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Drying of Flowers: The Plant Material, Drying Techniques, Storage and Their Uses

Kadam S. K., Ahirrao P. P. and Khalagre A. B.
M.Sc. Student, Department of Fruits, Vegetables, Flower crops, Post Graduate Institute of Post-Harvest Management Killa-Roha, (M.S.)

SUMMARY

In the present era, use of natural products like dry flowers and their parts has become leading choice for interior decoration in lifestyles. As compared to fresh cut flowers and other live plants, the future prospects of the dry flower industry contribute much to the country's economy. Dry flowers are used as a substitute in large quantity for interior decoration as well as other commercial purpose. They give a fresh and good look to decoration or home. For drying of flowers and their material, natural and many artificial methods are used like air drying, oven drying, press drying, etc. It is concluded that the storage life of the dry flower is as long as fresh cut flowers. So dry flowers and their material has tremendous potential in the world.

INTRODUCTION

Flowers have always remained an integral a part of man's life and love for natural flowers is an inherent instinct. Fresh flowers though quite attractive, are very expensive and short lived as well as available only during a particular season. Dried flower products on the other hand are long lasting and retain their aesthetic value irrespective of the season. The art of flower drying is a very age-old practice. Earlier dried flowers were in practice within the sort of herbarium made by botanists for the aim of identification of varied species. In 'The Florist' published in 1860, author describes the techniques of drying red rose, pansies, stock and other single flowers in sand. Though drying of flowers was documented even within the past except for the primary time the flowers were dried commercially in Germany. Dried and preserved plant materials are popular for home decor. Dried arrangements, both formal and informal, can preserve the graceful lines, textures, and colors of flowers and foliage with a subtle and gently aged appearance. Dried ornamental plant parts are generally less costly and are looked for their everlasting and attractive appearance. Drying of flowers and foliage by various methods like air drying, sun drying, oven and microwave drying, freeze drying and embedded drying are often used for creating decorative floral crafts items like cards, floral segments, wall hangings, landscapes, calendars, potpourris etc for various purposes with potpourris being the main segment of drying flower industry valuing at Rs 55 crore in India alone. The demand for dry flowers and attractive plant parts, dried floral arrangements and floral crafts has increased during the last decade. The Indian export basket comprises of 71 per cent of dry flowers which are exported to USA, Europe, Japan, Australia, far East and Russia. Various flowers respond well to drying techniques like zinnia, allium, sweetwilliam, carnation, stock, freesia, narcissus, chrysanthemum, pansy, daffodils, marigold, rose, lilies etc and foliage like ferns, aspidistra, eucalyptus, ivy, laurel, magnolia and mahonia etc. Dried material of flowers used for decorating vases, baskets, plaques, shadow boxes, and fresh flower arrangements. They also used for wall decorations; in wreaths, corsages, and leis; or as decorations on greeting cards and gift boxes. Pressed flowers and leaves framed under glass take on a fresh, life-like appearance.

Collection of Plant Material:

Nearly all parts of plant—flowers, leaves, or stems—can be dried naturally or artificially. Many compelling and decorative cones, nuts, gourds, seed pods, flowers, foliage, fruits, and even small, graceful tree branches are acquired by taking a walk-in meadow, woods, or along roadsides. Nature, with its seasonal variability, offers a huge diversity of colors, textures, shapes, and sizes of plant materials from which to select, the only limitation being the collector's imagination. There is no one time of the year to gather materials for drying, since some can be gathered every month and stored for future use.

Techniques of Flower Drying:

There are mainly two categories of dried materials, those gathered in an already dry condition and those picked fresh and in need of artificial drying. In artificial drying various techniques involved for the production of dried ornamental plant material includes air drying, press drying, embedded drying, oven drying and freeze drying,etc.

Naturally Dry Material:

Dry grasses, reeds, pine and other cones and seed pods dry naturally. They harvested when they are still in good condition, generally in the fall of the year at the end of their growing season, but before they become weathered in appearance. Usually, some grooming is all that is necessary for gathered materials. However, cones and pods may have to be washed in water and a light detergent. Fragile seed heads, like those of *Cortaderia selloana* and mature cattails, could also be sprayed with hairspray or other aerosol lacquers or plastics to stop shattering as they age. Remove seeds from pine cones to stop shedding, which can occur at a later time.

Artifical Drying:

In general, fresh materials of flowers to be dried or conserved should be picked at midday, when water and food stored in the plant parts are at low levels. Gather foliage at the peak of its growing season, and pick flowers in perfect or near-perfect condition at early maturity, but not quite at full bloom. Avoid damaged or defective flowers. Use a pointy knife or shears to chop the fabric and place them in water to stay them from wilting. Since stems dry very slowly and add unwanted bulk, remove them from flowers, leaving only an in. or two to which a wire could even be fastened. Remove leaves from branches that are to be preserved. Groom foliage so as that only the required portion is dried.

Air Drying:

This is far and away the only and least expensive method want to dry leaves and flowers. It takes little time and skill and nearly always produces satisfactory results. All flowers or stems that are semi-dry and that do not wilt readily can be used. Use a drying rack (an old screen works fine for individual specimens or tie flowers in loose bunches with rubber bands or twist-ties and hang the wrong way up in a cool, dry, well-ventilated room. Large flower heads should be hung individually. The air drying may be a quite common method of drying where plant materials are attached to rope/wire and are kept in position either in dark or within the sun for quick drying. Air drying needs a warm clean dark and well-ventilated area with low humidity.

Press Drying:

Press drying is assumed to possess been first reported in 1820.The flowers and foliage are placed between the folds of newspaper sheets or blotting papers giving some space among flowers in press drying. These sheets are kept one above the other and corrugated boards of the same size are placed in between the folded sheets so as to allow the water vapour to escape. The drying time can be reduced if the sheets are kept in oven at an appropriate temperature. The original shape of the material cannot be maintained by this method but the original colour is maintained.

Embedded drying:

Sand, borax, silica gel, sawdust, perlite and combination of these are used as media for embedding. Among these, sand and borax are cheaper but they take longer for drying. For delicate flowers like roses, dahlia, carnation etc, silica gel is the ideal drying agent. The silica gel crystals could be used for drying roses. The self indicating nature of silica gel ensured the moisture content by exhibiting blue colour when dry and pink/white, when it regains moisture from flowers.

Oven drying:

Using a microwave for drying flowers is another method to preserve flowers and other plant materials. Microwave drying, which takes only a few minutes in the oven, provides material that looks fresher and more colorful than that obtained by other methods. Also fully opened flowers were not suitable for oven drying.Oven drying of china aster flowers using white sand as the medium was the best for retention of original colour, shape and texture of dried flowers.

Glycerine drying:

Glycerine drying has been employed by several workers specially to preserve foliage. It was comparatively less costly and features a high-water attracting capacity. In glycerine drying, the quality of the product was good as moisture in flower was replaced by a mix of water and glycerine. Glycerine is an honest source for micro-organisms, so a pinch of antibiotic is important to stop microbial growth within the dried specimens.

Freeze drying:

Freeze drying plants and flowers typically leads to the foremost natural-looking preserved materials. However, this approach needs specialized and expensive equipment and is best accomplished by professionals. The most impressive method of flower preservation is freeze drying. The freeze drying with different sorts of roses and carnation and determined the freezing time and temperature at which drying was perfect to stay the standard of flowers.

Storage:

When plant parts are preserved, take utmost care to stop them from being damaged. Pack specimens in closed boxes or in sealed plastic bags containing mothballs. Put packets of colloid within the boxes to soak up any moisture within the air. Dried plant materials are highly flammable, so take precautions to stop fire hazards.

Uses of Dried Flowers:

- Vase Arrangement
- Golden Petals
- Flower Wreath
- Botanical Frame
- Wall Decore
- Gift Pack
- Festive Decoration
- Collages
- Floeal Balls
- Pomanders
- Pot Pourries
- Flower Pitchers
- Bouquet
- Floating Flowers

CONCLUSION:

Dry flowers and their materials have popularity as everlasting and ecofriendly products for indoor decoration as well as for variety of other aesthetic and commercial uses. Dry flower production is labour intensive, provides employment opportunities for a large number of workers. The need of the industry is to provide know how and training for the people to understand the concept and product range. There is large potential to develop dry flower industry in India for employment generation, besides providing self-employment. Thus, the dry flower industry as a whole can contribute immensely to area development which in turn leads to be overall development of the nation.

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