Maximizing the Output in Urban Gardens

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Topic to Cover

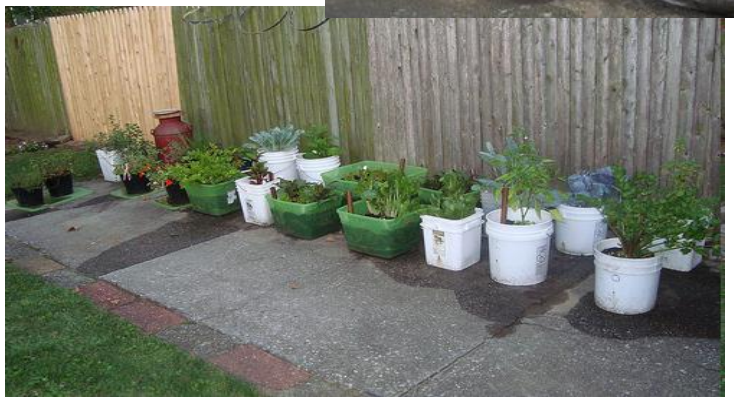
- Topics: Maximizing Output in Small Urban Gardens

  1) Requirements for choosing a location for your garden
  2) How to prepare the soil for planting and initial soil components.
  3) Watering systems for gardens
  4) Plants that grow in Arizona seasons, and which can be grow from seed, transplants, or both.
  5) Mittleider/square foot gardening principles that can increase productivity.
- Disclaimer – I am a engineer and tend to convert things into engineer terms with my hobbies. Feel free to say, now say that in English if I have done it again.

Location, Location, Location

- Light: Intense Arizona sunlight.
  - The Garden plot should have a minimum of 8 hours of sun.
  - Do not pick a shady location to protect the plants, this will produce nice green plants with no fruit.
  - Avoid areas with trees or large bushes that will shade the area.
  - Keep in mind the light an area receives changes throughout the year.

Location continued



Top: Square Foot Garden

Center: Bag Garden

Bottom: Bucket Garden

- Drainage
  - Don’t choose an area water accumulates naturally.
- Do worry about the existing soil.
  - Top soil was removed during debris clean up after home construction.
  - Soil must be replaced and will not be used.
- A water source should be close.

Garden Area Preparation

- Clear the garden area of debris, roots, construction materials.
- Eliminate weeds, both Annuals and Perennials.
  - Separate your garden from any grasses by 2 feet if possible.
- Aisles should be a minimum of 3 feet between grow boxes or raised beds.
- Break up the ground 6-10 inches under your garden to allow for better drainage.

Top: Get weeds now or fight them forever.

Center: Aisle spacing good, grass surrounding bad.

Bottom: Break it up, leave it down there.

Initial soil components (SFG)

Square Foot recommendations:

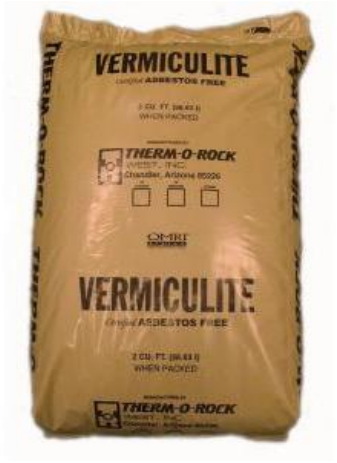
- 1/3 Blended Compost
- 1/3 Peat Moss (Bails not loose.)
- 1/3 Vermiculite

$150-200 for a 4 x 8 garden plot

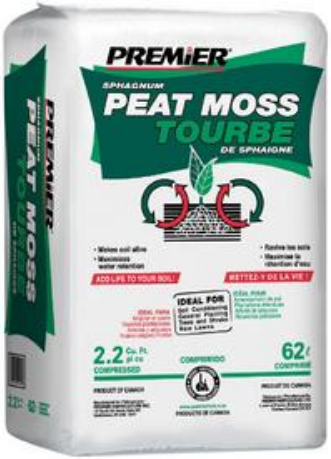
Compost:

Choose a mix of different types, at least 5.

•Most purchase compost is from a single ingredient, you need a mix.



Home Depot $20.97



Lowes $13.17

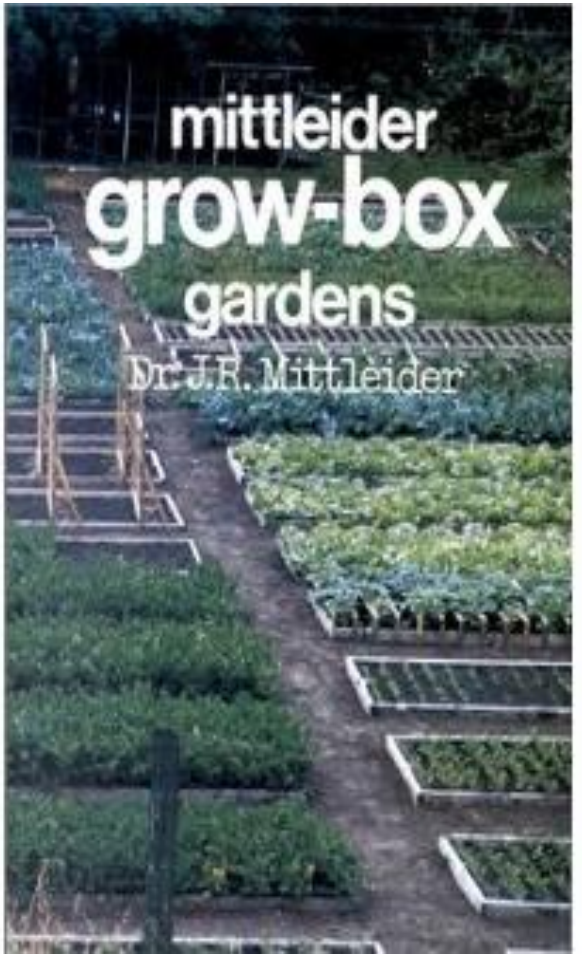
Initial soil components (MLR)

$100 for a 4x8 square + $30 weekly feed**

- 25% Blow sand 75% Peat moss
- 75% saw dust 25% clean sand
- 15% Perlite – 50% Peat moss and 35% clean sand.
- 50% Sawdust with 25% Styrofoam pellets and 25 % clean sand.

Note: Any mixture of perlite, peat moss, sand and saw dust can be used, the actual composition of the medium does not matter as long as it drains well and stays aerated.

* I have found it difficult to find good clean sawdust, without glues, stains and paints.



http://foodforeveryone.org/fertilizers/ For the weekly feed mix.

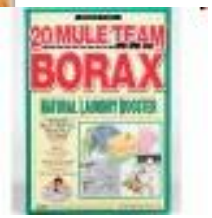
Once mixed, the $30 of weekly feed will last a full year for small gardens.

Initial soil components (Lower Cost)

$80 for a 4 x 8 Garden + Weekly feed.

- 55% Peat Moss (4 Bails not loose.)
- 12.0% Vermiculite (1 Bag)
- 33% **SANDY LOAM** .20 Yards

or



Sandy Loam is 33% screened fill dirt, 33% mulch, 33% manure. Sandy Loam is A great medium for vegetable gardens and other applications that utilize the warmth and micro nutrients of manure.

Found at:

Pioneer Landscaping materials

2305 S. Higley Rd.

Gilbert, AZ 85295-4795

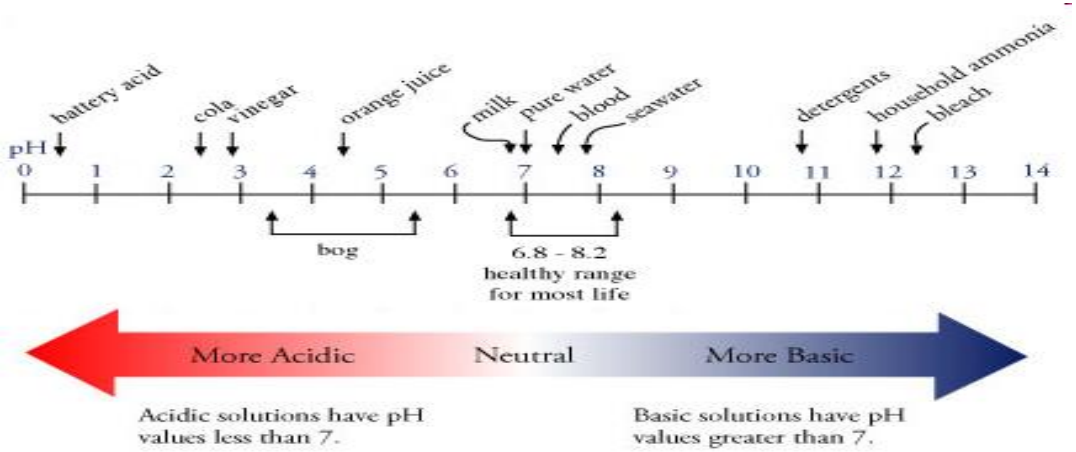
Watering Systems

- Soaker hoses – clog and rot over time.
- Plastic landscaping hose – time consuming to setup and change from spring, summer and fall.
- Flood watering- time consuming, a lot of water, manual unless you setup with a hose timer. Loss of area to grow due to furrows.
- PVC drill pipe on a timer = Best thing I ever did in my garden. 3 min a day, automatic watering.

This is not my system but it is similar.

Watering Systems Continued

The engineer in me surfacing – Science tidbit.



- Water in our area is considered “Hard” and is generally alkaline, close to 8 which increases the PH of the soil making it basic.
- Most plants prefer a slightly acidic soil, between 6-7 for nutrient absorption.
- The more water used watering the plants, costs you more and degrades the soil faster.
- **Gypsum and Soil Sulfur are used to return the soil to normal PH levels.**
- Soil test kits can be purchase for less than $5 that will give you PH and soil nutrient levels.

http://www.thegardenhelper.com/soilPH.htm

Plants Grown in the Spring

- Tomato – seed then Transplant
- Squash – Seed/Transplant Hard/Summer
- Peppers (all varieties) – Transplant
- Cucumber seed then transplant
- Melons seed or transplant
- Green beans/Butter beans seed
- Herbs seed or Transplant
- Strawberries Transplant

Plants Grown in the Fall

- All root veggies, carrots, beets, turnips, etc. - Seed
- Lettuce and greens - Seed
- Broccoli cauliflower and Brussels sprouts -- Transplants.
- Sugar snap peas – Seed
- Tomatoes/Peppers if you can protect them.

My Garden