



AGRI MAGAZINE

(International E-Magazine for Agricultural Articles)

Volume: 03, Issue: 02 (February, 2026)

Available online at <http://www.agrimagazine.in>

© Agri Magazine, ISSN: 3048-8656

Transforming Flowers into High-Value Floral Innovations

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Floriculture is an important component of horticulture due to the high aesthetic, economic, and commercial value of flower crops. However, flowers are highly perishable commodities and suffer significant post-harvest losses owing to their short shelf life, inadequate storage, transportation issues, and fluctuating market demand. Value addition in flower crops provides an effective approach to enhance product durability, market value, and profitability. The present study focuses on sustainable and eco-friendly value addition practices using flower crops through simple and cost-effective techniques. Various value-added products such as dried flowers, pressed flower crafts, herbal gulal prepared from Bauhinia flowers, and biodegradable bouquets from cut flowers were developed using standardized methods. These practices not only extended the shelf life of floral materials but also reduced wastage and promoted efficient resource utilization. The study highlights the economic, environmental, and social benefits of value addition, including increased income opportunities, employment generation, and encouragement of green entrepreneurship. Although challenges such as initial investment, technical skill requirements, and market variability exist, value addition in floriculture shows strong potential for sustainable agribusiness development and improved livelihoods for farmers and rural entrepreneurs.

Keywords - Natural Gulal, Income Generation, Rural Employment, Floral Crafts

Introduction

Floriculture is a central part of the horticultural science and plays a significant role in contemporary agriculture. Many flower crops including roses, marigolds, chrysanthemums, jasmine, tuberose, lilies, and orchids are cultivated in large number because of their aesthetic value and marketability. Flowers are however very delicate commodities and they do not retain their freshness after harvesting. Due to their limited lifespan, farmers often lose money due to poor storage systems, transportation problems and unpredictable market forces. In this respect, the value addition in flower crops has become significant as a good strategy to improve the quality of products and profitability. Their shelf life can be lengthened by turning them into better or modified versions of themselves, and they can also be sold at higher prices. The article also brings out the importance of value addition and the various practices associated with it and how the practice has enhanced the income generation opportunities in the floriculture industry.

Mission of value addition in flower crops

Value addition could be defined as the addition or alteration of a raw product to make it more helpful, appealing, and valuable in the market. In floriculture, it entails the conversion of fresh flowers into various products e.g. dry flowers, essential oils, perfumes, cosmetics, herbal products, natural dyes, garlands, bouquets, decorative crafts, and many others. These value-added products are more difficult to spoil, appeal to a greater number of customers, and provide growers and entrepreneurs with greater income opportunities, compared with fresh flowers.

Value Addition of Flower crops

Dry flower Production

The process of drying flowers is done to take away the moisture of fresh flowers so that their shape and color can be maintained over a long period. This is achieved through simple methods in which they include air drying, press drying, sun drying, oven drying, silica gel drying, and microwave drying. Commonly used popular flowers are rose, marigold, chrysanthemum, and statice since they do not fade out of shape after being dry. When these flowers are dry, they are commonly used to prepare potpourri, floral arrangements, wall hangings, greeting card, and other handicraft products. Dry flowers are simple to store, with long shelf life and they are also good in home ornamentation and gift giving and therefore a significant value added product in floriculture. Among the uses of dried flowers, there are many decorative and useful items that can be prepared including dried flower bouquets, potpourri, wall and door hangings, floral paintings and frames, decorative showpieces, greeting cards, bookmarks, and candle decorations. Such goods augment the beauty of the flowers and augment their demand in the market.

Press Drying

Widely used and one of the simplest methods of preserving flowers and foliage is press drying. In this process, the plant materials are flattened in between sheets of blotting papers, newspaper and the constant pressure is made. The flowers and leaves are arranged so that they are not overlapping or folded too much, which helps to preserve their natural form without disturbing the process of drying, thus press drying can also be practiced at home, placing the blotting paper with plant samples in between the heavy books. In the current study, press drying was possible to be successfully obtained in the following pictures below (1,2,3). The drying process normally takes one to two weeks, based on the thickness of the plant material. The technique can be applied to a diverse group of plants, including ferns, grasses, and flowers, hibiscus, marigold, ixora, chrysanthemum, aster, pentas, bougainvillea, plumeria, and a number of other ornamental foliage plants, thus it can be used to prepare decorative and botanical resources.



Flowers Gulal and Colores Natural

Gulal or abir is a brightly coloured powder that can bring life and happiness even in the most Hindu festivals, and more so in holi. Traditionally gulal used to be made by the use of flowers, herbs among other natural materials and therefore someone would not be able to locate herbal gulal as harmful to the skin or rather to the environment. These natural colours are not only beautiful but are good in the virtue of the medicinal plants that used to preserve the skin during long celebrations. The festival of Colours or Holi is not a mere playful festival. It is one of the times that folk come together to share happiness of joy in friendship, love and equality. The festival can be defined as singing, dancing, sweets and friends and family, and strangers are covered with colours in good mood, breaking social boundaries and leaving everyone positive. The colours of Holi are not meaningless where red represents love and fertility, yellow represents wisdom and learning, green represents nature, growth and new

beginnings, pink represents care and compassion and purple represents creativity, mystery and magic. The recent past has seen the appreciation on the use of herbal gulal as compared to the usage of chemical colour because of its reasons such as being safer to health, amiable to environment and the practice is upheld. This makes the celebration not just good, but a good and a responsible one.

Flowers used for making natural Gulal

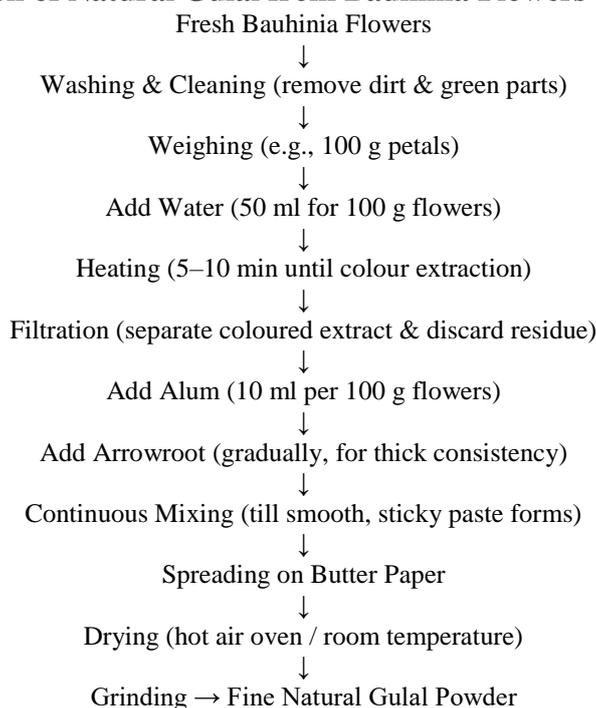
S. No	Common name	Scientific name	Colour name
1.	Marigold	<i>Agetes erecta / Tagetes patula</i>	Yellow to Orange
2.	Rose	<i>Rosa indica / Rosa damascena</i>	Pink to Red
3	Hibiscus	<i>Hibiscus rosa-sinensis</i>	Deep Red / Pink
4	Chrysanthemum	<i>Chrysanthemum indicum</i>	Yellow / White
5	Sunflower	<i>Helianthus annuus</i>	Yellow
6	Bougainvillea	<i>Bougainvillea glabra</i>	Magenta / Purple
7	Dahlia	<i>Dahlia pinnata</i>	Red / Pink / Yellow

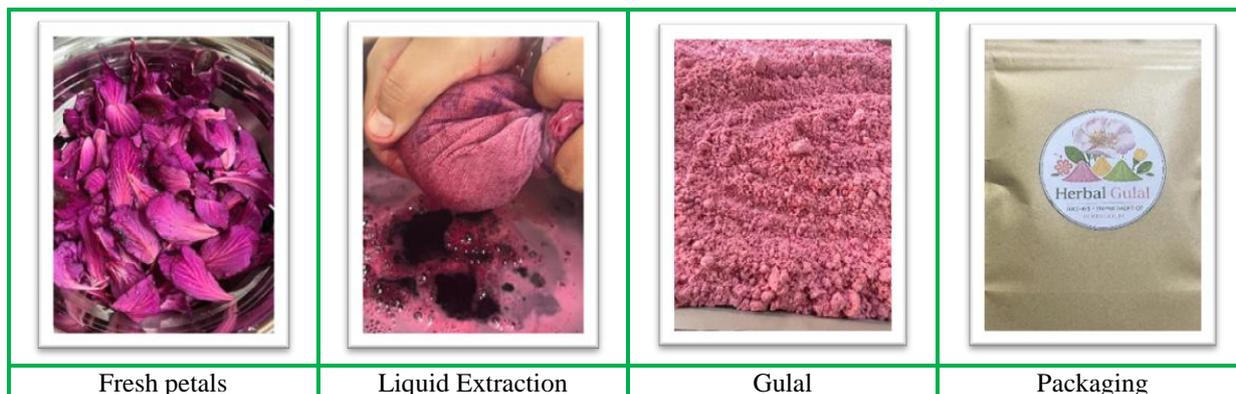
Materials and Methodology

- The blossoms of Bauhinia flowers which have just been cut
- Distilled water
- Potassium sulphate (Potassium alum)
- arrowroot powder (thickening and binding agent)
- Weighing balance
- Heating vessel / beaker
- Muslin cloth / filter paper
- Stirring rod / clean hands
- Drying tray
- Butter paper
- Dry space/ well-ventilated/ hot air oven.

The natural gulal extraction was carried out in a systematic and standard laboratory process by the use of the Bauhinia flowers. The step-wise process that was followed in the present study is elaborated below.

Flowchart: Preparation of Natural Gulal from Bauhinia Flowers





Cut flowers

Cut flowers are fresh flowers along with their stems and they are used primarily in decoration, bouquets, floral arrangements and as event purposes. They are not cultivated to be planted again but to be appreciated due to their beauty, freshness and commercial significance. They can be rose, gerbera, carnation, lily, chrysanthemum, orchid, and gladiolus. Cut flowers have gained significance in the floriculture sector, as there is high involvement in job creation, export values and cold-chain facilities. In addition to ornamentation, cut flowers are also useful raw materials in the production of essential oils, hydrosols, natural dyes, dry flower crafts, potpourri, incense, and cosmetic products, and cut flowers are processed and innovated to add additional economic value. Post harvest management of cut flowers comprises of planned procedures to ensure that quality and shelf life is preserved. The harvesting of flowers is carried out at early mornings in the right time when they are at the right stage of maturity and immediately hydrated and pre-cooled to eliminate field temperature. They are then sorted according to the length of the stems, the size of the flowers, and the freshness and then they are bunched, packaged and kept under low temperature and high relative humidity. The unsold or surplus flowers may be dried or made into value-added products like perfumes, herbal teas, ornamental items, floral papers, and natural perfumes so that unnecessary wastage and optimization could be realized. Therefore, cut flowers do not only symbolize beauty and emotion, but also a good chance of sustainable innovation and development of agribusiness

Bouquet preparation of Cut Flowers (Roses)- Eco-Friendly

The freshly cut roses were used to prepare an environmentally friendly bouquet in order to encourage sustainable as well as environmental friendly floral upkeep. The stems of roses that were healthy were picked, washed, and clipped to be of the same length, and then arranged in a careful manner to ensure that the stems are in good shape and attractive at the same time. Wrapping was done with brown craft paper rather than plastic material, and tying was done with natural jute twine, therefore, the bouquet was all biodegradable. The approach will minimize the plastic waste and promote sustainable packaging in the floriculture industry. The ready bouquet proves that it is possible to create beautiful and quality floral designs out of low cost and eco-friendly materials.



Advantages and Reflections

Pros

Value addition of flower crops adds value to their market thereby raising their prices and profitability thus allowing farmers and entrepreneurs to get more income than when they just sell fresh flowers. It assists in minimizing post-harvest losses by using the excess and non-sold flowers to produce products like dry flowers, essential oils, natural dyes, cosmetics and decorative products. Value added products also increase the shelf life, enhance product differentiation, and generate new jobs in processing, packaging and marketing fields. In addition, it promotes sustainable agriculture through efficient use of floral materials, development of products that are environmentally friendly.

Cons

Value addition in flower crops despite its benefits needs to be initially capitalized, needs technical skills and proper processing facility which might not readily be available to small scale growers. The procedures entail the use of skilled labour, quality control and standardization, which adds the production cost. Besides, the profitability can be influenced by the fluctuations of the market demand, low level of the consumer awareness, the problems of the storage and transportation. Challenges may also arise in commercialization in terms of regulatory requirements and product certification.

Conclusion

The proposed research is devoted to the production of value-added products of flower crops in a green manner and with the use of simple and sustainable methods. Using original techniques and self-made materials, different products were created: dried flower crafts, pressed flower art, herbal gulal, and biodegradable bouquets. These results reveal that floriculture-based value addition has a great potential in developing sustainably through efficient use of resources, minimization of waste, and encouraging green entrepreneurship.

References

1. De, L. C. (2020). Value addition in flowers. *Vigyan Varta*, 1(3), 10-15.
2. Mir, S., Shinde, B. M., Chaskar, M. G., & Jana, M. M. (2019). Dry flowers and floral craft: For better subsistence and women empowerment. *International Journal of Research and Analytical Reviews*, 6(1), 209-213.
3. Birsanta, G. (2022). *Studies on The Preparation Of Herbal Gulal* (Doctoral Dissertation, Dr Yashwant Singh Parmar University Of Horticulture And Forestry).
4. Mebakerlin, M. S., & Chakravorty, S. (2015). Value addition in flowers. In *Value Addition of Horticultural Crops: Recent Trends and Future Directions* (pp. 83-99). New Delhi: Springer India