

An International Multidisciplinary e-Magazine



## Article ID: SIMM0504

# **Popular Article**

# **ROOF TOP GARDENING**

**Jyoti Prasad Gouda** Department of Fruit Science and Horticulture Technology, College of Agriculture, OUAT, Bhubaneswar

# **Open** Access

#### Introduction

Rooftop gardening is one of the stylish styles for civic greening. It has numerous benefits for the terrain, frugality, and civic geography. The exploration for green roof establishment is most current in Germany, but is still under development in our country. expansive green roof systems with light and shallow substrates enable shops to grow without significant changes in structure, but suitable factory species must be named. There are many strategies to ameliorate rooftop gardening similar as political commitments, erecting regulations and laws, land use regulations for both public and private land and, as so on.

# preface

Rooftop gardening can be an effective system in icing food force and satisfying nutritive requirements of the occupants. Rooftop gardening, although is being rehearsed in the megacity in numerous forms for times in the history, there have been hardly any combined trouble on part of the Government, community associations and as well the general citizens to integrate it to civic husbandry. Proper understanding of the problems and prospects associated with the relinquishment of programs

# Why we need roof top gardening?

gardening.

will contribute for the successful roof top

As the population of our country is adding and the demand for food and expenditure on food is also adding. But the resource is scarce as agrarian land is converting to domestic, marketable or artificial land uses. It reduces the possibility of adding further and further agrarian food products. Again, food impurity similar as dangerous chemical operation to ripe fruits, dangerous or inorganic toxin and fungicide use to increase product, etc. In these circumstances, to break these problems and find a way out, inauguration of rooftop husbandry can be a possible and implicit result. Rooftop husbandry can profit society by perfecting air quality, reducing carbon in the atmosphere, thereby creating a healthy terrain. also, the people will get fungicide free vegetables with their own sweats

# Selection criteria for fruits and vegetables for roof top gardening

The choice of shops species is veritably important. It may take an educated gardener to know which perennials shops will perform stylish in such a special terrain. Lowconservation shops are grown in a multi-



layered featherlight system, which includes a root- repellent membrane to help shops from lodging in the roof, a drainage system and a growing medium that's lighter than the soil used on the ground. ferocious irrigation is important for rooftop gardening and. So, the species which are more tolerant to failure are more suitable for rooftop gardening shops and soil against a wall begin to wilt and dry out much sooner than those only a many bases down, because of the considerable heating of the wall by the sun.

Volume 5 - Issue 02 - Februarv.2025

a) fruit crops Guava, Strawberry, Pomegranate, Dragon fruit, Raspberry, Karonda, Dwarf banana and dwarf papaya.

b) vegetable crops Brinjal, Chilli, Tomato, Onion, Radish, Carrots, Cucurbits, cauliflower, cabbage and leafy vegetables.

#### Benefits of roof top gardening

a) green roofs can help in the immersion of carbon dioxide and help reduce air profanations.

b) structure and girding area's aesthetics will be enhanced and property value can be increased.

c) Economically, there are no fresh land cost.

d) Storm water runoff, flooding and water epollution can be reduced.

e) Temperatures around the structure can be lowered in the summer.

f) The roof life can be extended by guarding it from colorful rainfall conditions.

g) Roof top theater space can be used for food product.

h) Heating and cooling bills will be reduced.

## Constraints of roof top gardening

a) Proper leaned roof is needed for RTG, which are in lack and shadow of high structures on lower bones is one of the major walls for RTG.

b). The sundeck has to be duly waterproofed before setting up the sundeck theater or differently there may be leaks in the roof

c) If there's no proper pitch handed in the sundeck the water may be stagnant in between the shops during rains.

d) The wind speed will be high in the sundeck when compared with the ground position, hence proper protection must be given to the shops to help it from getting damaged.

e) Frequent conservation and cleaning might be needed as there will be slipping of dry leaves.

f) There are high chances of pests and insects to be present in the sundeck theater which might bear frequent attention.

g) Lack of good quality seeds and planting accoutrements; and suitable cultivars for RTG.

# Strategies for a successful roof top theater

a) A commission conforming of both the government representatives and the affiliated associations should be formed in order to identify the possible strategies.

b) Financial and profitable and social analysis of the design should be accepted to justify the systems.

c) The structure roofs should be leaned down in such a way that the rainwater passes down snappily and fluently.





Volume 5 - Issue 02 - February,2025

d) further information about crops and diseases, water and fungicides, could greatly increase crop product while immunization and advice on feeding would ameliorate beast and reduce the number of unseasonable deaths.

e) Donor agencies and NGOs trouble in promoting RTG will produce an terrain that will help the Govt and the public in this regard.

unborn prospects of roof top gardening

Poor access to specialized advice, services and quality inputs at reasonable price, specialized advice for rooftop gardening related to cargo bearing capacity of roof, implicit leakages, lack of training and follow- up etc. are the major hindrances in sustaining the practice. thus, to strengthen the civic husbandry practices, these constraints are needed to be addressed. Government of India or state government should propose a scheme on RTG to gauge up the rooftop gardening or civic husbandry.

Conclusion

Rooftop gardening is n't only the source of fresh fruits and vegetables but also provides indepth ecosystem services and promotes the sustainability of civic areas. Roof top gardening approach would incorporate numerous other important approaches like reduced rainwater runoff, bettered aesthetic value, biodiversity, temperature benefits by addressing the issue of civic heat islet and better air quality.

# References

Sanyé-Mengual, E., Orsini, F., Oliver-Solà, J., Rieradevall, J., Montero, J.I. and Gianquinto, G., 2015. Techniques and crops for efficient rooftop gardens in Bologna, Italy. Agronomy for sustainable development, 35(4), pp.1477-1488.

- Sendo, T., Uno, Y., Kanechi, M. and Inagaki, N., 2006, August. What kind of plant species are the best for urban rooftop gardening?. In XXVII International Horticultural
  - Congress-IHC2006: International Symposium on Horticultural Plants in Urban and Peri-Urban 762 (pp. 333-340.
- Chowdhury, M.H., Eashat, M.F.S., Sarkar, C., Purba, N.H., Habib, M.A., Sarkar, P. and Shill, L.C., 2020. Rooftop gardening to improve food security in Dhaka city: A review of the present practices. International Multidisciplinary Research Journal, 10, pp.17-21.

Thomas, T., and Cherian, S., 2021. Rooftop Gardening: An Explorative Study in Urban Area of Cochin City. Journal of Scientific Research, 65(4), pp. 150-156.

Jyoti Prasad Gouda (2025)