

Vertical Vegetable Gardening

Or..... How to save water and space by growing “up” instead of “out” and have fun doing it!

Why Garden Vertically?

- Save space
 - Increase yields per sq foot
 - Reverse “bush” or less productive plant breeding
- Save water
- Easier to improve soil, weed and monitor for produce & pests



- Better air circulation, less disease
- Save your back!
- Repurpose, Re-use, be creative

What kind of structures?

- Raised beds
- Vegetable Cages
- Trellis
- Teepee, dome or arbor
- Stacked pots
- Plant walls
- Garden tower



Raised Beds



My garden, note PVC hop trellis to shade greenhouse



- Benefits
 - Can mulch between beds to reduce weeds, soil compaction
 - Easier to improve soil, plan crop rotation & irrigation
- Minuses
 - Not suited for large row crops
 - Cost of construction & maintenance
- Can be raised to reduce bending

Trellises

- Various shapes
 - Inverted V
 - T-shaped
 - Vertical fence
- Various materials
 - Wood pallets
 - Fence material
 - PVC
 - Old bedframes, bike wheels



Vegetable cages



- Think individual trellises
 - Need large holes for reach-trough harvest
- Various materials
 - Concrete reinforcing wire
 - PVC
 - Assorted store-bought cages



Note: check out Irl Everest's concrete reinforcing wire tomato cages. They're in 3 parts with connecting loops so fold flat & stack in winter

Teepee, Dome, & Arbor

- Easy to construct from saplings, bamboo, pvc
- Improve soil at perimeter only
- Leave opening for harvest
- Great for kids, sit inside for shade



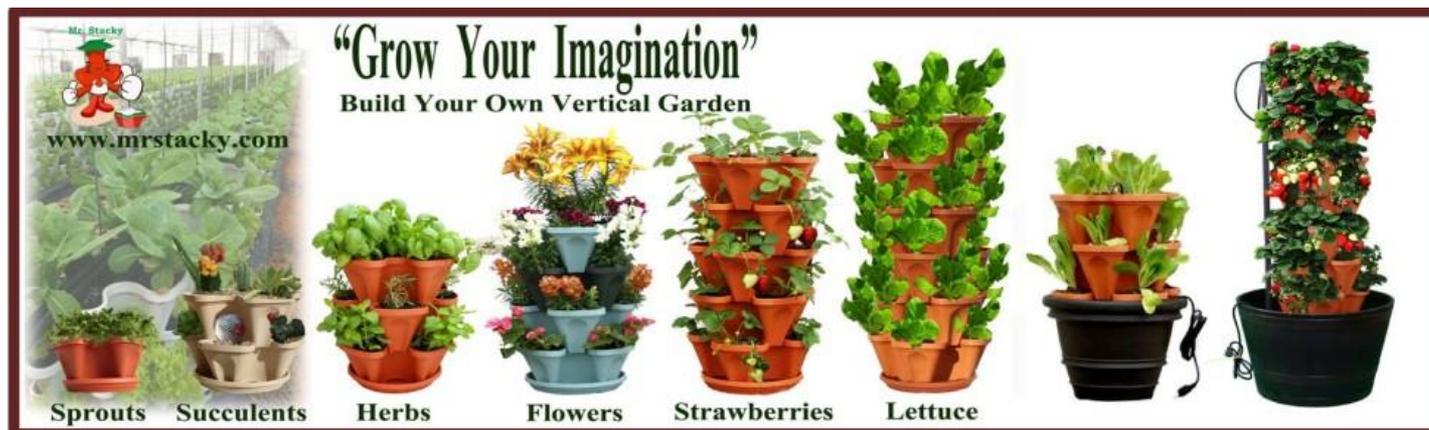
Small teepees -
hard to harvest
interior



- DIY or pre-made
 - Try plastic jugs or 1 gallon pots
- Material & sun-exposure are important to reduce water loss
 - Don't use clay pots if trying to reduce water loss
- Easy to weed
- Best if flow-through



Stacked Pots



Plant Walls

- Lettuce Gutters
- Pallet Gardens



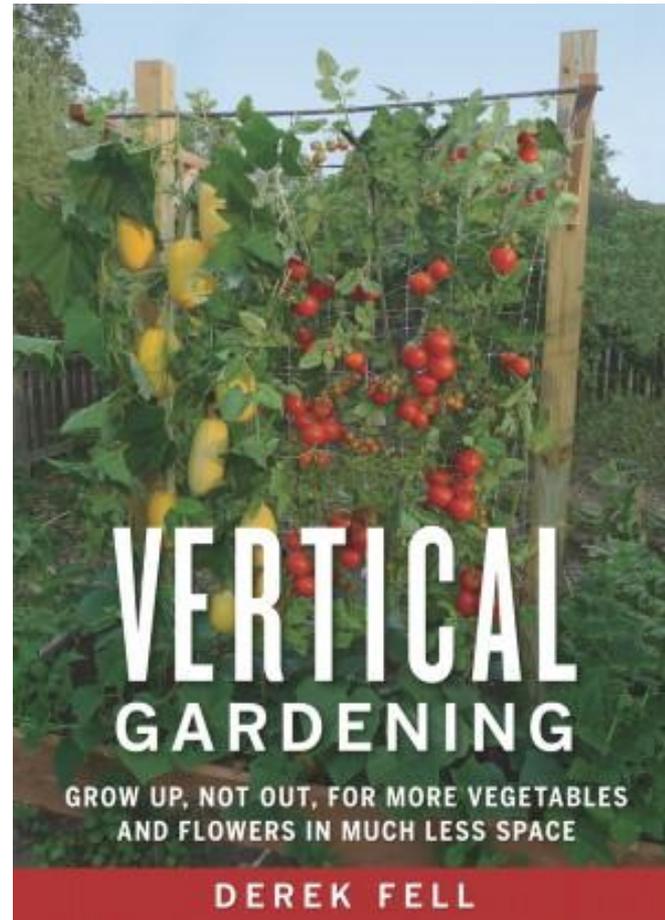
Go for flow through systems instead of individual containers – the cans are pretty but hard to water



- ✓ East or north facing wall
- ✓ Impervious wall material

4 Groups of Plants

- Climbing
 - Beans, peas, cucumbers, squash, vining fruits
- Foundation
 - Root crops, greens, eggplant, peppers
- Container
 - Strawberries, herbs
- Support
 - corn



Climbing Beans (not bush)

- Use strong trellis, teepee, or heavy reach-through netting, since these can be 6-15 feet high and HEAVY
- Pole beans
 - Yard-long beans
 - Pole lima beans, especially “Christmas” heirloom variety
 - Romano pole beans
 - Shelling (dry) beans
 - Runner beans (plant in fall)



Peas



- English (vining), snow peas & snap peas
 - Try sugar snap peas
 - Blue podded peas
- Lighter weight than beans, don't need as strong structure

Try cucumbers!



- Natural climbers with tendrils (not bush!)
- Use trellis or heavy netting
- Consider access for harvesting
- Varieties
 - Both pickling & slicing, lemon

How about climbing squash?



- Look for heirlooms
 - Trombone zucchini
 - Trombetta di Albenga
 - Black Forest Zucchini
 - Spaghetti Squash
- Black Forest - can tie onto stake, planted into cage
- Trombone & spaghetti have tendrils

Melons, Pumpkins, Winter Squash

- Over 6 pounds need sling for support or try smaller varieties
- Most melons & pumpkins are over 6 lbs
- So winter squash are best
 - Buttercup, delicata, kabocha, table ace, butternuts, spaghetti



Edible Gourds



- Armenian cucumber
- Snake gourd
- Harvest when young



Sun & Shade Considerations



- Most vegetables need 6-8 hours of sun per day
- But some prefer afternoon shade in summer
- Consider orientation of structure – do you want even sun distribution or to shade some plants?

Maintenance Considerations

- You may need to move physical structure to accommodate crop rotation
- How do you plant to remove dead plant material from trellis & dome structures?
 - Clip twine & compost
 - Can burn material off metal fence but not plastic netting
 - Hand-pulling dead material from structure is hard



What do you do at the end of the season?

Garden Tower Tower (not tower garden)



- [Garden Tower Project](#)

[Garden Tower Plants](#)