



## Florida Vegetable Gardening Guide<sup>1</sup>

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Vegetable gardening offers fresh air, sunshine, exercise, enjoyment, mental therapy, nutritious fresh vegetables, and economic savings, as well as many other benefits. Vegetables can be grown year-round in Florida if attention is paid to the appropriate planting dates. While this guide provides recommendations primarily for home gardens, the information may be useful in other situations, such as container, community, and market gardens.

### Steps in Gardening

#### Site

For convenience locate the garden near the house, on a well drained site, close to a source of water, and in a location that receives at least six hours of direct sunlight daily. With proper care, vegetables may also be included in the landscape among ornamental plants. Coastal sites are also suitable. Where possible, rotate the garden from place to place to help control soil diseases and other pests.

#### Plan

Before planting, draw a garden plan that includes the name, location and planting date(s) of the vegetables you want to grow. Use the Planting Guide (Table 3) to develop your plan. Make a list of supplies and order or purchase seeds early if you intend to grow your own transplants. The Planting Guide lists which vegetable seedlings transplant easily and which do not. Vegetables that are difficult to transplant should be seeded directly into the garden or started in containers first.

#### Soil Preparation

Gardeners often plant on whatever soil type is available, but it is usually worthwhile to improve the garden plot with additions of organic matter (see below). Spade or plow the plot at least three weeks before planting. At planting time, rework the soil into a smooth, firm surface.

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## Organic Matter

Most Florida soils benefit from the addition of organic matter, such as animal manure, rotted leaves, compost, commercial soil mixes and cover crops. Thoroughly mix liberal amounts of (un-composted) organics in the soil well in advance of planting, preferably at least a month before seeding. If you do not plan to use inorganic fertilizer, spread 25 - 100 pounds of compost or composted animal manure per 100 square feet. Composted organics may be applied at planting time. However, un-composted manures should be worked into the soil 90-120 days before planting. Due to inconsistent levels of nutrients in compost, accompanying applications of inorganic or organic fertilizer may be beneficial. To avoid plant stunting, organic amendments low in nitrogen (such as composted yard debris) must be accompanied by fertilizer. See EDIS Publication CIR375, *Organic Vegetable Gardening*, (<http://edis.ifas.ufl.edu/VH019>).

## Cover Crops/Green Manure

Green manure is fresh plant material turned into the soil. Planting and plowing in green-manure crops during the off-season is beneficial. The following cover crops are recommended: cowpea, velvet bean, soybean, and sunflower in summer and cereal rye (FL 401), crimson clover, and Austrian winter pea in winter.

For more information, see EDIS Publication ENY012 *Managing Nematodes for the Non-Commercial Vegetable Garden*, (<http://edis.ifas.ufl.edu/NG005>).

## Adjusting Soil pH

Soil pH is important because it governs how available nutrients are to plants. The best pH range for vegetable gardens on sandy soil is between pH 5.8 and 6.3. If your soil pH is between 5.5 and 7.0, no adjustment in pH needs to be made.

If your soil pH is below 5.5, apply lime at a rate recommended by a reliable soil testing facility, such as the IFAS Extension Soil Testing Laboratory (<http://soilslab.ifas.ufl.edu/>). Two to three pounds of finely ground dolomitic limestone per 100 square feet

will usually raise the pH one point. Caution: Application of lime when it is not needed may cause plant nutritional problems. Lime is best applied two to three months before the garden is to be planted. However, lime may be applied as late as one or two weeks before planting. Make sure the lime is thoroughly mixed into the soil to a depth of 6 - 8 inches and then water the soil to promote the chemical reaction.

If your soil pH is naturally above 7.0 (alkaline), where limestone, marl, or shells are present, there is no practical way of permanently lowering soil pH. Additions of acidic organic matter will help, but only temporarily. Use a fertilizer that contains micronutrients. If the high pH is the result of previous over-liming, application of granular sulfur (1 lb/100 sq ft) will lower soil pH.

## Compost

Create your own "garden gold" by converting yard wastes to compost. Composting is easy to do and yields a manure-like, organic fertilizer/soil conditioner, which highly benefits Florida's infertile native soils. See EDIS Publication ENH 1065 - *Compost Tips for the Home Gardener* (<http://edis.ifas.ufl.edu/EP323>).

1. Buy a compost unit or build one from recycled wood pallets, concrete block, sturdy wire, etc. The minimum size should be 3'x3'x3'.
2. Make successive, 12-inch-thick layers of plant waste -- such as leaves, lawn clippings, shredded branches, and wood chips. Kitchen scraps may also be used.
3. Animal (not pet) manure, finished compost, blood meal or fertilizer can be added to each layer if desired.
4. Moisten each layer and keep the pile moist.
5. Turn the pile frequently to add oxygen and help the decomposition process.
6. Depending on how intensively it is managed, compost should be ready for use in two to twelve months, when plant parts are decomposed.

7. Cover the pile to keep rain from leaching nutrients from it.

### Fertilizing

Unless very large quantities of organic fertilizer materials are applied, commercial synthetic fertilizer is usually needed for Florida gardens. Gardeners find it convenient to use commonly available fertilizer grades, such as 6-6-6 or 10-10-10. However, some Florida soils contain adequate phosphorus (the middle number), and additional amounts should not be added as phosphorus is a pollutant in surface water, such as lakes and rivers. A soil test can determine whether phosphorus is needed. See EDIS Publication Cir 1248 *UF/IFAS Extension Soil Testing Laboratory* (<http://edis.ifas.ufl.edu/SS312>).

The quantities shown in Table 1 are usually sufficient. If a different fertilization recommendation accompanies your soil test results, use those specific recommendations, rather than the general ones given here.

Broadcast the indicated amount of fertilizer over the entire garden plot before planting. Band the other portion at planting time along the plant rows. The fertilizer should be applied 2 - 3 inches to the side of, and 1 - 2 inches below, the seed level or plant row.

In addition, during the growing season, it may be necessary to apply fertilizer two or three more times at half the banded rate shown in the table. Apply the fertilizer just beyond the outside leaves.

**Table 1.** Fertilizer Recommendations

Soil	Fertilizer grade	Amount to Apply	
		broadcast lb./100 sq ft	10ft/row banded oz.
Sand, marl, rock, or clay	4-2-4	4	6
	6-6-6	3	5
	8-10-10	2	4
	9-0-9	2	4
Organic soils (muck, peat, or amended)	0-12-20	1-2	2

### Irrigation and Drainage

Vegetables cannot tolerate standing water from excessive rainfall or irrigation. Yet, at the same time, vegetables need soil moisture to grow and produce. Frequency of irrigation depends upon the age of the crop and your soil type. Young plants need frequent, but light irrigation; maturing crops need more water, but less often. Sandy soils demand more frequent irrigation than clay, muck or amended soils. Conserve water by using mulch, organic matter, and techniques such as drip irrigation. Make a slight depression at the base of plants to hold water until absorbed by the soil.

### Pest Management

'Pests' in the vegetable garden include weeds, insects, mites, diseases, nematodes – and even animals, like raccoons and birds, that might reduce yields.

A gardener has many options for reducing pest problems. Pesticides can be harmful to people, pets, beneficial insects, and the natural environment and should be used only after all other pest-management steps have been taken.

### No-Pesticide Approaches

- Follow the recommended planting date(s) listed for each vegetable. Vegetables planted "out of season" are very susceptible to many pests. Plant as early in the spring (or as late in the fall, depending on the crop) as is safely possible. Use protective covers for cold-sensitive plants.
- Rotate vegetables so that the same vegetable (or members of the same vegetable family) are not planted repeatedly in the same areas. The plant family for each vegetable is listed in Table 3.
- Till or hand-turn the soil well in advance of planting. Insects, such as mole crickets and wireworms, for which there is no good control, are commonly more abundant in gardens that have recently been in grass. The garden should be well tilled and free of weeds, grass, and woody material at least 30 days before planting.

- Control weeds in and around the garden because they can be a source of insects and diseases. Weed control is best accomplished by mulching and hand-pulling or hoeing small weeds. Recommended mulches are straw, fallen leaves, and unfinished compost. Wood mulches and un-decomposed sawdust should not be used. Weeds around the outside of the garden and between rows can be reduced by putting down several layers of newspaper and then covering them with leaves.
- Choose adapted varieties with resistance or tolerance to nematodes and the diseases common in your area.
- Purchased transplants should be free of insects and disease symptoms (such as leaf spots or blights). Avoid transplants that are already flowering. Consider growing your own from seed.
- Plants can be protected from cutworms by placing a “collar” around the plant. The collar can be made from a bottomless plastic cup or a waxed cardboard carton. The collar should extend a few inches above and at least an inch below the surface of the ground.
- Lightweight row covers (also called floating row covers) can be used as a barrier to insects. Put in place at planting, with lots of excess material to leave room for the growing plant. Remove the cover when plants that need bees for pollination begin to flower (i.e., vegetables listed in Table 3 as members of the Cucurbitaceae Family).
- Keep plants vigorously growing and in a state of good health by supplying appropriate amounts of water and fertilizer. A healthy plant is often able to survive insect attack. Too much nitrogen, however, can make plants more inviting to aphids and whiteflies.
- Monitor or scout the garden twice weekly for pest problems. This includes inspecting the plants from the bud to the soil, including both upper and lower leaf surfaces. Record notes on pest problems and the performance of different varieties. Include photographs of insects, diseases and beneficial insects that you find.
- Learn to identify beneficial insects (praying mantis, spiders, big-eyed bugs/assassin bugs, lady beetles, and all wasps). Some of these insects can be purchased, but keep in mind that many beneficial insects exist naturally in Florida, and purchased beneficials will leave if there are no insects for them to eat.
- Plant flowers in the vegetable garden. They provide nectar and pollen that attract beneficial insects.
- Large insects can be removed by hand and destroyed. Place them in a container of soapy water, where they will sink and drown.
- Watch for early disease symptoms. Remove any diseased leaves or plants to slow spread.
- Most plants that produce fruits, pods, or ears can stand a 10 – 20 percent loss of leaves without loss of potential yields. Do not panic and start spraying at the first sign of leaf feeding.
- Harvest crops such as tomatoes, peppers, squash, and beans as soon as they are ripe. Allowing over-ripe fruits to remain on the plants often invites additional insect problems.
- As soon as a plant or crop is no longer productive, remove it from the garden and compost or dispose of it.
- Reduce nematode populations temporarily by "soil solarization" – a technique which uses the sun's energy to heat the soil and kill soil-borne pests. To "solarize" soil, first remove vegetation, then break up and wet the soil to activate the nematodes. Cover the soil with sturdy, clear-plastic film. Weight down the edges with additional soil to keep the plastic in place. Soil solarization should be done during the warmest six weeks of summer. High temperatures (above 130°F) must be maintained for best results.
- Add organic matter to the soil to help reduce nematode populations - microscopic worms that attack vegetable roots and reduce growth and yield. Organic matter improves the capacity of

the soil to hold water and nutrients and, in turn, improves plant vigor and resistance to pests.

- See also EDIS Publication CIR375, *Organic Vegetable Gardening*, (<http://edis.ifas.ufl.edu/VH019>).

### Using Pesticides Wisely

If you choose to use pesticides, refer to Table 2 and follow pesticide label directions carefully.

- Learn to properly identify garden pests and use chemicals only when a serious pest problem exists. Your county extension office can provide information about insect identification. Organic gardeners can use certain products (B.t., for example).
- Not every off-the-shelf pesticide can be used on every vegetable or on vegetables at all. Make sure the vegetable and the pest is on the label before purchasing the product.
- Follow label directions for measuring and mixing and pay attention to any 'pre-harvest interval' - the time that must elapse between application of the pesticide and harvest. For example, broccoli sprayed with carbaryl (Sevin) should not be harvested for two weeks.
- Spray the plant thoroughly, covering both the upper and lower leaf surfaces.
- Do not apply pesticides on windy days.
- Follow all safety precautions on the label and keep others and pets out of the area until sprays have dried.
- Apply insecticides late in the afternoon or in the early evening when bees and other pollinators are less active. Malathion, Carbaryl and pyrethroids are especially harmful to bees.
- To reduce spray burn, make sure the plants are not under moisture stress. Water if necessary and let leaves dry before spraying. Avoid using soaps and oils when the weather is very hot.
- Control slugs with products containing iron phosphate. Products with metaldehyde as the active ingredient are extremely toxic to animals,

such as dogs and wildlife, which may be attracted to the bait.

- Diseases - Plant fungicide-treated seed. Dust untreated seed with a captan fungicide. Many common diseases can be controlled with sprays of chlorothalonil, maneb, or mancozeb fungicide. Powdery mildews can be controlled with triadimefon, myclobutanil, sulfur, or horticultural oils. Rusts can be controlled with sulfur, propiconazole, or tebuconazole. Sprays are generally more effective than dusts. Begin control efforts early.

**Table 2.** Insect Control Recommendations

Refer to the "active ingredient" on product labels to determine which pesticide(s) the product contains.								
Pest	Neem	Spinosad	B.t.*	Carbaryl	Malathion	Pyrethroids**	Soap***	Oil***
Aphids	X				X	X	X	X
Armyworm		X	X	X		X		
Bean leafroller		X	X	X		X		
Cabbage looper		X	X		X	X		
Col. potato beetle		X		X		X		
Cucumber beetle	X			X	X	X		
Diamondback moth		X	X					
Corn earworm/fruitworm		X	X	X		X		
Fleabeetle				X	X	X		
Hornworm, pinworm		X	X	X		X		
Leafminers						X		
Leafhoppers				X	X	X		
Melon, pickleworm		X	X	X		X		
Mexican bean beetle				X	X	X		
Cowpea curculio				X				
Spider mites					X			X
Squash vine borer		X	X			X		
Stink bugs		X (nymphs)		X (nymphs)		X (adults)		
Thrips		X			X		X	X
Whiteflies	X					X	X	X

\* *Bacillus thuringiensis* (several brands).

\*\* Includes bifenthrin, lambda-cyhalothrin, esfenvalerate, and pyrethrins + PBO.

\*\*\* Test on a few plants first because of potential leaf burn and do not use in hot weather.

**Table 3.** Planting Guide for Florida Vegetables: Spacing Information

Crop	Planting Dates in Florida (outdoors) <sup>1</sup>			Plant Family <sup>2</sup>	Transplant-ability <sup>3</sup>	Pounds yield per 100'	Days to Harvest <sup>4</sup>	Seeds/plants Per 100'	Spacing (inches)		Seed depth (inches)
	North	Central	South						Rows	Plants	
Beans, bush	Mar-Apr Aug-Sept	Feb-Apr Sept	Sept-Apr	Fabaceae	III	45	50-60	1 lb.	18-30	2-3	1-2
Beans, pole	Mar-Apr Aug-Sept	Feb-Apr Aug-Sept	Aug-Apr	Fabaceae	III	80	55-70	1/2 lb.	40-48	3-6	1-2
Beans, lima	Mar-Aug	Feb-Apr Sept.	Aug-Apr	Fabaceae	III	50	65-75	2 lb.	24-36	3-4	1-2
Beets	Sept-Mar	Oct-Mar	Oct-Feb	Chenopodiaceae	I	75	50-65	1 oz.	14-24	3-5	1/2 - 1
Broccoli	Aug-Feb	Aug-Jan	Sept-Jan	Brassicaceae	I	50	75-90	100 plts 1/8 oz.	30-36	12-18	1/2 - 1
Cabbage	Sept-Feb	Sept-Jan	Sept-Jan	Brassicaceae	I	125	90-110 (70-90)	(1/8 oz) 100 plts	24-36	12-24	1/2 - 1
Cantaloupes	Mar-Apr	Feb-Apr	Aug-Sept Feb-Mar	Cucurbitaceae	III	150	75-90 (65-75)	1/2 oz.	60-72	24-36	1-2
Carrots	Sept-Mar	Oct-Mar	Oct-Feb	Apiaceae	II	100	65-80	1/8 oz.	16-24	1-3	1/2
Cauliflower	Jan-Feb Aug-Oct	Oct-Jan	Oct-Jan	Brassicaceae	I	80	75-90 (55-70)	55 plts (1/8 oz)	24-30	18-24	1/2 - 1
Celery	Jan-Mar	Aug-Feb	Oct-Jan	Apiaceae	II	150	115-125 (80-105)	150 plts (1/8 oz)	24-36	6-10	1/4 - 1/2
Chinese cabbage	Oct-Feb	Oct-Jan	Nov-Jan	Brassicaceae	I	100	70-90 (60-70)	125 plts (1/8 oz)	24-36	12-24	1/4 - 3/4
Collards	Feb-Apr Aug-Nov	Aug-Mar	Aug-Feb	Brassicaceae	I	150	70-80	100 plts (1/8 oz)	24-30	10-18	1/2 - 1
Corn, sweet	Mar-Apr Aug	Feb-Mar Aug-Sept	Aug-Mar	Poaceae	III	115	60-95	2 oz.	24-36	12-18	1-2
Cucumbers	Feb-Apr Aug-Sept	Feb-Mar Sept	Sept-Mar	Cucurbitaceae	III	100	50-65 (40-50)	1/2 oz.	36-60	12-24	1-2
Eggplant	Feb-July	Jan-Mar Aug-Sept	Dec-Feb Aug-Oct	Solanaceae	I	200	90-110 (75-90)	50 plts 1 pkt	36-42	24-36	1/2
Endive/ Escarole	Feb-Mar Sept	Jan-Feb Sept	Sept-Jan	Asteraceae	I	75	80-95	100 plts	18-24	8-12	1/2
Kale	Sept-Feb	Sept-Jan	Sept-Jan	-	-	-	-	100 plts (1/8 oz)	24-30	12-18	1/2 - 1

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	North	Central	South						Rows	Plants	
Kohlrabi	Sept-Mar	Oct-Mar	Oct-Feb	Brassicaceae	I	100	70-80 (50-55)	1/8 oz.	24-30	3-5	1/2 - 1
Lettuce: Crisp, Butter-head, Leaf & Romaine	Feb-Mar Sept-Oct	Sept-Mar	Sept-Jan	Asteraceae	I	75	50-90	100 plts	12-24	8-12	1/2
Mustard	Sept-May	Sept-Mar	Sept-Mar	Brassicaceae	II	100	40-60	1/4 oz.	14-24	1-6	1/2 - 1
Okra	Mar-July	Mar-Aug	Aug-Sept	Malvaceae	III	70	50-75	1 oz.	24-40	6-12	1-2
Onions, Bulbing	Sept-Dec	Sept-Dec	Sept-Nov	Liliaceae	III	100	120-160 (110-120)	300 plts/sets, 1 oz seed	12-24	4-6	1/2 - 1
Onions, Bunching (Green onions)	Aug-Mar	Aug-Mar	Sept-Mar	Liliaceae	III	100	50-75 (30-40)	800 plts/sets 1 - 1 1/2 oz seed	12-24	1-2	2-3
Onions, (Shallots)	"	"	"	Liliaceae	III	100	(30-40)	"	18-24	6-8	1/2 - 3/4
Peas, English	Jan-Mar	Sept-Mar	Sept-Feb	Fabaceae	III	40	50-70	1 lb.	24-36	2-3	1-2
Peas, southern	Mar-Aug	Mar-Sept	Aug-Apr	Fabaceae	III	80	60-90	1/2 oz.	30-36	2-3	1-2
Peppers	Feb-Apr July-Aug	Jan-Mar Aug-Sept	Aug-Mar	Solanaceae	I	50	80-100 (60-80)	100 plts 1 pkt	20-36	12-24	1/2
Potatoes	Jan-Mar	Jan-Feb	Sept-Jan	Solanaceae	II	150	85-110	15 lbs.	36-42	8-12	3-4
Potatoes, sweet	Mar-June	Feb-June	Feb-June	Convolvulaceae	I	300	(120-140)	100 plts	48-54	12-14	---
Pumpkin	Mar-Apr Aug	Feb-Mar Aug	Jan-Feb Aug-Sept	Cucurbitaceae	III	300	90-120 (80-110)	1 oz.	60-84	36-60	1-2
Radish	Sept-Mar	Sept-Mar	Oct-Mar	Brassicaceae	III	40	20-30	1 oz.	12-18	1-2	3/4
Spinach	Oct-Nov	Oct-Nov	Oct-Jan	Chenopodiaceae	II	40	45-60	1 oz.	14-18	3-5	3/4
Squash, Summer	Mar-Apr Aug-Sept	Feb-Mar Aug-Sept	Jan-Mar Sept-Oct	Cucurbitaceae	III	150	40-55 (35-40)	1 1/2 oz.	36-48	24-36	1-2

Archival copy. For current recommendations see <http://edis.mn.su.ill.edu> or your local extension office.



**Table 3.** Planting Guide for Florida Vegetables: Spacing Information

Crop	Planting Dates in Florida (outdoors) <sup>1</sup>			Plant Family <sup>2</sup>	Transplant-ability <sup>3</sup>	Pounds yield per 100'	Days to Harvest <sup>4</sup>	Seeds/plants Per 100'	Spacing (inches)		Seed depth (inches)
	North	Central	South						Rows	Plants	
Squash, Winter	Mar Aug	Feb-Mar Aug	Jan-Feb Sept	Cucurbitaceae	III	300	80-110 (70-90)	1 oz.	60-90	36-48	1-2
Strawberry	Oct-Nov	Oct-Nov	Oct-Nov	Rosaceae	I	50	(90-110)	100 plts	36-40	10-14	---
Tomatoes, Stake	Feb-Apr Aug	Jan-Mar Sept	Aug-Mar	Solanaceae	I	200	90-110 (75-90)	70 plts 1 pkt	36-48	18-24	1/2
Tomatoes, Ground	"	"	"	Solanaceae	I	200	90-110 (75-90)	35 plts 1 pkt	40-60	36-40	1/2
Tomatoes, Container	"	"	"	Solanaceae	I	200	90-110 (75-90)				
Turnips	Jan-Apr Aug-Oct	Jan-Mar Sept-Nov	Oct-Feb	Brassicaceae	III	150	40-60	1/4 oz.	12-20	4-6	1/2 -1
Watermelon, Large	Mar-Apr July-Aug	Jan-Mar Aug	Jan-Mar Aug-Sept	Cucurbitaceae	III	400	85-95 (80-90)	1/8 oz.	84-108	48-60	1-2
Watermelon, Small	"	"	"	Cucurbitaceae	III	400	85-95 (80-90)	1/8 oz.	48-60	15-30	"
Watermelon, Seedless	"	"	"	Cucurbitaceae	III	400	85-95 (80-90)	70 plts	48-60	15-30	"

<sup>1</sup> **North:** north of State Rd 40; **Central:** between State Rds 40 and 70; **South:** south of State Rd 70.

<sup>2</sup> Rotate crops to avoid soil pest problems; avoid planting vegetables belonging to the same family in successive seasons.

<sup>3</sup> Transplantability categories: I, easily survives transplanting; II, survives with care; III, use seeds or containerized transplants only.

<sup>4</sup> Days from seeding to harvest. Values in parentheses are days from transplanting to first harvest.

**Table 4.** Suggested Varieties for Florida Gardens

<b>CROP</b>	<b>RECOMMENDED VARIETIES<sup>1</sup></b>	<b>NOTES/REMARKS</b>
<b>Beans, bush</b>	<b>Snap:</b> Bush Blue Lake, Contender, Roma II, Provider, Cherokee Wax <b>Shell:</b> Horticultural, Pinto, Red Kidney, Black Bean, Navy	Fertilize at 1/2 rate used for other vegetables. Seed inoculation not essential for most soils. Flowers self-pollinated. Use shell beans green or dry. Roma is a flat pod type. Cherokee is a yellow wax.
<b>Beans, pole</b>	McCaslan, Kentucky Wonder, Blue Lake	Support vines. May be grown with corn for vine support.
<b>Beans, lima</b>	Fordhook 242, Henderson, Jackson Wonder, Dixie (Speckled) Butterpea, Early Thorogreen	Provide trellis support for pole varieties. Control stinkbugs which injure seeds in pods. Fordhook is large-seeded; Henderson is "butterbean" type.
<b>Beets</b>	Tall Top, Early Wonder, Detroit Dark Red, Cylindra, Red Ace, Yellow Detroit	Beets require ample moisture at seeding or poor germination results. Leaves are edible.
<b>Broccoli</b>	Early Green, Early Dividend, Green Sprouting/Calabrese, Waltham, Packman, De Cicco, Broccoli Raab (Rapini)	Harvest small multiple side shoots that develop after main central head is cut. Broccoli Raab is not related to broccoli.
<b>Cabbage</b>	Rio Verde, Flat Dutch, Round Dutch, Wakefield types, Copenhagen Market, Savoy, Red Acre	Buy clean plants to avoid cabbage black-rot, a common bacterial disease that causes yellow patches on leaf margins. Keep an eye out for looper caterpillars; use Bt for control.
<b>Cantaloupes and Honeydews</b>	Athena, Ambrosia, Galia (green flesh)	Bees needed for pollination. Mulch to reduce fruit-rot and salmonella. Harvest when the fruit cleanly separates from the vine with light pressure.
<b>Carrots</b>	Imperator, Nantes, Danvers, Chantenay	Grow carrots on a raised bed for best results. Sow seeds shallow and thin seedlings to recommended spacing.
<b>Cauliflower</b>	Snowball Strains, Snow Crown, Brocoverde	Comment: Tie leaves around the head when it is 2-3 inches to prevent discoloration. Brocoverde is green-headed.
<b>Celery</b>	Utah Strains	Celery requires very high soil moisture during seeding/seedling stage.
<b>Chinese Cabbage</b>	Michihili, Bok Choy, Napa, Baby Bok Choy, Pak-choi, Joi Choi	Bok Choy is open-leaf type, while Michihili and Napa form tighter heads.
<b>Collards</b>	Georgia, Georgia Southern, Top Bunch, Vates	Tolerates more heat than most other brassicas. Harvest lower leaves.
<b>Corn, sweet</b>	Silver Queen (white), How Sweet It Is (white), Sweet Ice (white), Sweet Riser (yellow), Early Sunglow (yellow)	Separate super-sweets from standard varieties by time and distance to avoid cross-pollination. Sucker removal not beneficial. Plant in blocks of 2-3 rows.
<b>Cucumbers</b>	<b>Slicers:</b> Sweet Success, Poinsett, Ashley, MarketMore 76, Straight Eight, Space Master <b>Picklers:</b> Liberty Hybrid, Eureka, Boston Pickling	Pickling types can also be used fresh. Liberty Hybrid and Sweet Success are burpless types. Many new hybrids are gynocious (female flowering) which means more fruit set. Bees required for pollination
<b>Eggplant</b>	Black Beauty, Dusky, Long, Ichiban, Cloud Nine (white)	May need staking. Harvest into summer. Requires warm weather.
<b>Endive/Escarole</b>	<b>Endive:</b> Green Curled Ruffec <b>Escarole:</b> Batavian Broadleaf	Excellent ingredient in tossed salads. Escarole is a selection of endive also known as Batavian endive.
<b>Kale</b>	Vates Dwarf Blue Curled, Tuscan, Winterbor, Redbor	There is also a collard variety named Vates.
<b>Kohlrabi</b>	Early White Vienna, Purple Vienna	Both red and green varieties are easy to grow. Use fresh or cooked. Leaves are edible.

**Table 4.** Suggested Varieties for Florida Gardens

<b>Lettuce</b>	<b>Crisphead:</b> Great Lakes <b>Butterhead:</b> Ermosa, Bibb, Tom Thumb, Buttercrunch, <b>Loose Leaf:</b> Simpson types, Salad Bowl, Red Sails, New Red Fire <b>Oak Leaf:</b> Salad Bowl, Royal Oak <b>Romaine:</b> Parris Island Cos, Outredgeous	Grow crisphead type in coolest months for firmer heads. Sow seeds very shallow as they need light for germination. Intercrop lettuce with long-season vegetables.
<b>Mustard</b>	Southern Giant Curled, Florida Broad Leaf, Tendergreen, Giant Red, Green Wave, Mizuna	Consider planting in a wide-row system. Broadleaf types require more space. Cook as "greens." Mizuna is a Japanese green used in salads. It is damaged by freezing temperatures
<b>Okra</b>	Clemson Spineless, Emerald, Annie Oakley II, Cajun Delight	Produces well in warm months. Highly susceptible to root-knot nematodes.
<b>Onions</b>	<b>Bulbing:</b> Granex (yellow) <b>Bunching (Green):</b> Evergreen Bunching, White Lisbon Bunching <b>Leeks:</b> American Flag <b>Multipliers:</b> Shallots	Plant short-day bulbing varieties. Bulbing onions may be seeded in the fall, then transplanted in Jan-Feb. For bunching onions, insert sets upright for straight stems. Divide and reset multipliers.
<b>Peas, English or Snow</b>	Wando, Green Arrow, Sugar Snap, Oregon Sugarpod II	Trellis. The pods of Sugar Snap and Oregon types are edible.
<b>Peas, Southern</b> (aka Field Peas, Cow Peas, Crowder Peas, Cream Peas)	California Blackeye No.5, Pinkeye Purple Hull, Texas Cream	Good summer cover crop. Cowpea curculio – a tiny white grub that infests seeds in pod – is a common pest. 'California No.5 Blackeye' is resistant to root-knot nematodes.
<b>Peppers</b>	<b>Bell:</b> California Wonder, Red Knight, Big Bertha <b>Other Sweet:</b> Sweet Banana, Giant Marconi, Mariachi, Cubanelle <b>Jalapeno:</b> Early Jalapeno, Jalapeno M <b>Specialty Hot:</b> Cherry Bomb, Hungarian Hot Wax, Big Chile II, Numex, Ancho, Thai, Anaheim Chile, Long Cayenne, Habanero, Caribbean Red Habanero	Mulching especially beneficial. Will often produce into summer. Most small-fruited varieties are hot. Pepper heat is measured in Scoville units. Habaneros average 259,000 Scovilles; Caribbean Reds are a little over 445,000 Scovilles. In comparison, Jalapenos rank 2,500-10,000 Scovilles, depending on the variety.
<b>Potato</b>	Red Pontiac, Yukon Gold, Gold Rush	Plant 2-ounce seed pieces with eyes. Do not use "store bought" for seed. Remove tops two weeks before digging to "toughen skin". Varieties planted by seeds produce less than from seed pieces.
<b>Potatoes, Sweet</b>	Centennial, Beauregard, Vardaman	Sweet potato weevils are a serious problem. Start with certified-free transplants. Use vine cuttings to prolong season. 'Vardaman' is a bush type for small gardens.
<b>Pumpkin</b>	Big Max, Connecticut Field, Prizewinner, Jack Be Little, Jack O Lantern	Bees required for pollination. Foliage diseases and fruit-rot are common.
<b>Radish</b>	Cherry Belle, White Icicle, Sparkler, Champion, Daikon	The winter type (Daikon) grows well in Florida, too. Inter-crop fast-growing radishes with slow-growing vegetables to save space.
<b>Spinach</b>	Melody, Bloomsdale Longstanding, Tye, Space	Grow only during the coolest months. New Zealand Spinach and Malabar Spinach, although not true spinach, grow well during warm months in Florida. <sup>2</sup>

**Table 4.** Suggested Varieties for Florida Gardens

<b>Squash</b>	<p><b>Summer:</b> Early Prolific Straightneck, Summer Crookneck, Early White Scallop</p> <p><b>Winter:</b> Spaghetti, Table King, Table Queen &amp; Table Ace (Acorn), Waltham, Early Butternut (Butternut)</p> <p><b>Zucchini:</b> Cocozelle, Spineless Beauty, Black Beauty</p> <p><b>Calabaza</b></p>	<p>Summer squash are usually bush type; winter squash have vining habit. Both male and female flowers on same plant. Bees required. Common fruit rot/drop caused by fungus and incomplete pollination. Crossing occurs but results not seen unless seeds are saved. Winter types store longest. Calabaza is a heat-resistant, disease-resistant, vining, hard-shelled squash, similar to a butternut or acorn in taste.</p>
<b>Strawberry</b>	Chandler, Oso Grande, Sweet Charlie, Selva, Camarosa, Festival	Plant short-day varieties. Grow as an annual crop starting with disease-free plants in the fall.
<b>Swiss Chard</b>	Bright Lights, Bright Yellow, Fordhook Giant, Lucullus, Red Ruby	Can be grown nearly year-round in Florida. An excellent alternative green for warm weather.
<b>Tomatoes</b>	<p><b>Large Fruit:</b> Celebrity, Heat Wave II, Better Boy, Beefmaster, BHN444-Southern Star*, Amelia*, BHN 640*</p> <p><b>Small Fruit:</b> Sweet 100, Juliet, Red Grape, Sun Gold, Sugar Snack, Sweet Baby Girl</p> <p><b>Heirloom:</b> Green Zebra, Cherokee Purple, Eva Purple Ball, Brandywine, Mortgage Lifter, Delicious</p>	<p>Staking, mulching beneficial. Flowers self-pollinated. Blossom drop due to too high or too low temperatures and/or excessive nitrogen fertilization. Serious problems include blossom-end rot, wilts, whitefly, and leafminers.</p> <p>*Resistant to TSWV (Tomato Spotted Wilt Virus)</p>
<b>Turnips</b>	<p><b>Roots</b> Purple Top White Globe</p> <p><b>Roots and Greens:</b> Purple Top</p> <p><b>Greens:</b> Seven Top, Shogoin</p>	Grow for roots and tops (greens). Broadcast seed in wide-row system or single file.
<b>Watermelon</b>	<p><b>Large:</b> Jubilee (aka FL Giant), Crimson Sweet, Charleston Grey 133</p> <p><b>Small:</b> Sugar Baby, Mickeylee</p>	Vines require lots of space. Suggest small "ice-box" types. Plant fusarium wilt resistant varieties. Bees required for pollination. "Seedless" types must be interplanted with regular types to dependably bear fruit.
<p><sup>1</sup> Other varieties may produce well also. Suggestions are based on availability, performance, and pest resistance.</p> <p><sup>2</sup> Information on New Zealand and Malabar spinach and many other minor vegetables can be found at: <a href="http://edis.ifas.ufl.edu/topic_hs_minor_vegetables">http://edis.ifas.ufl.edu/topic_hs_minor_vegetables</a></p>		