

## **CUT FLOWERS, FOLIAGES AND POTTED PLANTS: HOW TO SELECT, CARE AND HANDLE A PRIMARY PLANTS**

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**Absrtact:** *Cut flowers, greens and potted plants are popular goods of flower industry. There are some considerations to ensure maximum attraction and maintain vase life in this article. It can be useful for growers, florists and consumers.*

**Keywords:** *cut flowers, foliages, potted plants, decorative plants, antimicrobial agents.*

Different plants has been cultivated, manipulated and used for medicine, food and inspiration all other the world since mankind appear [2]. Admized people have imaged plant biodiversity in frescoes, manuscripts, pillars, pottery, wood carving. Nowadays it is practically impossible to account for the full number of flowers that are used for gardening and decoration [3].

The commercially relevant florist plants include more than 330 species. There are known thousands of cultivars for most popular flowers. The bestsellers in most countries are roses (60%), chrysanthemums (15%), carnations (10%), lilies (5%), tulips (4%), and followed by alstroemeria, gerbera, freesia, gladiolus, snapdragons, daffodils, delphinium, tuberose, Michaelmas daisy and statice. Festive occasions play an important role in the cut flower industry. On most of these special occasions, cut flower sales increase dramaticly. Florists need to have an understanding of the reasons for the celebration and the colours, associated with it. Prices for certain colours reach a peak during festive and ceremonial occasions. For example, the red rose is a symbolic of romantic love, scarlet carnations associate with Victory day, white lilies and camomiles are popular for weddings[3].

Cut greens and cut foliage are not as important to the cut flower industry as are cut flowers. “Fillers” is another term that can literally refer to any part of a plant that is used to “fill” out an arrangement of bouquet. Typically, florists would use a few cut flower stems (e.g. roses) and then add a variety of fillers to increase the volume of bouquet or mixed bunch and add visual interest. Some of these fillers are just leaves (e.g. parlour palm, leather leaf fern, butcher's broom and broom fern), while others may be leafy sprays with small flowers (e.g. heather, baby's breath, goldenrod). The distinction between cut flower and filler is sometimes not very clear. Asters, for example, are sometimes viewed as cut flowers, while at other times they are used to fill out bouquets and are then regarded as fillers [3].

Another type of florist goods are potted flowrs, usually small and compact. Popular examples include kalanhoe, cyclamens, African violets, begonias, rhododendrons and daffodils. Potted flowers are often discarded by the buyer after

they have finished flowering. However, some potted flowers such as orchids and bromeliads are usually kept as permanent indoor plants and allowed to reflower [3].

The industry and consumers tend to measure the quality of plants primarily by the length of flowering. The time a cut flower lives after it has been harvested and put in plain water is named a vase life. Each flower has a normal, genetically determined maximum vase life. However, there are many factors that reduce it. These include food depletion, attack by fungal and bacterial diseases, fluctuation in temperature, mechanical damage, poor water quality, wilting, general water stress and the accumulation of ethylene. Another quality properties of primary cut flowers are considered to be shade, intensity and sharpness of flower colour, leaf colour and size, stem thickness and length, absence of pests and handly damage, ethylene sensitivity, stage of harvest and fragrance. Besides the visual aspects of bright colours, varying forms and textures the effect of flowers on the senses and emotions of humans is undoubtedly related to their sweet scent [3, 5].

There is no post harvest procedure that can improve the quality of cut flowers. But some important considerations to ensure maximum attraction and maintain vase life are the following:

- use only top quality flowers;
- pay attention to water quality and temperature;
- rehydrate flowers;
- keep flowers cool;
- recut stems;
- remove foliage below the water line;
- use special antimicrobial agents and foods (sugars);
- avoid ethylene;
- delete any damage foliage or flowers to reduce ethylene emission;
- ensure sufficient air circulation;
- provide natural light [3, 4, 5].

Specific on the care and handling of important florist greens and fillers is the same to standard cut flowers in most cases. As with cut flowers , the quality of cut greens is important. Make sure leaves are fully mature, but do not show any signs of ageing. Leaves that are still too young tend to be soft and wilt easily. Variegated forms should have clean, sharp and well-defined colours, as this is the real attraction of such foliage. Woody fillers should be well branched with the main stems not too thick or too woody, as this will often have a negative effect on water-uptake and wase life. As with cut flowers, cut greens benefit from being stored at reduced temperatures and high humidity [3].

The handling and care of potted flowrs is slightly different to cut flowers or greens. There are some advices to ceep you plants well-being. Most potted flowers do not like to stand in a direct draught and need good wentilation. You should inspect the soil in the pot to a depth of about 20mm regulary. If the soil still feels damp, then do not water; if it feels dry then water thoroughly. In most cases it is best to avoid wetting the foliage when watering. Keep in mind that water requirements vary from species to species. Do not display plants near ethylene-forming agents such as fruits.

Plants should be kept at an optimum temperature to prevent flowers from opening too quickly. Any broken, dead or diseased leaves and flowers should be removed [1, 3].

In conclusion it can be said that post-harvest treatments do not improve but simply help to maintain plants quality. These treatments also help flowers cope with the stress of handling and transportation. If you follow some important considerations you will ensure maximum attraction to your cut flowers, greens and potted plants.

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## RESOURCE-SAVING TECHNOLOGIES ON THE EXAMPLE OF DRIP IRRIGATION OF RED RASPBERRY

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**Abstract:** *The questions of the effectiveness of drip irrigation during the cultivation of raspberries, ensuring the maintenance of optimal moisture supply of plants, creating the conditions for obtaining the highest yield of raspberries on sod-podzolic soils of the Central region of the Non-chernozem zone of the Russian Federation, are considered.*

**Keywords:** *red raspberries, drip irrigation, cultivation, factors*

Raspberry is one of the most valuable berry crops. Its fruits are in high demand among the population, in view of the fact that they have high taste, nutrition and medicinal properties [2].

The normal growth and development of raspberries is ensured by five main factors: light, warm air, water and nutrition. These environmental elements are interconnected and indispensable in all phases of plant vegetation. At the same time, the optimal supply of plants with the main factors of life occurs in different ways,