

INTRODUCTION

The 2001 Amenity Census combines the results of censuses in three sub-sectors: nursery stock, bedding/pot plants and bulb production. Results from the nursery stock census have been published previously (The Nursery Stock Industry in Ireland, 2000: M.J. Maher *et al*) and the key findings are summarised here in order to provide a single document that covers three sectors within the amenity industry. Nursery stock data is for the year 2000 while data for the bedding/pot plants sector and for the bulb sector is for the year 2001.

The censuses were carried out by inspectors of the Department of Agriculture, Food and Rural Development (DAFRD). Bord Glas, DAFRD and Teagasc wish to thank all the growers who participated.

HARDY NURSERY STOCK SECTOR

The 2000 census of the hardy nursery stock sector indicates strong growth since the previous census of 1997:

- sector value rose 29% to €30.6 million in 1999*
- production area increased 19% to 465 hectares in 2000 (1,149 acres).
- employment rose 7% to 972 full-time equivalent jobs in 2000

* All value data refers to 1999 and 1996 as the census asks growers to provide figures for the most recent year in which full year figures are available.

The census recorded a total of 222 growers, broadly unchanged from the 1994 and 1997 censuses. Tipperary has the largest production area with 145 hectares. However, Kildare contributes the most to overall sector sales, due largely to its having the highest area of containerised plants (which typically have a higher value than field plants).

The sector is dominated by a small number of large growers. There are a total of 29 nurseries with sales in excess of €253,940 (IRE200,000). These nurseries represent only 13% of all nurseries, but they account for 64% of the sector's total sales.

'Containerised shrubs for retail sale' is the single biggest category in value terms. The value of this category is estimated to be €11.6 million, representing over one-third (38%) of the sector value. 'Containerised herbaceous plants' are the joint second most important plant category with a sales value of €4.0 million. 'Standard and half standard trees' also have a sales value of €4.0 million. The production area for 'standard and half standards' has doubled since the previous census.

The sector's export sales are valued at €5.4 million, with ornamental shrubs being the biggest category. Imports by nurseries are valued at €5.3 million, with liners being the biggest category.

Nursery stock growers say that the growth in the economy has created a difficulty in attracting and retaining qualified staff. This was the single most often mentioned barrier to future expansion in 2001.

DAFRD estimates the value of the hardy nursery stock sector for 2001 at €32.4 million.

BEDDING AND POT PLANTS SECTOR

There are a total of 75 bedding and pot plant growers in 2001. Cork has the highest number of growers with 16. Most other growers are based in Leinster.

Most growers produce a wide variety of bedding plants. In this category, growers rate pansies, *Impatiens* F1 Hybrids and *Petunias* as their most important species. Most growers also produce a wide variety of patio and basket species, with *Surfinia* being rated the most important plant by far. Primroses are the most widely grown pot plant.

Output from the sector is mostly sold through garden centres. Only four growers say they export any of their produce.

A majority (72%) do not use any type of mechanisation. However, 37% say they will purchase machinery over the next two years and 47% say they will increase production over the same period.

As was the case among nursery stock growers, the most commonly mentioned barrier to future expansion is the availability of suitable staff.

BULBS AND CUT FLOWERS SECTOR

The bulb sector is worth an estimated €1.5 million. The sector consists of bulb growing for the wholesale market (€1.2 million) and harvesting flowers from the bulb production area (€0.3 million). Seventy-two percent of the sector's output is exported.

There are a total of 184 hectares of land involved in the bulb sector. Of this figure, 81 hectares of bulbs were harvested in 2001. Growing cycles result in only half of the area being harvestable in a given year. Flowers were harvested from 51 hectares.

The census recorded a total of 23 bulb growers. Employment tends to be on a part-time basis. Only 14 people are employed full-time but 49 full-time equivalent jobs are provided by the sector.

Bulb production is dominated by *Narcissi* (i.e. daffodils). There are only two growers producing tulips. Golden Harvest is the single most widely produced *Narcissi* variety. However, 50 different *Narcissi* varieties were recorded among the 23 growers.

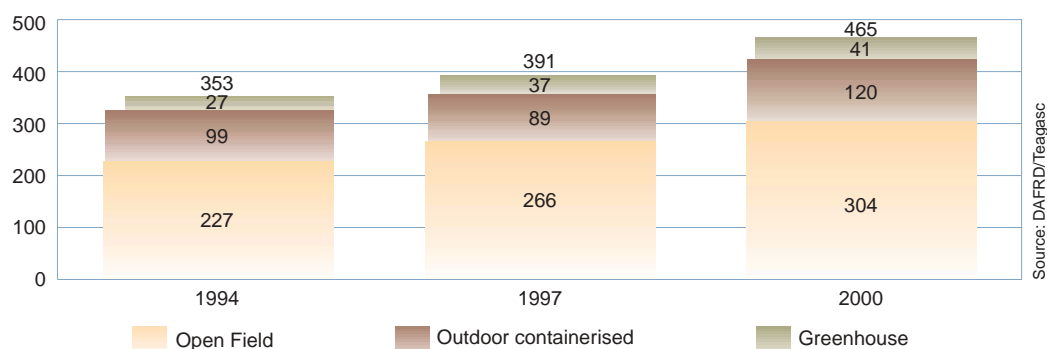
The figures provided in this document are based on the best information available to Bord Glas/DAFRD at this point in time. For convenience many of the figures have been rounded up.

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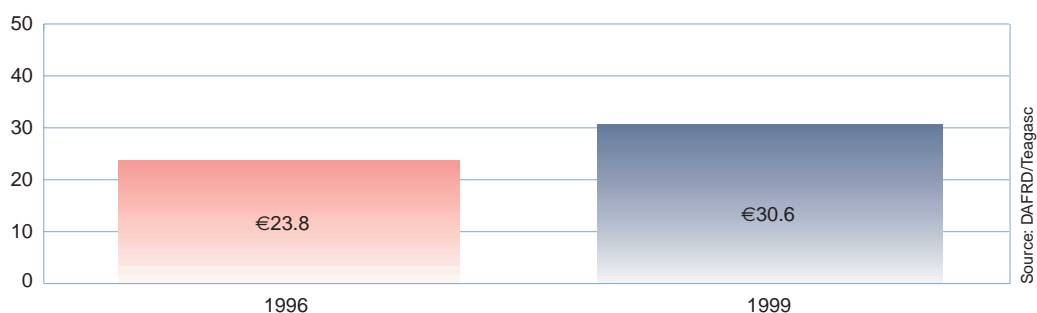
HARDY NURSERY STOCK SECTOR

Chart 1 Production Area 1994–2000 (Hectares)



- The total production area for hardy nursery stock in 2000 is 465 hectares (1,149 acres). Of this, 304 hectares (65%) is open field production of hardy nursery stock, 120 hectares (26%) is outdoor containerised production and 41 hectares (9%) is greenhouse production (i.e. glasshouses and fixed polythene tunnels).
- The total production area has increased steadily since 1994. The 2000 figure represents an increase of 32% since 1994 and 19% since 1997. Containerised plants show the highest increase in production area since 1997 (up 35%). However, the 1997 figure was a decrease on the 1994 figure and the overall increase since 1994 is 21%. Production in greenhouses has increased by 51% since 1994, albeit from a low base.

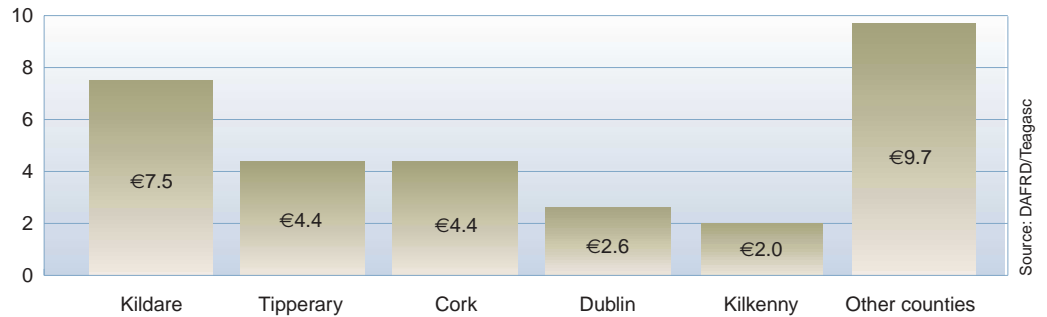
Chart 2 Sector Value 1996–1999 (€ million)



Note: industry value data refers to 1999 and not 2000 (and 1996 not 1997) as the census asks growers to provide figures for the most recent year in which full year figures are available.

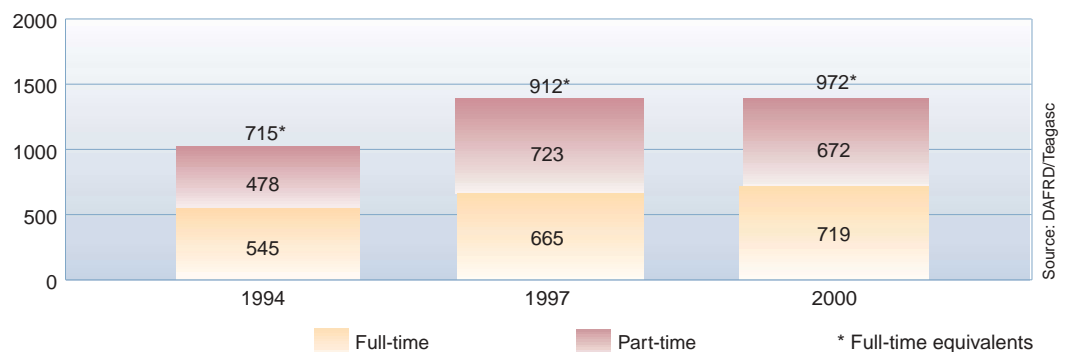
- The total value of the hardy nursery stock sector in 1999 is estimated by growers to be €30.6 million, a 29% increase since 1996.

Chart 3 Value by County 1999 (€ million)



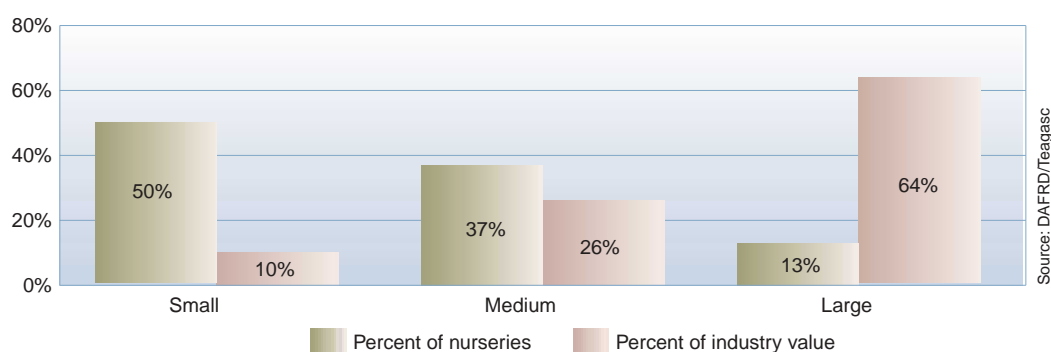
- Kildare is the most important county in terms of output value. Twenty-five Kildare nurseries have a combined production area of 73 hectares and a combined output value of €7.5 million (see Table 1.1 in Appendix). Kildare's top ranking for output value is due largely to its having the highest area for containerised plants (which have a much higher output value per hectare than open field production).
- Tipperary and Cork both have an output value of €4.4 million. Tipperary's seventeen growers have the largest combined production area (145 hectares) and the second largest production area for containerised plants (13 hectares).
- The top five counties in terms of output value (i.e. Kildare, Cork, Tipperary, Dublin and Kilkenny) together account for 68% of the total sector value.

Chart 4 Sector Employment 1994–2000



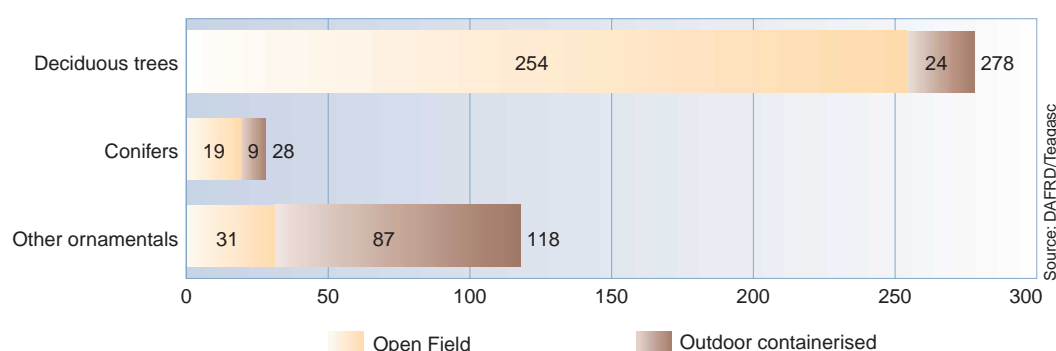
- The hardy nursery stock sector employs 719 people full-time and 672 people part-time. In 'full-time equivalent' terms (i.e. converting the part-time jobs into the number of full-time jobs they would represent), the sector employs 972 people.
- Employment has increased significantly since 1994. The number of full-time jobs represents a 32% increase since 1994 and an 8% increase since 1997. Full-time equivalent jobs are up 36% since 1994 and 7% since 1997. The number of people employed on a part-time basis is up 41% since 1994, but has fallen by 7% since 1997.

Chart 5 Value of Output by Size of Nursery 1999



- Nurseries were classified into three sizes based on the value of their sales, as follows:
 - small – sales of less than €63,485 (IR£50,000)
 - medium – sales between €63,485 and €253,940 (IR£50,000 to IR£200,000)
 - large – sales over €253,940 (IR£200,000).
- A breakdown of industry value by size of nursery shows that a small number of large nurseries contribute the majority of sector value. The twenty-nine nurseries defined as 'large' represent only 13% of all nurseries but account for 64% of sector production value. In contrast, the 111 nurseries classified as 'small' represent half of the total number of nurseries but contribute only 10% of sector production value.

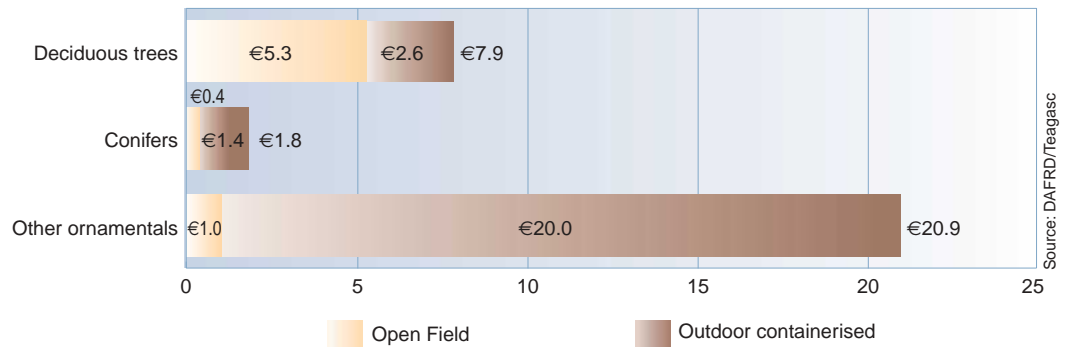
Chart 6 Production Area 2000 (Hectares)



Note: information on the production area of plants grown in greenhouses was not collected.

- There are 278 hectares of deciduous trees in production in nurseries in 2000. Most of this area (254 hectares) is open field production with only 24 hectares being outdoor containerised production.
- 'Standard and half standard trees' are by far the biggest category of deciduous trees, with 137 hectares in open field production and 13 hectares in outdoor containerised production. The other commonly grown trees are 'whips and feathered trees' (40 hectares in open field production and 7 hectares in outdoor containerised production) and 'semi-mature trees' (39.4 hectares in open field production and 0.4 hectares in outdoor containerised production).
- Production of 'standard and half standard trees' has risen significantly since 1994. Open field production has more than doubled while outdoor containerised production has more than tripled (see Table 1.2 in Appendix). Open field production of 'semi-mature trees' has increased 77% since 1994.
- There are 28 hectares of conifers in production in 2000. This category has declined somewhat since 1994 (see Table 1.2 in Appendix)
- 'Ornamental shrubs for retail sale' are the biggest category within the 'other ornamentals' category (see Table 1.2 in Appendix). Production is mostly containerised and has risen 29% since 1994. Roses are also included in 'other ornamentals'. Rose production is mostly open field production and has remained stable since 1994.

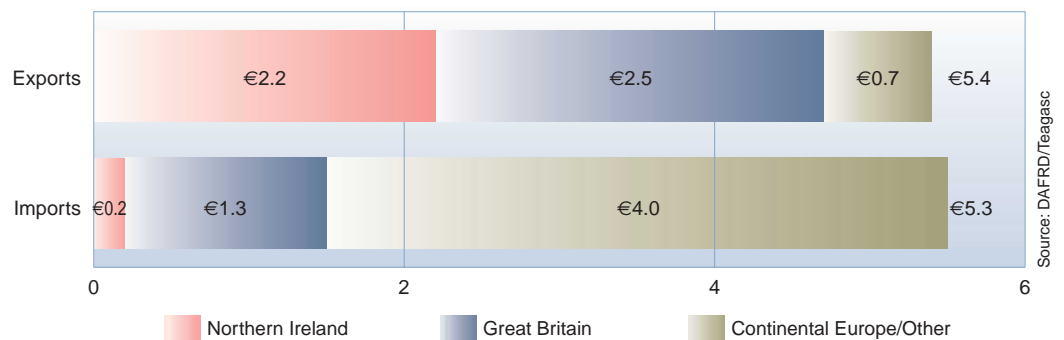
Chart 7 Value of Plants Grown 1999 (€ million)



Note: information on the value of plants grown in greenhouses was not collected.

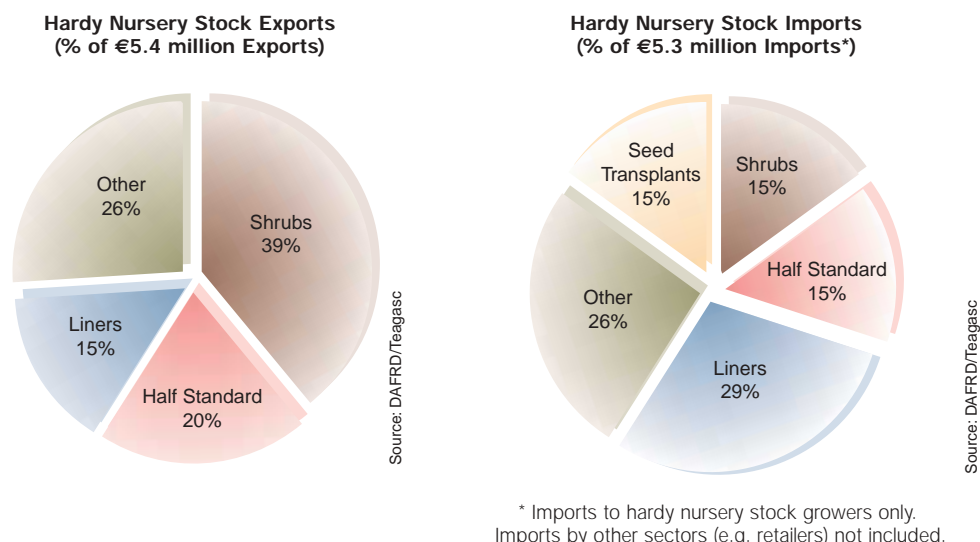
- The vast majority of sector value is accounted for by outdoor containerised production. Though outdoor containerised production represents only a fraction of the production area (see Hardy Nursery Stock Chart 6) it accounts for 78% of the sector value.
- Outdoor containerised 'shrubs for retail sale' is the single biggest category in value terms (see Table 1.3 in Appendix). The value of this category is estimated to be €11.6 million, representing over one-third (38%) of the total sector value. Also included in 'other ornamentals' are outdoor containerised 'herbaceous plants' which contribute €4.0 million in sales.
- Within the deciduous trees category, 'standard and half standards' contribute €2.6 million from open field production and €1.4 million from outdoor containerised production.

Chart 8 Exports and Imports by Market 1999 (€ million)



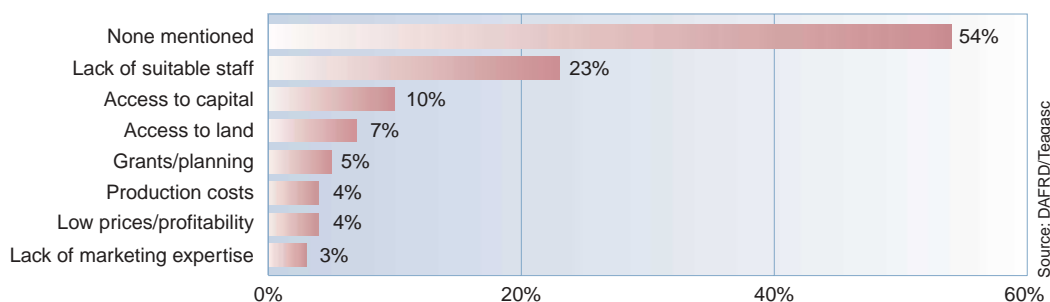
- Irish nurseries export €5.4 million worth of plants and import €5.3 million.
- Exports are predominantly to Northern Ireland and Great Britain. The main development in exports has been the growth in exports to 'other' countries (mostly continental Europe) which are valued at €0.7 million (see Table 1.4 in Appendix), from almost nothing in 1996.
- Imports are mostly sourced from the Netherlands (€3.1 million, see Table 1.5 in Appendix).

Chart 9 Exports and Imports by Plant Type 1999



- 'Ornamental shrubs' are the biggest single export category. Exports of 'ornamental shrubs' in 1999 are valued at €2.1 million (representing 39% of total exports) and are sold mostly to Great Britain.
- 'Standard and half standard trees' are the next largest category, having more than doubled in value since 1996 to €1.1 million. Almost half of this figure (€0.5 million) is represented by exports to continental Europe, which were almost non-existent in 1996.
- 'Liners' account for 15% of exports and are sold mostly to Great Britain.
- The 'other' category includes 'herbaceous plants' which have an export value of €0.4 million, selling mostly to Northern Ireland.
- The biggest category of imports in 1999 is 'liners'. Irish nurseries imported €1.5 million worth of 'liners' in 1999, mostly from Great Britain and the Netherlands.
- Imports of 'ornamental shrubs', 'tree transplants from seed' and 'half-standards' are each valued at €0.8 million. 'Ornamental shrubs' and 'tree transplants from seed' are sourced mostly from the Netherlands while 'half-standards' are sourced from the Netherlands and Great Britain.
- When asked about the reason for importing most growers indicated that the plants are not available in Ireland (see Table 1.6 in Appendix). However, cheaper price and better quality were also mentioned, indicating that a more competitive offering by Irish nurseries might reduce future imports.

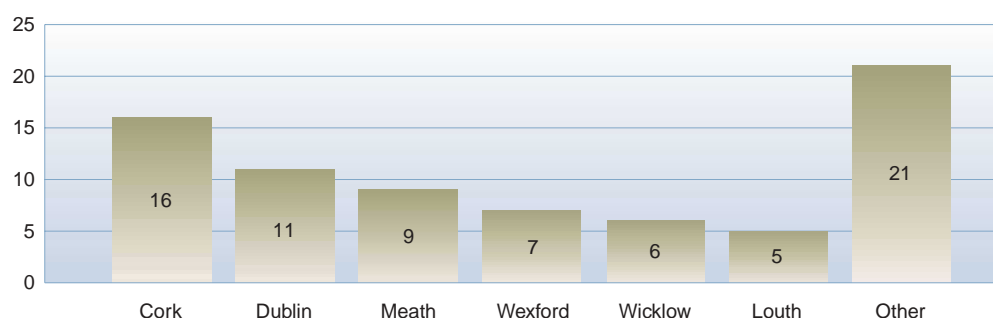
Chart 10 Barriers to Future Expansion 2000



- Growers were asked if they are encountering any barriers to expansion and, if so, to indicate what they are. Over half (54%) did not indicate any barriers. The most commonly mentioned barrier was the availability of suitable staff. Growers say that the expansion of the Irish economy has made it difficult to attract staff given sector salary levels. This issue was mentioned by one-quarter (23%) of growers. Access to finance and the price and availability of land are other sector obstacles.

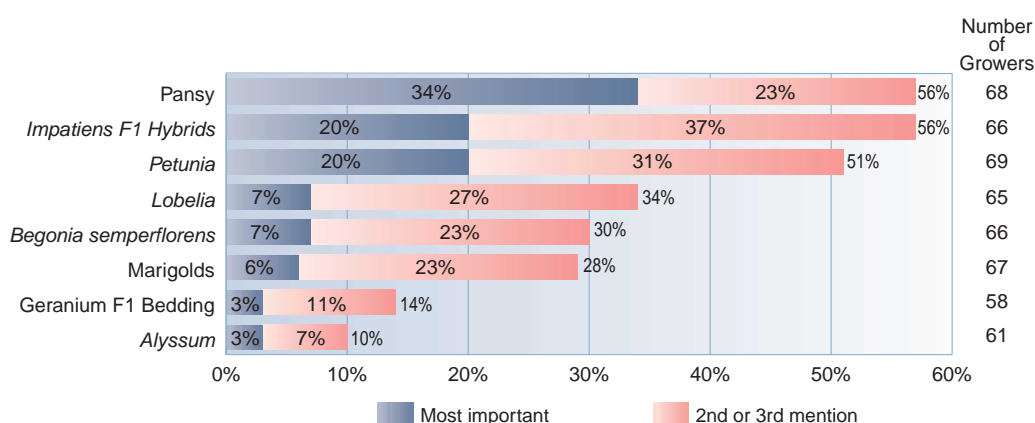
BEDDING AND POT PLANTS SECTOR

Chart 1 Number of Growers by County 2001



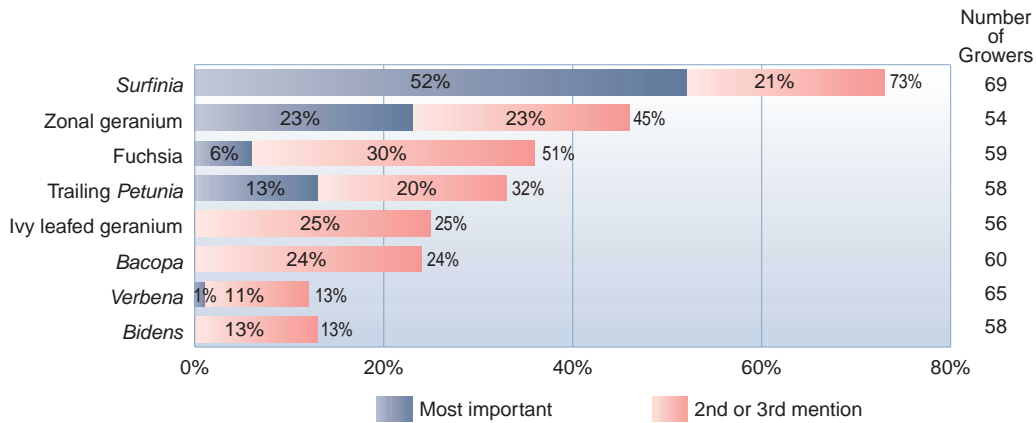
- In 2001, there are 75 growers of bedding and pot plants. Cork has the highest number of growers at 16 (21% of all growers). The remaining top five counties are all in Leinster, reflecting the importance of proximity to the Dublin market. Nevertheless, there is a reasonable degree of geographical spread with 21 growers (28% of all growers) located in counties outside of the top six (see Table 2.1 in Appendix).
- Sector value was not included in this census. However, DAFRD estimates the value of bedding plants at €6.1 million and pot plants at €5.9 million for 2001.

Chart 2 Most important Bedding Species 2001



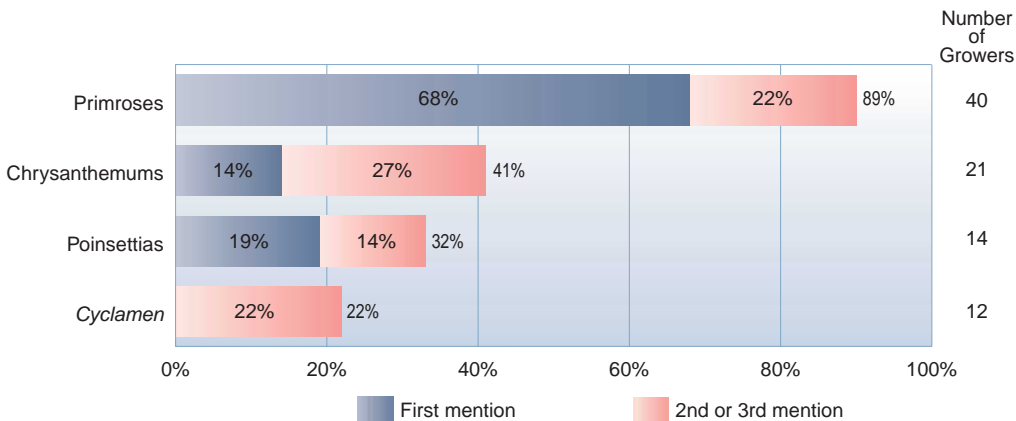
- The survey provided growers with a list of bedding and pot plants and asked them to indicate which plants they grew and to rank them in order of importance.
- For bedding plants, growers tend to grow most of the 21 plants listed in the survey (see Table 2.5 in Appendix). *Petunias*, pansies, marigolds, *Begonia semperflorens*, *Impatiens F1 Hybrids*, *Lobellas*, dahlias, *Ageratum* and *Salvia* are all grown by at least four-fifths (80%) of growers.
- Pansies are the most important species with one-third (34%) ranking them as the most important species and over a half (56%) ranking them in their top three most important species.
- The next most important species are *Impatiens F1 Hybrids* and *Petunias*, both rated by 20% as their most important species, and by 56% and 51% respectively as one of the top three most important species.

Chart 3 Most important Patio/basket Species 2001



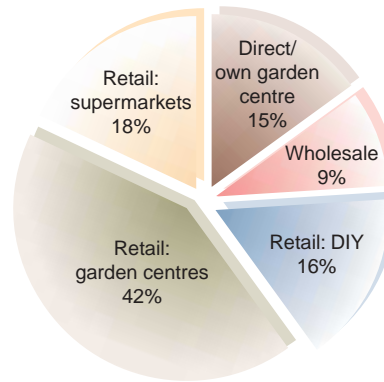
- For patio and basket plants most growers also grow most of the 15 plants listed in the survey, though with a somewhat lesser frequency than for bedding plants. *Surfinia*, *Verbena* and *Bacopa* are all grown by at least four-fifths (80%) of growers (see Table 2.6 in Appendix).
- Surfinia* is clearly the most important patio/basket species. One-half (52%) of growers say it is their most important patio/basket species and three-quarters (73%) list it as one of their top three most important species.
- The other important patio/basket species are zonal geranium, fuchsia, trailing *Petunia*, ivy leafed geranium and *Bacopa*.

Chart 4 Most important Pot Plant Species 2001



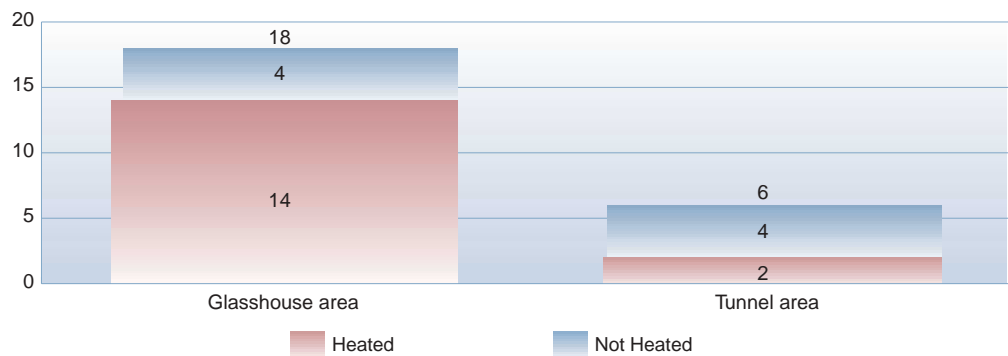
- Pot plants are grown much less commonly than are bedding and patio/basket plants. Primroses are the most widely grown pot plants, grown by 40 of the 75 growers (53%). Chrysanthemums are grown by 21 growers (28%), poinsettias by 14 growers (19%) and *Cyclamen* by 12 growers (16%, see Table 2.7 in Appendix).
- Most growers rank primroses as being their most important pot plant (for many growers they are the only pot plant grown). However, seven of the fourteen growers growing poinsettias say they are their most important pot plant.

Chart 5 Market Channels for Output 2001



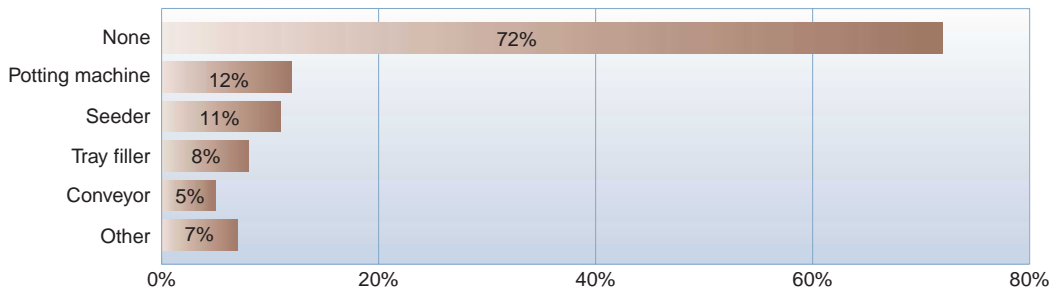
- Over half (57%) of grower output is sold through garden centres, of which 15% is sold through the growers own garden centre and 42% through other garden centres. The other three market channels are supermarkets, DIY and wholesale, which account for 18%, 16% and 9% respectively of grower output.
- Most growers produce for the domestic market only. Only 4 of the 75 growers (5%) indicated that they exported any of their produce (see Table 2.8 in Appendix).

Chart 6 Area of Glasshouses and Tunnels 2001 (Hectares)



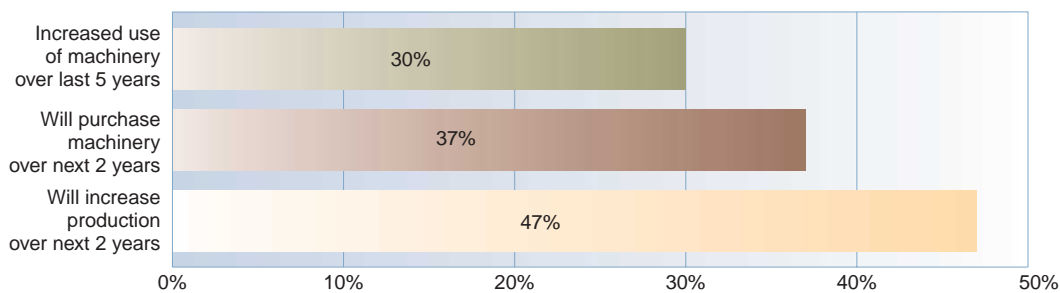
- The 75 growers have a combined glasshouse area of 18 hectares (44 acres) and a combined polythene tunnel area of 6 hectares (16 acres).
- Most of the glasshouse area is heated while most of the polythene tunnel area is unheated.

Chart 7 Mechanisation Used 2001



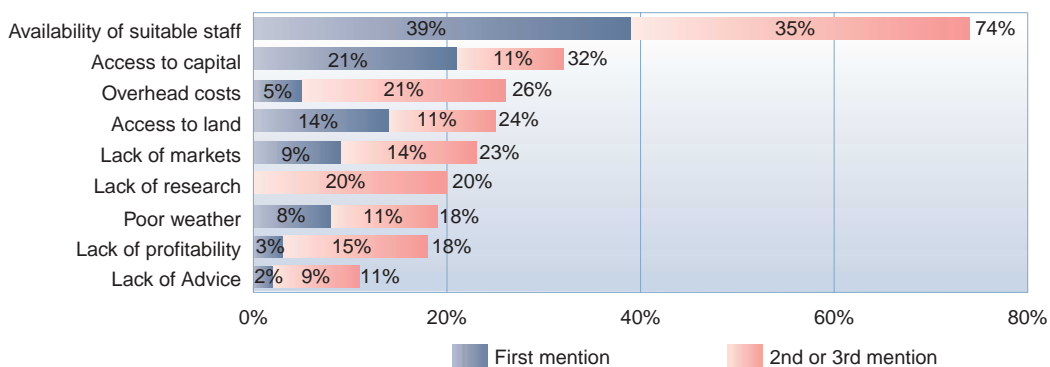
- Almost three-quarters (72%) of growers do not use any form of mechanisation. This is because most work is done by direct labour up to a certain nursery size.
- Among those using machinery, the most common machines are potting machines (used by 12% of growers), seeders (used by 11%), tray fillers (used by 8%) and conveyers (used by 5%).

Chart 8 Nursery Development Projections 2001



- Growers indicate that there has been little change in usage of machinery in recent years. Only 30% of growers say they have increased usage of machinery over the last five years. Regarding future plans, 37% say they will increase usage of machinery over the next two years.
- One-half (47%) of growers say they will increase production over the next two years.

Chart 9 Main Barriers to Future Nursery Expansion in 2001



- Growers say that the 'availability of suitable staff' is the biggest barrier to future expansion. Thirty-nine percent (39%) rank it as the most important barrier while 74% rank it as one of their top three barriers. This factor far outranks any other barrier to expansion.

BULBS AND FLOWERS SECTOR

Chart 1 Bulb Production Area (Hectares) 2001



- In 2001, a total of 184 hectares (455 acres) of land is in bulb production. Of this, 81 hectares was harvested for bulbs in 2001 while the remaining 103 hectares are first year crop (for harvesting in 2002).
- From this production area for bulbs, flowers were harvested from 51 hectares in 2001.

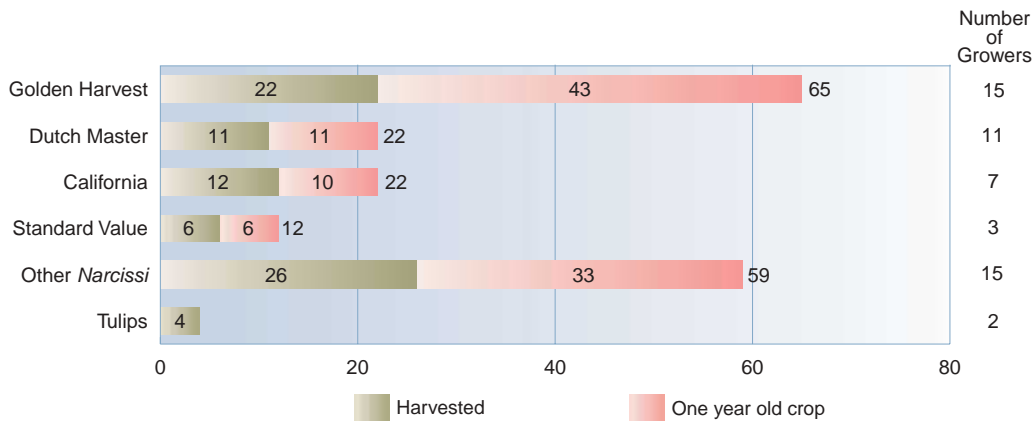
Chart 2 Numbers of Growers & Employment 2001



* Part time employment aggregated to the number of full-time jobs they would represent.

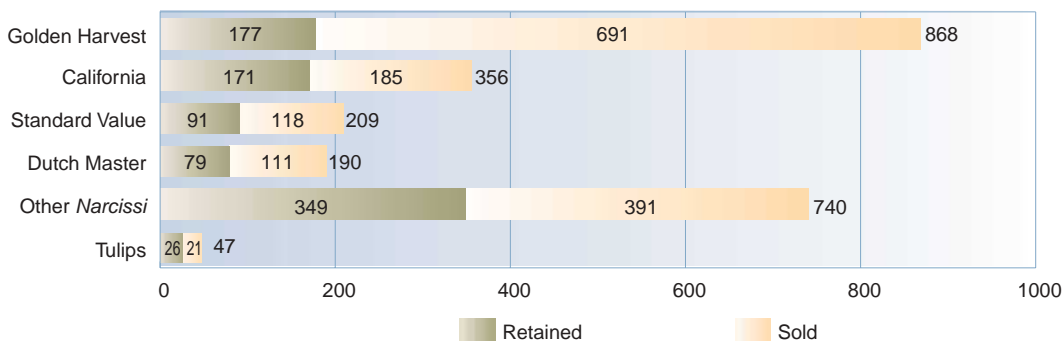
- The bulb sector consists of 23 bulb growers with 21 growing *Narcissi* (i.e. daffodil) bulbs only, one growing tulip bulbs only and one growing both *Narcissi* and tulip bulbs.
- Fifteen of the 23 bulb growers harvested flowers from their bulb production area (see Table 3.2a in Appendix).
- The sector is dominated by Cork with 11 of the 23 growers located in the county (see Table 3.1 in Appendix). There are three growers in Mayo and two growers in both Offaly and Kilkenny.
- The sector tends not to be a full time occupation. Only 14 people are employed full-time in bulb growing. However, combining the part-time hours worked indicates that the sector provides 49 'full-time equivalent' jobs.

Chart 3 Bulb Production Area by Variety 2001 (Hectares)



- In 2001, Golden Harvest is the most commonly grown bulb with 65 hectares. This represents one-third (35%) of the total production area. A total of 15 growers are involved in producing Golden Harvest.
- Dutch Master and California are the next most commonly grown varieties, each with a total of 22 hectares in production. There are 11 growers producing Dutch Master and seven producing California. Standard Value is the fourth placed variety with 12 hectares in production among three growers.
- In total, the 23 growers produced 50 different varieties of *Narcissi* (see Table 3.4 in Appendix). Among the most popular varieties in the 'other *Narcissi*' category are Sempre Avanti, Spellbinder, Carlton, Juanita and Ice Follies.
- Two tulip growers harvested 4 hectares of tulips in 2001 (see Table 3.4 in Appendix).

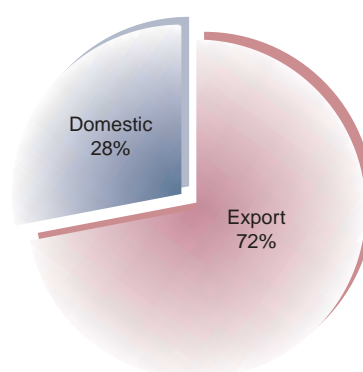
Chart 4 Bulb Production Output by Variety 2001 (Tonnes)



- The 81 hectares harvested in 2001 (see Bulbs and Flowers Chart 1) produced a total of 2,410 tonnes of bulbs. Golden Harvest bulbs had the highest production tonnage with 868 tonnes, of which 691 tonnes was sold and 177 tonnes was retained for replanting.
- California bulbs had the next highest output with 356 tonnes, followed by Dutch Master (190 tonnes) and Standard Value (209 tonnes). The top four varieties account for 69% of the total output.
- The value of bulbs differs by variety and for many other reasons, not least being market supply/demand. However, assuming an average value of €508 per tonne (i.e. IRE400*), the value of bulb production is estimated at €1.2 million.

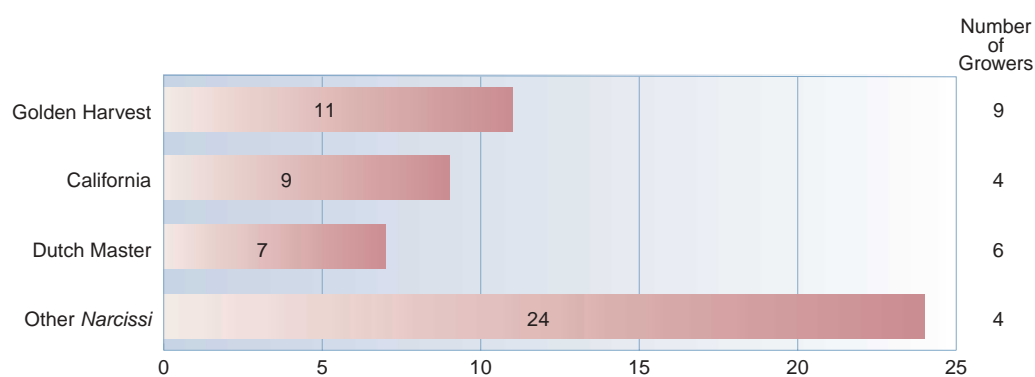
* Approximate average value per tonne in 2001.

Chart 5 Destination Market for Bulbs 2001



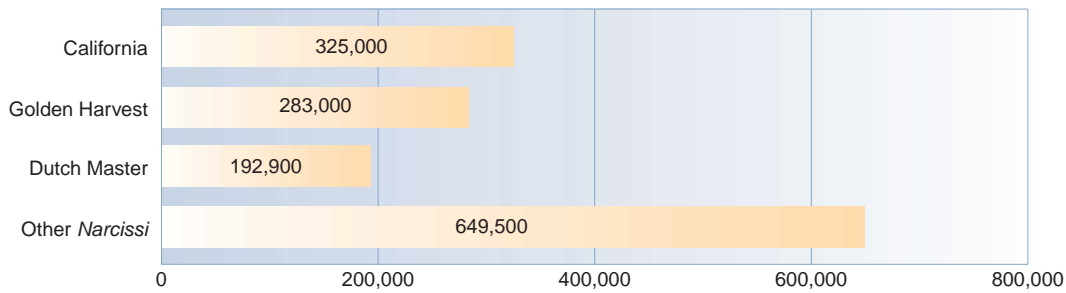
- Seventy-two percent (72%) of the bulbs sold are for the export market (principally to the USA, UK and Netherlands) and 28% are for the domestic market.
- All (99.9%) of the bulbs sold are for the wholesale market (see Table 3.2 in Appendix).

Chart 6 *Narcissi* Flower Area Harvested 2001 (Hectares)



- As mentioned previously, 15 of the 23 bulb producers harvested flowers from their bulb crops. Golden Harvest, California and Dutch Master are the most common varieties cut as 'stems' for sale, with 11, 9 and 7 hectares respectively of each harvested in 2001.
- Among the Other *Narcissi* category are Gigantic Star, Carlton and Standard Value (see Table 3.3 in Appendix).

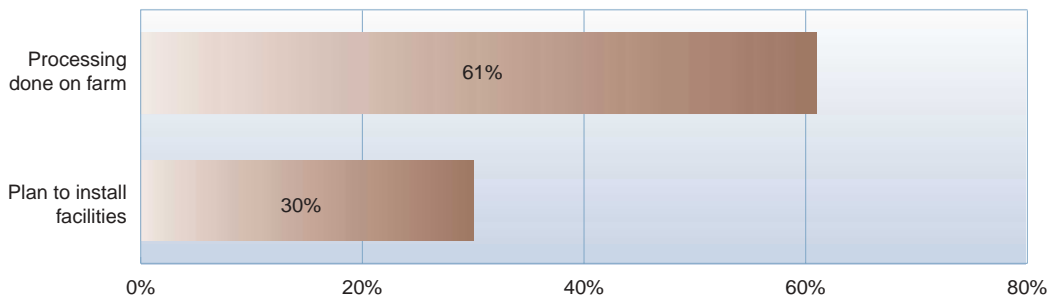
Chart 7 *Narcissi* Flower Output 2001 (Bunches of Ten)



- A total of 1.45 million 'bunches of ten' *Narcissi* flowers were harvested in 2001. California had the highest output with 325,000 'bunches of ten', followed by Golden Harvest with 283,000 'bunches of ten'.
- The third most produced variety was Dutch Master with 192,900 'bunches of ten'.
- The 'other *Narcissi*' varieties produced a total of 649,500 'bunches of ten'.
- As with bulb tonnage, the value of *Narcissi* flowers differs by variety and other factors. However, assuming an average value of 23.5 cents per bunch of ten (i.e. 18.5 Irish pence*), the value of *Narcissi* flowers is estimated to be €0.34 million.

* Approximate average value per bunch of ten in 2001.

Chart 8 Location of Bulb Processing and Plans to Install Facilities 2001



- Fourteen of the 23 growers (61%) say that they process the bulbs (i.e. dry, clean, pack, etc.) on their own farms. The remainder contract this work out to other growers with the necessary equipment.
- Seven of the 23 growers (30%) say they plan to install processing facilities themselves.

APPENDIX 1: Hardy Nursery Stock Survey Tables

Table 1.1
Number of Nurseries, Production Areas (Hectares) and Value by County

| County | Number of Nurseries 2000 | Outdoor Production 2000 | | Area Under Protection 2000 | Net Sales 1999 (€) |
|--------------|--------------------------|-------------------------|--------------|----------------------------|--------------------|
| | | Field | Container | | |
| Kildare | 25 | 32.0 | 31.1 | 10.0 | 7,465,892 |
| Cork | 31 | 57.4 | 6.6 | 6.0 | 4,395,731 |
| Tipperary | 17 | 129.8 | 13.2 | 2.3 | 4,363,135 |
| Dublin | 19 | 11.0 | 8.1 | 4.3 | 2,631,791 |
| Kilkenny | 10 | 1.6 | 7.2 | 2.3 | 2,028,981 |
| Waterford | 7 | 23.2 | 7.1 | 3.1 | 1,612,633 |
| Limerick | 14 | 4.5 | 4.8 | 1.2 | 1,202,879 |
| Westmeath | 10 | 0.7 | 5.0 | 1.4 | 1,013,221 |
| Wicklow | 11 | 21.8 | 3.6 | 1.4 | 799,316 |
| Clare | 4 | 0.1 | 5.1 | 2.3 | 714,841 |
| Laois | 5 | 6.5 | 6.5 | 1.0 | 638,659 |
| Meath | 8 | 2.3 | 2.8 | 1.1 | 631,676 |
| Offaly | 5 | 2.8 | 1.1 | 0.4 | 458,362 |
| Galway | 7 | 2.5 | 2.9 | 0.9 | 419,001 |
| Wexford | 7 | 1.0 | 2.5 | 0.9 | 365,039 |
| Kerry | 9 | 2.5 | 2.4 | 0.6 | 358,690 |
| Roscommon | 3 | 0.0 | 1.1 | 0.2 | 311,077 |
| Donegal | 7 | 1.3 | 3.1 | 0.5 | 305,998 |
| Cavan | 5 | 0.0 | 1.7 | 0.7 | 218,388 |
| Mayo | 5 | 0.3 | 0.8 | 0.3 | 213,310 |
| Louth | 5 | 2.4 | 1.7 | 0.2 | 208,231 |
| Monaghan | 3 | 0.0 | 0.9 | 0.2 | 174,000 |
| Carlow | 2 | 0.0 | 0.1 | 0.1 | |
| Sligo | 2 | 0.0 | 0.3 | 0.1 | |
| Longford | 1 | 0.0 | 0.2 | 0.1 | |
| Total | 222 | 303.7 | 120.0 | 41.4 | 30,577,776 |

Table 1.2
Production Area of Outdoor Nursery Stock (Hectares), 1994, 1997 and 2000

| Product | Open ground | | | Containers | | |
|---------------------------|--------------|--------------|--------------|-------------|-------------|--------------|
| | 1994 | 1997 | 2000 | 1994 | 1997 | 2000 |
| Deciduous trees | | | | | | |
| Transplants | 11.7 | 16.5 | 18.2 | 1.0 | 1.2 | 2.3 |
| Whips and feathered trees | 47.9 | 69.5 | 40.3 | 2.1 | 3.8 | 7.2 |
| Standards/half standards | 59.1 | 72.1 | 136.6 | 3.8 | 3.3 | 12.6 |
| Semi-mature | 22.2 | 17.7 | 39.4 | 0.6 | 0.1 | 0.4 |
| Fruit trees | 3.4 | 8.5 | 11.9 | 0.5 | 1.0 | 1.2 |
| Rootstocks | 6.2 | 11.3 | 7.2 | 0.0 | 0.0 | 0.3 |
| Conifers | | | | | | |
| Forest transplants | 22.0 | 12.2 | 8.2 | 0.0 | 0.2 | 0.1 |
| Other conifers | 12.4 | 13.9 | 10.6 | 10.3 | 7.0 | 9.0 |
| Other ornamentals | | | | | | |
| Roses | 23.1 | 24.1 | 22.3 | 0.4 | 1.3 | 1.5 |
| Liners | 2.8 | 1.4 | 0.3 | 12.6 | 8.0 | 6.1 |
| Shrubs for retail | 10.1 | 9.7 | 6.3 | 46.9 | 46.5 | 60.3 |
| Herbaceous ¹ | - | 1.5 | 0.6 | - | 10.2 | 11.2 |
| Other | 5.8 | 7.2 | 1.7 | 21.0 | 6.0 | 7.8 |
| Total | 226.7 | 265.5 | 303.7 | 99.2 | 88.7 | 120.0 |

Table 1.3
Value of the Different Plant Product Categories, 1999 (€)

| Product | Field | Containers | Total |
|---------------------------|------------------|-------------------|-------------------|
| Deciduous trees | | | |
| Transplants | 312,879 | 371,387 | 684,267 |
| Whips and feathered trees | 642,546 | 566,003 | 1,208,549 |
| Standards/half standards | 2,643,108 | 1,417,516 | 4,060,624 |
| Semi-mature | 1,473,982 | 65,288 | 1,539,270 |
| Fruit trees | 168,324 | 113,871 | 282,195 |
| Rootstocks | 53,264 | 23,362 | 76,626 |
| Conifers | | | |
| Forest transplants | 132,642 | 3,297 | 135,940 |
| Other conifers | 311,756 | 1,398,269 | 1,710,026 |
| Other ornamentals | | | |
| Roses and rose rootstocks | 689,384 | 282,556 | 971,940 |
| Liners | 3,709 | 1,817,689 | 1,821,397 |
| Shrubs for retail | 194,272 | 11,554,116 | 11,748,387 |
| Herbaceous | 16,587 | 4,000,585 | 4,017,172 |
| Other | 73,239 | 2,248,144 | 2,321,382 |
| Total | 6,715,692 | 23,862,084 | 30,577,776 |

Table 1.4
Estimated Value of Exports by the Nursery Stock Industry, 1999 (€)

| Product | Market destination | | | Total |
|------------------------|--------------------|------------------|----------------|------------------|
| | N. Ireland | Gr. Britain | Other | |
| Transplants from Seed | 174,598 | 2,256 | – | 176,853 |
| Whips, Feathered Trees | 31,739 | 32,357 | 5,142 | 69,239 |
| Half-Standards | 323,721 | 260,289 | 482,486 | 1,066,496 |
| Semi-Mature | 175,123 | – | – | 175,123 |
| Fruit Trees | 31,699 | 20,549 | – | 52,249 |
| Rootstocks | 0 | 12,697 | – | 12,697 |
| Forest Transplants | 736 | 1,503 | – | 2,241 |
| Conifers – Other | 124,699 | – | – | 124,699 |
| Roses | 78,263 | – | – | 78,263 |
| Liners | 167,970 | 596,400 | 79,039 | 843,408 |
| Shrubs for retail | 684,704 | 1,248,577 | 120,545 | 2,053,826 |
| Herbaceous | 305,788 | 105,207 | 14,170 | 425,165 |
| Other | 120,340 | 174,044 | – | 294,384 |
| Total | 2,219,380 | 2,453,881 | 701,382 | 5,374,641 |

Table 1.5
Estimated Value of Imports by the Nursery Stock Industry, 1999 (€)

| Product | Origin | | | | Total |
|------------------------|---------------|------------------|------------------|----------------|------------------|
| | N. Ireland | Gr. Britain | Netherlands | Other | |
| Transplants from Seed | 0 | 19,343 | 621,743 | 114,023 | 755,108 |
| Whips, Feathered Trees | 406 | 22,630 | 410,080 | 57,977 | 491,093 |
| Half-Standards | – | 320,339 | 468,894 | 20,030 | 809,261 |
| Semi-Mature | – | – | 59,987 | – | 59,987 |
| Fruit Trees | – | 55,896 | 77,537 | 38,218 | 171,651 |
| Rootstocks | – | 11,872 | 115,550 | 108,842 | 236,266 |
| Forest Transplants | – | 896 | 18,792 | 7,169 | 26,855 |
| Conifers – Other | 406 | 7,689 | 67,777 | 39,805 | 115,677 |
| Roses | 444 | 137,269 | 60,946 | 2,384 | 201,043 |
| Liners | 7,694 | 663,158 | 639,257 | 145,475 | 1,455,584 |
| Shrubs for retail | 667 | 30,981 | 548,578 | 234,882 | 815,107 |
| Herbaceous | 2,254 | 21,041 | 27,173 | 11,629 | 62,097 |
| Other | 3,174 | 48,162 | 31,571 | 43,994 | 126,901 |
| Total | 15,046 | 1,339,276 | 3,147,883 | 824,428 | 5,326,634 |

Table 1.6
Importing Nursery Stock into Ireland – Reasons Cited, 2000

| Reasons for importing | Responses given |
|---------------------------------|-----------------|
| Not available in Ireland | 70 |
| Cheaper price | 25 |
| Better quality | 19 |
| Better delivery and reliability | 8 |
| Plants difficult to grow | 2 |



APPENDIX 2: Bedding and Pot Plant Survey Tables

Table 2.1
Number of Growers by County 2001

| | Number of Growers | Percent |
|--------------|-------------------|------------|
| Cork | 16 | 21 |
| Dublin | 11 | 15 |
| Meath | 9 | 12 |
| Wexford | 7 | 9 |
| Wicklow | 6 | 8 |
| Louth | 5 | 7 |
| Carlow | 3 | 4 |
| Galway | 3 | 4 |
| Kildare | 3 | 4 |
| Kilkenny | 2 | 3 |
| Laois | 2 | 3 |
| Longford | 2 | 3 |
| Roscommon | 2 | 3 |
| Westmeath | 2 | 3 |
| Mayo | 1 | 1 |
| Waterford | 1 | 1 |
| Total | 75 | 100 |

Table 2.2
Greenhouse Area 2001

| | Hectares | Acres |
|-------------------------------------|-----------|-----------|
| Glasshouse area | 18 | 44 |
| Glasshouse area heated | 14 | 34 |
| Tunnel area | 6 | 16 |
| Tunnel area heated | 2 | 6 |
| Total Greenhouse Area | 24 | 60 |
| Total Greenhouse Area heated | 16 | 40 |

Table 2.3
Greenhouse Heating Systems 2001

| | Glasshouse | | Tunnel | |
|--------------|------------|--------------|-----------|-------------|
| | Count | Percent | Count | Percent |
| Hot Air | 15 | 28% | 7 | 18% |
| Hot Water | 11 | 21% | 2 | 5% |
| Undefined | 18 | 34% | 9 | 24% |
| None | 11 | 21% | 20 | 53% |
| Total | 53 | 104%* | 38 | 100% |

*some growers stated more than one heating type

Table 2.4
Average Area Grown by Crop Type 2001

| | Hectares | Acres |
|-----------------------------|----------|-------|
| Bedding Plants Acreage | 0.1 | 0.275 |
| Patio/Basket Plants Acreage | 0.1 | 0.3 |
| Pot Plant Acreage | 0.0 | 0.1 |
| Foilage Plant Acreage | 0.1 | 0.2 |

Table 2.5
Bedding Plant Varieties Summary 2001

| | Number of Growers | Rank 1 | Rank 1-3 | Rank 1-5 |
|------------------------------|-------------------|--------|----------|----------|
| <i>Petunia</i> | 69 | 20% | 51% | 75% |
| <i>Impatiens</i> F1 Hybrids | 66 | 20% | 56% | 72% |
| Pansy | 68 | 34% | 56% | 65% |
| <i>Lobelia</i> | 65 | 7% | 34% | 59% |
| <i>Begonia Semperflorens</i> | 66 | 7% | 30% | 52% |
| Marigolds | 67 | 6% | 28% | 51% |
| <i>Alyssum</i> | 61 | 3% | 10% | 27% |
| Geranium F1 Bedding | 58 | 3% | 14% | 23% |
| Antirrhinum | 56 | 0% | 1% | 7% |
| Dianthus | 53 | 1% | 1% | 6% |
| Dahlias | 64 | 0% | 4% | 4% |
| Mesembryanthemum | 37 | 0% | 1% | 4% |
| <i>Verbena</i> | 56 | 0% | 0% | 4% |
| Nemesia | 48 | 0% | 1% | 3% |
| <i>Salvia</i> | 60 | 0% | 1% | 3% |
| Tagetes | 35 | 0% | 1% | 3% |
| Asters | 45 | 0% | 1% | 1% |
| <i>Ageratum</i> | 53 | 0% | 0% | 1% |
| Carnation | 39 | 0% | 1% | 1% |
| Sweet Pea | 56 | 0% | 1% | 1% |
| Stock | 48 | 0% | 0% | 0% |
| Total | 72 | | | |

Table 2.6
Patio/Basket Plant Varieties Summary 2001

| | Number of Growers | Rank 1 | Rank 1-3 | Rank 1-5 |
|-------------------------|-------------------|--------|----------|----------|
| <i>Surfinia</i> | 69 | 52% | 73% | 79% |
| <i>Fuschia</i> | 59 | 6% | 35% | 56% |
| Zonal geranium | 54 | 23% | 45% | 55% |
| <i>Bacopa</i> | 60 | 0% | 24% | 51% |
| Trailing <i>Petunia</i> | 58 | 13% | 32% | 37% |
| <i>Verbena</i> | 65 | 1% | 13% | 31% |
| Ivy leaf geranium | 56 | 0% | 25% | 28% |
| <i>Bidens</i> | 58 | 0% | 13% | 24% |
| Brachycome | 48 | 0% | 1% | 20% |
| Osteosperm+B119um | 50 | 3% | 8% | 18% |
| Diascia | 45 | 0% | 6% | 17% |
| Marguerite | 38 | 0% | 4% | 10% |
| Helichrysum | 40 | 0% | 3% | 4% |
| Trailing Antirrhinum | 20 | 0% | 4% | 4% |
| Plectranthus | 25 | 3% | 3% | 3% |
| Total | 71 | | | |

Table 2.7
Pot Plant Varieties Summary 2001

| | Number of Growers | Rank 1 | Rank 1-3 |
|-----------------|-------------------|--------|----------|
| Primroses | 40 | 68% | 89% |
| Chrysanthemums | 21 | 14% | 41% |
| Poinsettias | 14 | 19% | 32% |
| <i>Cyclamen</i> | 12 | 0% | 22% |
| Total | 47 | | |

Table 2.8
Bedding and Pot Plants Output Destination 2001

| | Number of Growers | Percent |
|------------------------|-------------------|------------|
| Exports some of output | 4 | 5 |
| Does not export any | 69 | 92 |
| Not stated | 2 | 3 |
| Total | 75 | 100 |

APPENDIX 3: Bulb Survey Tables

Table 3.1
Number of Bulb Growers by County 2001

| | Number of Growers | Percent |
|--------------|-------------------|-------------|
| Cork | 11 | 48% |
| Mayo | 3 | 13% |
| Offaly | 2 | 9% |
| Kilkenny | 2 | 9% |
| Westmeath | 1 | 4% |
| Waterford | 1 | 4% |
| Louth | 1 | 4% |
| Tipperary | 1 | 4% |
| Meath | 1 | 4% |
| Total | 23 | 100% |

Table 3.2
Markets for Bulbs 2001

| | Hectares | Acres | Percent |
|-----------------------------|-----------|------------|---------------|
| Wholesale Market Area | 62 | 152 | 99.9% |
| Retail Market Area | 0.1 | 0.2 | 0.1% |
| Total | 62 | 152 | 100.0% |
| Not Stated | 21 | 53 | |
| Total Area Harvested | 83 | 205 | |
| Domestic Market | 18 | 45 | 28% |
| Export Market | 47 | 116 | 72% |
| Total | 65 | 161 | 100% |
| Not Stated | 18 | 44 | |
| Total Area Harvested | 83 | 205 | |

Table 3.2a
Number of Growers Harvesting Flowers from Bulb Production Area 2001

| | Number of Growers | Percent |
|-----|-------------------|---------|
| Yes | 15 | 65% |
| No | 8 | 35% |

Table 3.3
Flower Production from Bulb Production Area 2001

| Species | Number of Growers | Year 2 Average Bunches of Ten per Acre | Area Harvested | | Bunches of Ten Harvested | Average Price per Bunch of 10 | |
|----------------|-------------------|--|----------------|-------|--------------------------|-------------------------------|-------|
| | | | Hectares | Acres | | Europe | USA |
| California | 4 | 13,750 | 9 | 22 | 325,000 | €0.19 | €0.23 |
| Golden Harvest | 9 | 10,167 | 11 | 28 | 283,000 | €0.24 | €0.23 |
| Dutch Master | 6 | 9,200 | 7 | 17 | 192,900 | €0.31 | €0.24 |
| Carlton | 2 | 13,750 | 2 | 6 | 80,000 | | €0.25 |
| Gigantic Star | 2 | 15,000 | 2 | 4 | 65,000 | €0.19 | |
| Other | 4 | 13,750 | 9 | 23 | 275,000 | | |
| Not stated | 5 | 5,700 | 11 | 26 | 229,500 | | |

Table 3.4
Bulb Production by Variety 2001

| Variety | Number of Growers | Production Area | | Harvest | | Stock | | Average Price per Tonne | |
|------------------------------|-------------------|-----------------|------------|-----------|------------|------------|-------------|-------------------------|------|
| | | Hectares | Acres | Hectares | Acres | Retained | Sold | Europe | USA |
| <i>Narcissi</i> | | | | | | | | | |
| Golden Harvest | 15 | 65 | 161 | 22 | 54 | 177.0 | 691.0 | €603 | €395 |
| Dutch Master | 11 | 22 | 55 | 11 | 26 | 79.0 | 111.0 | €619 | €565 |
| California | 7 | 22 | 54 | 12 | 29 | 171.0 | 185.0 | €492 | €446 |
| Standard Value | 3 | 12 | 29 | 6 | 15 | 90.5 | 118.0 | €508 | |
| Sempre Avanti | 3 | 7 | 18 | 3 | 8 | 45.0 | 70.0 | €698 | €584 |
| Spellbinder | 6 | 6 | 15 | 0 | 0 | 0.0 | 0.0 | | |
| Carlton | 5 | 6 | 15 | 4 | 10 | 38.0 | 79.2 | €508 | €533 |
| Juanita | 4 | 6 | 15 | 1 | 1 | 6.0 | 5.0 | | €444 |
| Ice Follies | 2 | 5 | 13 | 3 | 8 | 18.0 | 20.0 | €533 | |
| Pink Pride | 1 | 3 | 8 | 2 | 5 | 18.0 | 32.0 | | €609 |
| Gigantic Star | 2 | 2 | 6 | 2 | 5 | 12.0 | 35.0 | | €457 |
| Hollywood | 2 | 2 | 6 | 2 | 6 | 22.0 | 44.0 | €498 | €571 |
| Bravoure | 2 | 2 | 5 | 1 | 3 | 20.0 | 12.0 | €730 | |
| Actaea | 1 | 2 | 5 | 1 | 4 | 18.0 | 28.0 | €1,524 | |
| Golden Ducat | 2 | 2 | 4 | 0 | 0 | 2.0 | 0.0 | | |
| Lothario | 1 | 1 | 3 | 0 | 0 | 2.0 | 3.0 | | €508 |
| Cairngorm | 2 | 1 | 3 | 0.4 | 1 | 15.0 | 0.0 | | |
| Red Devon | 2 | 1 | 3 | 1 | 3 | 15.0 | 17.0 | €546 | |
| Tamara | 2 | 1 | 3 | 0 | 0 | 0.0 | 0.0 | | |
| Malvers City | 1 | 1 | 2 | 0 | 0 | 0.0 | 0.0 | | |
| Mando | 2 | 1 | 2 | 0 | 0 | 6.0 | 0.0 | | |
| Royal Armour | 3 | 1 | 2 | 0 | 0 | 6.0 | 0.0 | | |
| Yellow Sun | 1 | 1 | 2 | 1 | 4 | 0.0 | 20.0 | | |
| Scarlet O'Hara | 1 | 1 | 2 | 0 | 0 | 2.0 | 0.0 | | |
| Millbrook | 1 | 0.4 | 1.0 | 0.0 | 0.0 | 6.0 | 0.0 | | |
| Mixed | 1 | 0.4 | 1.0 | 0.4 | 1.0 | 6.0 | 0.0 | | €476 |
| Bellisana | 1 | 0.3 | 0.7 | 0.1 | 0.2 | 4.0 | 0.0 | | |
| Mount Hood | 1 | 0.3 | 0.7 | 0.1 | 0.2 | 4.0 | 0.0 | | |
| White Lion | 1 | 0.3 | 0.7 | 0.1 | 0.2 | 3.0 | 1.0 | €825 | |
| Rhinesfeld Early Sensation | 1 | 0.2 | 0.5 | 0.1 | 0.2 | 2.0 | 0.0 | | |
| Sir Winston Churchill | 1 | 0.2 | 0.5 | 0.2 | 0.5 | 3.0 | 3.0 | €889 | |
| Changing Colours | 1 | 0.2 | 0.4 | 0.1 | 0.2 | 2.0 | 0.0 | | |
| Congress | 1 | 0.2 | 0.4 | 0.1 | 0.2 | 2.0 | 0.0 | | |
| Finland | 1 | 0.2 | 0.4 | 0.0 | 0.1 | 2.0 | 0.0 | | |
| Magnificence | 1 | 0.2 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | | |
| Orangery | 1 | 0.2 | 0.4 | 0.1 | 0.2 | 2.0 | 0.0 | | |
| Parisane | 1 | 0.2 | 0.4 | 0.1 | 0.2 | 2.0 | 0.0 | | |
| Barret Browning | 1 | 0.1 | 0.3 | 0.0 | 0.1 | 3.0 | 0.0 | | |
| Rhieling | 1 | 0.1 | 0.3 | 0.1 | 0.2 | 2.0 | 0.0 | | |
| Bridal Crown | 1 | 0.1 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | | |
| Geranium | 1 | 0.1 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | | |
| White Lyon | 1 | 0.1 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | | |
| Cassata | 1 | 0.1 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | | |
| La Riente | 1 | 0.1 | 0.2 | 0.0 | 0.0 | 0.0 | 2.0 | | €540 |
| Scarlett Gem | 1 | 0.1 | 0.2 | 0.0 | 0.1 | 1.0 | 0.0 | | |
| Tahiti | 1 | 0.1 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | | |
| Grand Soleil D'or | 1 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | | |
| Broadway Star | 1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | |
| Lemon Beauty | 1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | |
| Other | 5 | 3 | 7 | 2 | 5 | 60.0 | 20.0 | €508 | |
| Total <i>Narcissi</i> | 22 | 180 | 445 | 77 | 189 | 867 | 1496 | | |
| <i>Tulips</i> | | | | | | | | | |
| Yokohama | 1 | 2 | 5.0 | 2 | 5.0 | 14 | 10 | €2,032 | |
| Bastogne | 1 | 1 | 3.0 | 1 | 3.0 | 8 | 6 | €1,905 | |
| Cape Cod | 1 | 0.4 | 1.0 | 0.4 | 1.0 | 2 | 3 | €2,920 | |
| Purple Prince | 1 | 0.4 | 1.0 | 0.4 | 1.0 | 2 | 2 | €2,032 | |
| Total Tulips | 1 | 4 | 10 | 4 | 10 | 26 | 21 | | |
| Total | 23 | 184 | 455 | 81 | 199 | 893 | 1517 | | |



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