



TERRARIUM FOR URBAN GARDENING – A REVIEW

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Abstract

This article contains the content of procedure and benefits of terrarium in urban gardening and marketing of terrarium. Urban gardening is gaining attention due to its social benefits and impact on climate change adaptation. Terrariums are a technique used for growing plants in sealable glass containers, providing a balanced environment for plants. These containers can be used for indoor gardening, adding an interesting natural element to any space. Terrarium plants, such as Ferns, Mosses, Tillandsia, and Succulents, thrive in warm and humid climates. To create a successful terrarium, choose plants that thrive in the same environment, such as ferns, mosses, and Tillandsia. Urban Terrariums are sustainable public living spaces on underused municipal property, promoting interaction, coexistence, and urban vitality.

Keywords: *Terrarium, urban gardening, marketing, social benefits, climate change, Indoor sustainability*

INTRODUCTION:

Approximately 80 % of the population lives in metropolitan areas. Projections indicate that by 2020, there will be more than 500 cities with a million or more residents and that the average size of the world's 100 largest cities will be 8.5 million up from around 7.6 million in 2011 (6). While cities are considered to be the main engines of economic growth, accounting for 80 % of global Gross domestic product (GDP) while occupying only three percent of the land surface, they are severely responsible for unsustainable rates of resource consumption and environmental problems. Urban gardening is gaining academic attention due to its popularity in society and city planning, as well as its impact on climate change adaptation (1). However, there is limited scientific literature on community gardening, primarily focusing on its social benefits like stress rejuvenation and well-being. As more and more of the world's population begins to move into urban centers, it is becoming increasingly important for natural growth and gardens to find a way to survive in cities. Terrarium is one such type of techniques used for growing plants generally in a sealable glass container containing soil, and can be opened for maintenance to access the plants inside. Terrariums are a great addition to any space for a countless of reasons. It adds an intriguing natural element to any indoor space. Indoor gardening with terrariums is entertaining and one of the attractive ways to integrate plants into any home furnishings. In this paper, it is examined the literature in understanding the concept of terrarium for urban gardening.

PRINCIPLE OF TERRARIUM:

The principle of the terrarium is that the water once given in the soil put in a closed glass vessel is absorbed by the root of the plants, which is emitted in the process of perspiration from the aerial parts of the plant and accumulates on the walls of the glass vessel in the form of vapor. This vapor cools down turns into water and gets back into the soil. Due to this, the plant gets a balanced environment inside the glass vessel. If the terrarium is sealed, little care is required.

BENEFITS OF TERRARIUM:

Tropical plants require a warm and humid climate. This is the easiest, new, and cheap way to decorate the houses with greenery in those cities where the heat is more. They look very attractive and alluring.

MATERIALS REQUIRED:

Terrariums can be created using various containers, such as old jars, fused bulbs, or aquarium houses, as long as they are made of glass. The container can be open or closed depending on the plants, and a wide mouth is preferred for easier plant placement. Large containers offer a wider variety of plant types and sizes and can be filled with decorative elements like shells, figurines, or ornaments. Other materials can include rocks, pebbles, recycled glass chunks, activated charcoal, potting soil, media, moss, sand, and tools like spoons, scissors, and gloves.

TERRARIUM PLANTS:

Terrarium plants refer to specific types of plants that are best suited for thriving in the unique conditions of a terrarium environment. The most commonly used terrarium plants are Ferns, Mosses, Tillandsia, Succulents.

SELECTION OF TERRARIUM PLANTS:

To create a successful terrarium, it's essential to choose plants that thrive in the same environment. For a single terrarium, ferns and cacti should thrive in well-drained sandy soil, while rich potting soil is needed for tropical terrariums. Succulents can be incorporated into a planting plan, but no cover is needed. Choosing plants with different shapes, colours, sizes, and varieties can enhance the aesthetics of the terrarium. They should thrive in low to medium light and should have a mix of sizes, leaf textures, and colours. Some great terrarium plants include croton, pothos, dracaena, small ferns, lucky bamboo, nerve plant, prayer plant, club moss, orchids, and creeping fig.

BENEFITS OF TERRARIUM PLANTS:

Some of the benefits of terrarium plants are, they require a low maintenance as they can thrive with minimal care, making them perfect for those with busy schedule. Terrarium plants, known for their unique aesthetic and compact size, are perfect for urban dwellings due to their lush foliage and intriguing shapes (5). Terrarium plants, like most houseplants, enhance indoor air quality by filtering out harmful toxins and releasing oxygen. Terrariums offer versatility in design, allowing for creative creations in various shapes and sizes, from desert-themed to tropical oasis arrangements, allowing for a personalized and imaginative landscape.

MAKING METHOD:

To create a terrarium, create a space for extra water to prevent root rot. Place a layer of moss at the bottom, or stones, to absorb excess water. Add activated charcoal or biochar on top of the stones to help with drainage, control odour, and filter water. The rocks serve as a false drainage layer, while the activated charcoal keeps the terrarium healthy (7). The moss can be used for decoration and water retention. Add polythene or wire mesh to separate the charcoal layer from the soil layer. Add moss on top of the stones and charcoal to prevent potting soil from mixing. This is optional but adds visual interest to the terrarium. Add sterile soil-less potting mix on top of moss or charcoal to fulfil the plant's nutrient requirements and provide anchorage. The depth of potting soil should be at least a couple of inches. Measure the plants before planting to ensure they fit into the terrarium with the lid on.

MARKETING OF TERRARIUM:

Terrariums are a popular novelty item that can be popularized through various channels, including offline, online, direct sales, gift shops, and interior magazines. They can also be sold through specialists like florists and interior designers. Initially, terrariums can be marketed to hobbyists, direct sales, and specialty boutiques (4). As the product evolves, they can be used as a replacement for bouquets or garlands. Marketing strategies involving professional florists, nurserymen, and

designers, as well as gifting to chief guests, can increase visibility and reach a wider audience. When production costs are low, terrariums can be offered to a mass market through departmental stores and supermarkets.

CONCLUSION:

Terrarium for urban gardening has significantly improved living conditions by restoring nature to cities, fostering healthier and more sustainable lifestyles, and attracting new generations of gardeners to transform urban landscapes. Urban gardening offers social, economic, and environmental benefits to cities. Ecologically sustainable urbanization is impossible without urban and peri-urban agriculture, providing numerous benefits. Terrarium is an appealing interior design element with functionality of a mini greenhouse that enables the growth of decorative and useful plants. These types of novelty items will for sure help young, innovative, and creative women to open a world full of opportunities in the ornamental and decoration industry.

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