in Budapest – resulted into more than 290 cultivars, Kovács, 1999.). The foreign cultivars have mainly marketing advantages over the Hungarian ones: In young stage, at the moment of selling they look better (show the flower or at least the bud). Later, however, as the hot and dry summer comes, many of them suffer badly in the extensive public parks of Hungary.

2. Open ground production

In the open field, the main groups of crops are

- Ornamental trees, shrubs (880 ha cropping area and a total of 4–6 million plants sold per year)
- Rose bushes (30–40 ha and 2–3 million bushes per year)
- Perennial plants (20–30 ha and 3–4 million plants per year)
- Dried flowers (200–250 ha and a production value of 5–700.000 HUF per year).

The open ground cultivation will be discussed in more details in the next issue of *International Horticultural Science*, within the part II. of this publication.

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