Cut Flowers in Warsaw

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Abstract: Cut flowers production around Warsaw depends mainly on very intensive methods, particularly the use of glasshouses, and includes a number of highly specialized farms. It is the result of a remarkably high level of demand in Poland and of the development of an export industry. It plays an important role in an agricultural system in which the production possibilities for very small farms are limited. Most production is in private hands and depends on the application of relatively large quantities of capital with a considerable element of risk. Farmers grow flowers at varying levels of intensity and with varying degrees of specialization. A particular spatial structure within the general geographical distribution of intensive agriculture around Warsaw appears to have resulted. An attempt is made to indicate some of the elements in this structure by the use of published data for flowers production and for the taxation of private holdings by small administrative districts — the “gminy” or local communes. Examination of inputs indicates major constraints. The industry reached a peak in 1981. If it were to expand again attention should be paid to existing spatial diseconomies and the possibilities of relocation.

Intensive forms of agriculture in Poland, including horticulture, have a special importance as a means of providing full-time employment and an adequate income on small farms. The commercial production of flowers, particularly in the Warsaw region, mostly depends on very intensive methods and has become one of the most innovative and profitable forms of agricultural production in Poland. It can occur in highly specialized farms or as a specialized activity associated with other agricultural enterprises which may or may not be intensive. Flowers can also be grown extensively as a field crop or in garden allotments, both commercially and non-commercially. However, it is in the more specialized farms that the highest levels of production and income are achieved and the most advanced productive techniques applied.

Few geographers have expressed much interest in the cultivation and marketing of flowers, generally regarded as a luxury good of small importance either in total value or in the area farmed. Yet in many countries, and particularly in Eastern Europe, there is a considerable demand for flowers and an international trade. Commercial cut flowers and pot plant industries exist not only to supply a general all year demand, but especially to satisfy out-of-season requirements and the supply of high quality blooms for special occasions such as birthdays, name-days, weddings and funerals. Flowers provide a natural ornament in the dull, rigid geometry of large blocks of flats without ready access to a garden, although some people own or rent garden allotments or have access to a second home in the countryside.

The Polish flowers industry although small in area is large in the value of its production. Most of it is concentrated in small private farms. Commercially it depends mainly on a few large urban markets and on an export trade. Large quantities of private capital are applied with a considerable element of risk and there are serious resource problems. The industry illustrates many of the difficulties which affect attempts to raise productivity in the private sector of Polish agriculture. Farmers’ decisions to grow flowers at certain levels of intensity and with varying degrees of specialization have resulted in a particular spatial structure within the general geographical distribution of intensive agriculture. It is with this distinctive spatial structure around Warsaw that this paper is mainly concerned.

Private and Socialized Farming in Poland

Of the 19 million ha defined as “in agricultural use” in Poland, almost 70% is privately owned and operated. The rest is the socialized sector, that is operated by state farms,
cooperative farms and "agricultural circles" a form of commune based cooperative farming system.

There are more than 2.8 million private farms of 0.5 ha or more in size, with an average area of 5.4 ha of which 4.8 are agricultural land. Only 15% are over 10 ha, the minimum area in Polish conditions which can normally provide full employment for a farming family on an adequate basic income (Instytut Ekonomiki Rolnej 1978, 31). In 1982, rather less than a third (29.8%) of the Polish workforce was engaged wholly or mainly in the agricultural sector of the economy, but their share of the national income from agricultural earnings was only 15.1% and of investment expenditure 18.4%. Szemberg (1981) suggested that in 1978 63% of farms had mixed sources of income, including over a third of the farms over 10 ha, whilst official estimates indicated that over 35% of farms were mainly part-time operated (Gańczyńska & Kulikowski 1980; see also Tyszkowski & Jagielski 1978). Commuting to industrial or office employment combined with weekend farmwork and the involvement of wives in agriculture are important factors in Polish agriculture and of increasing significance. The situation has been encouraged by the disparity between farm and industrial incomes, the widespread existence of farms too small to provide a living from normal farm inputs, the persistence of production for subsistence, the arduous nature of much farm work and the great difficulties encountered in attempts either to enlarge farms or to improve their productivity. Horse-drawn ploughs and "herds" of 3 or 4 cows are a common sight in Polish fields. In the quantity and quality of investment, the level of technical expertise and the commercial orientation of agriculture, the intensive, specialized farm stands out in stark contrast with the more common, small often part-time operated and part subsistence, private farm.

Flowers Production and Consumption in Poland

With varied modes of production and sales outlets, together with a large non-commercial element, it is difficult to estimate the quantity of flowers produced in Poland.

Estimates for 1978 suggest that:

a) commercial top quality blooms grown under cover, i.e. in glasshouses, plastic tunnels or frames, were about 500 million, of which three-quarters came from private farms (Kubiak and Piotrowska 1977a and 1980; Mynett 1979);

b) partly commercial and partly "subsistence" blooms cultivated in the open fields and garden allotments included over 600 million commercial.

The 1978 total of commercial blooms was therefore probably about 1100 million (one may guess over 1300 million by the peak year of 1981) of which about 26 million were exported, chiefly to the Soviet Union, German Democratic Republic and Czechoslovakia. The remainder amounted to nearly 31 per person, equal to about 2 blooms every week for every household in Poland or nearly 3.5 for every urban household – the main market.

The ornamental plants industry also included 650 ha of seeds production and 2600 ha of nurseries for ornamental trees, shrubs and perennials. Altogether, including the area of field production but excluding allotments, the cultivation of ornamental plants occupied over 5000 ha in 1978 or less than 1% of the total area in horticultural crops, yet the share of "non-food horticulture" (mainly ornamental plants) in the total value of horticultural production in 1977–78 was 17% (Krusze 1982, 68).

The area in flowers under cover is quite small, but achieves a considerable output by using highly intensive methods of production. The standard output figure for carnations under glass, for example, is 120 per m², giving 1,200,000 blooms per ha. Specialist flower growers may have 1000–2000 m² under glass or a potential production at the standard rate for carnations of 120,000–240,000 blooms. In 1978 the total area of flowers production in glasshouses was 369 ha, over 60% of which was in carnations (Tab 1). The Polish international trading system protects Polish carnations production from South American competition and has enabled it to become one of the largest in the world. (For an appraisal of the development of the Polish glasshouse economy see Ciechomski 1982.)

The demand for flowers by Polish households is one of the highest in Europe (reckoned by Kubiak and Piotrowska 1977a, to be similar to that in Denmark, Holland, and Switzerland). One survey of 540 workers' families in Warsaw in 1968 showed a flowers expenditure at 12% of the total spent on flowers, fruit and vegetables (Wygonowska 1969, quoted in Kubiak and Piotrowska 1977a).

In 1978 hopes for further increases in flowers production and the development of exports were high (Mynett

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<tr>
<th>Tab 1</th>
<th>Area of ornamental plants production in glasshouses in Poland in 1978 (Mynett 1979)</th>
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<tbody>
<tr>
<td>Carnations</td>
<td>228</td>
</tr>
<tr>
<td>Chrysanthemums</td>
<td>38</td>
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<tr>
<td>Gerberas</td>
<td>29</td>
</tr>
<tr>
<td>Roses</td>
<td>28</td>
</tr>
<tr>
<td>Bulbs (forced)</td>
<td>8</td>
</tr>
<tr>
<td>Other cut flowers</td>
<td>6</td>
</tr>
<tr>
<td>Pot plants</td>
<td>32</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>369</strong></td>
</tr>
</tbody>
</table>

Total area in glasshouses: 1308 ha
Percentage in flowers and pot plants: 28.2
Percentage in cut flowers alone: 25.8 (91% of the area of ornamental plants in greenhouses)
In addition over 40 ha of flowers production in plastic tunnels and frames