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Press Drying of Flowers and Air Drying of Pods

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ABSTRACT

Experiments were conducted to undergo different techniques used for drying of flowers (full), flower petals, pods, leaves and twigs without the usage of any desiccants. The flowers were dried without the usage of desiccants such as silica gel, glycerine, borax. Press drying is suitable very well suited in case of petals of *Hibiscus rosa-sinensis*, *Euphorbia mili*, *Chrysanthemum*, *Bougainvillea*, *Tagetes erecta*, *Cosmos sp*, *Rose*, *Pyrostegia venusta*. The twigs, pods, husks were used for product making as the dry flower is the art of using all the above parts besides the flowers.



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INTRODUCTION

India is one of the major exporters of dried flowers to the tune of 5 percent world trade in dry flowers. This industry shows a growth rate of 15 percent annually. Potpourris is a major segment of the dry flower industry valued at Rs. 55 crores in India alone (Nirmala *et al.* 2008). Easy availability of products from forests, the possibility of manpower available for labor-intensive craft making and availability of a wide range of products throughout the year are the reasons for the development of dry flower industry in India.

Dried flowers are long-lasting and can be used several times. An arrangement with dried flowers gives pleasure for several months. India has a rich flora and serves as a raw material supplier for the dried flower industry and has a potential for worth Rs.40 million market value in this sector. The beauty and value of the dried flowers are that they can be kept and cherished for years, which survive the cold of winter and heat of summer. With growing eco-consciousness, the use of more and more nature-friendly things like this comes as a natural choice for decoration.

Press drying is suitable to flowers having single petals so that a single whorl will dry soon than double petaled flowers. The important point to be considered is that during pressing and preservation of the flowers should be free from fungal attack. This can be achieved by proper monitoring.

MATERIALS AND METHODS

S. No.	Common name	Scientific name	Colour of the flower	Parts used
1.	Paper flower	<i>Bougainvillea</i>	Dark pink	Flower
2.	Jesus Thorn	<i>Euphorbia mili</i>	Pinkish	Flower
3.	China rose	<i>Hibiscus rosa-sinensis</i>	Dark red	Flower
4.	African marigold	<i>Tagetes erecta</i>	Deep orange	Flower and petals
5.	French marigold	<i>Tagetes patula</i>	Bright yellow	Fully opened flower
6.	Mexican aster	<i>Cosmos sp</i>	Yellow	Fully opened flower
7.	Chrysanthemum	<i>Dendranthema grandiflora</i>	White	Flower
8.	Youth-and-age	<i>Zinnia elegans</i>	Violet and orange	Flower with stalk
9.	Flamevine/Orange trumpet vine	<i>Pyrostegia venusta</i>	Bright orange	Half opened flower and unopened buds
10.	Rose	<i>Rosa sinensis</i>	Dark yellow	Fully opened flower

Stage of harvest

The stage of the harvest was fixed based on the nature of crop growth and flower development. Half bloom stage flowers are selected for drying at which drying is perfect and flowers retain color, shape and visual quality at its best.

Harvesting

Harvesting of half-opened flowers was done in the early morning. Immediately after harvest, the cut ends of the flower stalks were immersed in water. After bringing to the laboratory, the flowers were sorted for petal damage, pests, and diseases. Stems of uniform size were selected and trimmed to uniform length and the treatments were imposed immediately. Drying method was standardized by adopting different methods as described under each experiment.

Experiment-I

Press drying:

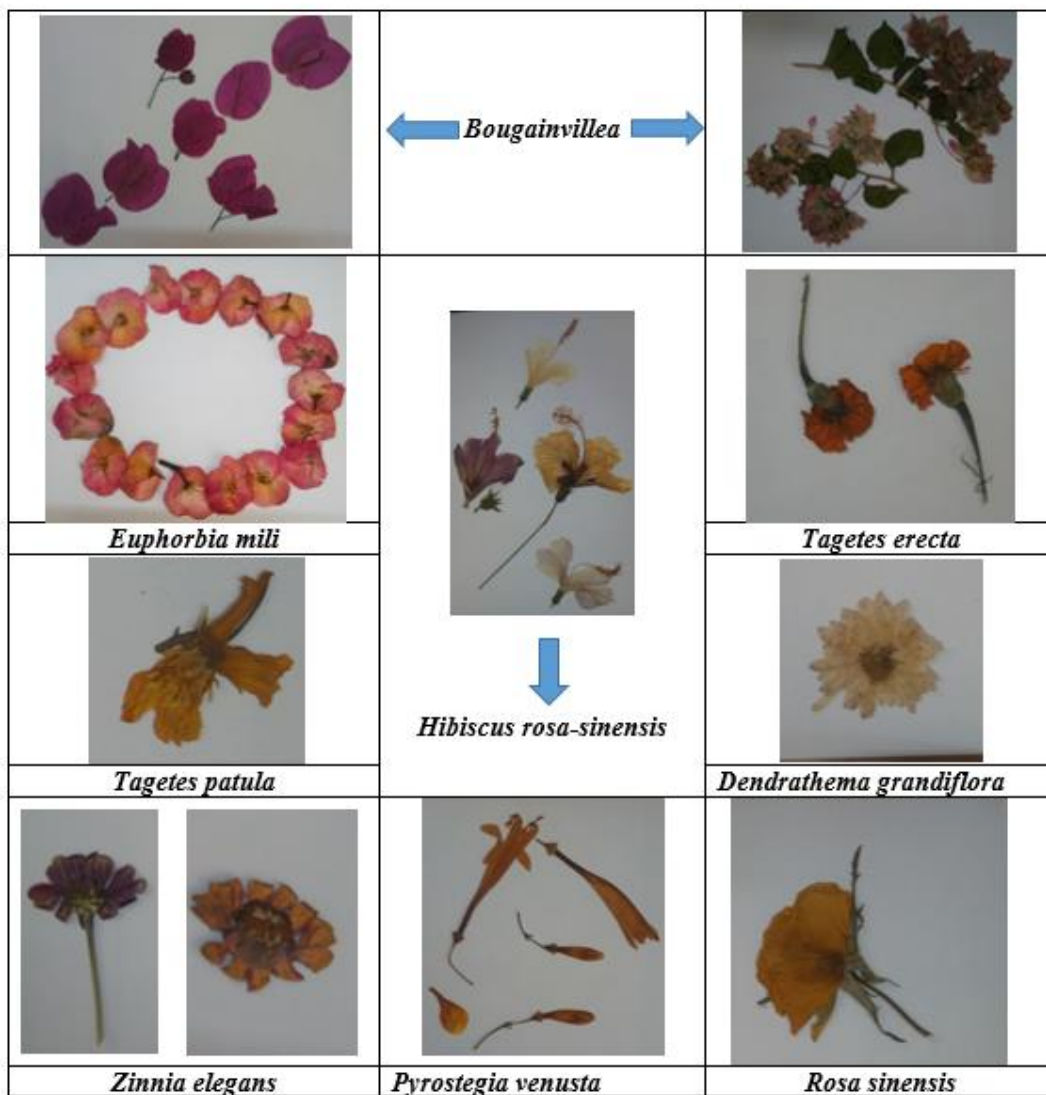
1. Place the flower between two pieces of paper and place them within the pages.
2. Depending upon the size of the book multiple flowers can be pressed at a time. Discard the flower when they are attacked by fungi.
3. Be sure that the moisture from one flower does not transfer to another. The arrangement should not be disturbed upon closing.
4. Change the blotter sheets every few days here as well. After two to three weeks, the flowers will be completely dry.
5. When removing, use a pair tweezers or very carefully use your fingers as a completely dry flower is very delicate.

Judging the endpoints

At the end of drying, the petals of the flowers were pressed with fingers to check the presence of moisture. If the moisture was still present, then the flowers were further exposed for drying for the complete elimination of moisture.

S.No	Material used	Scoring				
		EXCELLENT	VERY GOOD	GOOD	BAD	VERY BAD
1.	<i>Bougainvillea</i>	✓				NIL
2.	<i>Euphorbia mili</i>		✓			
3.	<i>Hibiscus rosa-sinensis</i>			✓		
4.	<i>Tagetes erecta</i>			✓		
5.	<i>Tagetes patula</i>			✓		
6.	<i>Cosmos sp</i>			✓		
7.	<i>Dendrathera grandiflora</i>	✓				
8.	<i>Zinnia elegans</i>			✓		
9.	<i>Pyrostegia venusta</i>			✓		
10.	<i>Rosa sinensis</i>	✓				

PRESSED FLOWERS



Experiment-II:

Air drying: Materials used: Pods of *Simaruba glauca*

Cut flowers of good quality at prime conditions or slightly immature. Remove foliage from the stems. If the stems are weak or brittle remove them and wire them. Group the stems into small bunches and tie with a rubber band (It will pull tighter while drying and does not allow the moisture to retain). Hang upside down in a warm, dry, dark area such as an attic, closet/room condition (Avoid damp room). Allow remaining until thoroughly dried.

AIR DRIER PODS (TWO DAYS)



CONCLUSION:

In a nutshell, the drying of flowers fetches more income with the freshly available raw materials. Hence, drying up should be done with periodic monitoring of the fungal attack by pathogens. In order to achieve specific shape proper placement of the floral parts are to be taken into consideration. This can be maintained as a the conservation of the different flowers similar to that of Herbarium and as a value added product greeting cards, floral wreath can be made out of it with more creative and thematic ideas.

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