

CROP ROTATION AND SUSTAINABLE GARDENING GUIDE FOR NORTH FLORIDA GARDENS
(Revised 8/16/2016)

[Crop rotation](#), and [cover crops](#) in vegetable gardens are tools to improve your soil, discourage pests and suppress weeds. This four-year rotation guide was developed for the North Florida area utilizing information from UF/IFAS and other sources. For best pest and disease control, cover crops should also be rotated each year and suggested cover crops are included below.

Begin by dividing your garden space into four beds or areas or four sets of rows. To rotate crops, plant as indicated below, resulting in rotation of plants in each area for a period of four years. On year five, the cycle begins again. Within the designated area, no specific placing of plants is necessary as long as the listed plants remain within the designated area.

2017 – Bed/Rows A	2017 – Bed/Rows B	2017 – Bed/Rows C	2017 – Bed/Rows D
2016 – Bed/Rows B	2016 – Bed/Rows C	2016 – Bed/Rows D	2016 – Bed/Rows A
2020 – Bed/Rows C	2015 – Bed/Rows D	2015 – Bed/Rows A	2015 – Bed/Rows B
2019 – Bed/Rows D	2014 – Bed/Rows A	2014 – Bed/Rows B	2014 – Bed/Rows C
2018 – Bed/Rows A	2013 – Bed/Rows B	2013 – Bed/Rows C	2013 – Bed/Rows D
Spring	Spring	Spring	Spring
Summer Crops: Sweet Potatoes, Southern Peas and Okra Plant May	Salonaceae: Tomatoes, Peppers, Eggplant Plant March-April Follow with cover crop: Buckwheat or soghum sudan grass in July-Aug. (Interplant if necessary)	Legumes and Corn: Green bush and pole beans; Corn Plant March-April Follow with cowpeas, sesame, or sunn hemp	Cucurbits: Summer and Winter Squash, melons cucumbers, pumpkins Plant March-April Cover crop: Cow peas in July-Aug, followed by Rye, Oats, Crimson Clover and/or Hairy Vetch in Sept.-Oct.
Fall	Fall	Fall	Fall
Lettuces, Spinach, Chard, Mustard, Arugula, Cilantro, Fennel, Parsley, Dill, Mizuna, Pak Choi Plant Sept – October Follow with cover crop: Alfalfa or Abruzzi Rye Nov - Feb. (Interplant if necessary)	Carrots Parsnips Turnips, Rutabagas Beets Radishes Onions, shallots Leeks, garlic Celery, Celeriac Plant October	Brassicas: Cabbage, Broccoli, Brussels Sprouts, Collards, Cauliflower, Kohlrabi, Kale Plant October	Early Spring Crops: Potatoes and Green Peas, Sugar Snaps, Snow Peas Plant Jan-Feb

NO TILL: It is best not to till the garden after the initial groundbreaking. Or use [sheet mulching](#) to begin your garden. Tilling tends to [compact the soil](#) and is destructive to the microbial communities you are building to make your garden productive. It also releases carbon and nitrogen from the soil into the air. Just push aside decomposing plants, cover crops, and mulch to plant your seedlings or seeds.

COVER CROPS: There may be short periods in which there are no plants within a particular bed. This should be minimized by the use of cover crops. Cover crops provide food for the [microbes](#) (an essential part of your soil health) in your garden which feed off the sugars secreted by plant roots. During periods when there are no plants, the microbes will eventually starve. Cover crops also mine the soil for nutrients and interfere with the reproductive cycles of insect pests. When chopped down and composted on site, they furnish essential elements for ensuing crops. Cover crops should be cut down about [half way through bloom](#) and before any seeds form, and left on the ground under mulch or lightly worked into the soil, leaving roots in the ground. (Southern peas can be harvested, and then cut down, if desired.) Soil should be worked as little as possible to prevent disturbing microbe communities and releasing nutrients into the air. Planting cover crops, particularly those which fix nitrogen, should be timed so that the next crop can be planted as soon as possible after cutting the cover crop, since nitrogen is volatile and will

escape from the soil. When planting, just pull the cover crop mulch aside and insert the seeds or plants. Leave the mulch pulled back from seeds until they germinate. The beds should remain deeply covered with mulch during any fallow period. The chart in [IFAS document 389](#) on cover crops is very helpful in determining what nutrients and advantages are supplied by different cover crops. Some cover crops help suppress nematodes, insects, or diseases as well as supplying various nutrients. Cover crop cocktails are now being used by farmers and can be used in the garden also – mixing the seeds from different cover crops and planting them together to supply a variety of advantages.

COMPANION PLANTING: Plant rosemary, lavender, nasturtiums, mint, basil, parsley, borage, sunflowers, cilantro, celery, dill, thyme, marigold, yarrow, and calendula throughout garden as they help to repel pests. Use their leaves to make an organic general insecticide spray. Calendula is said to repel tomato worms and many other insects; thyme is supposed to deter cabbage worm, etc. Comfrey is a nutrient accumulator; plant along edges and use leaves for mulch; it is also a compost activator.

ATTRACTING GOOD BUGS AND POLLINATORS: It is important to sow lots of flowers and herbs among your vegetables, particularly in summer, to attract good bugs and pollinators. Winter crops do not experience as many pest problems, and most winter crops produce no fruit, thus no pollination is necessary. [Mother Earth News](#) has a great list of such plants, both annual and perennial.

MULCH: Mulch should be maintained on soil at all times to aid in decomposition of harvested plants and cover crops, retain moisture, discourage weeds, and prevent leaching of nutrients from soil. Materials suitable for mulch are chopped plants from the garden, straw (oats, rye, wheat), pine straw or leaves, particularly oak leaves. Hay is not as good as it contains grass seeds, and because most hay has been treated with herbicides to kill weeds. Some sprouting will occur from grain straw, but consider leaving the sprouts in place. Cut and drop before they develop seed to use as nutritious mulch. Grains repel nematodes, and have strong root systems to mine minerals, particularly potassium.

HARVESTING: Soon after harvesting, cut plants at ground level and leave roots in the soil. They will decompose and supply nutrients to the soil as well as creating pathways for air and water to reach future plant roots. Plant your next crop around them. Chop up harvested plants while they are still green and leave on the ground under mulch or lightly work into soil. This, of course, does not apply to diseased plants which should be destroyed, or woody stems such as stalks from okra, corn, and eggplant. They can be chopped and composted but may be too bulky in the garden.

FERTILIZING: Start by adding a lot of organic matter in your soil. A mixture of aged manure, compost, and peat moss can be worked into the soil or used alone in raised beds. Vermiculite can be added to supply potassium. It will take longer to get your garden truly productive if you start with unimproved soil. Each year, approximately one inch of compost can be added after harvesting the winter crop or at time of planting the summer crop. Fish emulsion can be added during the growing season to supply nitrogen and phosphorus. Add sparingly as aphids like plants with high nitrogen. Compost tea or [worm castings](#) are also beneficial additions, particularly if the soil has been disturbed or there has been a fallow period. Compost tea or bio-brew cultures microbes from worm castings or compost to add a much richer load of microbes to your garden. With cover crops and the additions listed here, you will probably not need any other fertilizer. You can add wood ashes, potash, or greensand before planting if your soil tests low in potassium. Wood ashes also raise soil pH so add sparingly unless you have acid soil – low pH. A soil test every year is advisable to make sure the [soil pH](#) is staying within the optimum range for vegetables (roughly between 6.0 and 7.0), and to check soil nutrients to make sure no additional supplements are necessary. It is important to regulate pH as the pH level determines the extent to which nutrients in the soil are available to plants. Even if the soil contains ample nutrients, if the pH is out of range, the plants cannot access the nutrients and will not thrive.

SEED SAVERS: This rotation schedule may not work for those who wish to save seeds of heirloom plants because different varieties of the same species planted in the same bed may [cross pollinate](#), which will usually not affect the current crop, but will be evident in the next generation planted from the saved seeds.

For latest version of this schedule including active links to additional information, and additional references including planting guide for North Florida, organic insect control chart, UF vegetable gardening guide, links to insect and disease identification sites, and much more information see the VegHeadz Blog: <http://www.northfloridavegheadz.blogspot.com>