

Unearthing the Green City: The Rise of Urban Gardening

Pranjal¹, Radhika Sharma¹ and Jagmohan Singh²

¹College of Agriculture, CCS Haryana Agricultural University, Hisar, Haryana-125004

²Department of Vegetable Science, CCS Haryana Agricultural University, Hisar, Haryana -125004

Corresponding Author: jsdhillon@hau.ac.in

In the concrete jungle where skyscrapers tower and streets bustle with life, a green revolution is quietly taking root. Urban gardening, once a niche pursuit, has blossomed into a vital movement reshaping city landscape worldwide. From vacant lots to rooftop terraces, communities are rediscovering the joy and importance of cultivating green spaces within urban environments. Urban gardening, once a niche pursuit, has blossomed into a global movement, capturing the imagination of horticulture students and city dwellers alike. In the concrete jungles of our modern cities, urban gardening offers a refreshing oasis of greenery, creativity, and community engagement.

The Urban Oasis: A Growing Trend

Urban gardening encompasses a diverse array of practices, from traditional soil-based gardening to hydroponics and vertical farming. What unites these approaches is the shared goal of bringing nature back into the heart of the city.



“According to FAO reports, by 2050, more than 6 billion people will reside in urban areas, almost twice the current population of 3.5 billion. 55% of the world’s population already lives in urban areas, where 80% of food produced will be consumed in urban areas.

In India, reports by the UN state that 40.76% of the country’s population will live in urban areas by the year 2030. “

One of the most visible manifestations of this trend is the proliferation of community gardens. In cities like New York, London, and Berlin, community gardens have become beloved sanctuaries where people

from all walks of life come together to nurture plants and friendships alike.

Types of Urban Gardens

- **Rooftop farming** is a gardening in a roof space as you can easily use it to grow fruits, vegetables and herbs. Since urban areas have limited space, it does not mean agriculture cannot be practiced. They are becoming increasingly popular in cities around the world. They are a great way to use wasted space.
- **Vertical farming** is a means of urban food production that grows produce vertically, instead of on a single, horizontal plane as conventional or greenhouse. It involves stacking crops in vertically inclined structures, often utilising hydroponic or aeroponic systems.
- **Urban beekeeping**- In urban areas, keeping bee colonies practice is known as urban beekeeping. It is also known as backyard or hobby beekeeping. It is a possibility that occurs with many regulations and restrictions of the government depending on the city and location.
- **Greenhouse** are the areas for the practice of farming in commercial, residential and communal urban spaces. They are structures made out of glass or plastic that allow plants to grow in climates that would not be possible outside.
- **Green walls** are vertically constructed structures on the wall that are covered by fruits and vegetables. The green wall encompasses the growing of vegetation or food crops on the external or internal space of a wall.
- **Forest Gardening** is the practice of having grown gardens in the urban forest and is achieved by having different crops, vegetables, and fruits grown within urban settings.
- **Animal husbandry**: A is the practice of food from animals in urban areas. It is the management, cultivation, and production of domestic animals. It also includes breeding animals to increase their traits.

- **Street Landscaping** both feeds the people and beautifies the environment. In this, type of farming, grass, street trees, landscaping, plants, and others. This is the landscaping of streets for different uses such as community gardens, which are tended to by the people in the neighborhood.
- **Tactical gardens** are small gardens that are planted in unexpected places, such as vacant lots, under bridges, or on the sides of buildings. It involves utilising the limited space available to practice agriculture without incurring huge expenditure.
- **Allotment garden** is a plot or parcel of urban or suburban land made available for personal, non-commercial gardening or food growing. The size of urban agriculture depends on available space within an urban landscape and the intended use of the farm or garden.
- **Container gardening** is a popular type of urban gardening that involves growing plants in containers, such as pots, buckets, or window boxes. To optimise your urban garden, it is essential to utilise space wisely.
- **Raised beds Gardening** involves growing plants in raised beds, which are above ground level and filled with soil mix.
- **Aquaponics** is any system that combines conventional aquaculture (farming fish or other sea life) with hydroponics. It is a system of food production. In this, fish are raised in water tanks.
- **Backyard gardens Farming** is a type of urban farming carried out on the house property to grow food. It are small plots of land that are typically used to grow fruits, vegetables, and herbs. This is the growing of food on home property. Its produce is mostly shared among friends, family, and neighbors.
- **Community gardens** are collaborative spaces where individuals or groups come together to cultivate plants collectively. In some neighborhoods, housing complexes, or even downtown rooftops, a community garden can be planted by those who live and work nearby.
- **Indoor farming** is a type of urban agriculture that takes place in a controlled environment,

such as a greenhouse or an indoor farm. It involves cultivating crops in controlled indoor environments using artificial light, temperature regulation, and hydroponic systems.

General steps to practice Urban Gardening

1. Choosing the Right Location
2. Selecting Suitable Containers or Vertical Gardening Options
3. Selecting the Right Plants for Limited Spaces
4. Optimal Crops for Urban Gardening
5. Maximizing Yield in Confined Areas
6. Soil, Watering, and Sunlight Considerations
7. Importance of Quality Soil in Limited Spaces

Greening the Concrete: Transforming Urban Spaces

Beyond community gardens, urban gardening is transforming neglected urban spaces into vibrant green oases. Vacant lots, once eyesores marred by litter and overgrowth, are being repurposed as thriving urban farms and pocket parks. These projects not only beautify neighborhoods but also help mitigate the urban heat island effect, improve air quality, and provide habitats for local wildlife.

Moreover, innovative approaches like vertical gardening and rooftop farming are maximizing limited space in densely populated cities. By utilizing vertical surfaces and underutilized rooftops, urbanites are able to grow food and ornamental plants in spaces previously deemed unsuitable for cultivation. This not only enhances urban aesthetics but also contributes to food security and self-sufficiency.

Cultivating Connection: Bridging Communities

Urban gardening is more than just a means of producing food; it's a catalyst for community building and social cohesion. Shared gardening experiences foster a sense of belonging and interconnectedness among diverse urban populations. Neighbors come together to share knowledge, resources, and the literal fruits of their labor, forging bonds that transcend social divides.

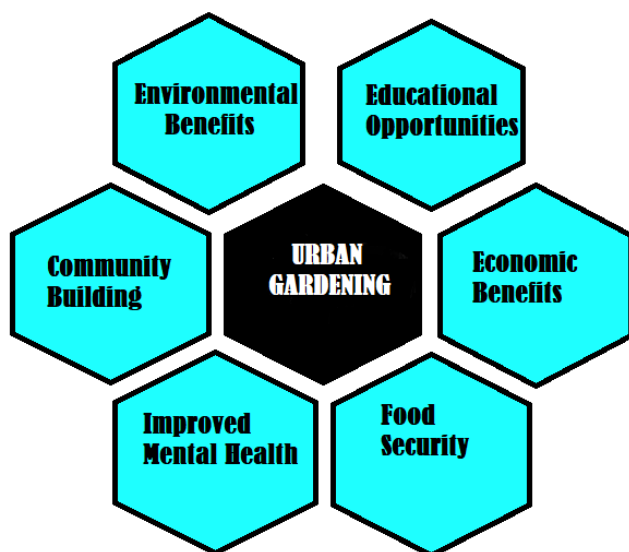
Furthermore, urban gardening initiatives often prioritize inclusivity and accessibility, providing opportunities for marginalized communities to participate in green spaces and food production. By empowering residents to take ownership of their environments, urban gardening projects promote civic engagement and empower communities to advocate for positive change.

Sowing the Seeds of Sustainability

At its core, urban gardening is a powerful tool for promoting environmental sustainability and resilience in the face of urbanization and climate change. By reintegrating nature into urban landscapes, cities can mitigate the adverse effects of pollution, mitigate the urban heat island effect, and enhance biodiversity.

Moreover, urban gardening encourages sustainable practices such as composting, rainwater harvesting, and organic gardening, reducing reliance on environmentally harmful inputs and fostering a deeper connection to the natural world.

Benefits Of Practicing Urban Gardening



- Urban gardening has a number of benefits, one of which is improved air quality. Urban gardening can help reduce air pollution by removing carbon dioxide and other pollutants from the air while producing oxygen through photosynthesis.
- Garden plots can help people reconnect with the Earth, and gain a greater appreciation for where our food comes from. Rooftop and patio gardens create peaceful places for relaxation or contemplation, and they can attract tourists – consider the booming businesses that have sprung up around New York City's lush High Line Park
- Urban gardening can also have a positive impact on mental health. Gardening has been shown to reduce stress and improve mental health. The act of caring for plants and being

surrounded by greenery can have a calming effect on the mind and body.

- Urban gardening offers much more than just a way to enjoy nature in the city – it can also be a powerful tool for community building. By providing people with an opportunity to come together and work towards a shared goal, urban gardening can help foster meaningful relationships and improve the overall quality of life in urban areas
- It can add greenery to cities, reducing harmful runoff, increasing shading, and countering the unpleasant heat island effect. Garden plots can help people reconnect with the Earth, and gain a greater appreciation for where our food comes from
- Urban gardening has become increasingly popular in recent years as people recognize the environmental benefits of bringing nature into cities. Urban gardening can also help conserve water by reducing runoff and providing opportunities for rainwater harvesting. By creating green spaces in urban areas, people can help create a more sustainable environment while enjoying the benefits of being surrounded by nature.
- Urban gardening offers a unique opportunity to teach people about the natural world and how to care for it. Gardening has been proven to be an effective way to educate people of all ages about the environment, food production, and sustainability. By creating an urban garden, individuals can learn valuable skills such as planting techniques, soil management, and pest control that are necessary for growing healthy plants.

Sustainability and Resilience

In addition to providing fresh produce and green spaces, urban gardening plays a vital role in promoting sustainability and resilience in cities. By reducing food miles, minimizing pesticide use, and composting organic waste, urban gardeners contribute to local food security and environmental conservation. Moreover, urban gardens help mitigate the urban heat island effect, improve air quality, and provide habitat for pollinators and other wildlife, making cities more livable and resilient in the face of climate change.

Cultivating a Greener Future

As cities continue to expand and populations grow increasingly urbanized, the importance of urban gardening will only continue to grow. By reclaiming space for greenery and fostering a culture of environmental stewardship, urban gardening offers a pathway to more sustainable, resilient, and livable cities. Whether through community gardens, rooftop farms, or guerrilla gardening, urbanites around the world are rediscovering the transformative power of reconnecting with the land, one plant at a time. In the concrete jungle, the seeds of change have been sown, and the harvest promises a greener, healthier, and more vibrant future for all.

Conclusion

As cities continue to grow and evolve, the importance of urban gardening will only increase. By harnessing the power of nature in urban environments, we can create healthier, more

sustainable, and more resilient cities for future generations. For horticulture students, urban gardening represents not only a field of study but also a call to action—to cultivate green spaces, cultivate community connections, and cultivate a brighter, greener future for all.

References

Židak, N., & Osmanagić Bedenik, N. (2019). Urban gardening—an integrative approach. *The holistic approach to environment*, 9(2), 27-34.

Narayani Bhardwaj (2024). Urban gardening the next step to bring greenery back in the concrete jungle. *Icy Tales*.

Koay, W. I., & Dillon, D. (2020). Community gardening: Stress, well-being, and resilience potentials. *International Journal of Environmental Research and Public Health*, 17(18), 6740.
