

Building a Raised Bed Vegetable Garden: The Easy Way For South Florida Gardens & Schools

Why raised bed gardens? Growing vegetables in the ground can be a real challenge in southeast Florida. In many parts of Miami-Dade County, it's almost impossible to dig because of the limestone rocks. Also, there can be nematode and soil-borne plant diseases to deal with. That's why it makes sense to grow your vegetable garden in raised beds!



Location and Size:

Direction: North to south OR east to west. Near a water source or garden hose.

Exposure: A minimum 6 - 8 hours of **full sun** daily. Plant far away from trees.

Size: Make beds accessible from all sides. Width - young children, beds 3 feet wide. Older children, beds 4 feet wide. Adults, beds up to 5 feet wide. Length - as long as you need.
Hint: Never walk on raised bed soil.

Preparation:

On level ground, lay cardboard or several layers of newspapers directly on top of grass. This prevents grass and nematodes from getting into your garden soil.



Materials and garden height:

Use landscape timbers, lumber, or cement blocks. If using blocks, the walls of the raised bed don't need to be more than 1 layer high. Herbs and vegetables only need a soil depth of 8" (which is the same height of cement blocks).

Hint: Place the timbers, lumber, or cement blocks over the newspaper or cardboard.





"Soil":

Use bagged composted cow manure or compost. You can also mix together potting "soil" and compost but this is more expensive and not better for growing your plants. If you are creating a large garden, you can buy compost in bulk to save money.

Hint: Avoid using top soil or earth. They can have nematodes, soil-borne plant pathogens, and often does not drain well.

If using cement blocks, fill in the holes. You can plant flowers and herbs in them!

This garden is 2.7' x 5.2' (outside dimensions)



Plant your garden the day (or within a day or two) after you add the "soil." If that's not possible, cover the soil with plastic, cardboard, or newspaper to protect against weed seeds.

What and When to Plant:

Fall - spring garden (October - April): most "summer" vegetables such as tomatoes, beans, cucumbers, squash, leafy vegetables, herbs, carrots, peppers, beets, sweet peas, sweet potatoes. Hint: cherry-type & grape-type tomatoes are easier to grow and fruit nonstop for most of the season.

Summer or year-round garden: eggplant, okra, turnip greens, southern peas, sweet potatoes. Tropical vegetables such as calabaza, chayote, ginger.





A recently planted fall garden. Planted with transplants (instant gratification!) and seeds. Note: tomato transplants have cages. The black cloth is a woven weed block material. We added a layer of newspaper over it to prevent nematodes from getting into the "soil." Avoid using black plastic since it can interfere with drainage.



The same garden 6 weeks later! Note the rain barrels collecting rain water from the gutter. You can use this water to water your garden.

Costs (for a child size garden):

Sample supply list for a size of 32" by 62" (= 2.7' x 5.2') outside measurement raised bed garden (includes soil for holes in block)

10 (8x8x16 inch) cement blocks @\$1.20 each	\$12.00*
4 (40 lb.) bags composted cow manure @ 1.65 each	6.60
TOTAL	\$18.60

More expensive garden for a size of 32" by 62" outside measurement

10 (8x8x16 inch) cement blocks @\$1.20 each	\$12.00*
3 (1 cubic ft.) garden soil @ \$2.97 each	8.91
1 (2 cubic ft.) bagged Flower & Veg. Garden Soil	8.97
1 (40 lb.) composted cow manure	1.65
1 (8 qt.) perlite	3.97
TOTAL	\$33.85

*or free if scavenged with permission from the "toss" pile at construction sites. If broken, local cement block manufacturers often sell them at a discount.

Seeds & transplants: figure at least \$10.00 for the garden. Not all seeds will be planted (can be stored indoors for 2-3 years). Growing your own transplants are much cheaper than buying them.

Since these costs include compost, no additional fertilizer is usually needed since compost is a slow-release fertilizer.



Hint: If you want to grow long carrots, place a bottomless box on top of the garden and fill it with compost. Or grow your carrots in a container.

Baby carrot varieties and long carrots harvested early don't need this increased soil depth.

Garden Care:

Watering - transplants and seedlings need light watering about once a day for the first week or two. Soil should be moist, not wet. As plants get larger, water less often but deeply (so that all the "soil" in the bed is moist). Hint: Test the soil moisture with your finger 2 inches below the soil surface. If dry, water. **Avoid wetting the leaves and water in the morning to help prevent plant disease problems.**

Fertilizing - usually not needed if you are using compost. Look for yellowing, stunted plants as an indication that fertilization may be needed. Too much fertilizer can be harmful and inhibit flowering.

Pest Control:

Growing flowers in your garden adds beauty and also provides a nectar and pollen source for beneficial insects (they keep pests in check). Squish or hand remove bugs and caterpillars. Spray the underside of leaves with insecticidal soap if you see whiteflies, mites, or aphids.



Whiteflies



If you are not gardening during the summer, cover the beds with **clear** plastic. Leave in place all summer or for at least 6 weeks to kill nematodes and soil-borne pathogens.

Hint: Next season, just before planting, add more compost or composted cow manure to make your "soil" level 8" deep.

Plant Spacing:

Don't waste space. Use your garden space wisely by planting intensely (why have empty space between rows?). Try the square foot, wide row or French intensive method.

If using the square foot method, large plants such as tomatoes, peppers, cabbage, eggplants, collards, and broccoli need about 1 square foot per plant. Medium size plants such as leaf lettuce,

beans, and spinach can be planted 4 plants per square foot. Smaller plants such as carrots, green onions, and radishes can have 16 plants per square foot.

Sweet potatoes need a lot of space and should have their own bed.



*Gardens can be beautiful!
This is the square foot method.*



*Yes, you can grow lettuce.
This is the wide row method.*



Hint: Save space by trellising vines (except sweet potatoes.) Even squash, cucumbers, and gourds can be grown on a trellis (support the fruit with panty hose or a cloth sling tied to the trellis). Use cages for tomatoes (drawing from Va. Tech). Place tall plants on the **northern end** of the garden to avoid shading smaller plants.

Extending Your Harvest

Harvest the leaves of your herbs, lettuce, collards, and cabbage instead of the whole plant. Your plants will continue to produce more leaves throughout the season. Broccoli will produce side shoots after the main head has been harvested. Grow pole beans instead of bush beans for a continuous harvest. Grow indeterminate-type tomatoes (these continue to flower and bear fruit for months).

Succession planting: for plants that are harvested only once (carrots, radishes, cauliflower, beets, determinate-type tomatoes, bush beans, green onions), plant a batch of plants every 2 weeks to

extend your harvest. As soon as a crop is finished for the season, plant another crop (try something new!).



Hint: If it's hot and the sun is intense when you are planting, shade the transplants and seedlings with a fan-type palm leaf (such as a palmetto frond). Place the palm leaf on the south side of the young plants. After a week or two, you can remove the palm fronds.

Not all the seeds in a seed packet need to be planted. Most seeds can be kept indoors for a year or two.

If you want to grow sweet potatoes, place a sweet potato sideways in a shallow bowl with water going about 1/2 way up the sweet potato. After a few weeks, you can take cuttings of the vine and plant the cuttings in your garden.

Additional University of Florida resources:

Need more help? Call your local UF Extension office. In Miami-Dade County, call 305 248-3311 x 222 or x 228.

<http://miami-dade.ifas.ufl.edu> Home Gardens & Landscapes tab and publications tab

<http://solutionsforyourlife.ufl.edu>

<http://gardeningsolutions.ifas.ufl.edu/schoolgardens/>

Vegetable Gardening in Florida, by James M. Stephens. Available through the UF/IFAS Bookstore or local book stores.



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