



# PERMACULTURE GARDENING

*by Dr. Marlin Ford, Program Leader*  
**Sustainable Urban Agriculture Certification Program**

Permaculture is an approach to land management that adopts arrangements observed in flourishing natural ecosystems. Permaculture was created by the bringing together of knowledge from many different areas such as agriculture, architecture, and renewable energy. Many non-organic farming practices are seriously damaging the environment with the overuse of pesticides and fertilizers, damaging our soils, and polluting our water with toxic run off. Agricultural soil is being lost to erosion and depleted of fertility. Permaculture gardening uses nature's techniques and resources (sun light, wind and water).

## THE 3 CORE VALUE OF PERMACULTURE

Permaculture can be easily summed up into three core values: Earth Care, People Care, and Fair Share. Earth Care main concept is to consider your climate and ecoregion before planting on your property. People Care involves food, water, and shelter from the elements and aiming to create these systems sustainably as possible better prepares you to care for your family or household. Fair Share encompasses taking surpluses from your system and reinvesting them where they will do the most good.

Through the application of the three core principles of permaculture, communities can develop a true a meaningful respect for the environment and a desire to not only preserve it, but to help it thrive.

Permaculture can create a small, self-sufficient food forest to sustain oneself and one's family as well as for larger-scale sustainable permaculture.

## BEGINNING A PERMACULTURE DESIGN

When establishing a sustainable permaculture design you should consider:

- Start with a simple design;
- Choose a design that can fit into an existing or new garden;
- Begin slowly transiting your old or new garden to a sustainable design;
- Be selective about the location of the garden;
- Look over your property, yard, patio or porch and decide on a good spot to design that area;
- Pick a water system and other infrastructure and;
- Start planting your perennial plants before annual plants.



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*Some newsletters  
are created as  
money-making  
ventures and sold  
to subscribers.*”

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# FROST FARMING

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Southern University Agricultural Research and Extension Center



Winter gardening has many advantages. Fresh vegetables are very costly in the middle of winter, but with the help of **hydroponics** you can grow your own vegetables without having to worry about freezing crops. Using hydroponic gardening practices, the nutrients are put directly to the plant so it promotes faster growth and plants are less likely to have diseases.

Putting your winter crops near a south-facing window in your indoor garden is a good way to get natural sunlight for most crops, but installing 'grow lights' would work better when growing crops like greens. Florescent lights may be inexpensive and enough for herbs but not for budding vegetables.

Next you need to consider the temperature and humidity in your indoor garden. Being more attentive with the background temperature will ensure that your indoor winter garden is successful. The standard temperature for most plants is 65° F – 75° F, with the variations of 10°F either ways for some plants. Humidity can be a huge problem in your indoor garden during the winter season since winter has less humidity compared to summer. Certain techniques to increase the humidity for your indoor winter garden include misting the plants as often as needed, place them close to each other, put a tray of water near the plants or you may purchase and run a humidifier as well for your winter crops. Most importantly, by using hydroponics you have benefits such as:

- High yields
- Does not consume a lot of water
- Does not need a lot of space
- No weeds
- No need to use pesticides
- Hydroponic plants have a high growth rate
- You get to know where your food comes from

## HYDROPONICS

provides so many advantages compared to traditional soil-grown crop production.

## THERE ARE 6 TYPES OF HYDROPONICS

### Wick System, Water Culture, EBB & Flow, Drip, N.F.T., and Aeroponics.

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