Trends and New Plants in the Cut Foliage Industry

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INTRODUCTION

This paper describes the approach of a cut-foliage project in Ireland called Forest Produce, based in County Kerry and producing foliage for supermarkets in the U.K. and mainland Europe.

MARKET TRENDS

In the 1970s floristry was using long-stemmed bouquets of around 70 cm — mainly carnations and chrysanthemums. Foliage was used in very small quantities, and amounted to just 3% of the total turnover in flowers. By the 1980s the stem length of single-colour bouquets had decreased to between 60 to 65 cm. The amount of foliage used per bouquet increased to about 12% because more foliage lines were available in this particular stem length range. In the current decade stem lengths used in bouquets have decreased further to about 55 cm for supermarkets and between 45 to 50 cm for florists. The amount of foliage used has increased still further, driven particularly by increased consumer awareness of nature and a desire for natural-looking floristry.

MEETING MARKET NEEDS

Detailed research is needed before a particular item can be grown for the floristry industry. Species and cultivars with potential as foliage products have to be manipulated to meet the needs of the producer and the market.

For example, growing methods can affect what you grow and the way it looks; or a change in the market could give an old product a new impetus. Adding on other items such as labels or bigger pots can change market perceptions of an otherwise unchanged plant. Establishing the production of plants for cut foliage means thinking 3 years ahead, which makes good market research essential.

NEW PLANTS AND GROWING METHODS TO MEET CURRENT MARKET TRENDS

Criteria for Foliage Production. When searching for new species or cultivars to produce foliage for floristry, bear in mind that the crop should meet the following criteria:

- Foliage stems should be straight, and 55 to 75 cm in length.
- The bulk of the volume of the foliage should be in the top (the plastic sleeves used by florists have to be filled with as few stems as possible). A pyramid shape will not fill a bouquet in the top. However, shape can be manipulated by cultivation.
- Large quantities must be available during specific periods of the year, e.g., for Easter, Mothers' Day, etc.
- You must be able to price the crop in line with market expectations while providing a return for the grower. Pricing is related to how well the foliage fills the bouquet. You can obtain a higher price per stem for species or cultivars that fill a bouquet with fewer stems.

Crops Being Investigated by Forest Produce:

***Cotinus* 'Sandor'.** A yellow-leafed cultivar, which can be used as a garden plant as well as for cut foliage. It has a good vase life, the right shape, and a long harvesting period.

***Ilex aquifolium* 'Myrtifolia'.** Exclusive cultivar, right shape and length. Low productivity but can command high prices for the Christmas market.

***Olearia macrodonta*.** The leaf shape makes this a perfect replacement for *Ilex*, which is very tough and damages other flowers when mixed in a bouquet. This plant is soft and will not damage flowers. Right stem length and shape.

***Olearia stellulata*.** It grows in the wrong pyramid shape but by pinching the top at the right time of year, the topside branches grow an extra 10 cm to produce more volume in the top. Good vase life, very high productivity, good colour.

***Ozothamnus rosmarinifolius* 'Silver Jubilee'.** Has a poor shape but can be improved by pinching. Long harvesting period, from October to May, and very attractive in bud. Good productivity but frost sensitive.

***Physocarpus opulifolius* 'Diabolo'.** A patented cultivar which can be used for cut foliage. It has red foliage and straight stems of the right length, but could do with more volume in the top. One could pinch back to obtain a spray in late autumn. The season is a bit short, leaves fall during autumn.

***Pittosporum*.** This has been used for some years as an exclusive foliage item. Only available in low quantities, mainly from France and Italy. Stem length rarely meets expectation, therefore, sold per bunch or by weight. The bouquet industry would like to use more pittosporum but development is needed to produce green, variegated, and red foliage on 55 cm stems with bushier tops.

***Prunus laurocerasus* 'Etna'.** A garden plant which can be used for cut foliage. It has a natural upside-down pyramid shape, glossy leaves, and a long production period.

***Sophora* 'Little Baby'.** Market research shows a great demand for this item. The difficulty is stem length if grown outside. Production per square metre is only moderate but it could make a good crop producing low quantities for exclusive markets. It has the right shape and very good vase life.

***Viburnum tinus* 'Spirit'.** This can be used in flower for garden planting, as a pot plant, as a cut flower, and in berry as cut foliage.

FUTURE TRENDS

In the future, the following criteria are likely to drive the development of new cut foliage lines:

- The search for higher quantities available over a longer period of the year.
- A desire to market via exclusive deals over a specific period, for a particular supermarket or wholesale outlet.
- Changes to shape, length, and colour specifications.
- Price.

If we compare the U.K. with mainland Europe we see an enormous gap in attitude towards the market. In the U.K. there is no daily auction system, so buyers are forced to plan ahead. They have to rely on producers. New lines tend to be instigated by the breeder, while in Holland they are instigated by demand at the auction. In the U.K. breeders and propagators have to plan in conjunction with foliage producers and the floristry trade to ensure success. In other words there have to be very close links between breeders, propagators, and the trade. This trend is much more advanced in the U.K. than in other countries.

Review of Techniques used at Angers to Increase Genetic Diversity

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This paper surveys various techniques to develop and select new woody ornamental cultivars. Mutagenic treatments have proved valuable in modification of characteristics such as plant habit, flower colour, earliness of flowering, or to modify chromosome number in species such as *Forsythia, Weigela, Malus, Lonicera, Clematis, Hydrangea*, and *Pelargonium* [*P.* ×*hortorum* and *P. peltatum* (syn. *P.* ×*hederaefolium*)]. Intra- or inter-specific hybridization is preferred if existing genetic diversity is broad enough and plant biology makes it possible. Combinations of these techniques have also been successfully used in *Forsythia* and *Weigela*. Genetic transformation has been developed using *Agrobacterium tumefaciens* as a vector to introduce disease resistance in *Pelargonium* and to change flower colour of *Pelargonium* and *Forsythia*.

INTRODUCTION

Whatever the plant species may be, a breeding scheme always starts with a full description of breeding objectives and the gathering of a good collection of appropriate species and cultivars; this allows us to estimate existing and available genetic diversity.

Crosses are made within the collection to create new populations of seedlings from which individuals not expressing desired traits will be weeded out. Selection is based on criteria such as frost resistance, disease resistance, plant habit, flower colour, etc. We aim to select from a population with wide genetic diversity; this diversity has to be targeted to genes which can contribute to achieve our stated breeding objectives.

To incorporate the desired genes, breeders benefit from a range of tools from conventional hybridization to the advanced genetic transformation through mutagenesis. Any selected genotype should be capable of being the mother plant of a new cultivar reproduced by cuttings or grafting.