International Journal of Advance and Applied Research (IJAAR)
Peer Reviewed Bi-Monthly

ISSN – 2347-7075
Impact Factor – 0.899
Vol.2 No.1 Sept - Oct 2014

FLORICULTURE PRODUCTION IN INDIA

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ABSTRACT:

These articles consider the floriculture production in India. Floriculture is one of the branch of agriculture that known as horticulture. Floriculture is becoming a profitable agri-business throughout the world. World Floriculture Production is growing at a rate of 8-10 per cent. There are nearly 120 countries that are active in floriculture production on a large scale. In India, commercial Floriculture is ongoing development but have a long tradition of various types of flowers. The Climatic conditions of India are quite suitable for growing various types of flowers in various zones. Especially, Tamil Nadu, Karnataka, Andhra Pradesh, West Bengal, Maharashtra, Gujarat, Delhi those are the major developed states as far as concern to floriculture .The article ends by describing highlights of problems of floriculture production.

Keywords: Loose flowers, cut flowers, production.

INTRODUCTION:

Floriculture is becoming a profitable agri-business throughout the world. World Floriculture Production is growing at a rate of 8-10 per cent. There are nearly 120 countries that are active in floriculture production on a large scale. It is estimated that the total area under floriculture in the world, both under protected area as well as open cultivation is over 2,20,000 hectares. Floriculture is an emerging area with great potential both in the domestic as well as export market. In India, commercial Floriculture is ongoing development but have a long tradition of various types of flowers. The Climatic conditions of India are quite suitable for growing various types of flowers in various zones. Especially, Tamil Nadu, Karnataka, Andhra Pradesh, West Bengal, Maharashtra, Gujarat, Delhi those are the major developed states as far as concern to floriculture. The

major flowers grown in India are marigold, aster, roses, tube rose, gladiolus, jasmine and crossandra in open field while gerbera, carnation, roses, anthurium, orchids, etc. grown under green house conditions.

OBJECTIVES:

1. To study concept of floriculture.
2. To study the production of Indian floriculture business.
3. To highlight the floriculture production problems in India.
4. To study the development of floriculture business.

DATA BASE AND RESEARCH METHODOLOGY:

The present research study mainly based upon secondary data. The secondary will be collected from the library and internet search. The reference books, reports and journals, articles, magazine on the Indian floriculture business will be used .The collected secondary data will be classified and tabulated in the light of objective.

CONCEPTS OF FLOWERS:

Floriculture is one of the branch of agriculture that known as horticulture. The term horticulture is derived from two Latin words 'hortus' meaning a garden, and 'cultura', meaning cultivation of crops within a protected enclose. This called a garden. At present, fruits, vegetables, flowers, ornamentals are growing not only within the home grounds, but also in large quantities on a commercial scale. Floriculture deals with cultivation, marketing and arranging of flowers and foliage plants.

The Floriculture industry consists in growing annual, biennial and perennial plants either under glass or outdoors, and in the disposal of the same in wholesale or retail market. In general, business of traditional as well as non-traditional flowers and dry flower industry is called floriculture industry. It includes production, processing and marketing of all types of flowers. There are two types of production i.e. open field cultivation and green house (controlled) cultivation, while processing is concern to dry flower processing units. Marketing includes local markets, regulated internal markets and international markets. Component of marketing channels are producer, hundekari, commission agents, wholesalers, retailers and consumers.

As per nature and form of use, flowers can be classifies in following terms.

A. Loose Flowers:

In India, the use of flowers of all categories was very common until recently making garlands for worship and bouquets for religious function. Some kinds of flowers plants are discarded after the one crop, those flowers picking up as loose flowers i.e., marigold, aster, lilies, chrysanthemum, jai-jue, bijali, dalia, tuberose etc. are called loose flowers, those packing in losse (kg) form. However, the use of these loose flowers is maximizing during festive seasons of Dashera, Diwali, and Ganesh. All these flowers cultivated traditionally.

B. Cut Flowers:

Some flower plants are continued in growth. The new shoots, which develop below the place where the flower stem was cut, eventually form flowers that are cut and the procedure is repeated until it is determined that would be economic advantage in replacing the plants. Those flowers picking up with some lengths i.e. gerbera carnation, rose, orchids, tuberose etc. are cut flowers, those packing in bunch or pairs form, apart from them gerbera and carnation produced under green house only. The production of cut flowers depend upon region and climate, therefore, it was difficult to make them available throughout the year under open cultivation, the production of cut flowers tried in all seasons, but it failed the quality standards. Progressive farmer and entrepreneurs grows cut flowers under green house. The period between Novembers to May is the best season for export of cut flowers produced under green house.

PRODUCTION SCENARIO IN INDIA:

Area and production of flowers under both green house and open field cultivation observed increasing trends in India. It is interesting to look at the figures of area and production in India over the period of time. Details of the period 2000-2001 to 2010-2011 is presented in Table 1:

Table 1: Area and Production of Flowers in India.

Sr. No.	Year	Area (000'ha)	Production	
			Loose Flower (000MT)	Cut Flower (Million Nos.)
1	2000-2001	98 (6.59)	556 (6.54)	804 (0.29)
2	2001-2002	106 (7.12)	535 (6.29)	2565 (0.92)
3	2002-2003	70 (4.70)	735 (8.64)	2060 (0.74)
4	2003-2004	101 (6.79)	580 (6.82)	1793 (0.65)
5	2004-2005	116 (7.79)	655 (7.70)	1952 (0.70)
6	2005-2006	146 (9.81)	654 (7.69)	2920 (1.05)
7	2006-2007	144 (9.68)	880 (10.35)	37175 (13.44)
8	2007-2008	166 (11.15)	868 (10.21)	43654 (15.78)
9	2008-2009	167 (11.22)	987 (11.61)	47942 (17.33)
10	2009-2010	183 (12.30)	1021 (12.01)	66671 (24.10)
11	2010-2011	191 (12.84)	1031 (12.13)	69027 (24.96)
	Total	1488	8502	276563

Source: NHB Data Base 2011

(Figures in the bracket indicate percentage to respective total).

Above table 1 shows that area and production of flowers in India. The estimated area under floriculture in the country has increased from 98,000 hectares in 2000-2001 to 191,000 hectares in 2010-2011. There was a decline in 2002-2003 and 2003-2004 but in subsequent years, the growth has been steady. The production of loose flowers increased from 556,000 metric Tonnes in 2000-2001 to 1031,000 metric Tonnes in 2010-2011. There was a sharp rise in production in 2002-2003 but it declined in 2003-2004. During 2005-2006, there was marginal decline in comparison to 2004-2005. However, again there was a sharp rise in 2006-2007 but it marginally declined in 2007-2008. The cut flower production decreased during 2002-2003 and 2003-2004 but from 2004-2005 till 2007-2008, the raise was steady and quite significant. It was observed that with increased in cut flowers in the recent years, traditional flower cultivation (i.e. loose flower) has not increased. However, in the year 2010-2011, there was a sharp rise in both cut flowers and traditional flower cultivation.

Table 2: State wise Floriculture Production

States	Loose Flowers-[000MTS]	Cut Flowers-[Lakhs nos]
West Bengal	59	23919
Andhra Pradesh	134	6202
Arunachal Pradesh	0	2860
Karnataka	2994	5860
Gujarat	50	5063
Haryana	60	1084
Orissa	4	5911
Maharashtra	91	7914
Uttrakhand	2	3416
Jammu & Kashmir	0.6	605
All India	1031	69027

Source: Indian Horticulture Database 2011.

West Bengal has emerged as the largest cut flowers producing state followed by Andhra Pradesh, Arunachal Pradesh, Karnataka, Gujarat, Haryana, Orissa, Maharashtra, Uttrakhand and Jammu & Kashmir. This reflects the growing interest in expanding floriculture activity across the country especially in the states where favorable climatic conditions for flowers do exist. The details of production in various states are given in the table 2 above.

The country is bestowed with ideal temperate conditions for commercial floriculture throughout the year in some or the other region. This has helped in entrepreneurs and growers recognizing diversification into floriculture as a commercially viable activity.

Indian culture has traditionally seen the use of flowers in ceremonial activities, divine worship apart from decoration. With growth in floriculture production in the country, the domestic market has also expanded several folds. An Assoc ham study conducted recently has brought to light that India's floriculture industry which is growing at a compounded annual growth rate (CAGR) of about 30% is likely to cross the Rs. 8000 cores mark by the year 2015 over and above, the 191000 Ha under flower production in the country, hi-tech protective cultivation is also taking place in around 600 ha of land area.

CUT FLOWER PRODUCTION FACTORS: (OTHERS)

Growing a variety of cut flowers harvested throughout the season is usually more profitable than specializing in one variety other physical factors such as growing methods, climate, soil conditions, water quality, labor, distance to market and capital available should also considered when deciding on the varieties to be grown .

1. Growing Methods:

There are three main growing methods used to produce cut flowers. Green houses, shade houses and field beds are all used to produce flowers. Some flowers are usually greenhouse grown and some are grown outdoors and other growers combine all methods to produce flowers.

Northern areas of the United States will need heated greenhouse for production, but Florida growers may only need a shade house. Field beds are used for outdoor production of flowers. A walk – in cooler and grading area will be needed for grading and storage of harvested flowers.

2. Climate:

The local climate affects all three methods of flower growing. Heating costs during winter cut into profits of northern greenhouse growers. Crops grown at cooler temperatures should be considered other greenhouse crops such as carnations may need to be cooled for optimum growing conditions.

Last frost and first frost dates affect field growing of cut flowers production plans and scheduling revolve around these dates, cut flowers grow best in full sun. Prevailing winds should also be considered when growing in fields or greenhouses. Irrigation, will be necessary in dry climates.

3. Soil Conditions:

Cut flowers grow best in deep, well-drained soil, flowers can be grown in benches or in soil beds in greenhouses. Field-grown flowers are also normally raised in beds.

Beds should be raised four to six inches for better drainage and oriented north-south for maximum light absorption. Normal flower-growing bed dimensions are 3 ½ feet wide and 125 feet long. These dimensions vary by grower and with the available land area.

Soil type, soil pH, nutrient availability and soil texture are all critical in growing quality flowers. Soils should be tested prior to production, recommended soil pH for most field-grown flowers is 6.5 to 7.0

Fertilizers should be added and tilled in according to soil test results. Good soil drainage is also critical. Organic matter should be added and worked into the beds.

4. Water Quality and Irrigation Systems:

Quality water is required for all types of cut flower production. Water should be tested prior to production. Water is another key input. If roses go without water for 24 hours, replanting may be necessary and this is expensive farms are therefore located in areas where water supply is assured. Deliberate steps are taken (through reservoirs, boreholes, etc.) to ensure that water availability is at least twice as much as demand at any time. Sources of water include springs, rivers and boreholes.

Drip irrigation is the system most commonly used, being the most efficient available. Six farms used drip irrigation while the remaining two used over head sprinklers.

5. Production of Planting Material and Chemicals:

The requirement of planting material for cut flower production was mainly met through introduction of seed (marigold, statice, bird of paradise), bulbs (lily, gladiolus, calla lily), cuttings (carnation, chrysanthemum Jasmine), divisions (gerbera, aster, peacock, red ginger, heliconia, torch ginger, alstroemeria, tuberose) and budding and grafting (rose). In addition, as mentioned earlier, micro propitiation (tissue culture) was used for mass production of planting material for various species.

The production of flowers involves the use of large amounts of chemicals, mostly during cultivation but also in post-harvest quality control four types are used in cultivation-fertilizers, fungicides, insecticides and fumigants-while post-harvest chemicals include nematocides and sterilants, foliar feeds, wetting agents, and acaricides. Frequency of use depends on weather and flower variety. Complaints hand that most of the chemicals used in the flower industry have not been registered under the Tropical Pesticides Research Institute (TPRI) and their availability is a problem, only three companies are registered importers of some chemicals-Balton Tanzania Limited, By trade (T) and Tri-Chem. An outbreak of diseases commonly finds the registered companies out of stock.

6. Labour and Working Facilities:

Cut flower production is very labour intensive, much of the production costs are labor related. A quality labor pool will be necessary.

Workers need to use protective gear against chemicals. Uniforms/overcoats, masks sun-glasses, boots, gloves and respirators were found to be in common use sprayers, slide rules (for measuring stem height), trolleys, etc, are provided for particular tasks. At the horticulture farm and exports cold storage, workers are provided with special jackets.

7. Distance to Market:

Transportation costs will affect profitability. Growers closer to the market will have market advantages over other growers.

8. Available Capital:

Will affect all aspects of production plan before producing.

9. Method of Cultivation of Cut Flowers:

Open field cultivation has been a traditional practice, which is a relatively cheaper method. In modern "Hi-tech" method, the cut flowers are grown in poly-houses/greenhouses requiring high capital investment. But the quality of flowers produced is superior, because inside climate or microclimate such as temperature, humidity, light ventilation etc is controlled. Even water application is also controlled. Therefore, the qualities of flowers are better. They are uniform in size, clour, freshness etc. moreover flowers can be produced throughout the year to meet the market demand, domestic as well as foreign. Since flowers are of better quality, they fetch higher prices [http:ll www.indiaagronet.com]

BENEFITS/ADVANTAGES OF CUT FLOWER PRODUCTION:

The production of cut flowers offers several opportunities and advantages.

1) It is an important way to diversify farmers operation.
2) It provides an excellent income supplement.
3) Cut flowers are relatively easy to grow & inexpensive to produce.
4) Flowers add beauty to farm and home.
5) Cut flower market is expanding very fast.
6) Growing flowers could be therapeutic for growers with health problem
7) Flowers attract bees and other beneficial insects.

PROBLEMS OF FLORICULTURE PRODUCTION:

The following are production problems in the flower industry:

1. Poor infrastructure (feeder roads)
2. Unavailability of chemicals.

3. Low international prices.
4. Lack of research and development on the industry to the extent that even small problems need seeking solutions from abroad.
5. Inadequacy of land in the case of some farms which necessitates the replacement of crops.
6. Inadequacy of investment and insufficient working capital.
7. Scarcity of experts and over dependency on expatriate consultants.
8. Too much rainfall- for example EL Nino-causes an outbreak of fungal diseases such as downy mildew and botrytis and the flooding of greenhouses.
9. High temperatures cause the over-ripening of flowers and hence negativity affect quality.
10. Too much wind wears out the roofing materials of greenhouses, causing the scorching of flowers.

CONCLUSION:

1. World floriculture production is growing at a rate of 8-10% per annum.
2. Especially, Tamil Nadu, Karnataka, Andhra Pradesh, West Bengal, Maharashtra, Gujarat, Delhi those are the major developed states as far as concern to floriculture.
3. Floriculture is an emerging area with great potential both in the domestic as well as export market.
4. Area and production of flowers under both green house and open field cultivation observed increasing trends in India.

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