



*Comparative Agriculture
and Green Design*



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Forms of growing foods

- + Tower Gardening
- + Crop Rotation
- + Self-Watering System
- + Urban Farming



1. Tower Gardening

A tower garden is a vertical, aeroponic growing system that allows up to 20 vegetables, herbs, fruits, and flowers to be grown. Aeroponics, the same used in NASA, is used to grow plants with water and nutrients instead of dirt. Research has shown that this plants growing system is three times faster than normal.



✦ Tower Gardening

- ✦ The tower garden process grows plants in an air or mist environment rather than in soil.
- ✦ The plants are supposed to grow more colorful, taste better, smell better and nutritious produce.
- ✦ This helps food security as it can offer more nutritious food.



Compared to others...

- + Can save enough money in the long run for it
- + The plants grow bigger on average
- + Less pollution
- + Grow quicker



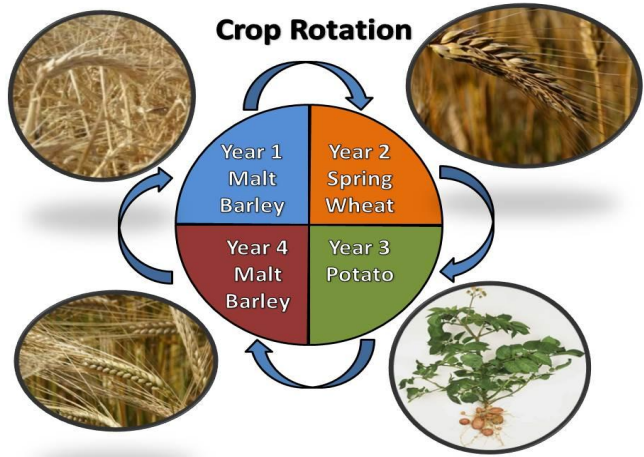


2. Crop Rotation



What is a Crop Rotation system?

- It is the practice of growing a series of dissimilar plants
- Different types of crops grown in the same area in sequenced seasons.
- System of varying successive crops in a definite order on the same ground,
- Used to control weeds, diseases, and pests.



Fun fact: They had said that crop rotation have been dated back from 6000 BC by Middle Easterner farmers. It started with a two-field system, then a three-field system and four-field rotation.

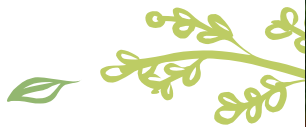
Benefits of crop rotation method...

- ★ The benefit of crop rotation is that it helps in reducing soil erosion and increases soil fertility and crop yield.

Compared to other farming methods

- + Grows in special sections before season
- + Various field rotations
- + Increase soil fertility
- + Increases crop yield





Self Watering Systems



What are Self Watering systems?

- ★ Self watering systems are made up of an outer pot that holds water. The outer pot cradles an inner pot that holds the plant and soil. A wick joins the two and pulls water up into the root ball as it's needed. Most reservoirs are large enough to supply water for several days or more depending on the weather.



- ★ By providing a consistent level of moisture directly to the roots of plants, self-watering containers can increase plant health and yield. Probably the most common mistakes gardeners make--even highly experienced gardeners--is to over-water plants.



Benefits of this system

- *This way is better because only a limited amount of water is going into the soil.*
- *You can make this at home!*
- *Better way to limit the amount of water being put into the soil!*



4. Urban Farming



What is Urban Farming?

- Urban Farming is growing or producing food in a city or heavily populated town.
- Urban agriculture is often confused with community gardening.
- This type of farming can play an important role in urban environmental management system.



Why is Urban Farming better?

- + Urban farming fosters healthy and local food in communities. As a whole farming tackles the degrading to the environment, public health, poverty, food and resource scarcity.
- + Urban farming contributes to the city's health, reduce food insecurity, and create opportunities for community involvement.



Urban Farming Benefits...

- Helps reduce carbon emissions because it cuts down on fossil fuel consumption which is needed to transport, package and sell food. This helps reduce climate change.
- Support low income populations by stabilizing food costs and offer free produce.



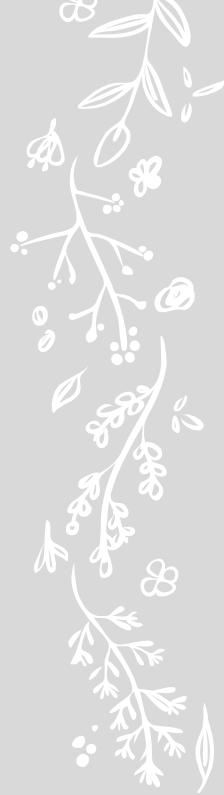
Promotion of Food Security

- ✦ Reduces the cost burden of providing food for the poor
- ✦ Improves urban diets
- ✦ Provides a steady supply of food
- ✦ Incorporates organic food production, which is considered the fastest growing sector in food production.



Comparison Between Systems

Urban Farming	Self Watering	Crop Rotation	Tower Gardens
<ul style="list-style-type: none"><li>● Involves soil and physical labor<li>● Reduces food insecurity	<ul style="list-style-type: none"><li>● Good for planters who may be gone for a few days and can't water their plants<li>● Takes away the ability to overwater the plant	<ul style="list-style-type: none"><li>● Reduces soil erosion<li>● Prevents diseases	<ul style="list-style-type: none"><li>● Soilless planting<li>● Healthy growth in plants



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