MODERN TRENDING WORK IN FLORICULTURE & URBAN AND PRE-URBAN HORTICULTURE APPROACH.



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Abstract- There has been a speedy stride in urbanisation with the increase in world population, predictable to double in 30 years. According to an estimate, India's total population will be more than 1.5 billion, the largest in the world, with the urban population of around 600 million, by 2030. There is an alteration of population from rural to urban areas in search of jobs due to growth in services and manufacturing sector. The range of numerous components in the urban and periurban ecosystem is also fluctuating continuously. Safeguarding adequate food supply, environmental pollution reduction, employment and income generation are some of the important facets of urban and peri-urban horticulture. In cities, lack of space for gardening, farming and doing others activities. Urban and Pre-urban horticulture helps to create an atmosphere of peace with beauty, which takes care about the food security and pollution control. There are various elements of this UPH, like vertical gardening, Terrace gardening, Traffic Island, Road side plantation or landscaping for Highways, Roof gardening or Kitchen gardening. Trees and other ornamental plants are crucial to the sequestration of carbon form atmosphere and play an important role in reducing carbon foot print.

Keywords- UPH, Vertical gardening, Terrace gardening, Traffic Island, Road side plantation and Carbon sequestration.

VERTICAL GARDENING:

Nowadays these vertical gardens are easily available in the market. Not only this, you can also green any wall of your house by ordering online. Vertical gardens are great for fruit plants, seasonal and perennial plants. Plants with seasonal flowers keep the wall colourful. This enhances the color, pattern and beauty of the wall for some time.

TERRACE GARDENING:

Growing plants on the roof of a house in containers, pots or grow bags is known as Rooftop Garden or Terrace Garden. By making a garden on the terrace or roof of the house, you can grow flowers, vegetables and green plants. To make a garden on the terrace, the roof of the house should be strong and water-proof, along with this there should be a good arrangement of water supply and water drainage system, so that enough water can be provided for the plants planted by you and excess water from the rain. Proper evacuation can be done. Along with this, special care should also be taken while making the garden, that the house can be protected from any kind of leakages and moisture. Making a garden on the terrace is not very expensive, you can buy a nursery for terrace garden. All the necessary items like plants or seeds, containers, grow bags, pots, gardening equipment's, garden soil or potting soil and organic manures, etc.

URBAN FARMING / HORTICULTURE GARDENING :-

Urban Farming is also known as urban agriculture. It means growing crops and raising small livestock or milk cows in small areas like vacant plots, gardens, verges, balconies and containers. It provides a source of food and income for urban dwellers. The products thus produced can be used for their own consumption or sale in neighbourhood markets. Candidates can go through the linked article to know more about agriculture in India.

SOME TECHNIQUES OF INCLUDE IN URBAN FARMING / HORTICULTURE GARDENING :-

Hydroponics:

Lt is a way to skip the soil, sub in a different material to support the roots of the plant, and grow crops directly in nutrientrich water. There are multiple approaches to designing hydroponic systems, but the core elements are essentially the same. Aquaponics:

Lt represents the relationship between water, aquatic life, bacteria, nutrient dynamics, and plants that grow together in waterways all over the world. Taking cues from nature, aquaponics harnesses the power of bio-integrating these individual

components: Exchanging the waste by-product from the fish as a food for the bacteria, to be converted into a perfect fertilizer for the plants, to return the water in a clean and safe form to the fish.

Shipping Container Farms:

Container farming is the growing of plants in shipping containers instead of planting them in the ground. Both edible, as . well as non-edible plants, can be grown in containers. Container farming lessens the problem of soil-borne diseases and eliminates weeds. This type of gardening allows for easier monitoring of moisture, temperature, and sunlight.

Rooftop Farming:

- The practice of cultivating food on the rooftop of buildings is referred to as rooftop farming.
- Backyard Gardens:
- 4 It is the practice of utilizing any kind of space in the backyard to grow and produce your own food.

TRADITIONAL / MORDEN FLOWER APPROACH IN INDIAN FLORICULTURE :- Traditional Flowers:

The steady demand for traditional flowers comes from the use of flowers for religious purposes, decoration of homes and for making garlands and wreaths. This demand is particularly strong in Kerala, Karnataka, Tamil Nadu, Odisha and West Bengal, as the use of flowers for above mentioned purposes is part of their local culture. The bulk of seasonal demand comes from festivals and marriages. The demand is generally for specific flowers.

Modern Flowers:

The bulk of the steady demand for modern flowers comes from institutions like hotels, guest houses and marriage gardens. The demand is concentrated in urban areas. With increasing modernization and globalization the demand for modern flowers from the individual consumers is likely to grow enormously as the trend of "say it with flowers" is increasing and the occasions which call for flower giving will continue to present themselves. Although there is an increasing demand for modern flowers from individuals, institutions continue to be the dominant buyers in the market. The price of these flowers also depends on their demand and varies accordingly.

GREEN HOUSE TECHNOLOGY FOR FLOWER PRODUCTION :-

In present scenario of increasing demand for cut flowers protected cultivation in green houses is the best alternative for using land and other resources more efficiently. In protected environment suitable environmental conditions for optimum plant growth are provided which ultimately provide quality products. Green House is made up of glass or plastic film, which allows the solar radiations to pass through but traps the thermal radiations emitted by plants inside and thereby provide favourable climatic conditions for plant growth. It is also used for controlling temperature, humidity and light intensity inside. On the basis of basic material used, building cost and technology used, green houses can be of three types-

4 Low-cost greenhouse :-

The low-cost green house is made of polythene sheet of 700 gauge supported on bamboos with twines and nails. Its size depends on the purpose of its utilization and availability of space. The temperature within greenhouse increases by 6-100C more than outside. 4 Medium-cost greenhouse :-

With a slightly higher cost greenhouse can be framed with GI pipe of 15 mm bore. This greenhouse has a covering of UV -stabilized

polythene of 800 gauge. The exhaust fans are used for ventilation which are thermostatically controlled. Cooling pad is used for humidifying the air entering the chamber. The greenhouse frame and glazing material have a life span of about 20 years and 2 years respectively.

Hi-tech greenhouse :-4

In this type of green house the temperature, humidity and light are automatically controlled according to specific plant needs. These are indicated through sensor or signal-receiver. Sensor measures the variables, compare the measurement to a standard value and finally recommend to run the corresponding device. Temperature control system consists of temperature sensor heating/cooling mechanism and thermostat operated fan. Similarly, relative humidity is sensed through optical tagging devices. Boiler operation, irrigation and misting systems are operated under pressure sensing system. This modern structure is highly expensive, requiring qualified operators, maintenance, care and precautions. However, these provide best conditions for export quality cut flowers and are presently used by large number of export units.

Floriculture has emerged as an important agribusiness, providing employment opportunities and entrepreneurship in both urban and rural areas. National Horticulture Board helps one to establish a flower business. Agricultural and Processed Food Products Export Development Authority helps entrepreneurs with cold storage facilities and freight subsidies. It has been found that Commercial Floriculture has higher potential per unit area than most of the field crops and therefore a lucrative business. During the last decade there has been a thrust on export of cut flowers. The export surplus has found its way into the local market influencing people in cities to purchase and use flowers in their daily lives. Floriculture thus, offers a great opportunity to farmers in terms of income generation and empowerment. Small and marginal farmers may also use every inch of their land for raising the flower and foliage crops. Floriculture also offers careers in production, marketing, export and research. One can find employment in the floriculture industry as a farm manager, plantation expert, supervisor or project coordinator. Besides, one can work as consultant or landscape architect with proper training. In addition, floriculture also provides career opportunities in service sector which include such jobs as floral designers, landscape designers, landscape architects and horticultural therapists. Research and teaching are some other avenues of employment in the field.

TROPICAL PLANTS		
ENGLISH IVY	FERNS	HAWORTHIA
DWARF COCONUT	DRAECAENA	PHILODENDRON
PEPEROMIA	ARDISIA	ECHEVERIA
CRYPTANTHUS	FITTONIA	CROTON
STRAWBERRY BEGONIA	BEGONIAS	
WOODLAND PLANTS		
FERNS	WINTERGREEN	WILD STRAWBERRY
VIOLETS	MOSSES	SEEDLING EVERGREENS

SIGNIFICANCE OF FLORICULTURE :-

Floriculture is very beneficial for us in many ways. Also, the most significant advantages of Floriculture are as follows. It generates employment for many people. In addition, the export of Floriculture products helps in foreign money exchange. After that, It also helps build strong relationships in the export market. Also, the scope of trade is enormous. There is a successive demand in the country for a wide variety of Floriculture products. Similarly, a large number of Job opportunities are available in the Research and development sector of Floriculture. Moreover, it provides health benefits along with relaxing and pleasing places. Some therapists use Floriculture crops which helps patients in recovering efficiently. Also, Flowers are utilized as religious offerings. It means they have a large market in India too.

TYPES OF FLORICULTURE:

The most popular categories of Floriculture are as follows.

- Cut Flowers
- Loose Flowers
- Cut Greens
- Potted Plants
- Flower Seed and Planting Material
- Nursery
- Lawn
- Perfumes
- Succulents,
- Bromeliads,
- Trees, shrubs,
- Climbers, bulbous plants,
- **Colour Pigments**
- **Dried Flowers**
- **Combat Pollution**
- Aesthetic Value

CONCLUSION

In Conclusion, we can conclude the Floriculture industry has many opportunities in the long run. Especially it is very beneficial to export Floriculture products. Besides, to boost the profits in Floriculture.

REFERENCES:

- Anil, K. 2019. Value addition in floriculture. Department of Horticulture, Institute of Agriculture Sciences, Banaras Hindu 1. University, Varanasi-221 005, U.P., India.
- Anil, K. Singh and Anjana S. 2017. Textbook of floriculture and Landscaping. New India Publishing Agency, 245: 224-259. 2.
- 3. Arvind, S. 2019. Vertical garden interventions at agro tourism center CCS HAU Hisar. Assistant Professor (Horticulture) Agri tourism Center. CCS Haryana Agriculture, University Hasir-125004.
- Noor, S.H., Ushijima, K., Murata, A., Yoshida, Tanabe, M., Tanigawa, T, AND Nakano, R (2014). Double flower formation 4. induced by silencing of C-class MADSbox genes and its variation among perunia cultivar. Scienta Horticulture, 178, 1-7.
- Okamaru, M., Yasuno, N., Ohtusuka, Tanaka, A., Shikazono, N., Hase, Y. (2003). Wide variety of flower-color and shape 5. mutants regenerated from leaf irradiated with ion beams. Nuclear Instructions and Methods in Physics Research Section B: Beam Interactions with Materails and Atoms, 206, 574-578.
- Patel, Dishaben K. and Chawla S.L. (2019). Hydroponics: A modern technology supporting the application of integrated crop 6. management. Floriculture and Landscaping Architecture, Department of Horticulture, College of Agriculture, J.A.U., Gujarat, India.

- 7. Srovastva, R., Datta, S.k., Sharma, S.C., and Roy, R.K. (2002). Gamma rays induced genetic variability in Bougainvellia. J. Nuclear Agriculture and Biology, 31(1), 28-36.
- 8. Yamaguchi, H., Nagatomi, S., Morishita, T., Degi, K., Tanaka, A., Shikazono, N., and Hase, Y. (2003). Mutation induced with ion beam irradiation in rose. Nuclear Instructions and methods in Physics Research Section B: Beam Interations with Material and Atoms, 206, 561-564.
- 9. Zuhal, K., Latif, G., Hakan, E. 2013. Analysis of contribution of vertical gardens to urban sustainability: The case study of Antalya city, Turkey. İnönü University. Journal of Art and Design. Cilt/Vol. 3Sayı/No.7 (2013): 55-59.