

# Hydroponic, Aquaponic, Aeroponic Gardening

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Hydroponics - growing without soil, using water with nutrients instead.

Aquaponics – grows with both fish and plants, utilizing the waste from one to feed the other.

Aeroponics - growing plants in an air or mist environment with no soil and very little water (recycled water)

Fish-Water-Plants-Sunshine  
Life is good



Water with added nutrients (no fish)

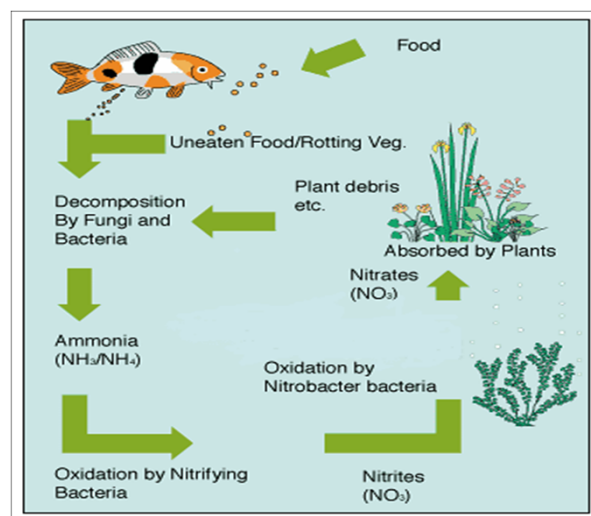


## It's all about the Nitrogen!

Nitrogen is usually the nutrient that is in limited supply.

Plants deficient in nitrogen are stunted and yellowish (especially the lower leaves), and have restricted root growth.

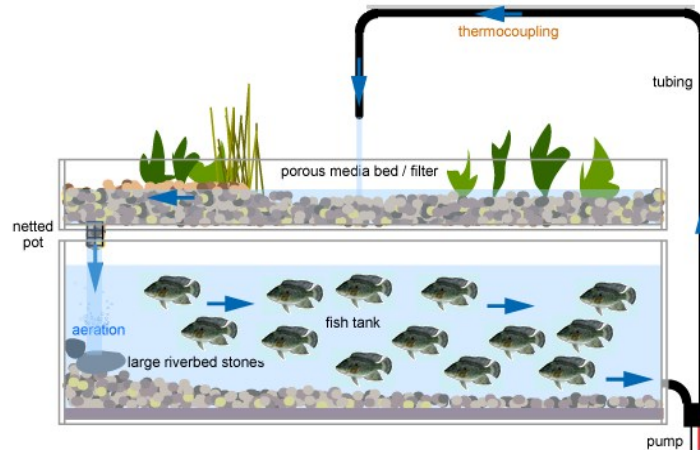
Of all the soil minerals, nitrogen fertilization usually has the quickest and most pronounced increase in plant growth and yields.



As easy as?



## Start out simple



## A bit advanced



Keep in mind aquaponics is an organic method of farming and involves live animals. The use of any chemical or organically derived fertilizers may result in the death of your fish. The fish create the nutrients that are essential for the health of your plants. It is important to feed them high quality fish food several times a day to ensure proper nutrient levels in your system. By adjusting the amount of food to what is consumed without extra after a few minutes, you can maintain high growth rates. Whenever possible, supplement your fish's diet with live food.

## Plants need:

- Water
- Nutrients
- Light
- Air
- Structural Support

## Aeroponics



## Aeroponics and Misting

True aeroponics use a mist of nutrients over the plant roots inside a dark growing chamber. The nutrient and spray interval will produce fast growth rates, high yields and healthy roots, as long as the root chamber is kept at temperatures between 62F to 71F with good stability.

What can you grow? Any plant above ground!

## GROW A THEMED TOWER GARDEN

### SALAD GREENS TOWER GARDEN



- Arugula
- Celery
- Escarole
- Frisee
- Kale
- Lettuces
- Mustard
- Radicchio
- Spinach

### HERB TOWER GARDEN



- Basil
- Dandelion
- Dill
- Fennel
- Lemon balm
- Marjoram
- Oregano
- Sage
- Red shiso
- Thyme

### JUICING TOWER GARDEN



- Celery
- Cress
- Kale
- Parsley
- Spinach
- Swiss chard
- Watercress

### ASIAN GREENS TOWER GARDEN

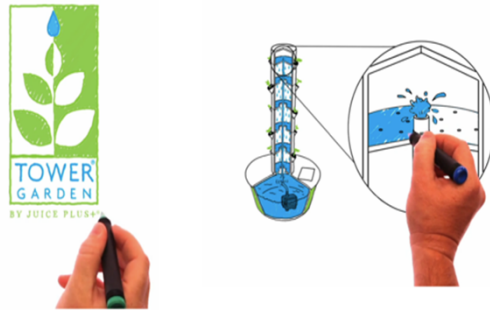


- Asian basil
- Chinese cabbage
- Komatsuna
- Pak choi
- Red shiso
- Tatsoi





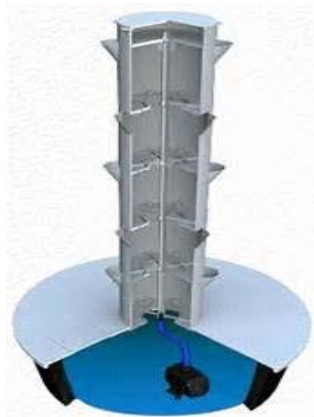
## How Tower Garden® Works Animation

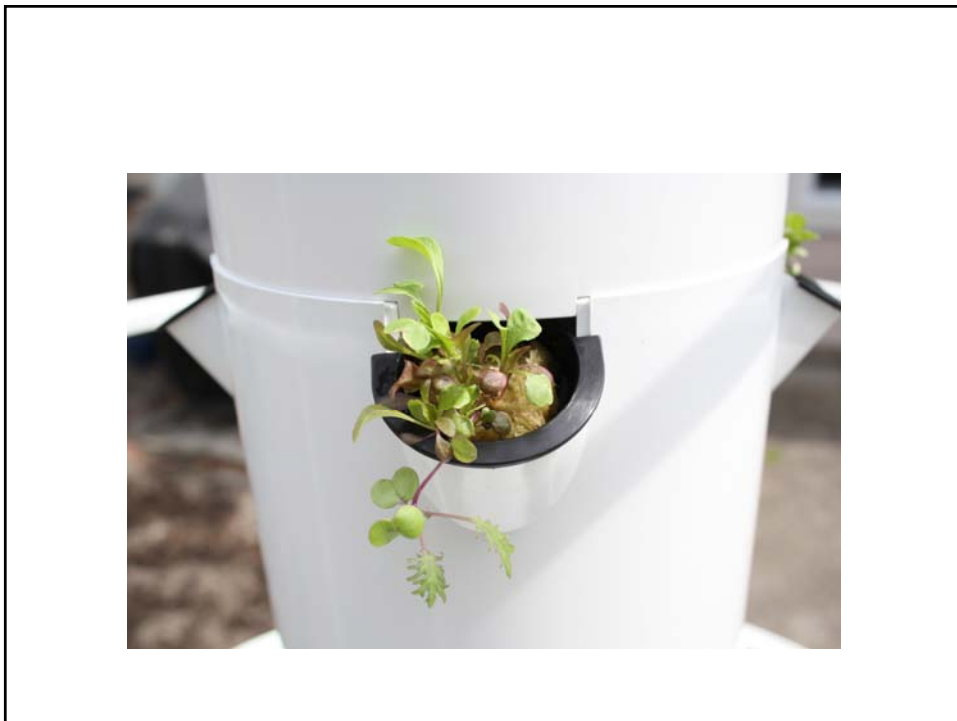


## Lettuces



## Supplies with most kits...







## Reduce your footprint



## Got a corner? Plant a garden!



## University of Mississippi study...

30% More Yield Across 8 Different Crops

Kale



Basil



## My Watermelon from a tower!



## Lemon Cucumbers



## Ornamental / water sounds









Portable!

WHERE DO YOU  
TOWER GARDEN?



## Add a cage for vining plants



## More harvests



## Swiss Chard



## Kid approved!



Just add light....



All from MY Tower! A proud moment.



As simple or complex as you'd like.  
Kohls .....Target



Classroom example

