

YARD FARMS



HILLSBOROUGH COUNTY PLANTING GUIDE

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INTRODUCTION

We created Yard Farms and this booklet to encourage you, dear reader, to begin or continue the great adventure of farming. The purpose of Yard Farms is three fold:

1. Providing information and tips so that growing healthy and delicious food is accessible to all,
2. Creating a comprehensive and simple to guide to growing food specifically in Hillsborough County Florida to include access to our website and periodic blog posts detailing new insights, and
3. Testing our recommendations by growing our own food.

Growing food is a natural and rewarding process available to everyone. You may have heard that farming in Florida is very difficult, if not impossible. Actually, given Florida's extended growing period, farming can be very gratifying. The secret to success is utilizing farming practices specific to your growing region.

This booklet is a How-to-Guide on the regenerative production of delicious fruits and vegetables in Hillsborough County. It is a collection of research and hands-on experience. Our recommendations deliberately target conditions specific to Hillsborough County because essential components such as sunlight, water and soil differ vastly from region to region.

The virtues of regenerative farming are vast and all encompassing. At its essence, regenerative farming supports,

sustains, and creates beneficial life on earth. While there are countless books, documentaries and movies on the importance of improving the food we eat, allow me to list some of the many benefits:

Creating and sustaining healthy soil increases organic matter, improves water retention and reduces erosion. It also sequesters carbon and plays a vital role in stabilizing our climate. This leads to more resilient, fertile ground that produces nutrient dense food. Nutrient dense food contains more vitamins, minerals and antioxidants providing robust health. Eliminating pesticides and synthetic fertilizers reduces chemical exposure and creates safer food and a healthier environment. Physical activity such as digging, planting and weeding offers great exercise and improved fitness. Studies also show that gardening improves mental well-being by, among other things, reducing stress, enhancing mood, and providing Vitamin D.

Regenerative farming is a holistic approach where improving the soil also improves your health, your food, and your local environment, creating a positive feedback loop for both you and the planet. These benefits will also extend to your family and friends.

Whether you identify as a farmer, gardner or grower (these three words will be used interchangeably throughout) our objective is to get you started successfully raising delicious and nutritious crops on whatever space you have available. For this reason, our booklet will be simple and straightforward and loaded with

references should you desire to “dig deeper” into the subject matter. So let’s get started!

CONSIDERATIONS WHEN SELECTING YOUR GROWING AREA

Your growing area is the place where you will be planting and harvesting your crops. Factors to be aware of before you create your farm are discussed below.

Region and Hardiness Zones

Your growing region must be taken into consideration to ensure that your plants will thrive. Florida has three growing regions, Northern, Central and Southern. We are focusing on the growing area in which we live or Hillsborough County, Florida which falls in the Central Florida growing zone. It should be noted here that commercial seeds are generally categorized by their “hardiness zone” or the geographical area where they will thrive. According to the 2023 USDA hardiness Zone Map, Hillsborough County encompasses Zone 10a, 10b and 9b. To determine your hardiness zone by zip code, go to: planthardiness.ars.usda.gov.

Sun

The sun is essential for a garden to thrive, but too much sun in Florida can have disastrous effects. In Northern states it is recommended for gardens to have 8-10 hours of direct sunlight everyday. However, because of the intense heat in Florida,

generally only 6-8 hours of full sun are needed and where possible, locate your growing area facing the South or Southeast. This will protect plants throughout the day as the Sun changes positions.

While sunlight is essential, the sun, especially in Florida can cause leaves to lose moisture and wilt. Certain fruits and vegetables can even scald in intense heat. Gardeners should take preventative measures to protect their garden.

Solutions to too much sun include adding mulch to the garden bed, as it retains moisture. Gardeners can also utilize natural shade from nearby trees or grow tall plants in the garden bed itself to protect the shorter plants. Many use a shade cloth throughout the day, which still allows sunlight to hit the plants but does not cause excessive heat.

Water

Access to water is also an essential component to growing plants. This is an important consideration when selecting your growing area. For novice farmers/gardeners and growers, there are multiple options for watering their plants. It is important for each individual to evaluate their options and decide which fits best for their circumstances.

The easiest option is simply handwatering using a hose or watering can. It is cheap and allows the gardener to choose when and exactly how much their plants are watered.

The amount of water a garden box will need depends on multiple factors, such as how many inches of rainfall there is during the day, what kinds of vegetables are being grown, as well as how hot it is. A simple way to determine how much rainfall your plants are getting is to place a rainmeter in the middle of the growing area. This is a simple and inexpensive device that will collect water during rainfall and measure the amount of water your plants have received. The best way to figure out if the garden needs more water is to put a finger into the soil. If the soil is dry 2 to 4 inches down, it means that the roots are not getting enough water and the growing area needs to be watered.

Micro-irrigation

At Yard Farms, we have elected to utilize micro-irrigation. Micro-irrigation is an efficient watering method that delivers small amounts of water slowly and directly to a plant's root zone using low pressure. This provides thorough and even irrigation of your plants, with the added benefit that there are no restrictions on watering days when using micro-irrigation. There are several types of micro-irrigation. For a more detailed description see link below.

At Yard Farms we started out with micro-sprayers but found they were not optimal due to overspraying as well as mechanical failures of the sprayers whose heads tended to pop off due to water pressure. We decided instead to utilize drip tubing. We placed drip tubing with pre-punched holes every 12 inches along our plant rows. This method only waters the roots and allows time for the water to be absorbed by soil with little evaporation.

We were provided with tubing and fixtures free by attending a UF/IFAS workshop.



A note about your local UF/IFAS. This is a valuable resource not only for electronically disseminated information but also for fun and informative workshops where you are often provided with starter kits. Examples of workshops include: irrigation, composting and rainwater harvesting. We highly recommend that you view the site for specific workshops by going to:

[UF/IFAS Extention](http://sfyl.ifas.ufl.edu/events/?location=hillsborough)

<http://sfyl.ifas.ufl.edu/events/?location=hillsborough>

For more information about micro-irrigation and installation details see:

[A Guide to Micro-Irrigation for West-Central Florida Landscapes](https://sarasota.wateratlas.usf.edu/upload/documents/micro-irrigation-guide.pdf)

<https://sarasota.wateratlas.usf.edu/upload/documents/micro-irrigation-guide.pdf>

[Supplies and Directions](https://misterlandscaper.com/)

<https://misterlandscaper.com/>

[Installation Video](https://misterlandscaper.com/)

<https://misterlandscaper.com/>

PREPARING YOUR GROWING AREA

It is important to prepare your growing area to reduce pests and weeds that can plague your garden.

Remove existing plants including grass and weeds from the area you intend to place your garden boxes. An easy way to clear the ground is to place heavy cardboard down. This can be obtained from an appliance or grocery store.

Place the cardboard or other material that will block the sun in the intended growing area and intended walkway and leave it there. After a week or so, lift the cardboard and determine if all of the green matter has died. If most of the green matter has died, rake

the soil and remove the remaining weeds or grass from the roots. A broad fork works well for this purpose.

Once the green matter is removed, place the cardboard back and assemble the garden boxes. The cardboard will serve as mulch and will eventually compost into the soil.

BUILDING YOUR GARDEN BOXES

You can use virtually anything that holds soil and has good drainage to grow your fruits and vegetables. For example, in addition to traditional clay or ceramic pots, I have seen people grow in wooden chest drawers, old leather boots, buckets, and all manner of plastic containers. However, the materials you use are important as you don't want chemicals to leach into your growing area as those same unwanted substances may leach into your plants.

At Yard Farms, we have elected to use garden boxes. These are helpful for beginners because they provide enough growing area to produce a fair amount of edibles and they are easier to maintain from an irrigation and pest management standpoint.

Preconstructed garden boxes can be found online or at retailers such as Walmart or Home Depot. However, some might elect to build one from scratch. The University of Florida IFAS extension has a great step by step guide for building one's own garden box. To access the full detailed guide, go to:

<https://gardeningsolutions.ifas.ufl.edu/design/types-of-gardens/building-raised-beds/>

At Yard Farms we found some reclaimed cedar for our boxes. These boxes measure 4' wide x 6' long x 2' deep. However, this size can be scaled up or down depending on the individual gardener's needs or amount of materials.

Wood is the recommended material for raised garden beds; specifically cedar or redwood as they are rot resistant. As alluded to above, regardless of the choice of wood, it is important to use materials that are not treated with unsafe chemicals because these chemicals may leak into the soil and thus into vegetables and fruits growing in it.

Garden bed depth should range from 6 to 24 inches deep but that is, once again, up to the individual gardener. The deeper the bed the more expensive it will be because more materials will be needed. On the other hand, a deeper bed may be necessary to grow vegetables that have deeper roots.

It's also important to know that the thicker the wood used, the more durable the garden bed will be. A width of at least 1.5 inches would be sufficient but 2 inches would be preferred. The width of the wood used is also another cost issue to keep in mind.

For our 4' x 6' x 2' garden bed we need two boards measuring 4 feet and 2 boards measuring 6 feet. Any home improvement store like Home Depot will cut the perfect sized pieces of wood without additional cost. By placing the shorter walls perpendicular to the longer walls a rectangle is formed and from there one would drill the pieces together. Screws or nails at least 2 inches long in length should be used with pre-drilled holes on the corners of

each piece of wood, to complete the box. Ideally, the corners should be reinforced with 4" x 4" inch posts measuring the depth of the bed. The boards can then be fixed with screws to the corner posts.

Once your garden boxes are in place, it is helpful to mulch around the outside of the boxes and pathways to retard weeds and prevent your work area from getting muddy.

SOIL

Soil is the foundation of a garden, providing essential nutrients, water, and support for plant roots. It is a living ecosystem that retains moisture, regulates water, and houses beneficial microorganisms that break down organic matter into usable nutrients. Healthy, well-structured soil promotes strong root development, protects against pests and diseases, and reduces erosion.

Filling Your Beds

To determine the amount of soil needed, one must calculate the dimensions of their box using cubic feet. For example, to calculate a 6 x 4 x 2-foot box, multiply the length, times the width, times the height to arrive at the cubic feet which in this case is 48 cubic feet. Once you have this calculation, you will know how much soil you will need for your bed.

The soil in Florida is sandy and not optimal for growing traditional fruits and vegetables. Using a garden box along with garden soil,

compost and soil less media will provide enough nutrients to grow most plants.

Any type of organic garden soil will serve well as a base. It should be mixed with approximately $\frac{2}{3}$ of an inch of organic compost. This should be done about 3 weeks before planting to allow it to cure. Water the soil deeply and determine if it drains well. If you notice that water pools in places after several minutes, you will need to add a soilless medium such as perlite for better drainage. Organic fertilizer may also need to be added before planting and 2-3 weeks after planting to encourage vegetable growth.



For information about free compost from the City of Tampa, go to:

<https://www.tampa.gov/search?search=compost>



For information about free mulch from Hillsborough County, go to:

<https://hcfl.gov/residents/property-owners-and-renters/trash-and-recycling/free-mulch-pickup>

If there is any doubt about the adequacy of your garden soil, you can mail samples to the University of Florida to test PH and nutritional content. For more information about soil testing, go to:

<https://sfyl.ifas.ufl.edu/agriculture/soil-testing/>

A Word on Composting

Composting is nature's way of recycling. It is one of the most powerful actions we can take to reduce our trash and build healthy soil. By turning our food scraps and yard trim into compost, we transform our waste streams into a beneficial, value-added soil amendment and use it to protect the environment and create resilient communities. For more information about composting, go to:

<https://gardeningsolutions.ifas.ufl.edu/care/fertilizer/compost/>

EQUIPMENT AND TOOLS

In addition to the above equipment for watering, you will need basic equipment to care for your plants. As you move along in your farming career, you will undoubtedly need more tools which will allow you to garden more efficiently, but these are the basics:

Spading Fork - this is essential for breaking up soil and compost before planting crops. However, for a small container garden, a spading fork may not be necessary.

Shovel - this is important for moving soil and compost and digging up large items.

Spade - this is a small hand tool used for smaller, more delicate jobs once your growing area is ready to plant.

Garden sheers - these are used for cutting all types of things and they are especially helpful for trimming and harvesting plants.

Garden gloves

A note on equipment and tool quality - obtain equipment that is both functional and sturdy. This will save you a lot of time and heartache. Purchasing new is not always the answer. Consider bartering with a friend, neighbor or family member who may have collected tools but is no longer using them. If you have time, check out estate sale notices. There are a plethora of items for sale online, just be prepared to personally inspect the item before purchasing and cross checking the sales price.

Gardener's journal

Your journal will ideally include a description of each fruit or vegetable you have planted, the day it was planted, the expected day of harvest, the actual day of harvest and special notes. This information will prove extremely valuable to anticipate when you can expect seedlings to start emerging from the soil and harvest time of mature crops. It also serves as a great historical reference concerning successes and failures and for planning your future crops. While you may think you will remember these particulars; trust me, you won't. So please get in the habit of documenting farming projects. For a sample journal, See: *Farmer's Journal - Appendix A.*

GROWING YOUR CROPS

Crop Yield

The number of vegetables you can yield from a growing area depends on the plant's size, the types of vegetables, and the planting method. Generally, you can expect yields of 6-12 small plants (lettuce, carrots) or 1-4 larger plants (peppers, cabbage) per square foot. For a single large plant, a yield can be a few pounds, while smaller plants might yield less per plant but more in total weight for the same area.

Selecting Your Plants

Growing Region

With so many delicious vegetables and fruits to choose from, how does one select plants for their garden? As already discussed, your growing region must be taken into consideration when determining what plants will thrive in your garden. The University of Florida has an excellent chart of plant selection as well as the best time of year to plant and other essential information. For ready reference as to the best crops for a given season See: *Vegetable Garden by Season - Appendix B.*

Growing Season

Once you have determined your growing region, the next thing to take into consideration is the growing season. Florida has two (2) primary growing seasons, a cool season (approximately

November–March) for crops like leafy greens, strawberries, and tomatoes, and a warm season (approximately April–October) for heat-loving plants like okra, sweet potatoes, and tropical fruits. The intense heat of Florida’s summers makes it less productive for many vegetables, so it is best for beginner gardeners to have their last harvest in May and plant a low maintenance cover crop for the hottest months of the year (June - August).

Favorite Fruits and Vegetable

The next, and possibly most obvious, consideration is what types of fruits and vegetables you, your family, and your friends enjoy eating. Depending on the size of your growing area, select your favorite produce and then add a plant you have never tried to broaden your palate.

Companion Planting

Companion planting is the practice of strategically placing plants together to improve growth, control pests, and maximize space efficiency. For example:

Planting long- and short-season plants together, like carrots and radishes, makes the best use of space. Radishes can be harvested around 21 days after planting, just about the time the carrots need the room.

Growing tall plants such as corn with shorter, shade-tolerant species like lettuce helps keep both plants happy.

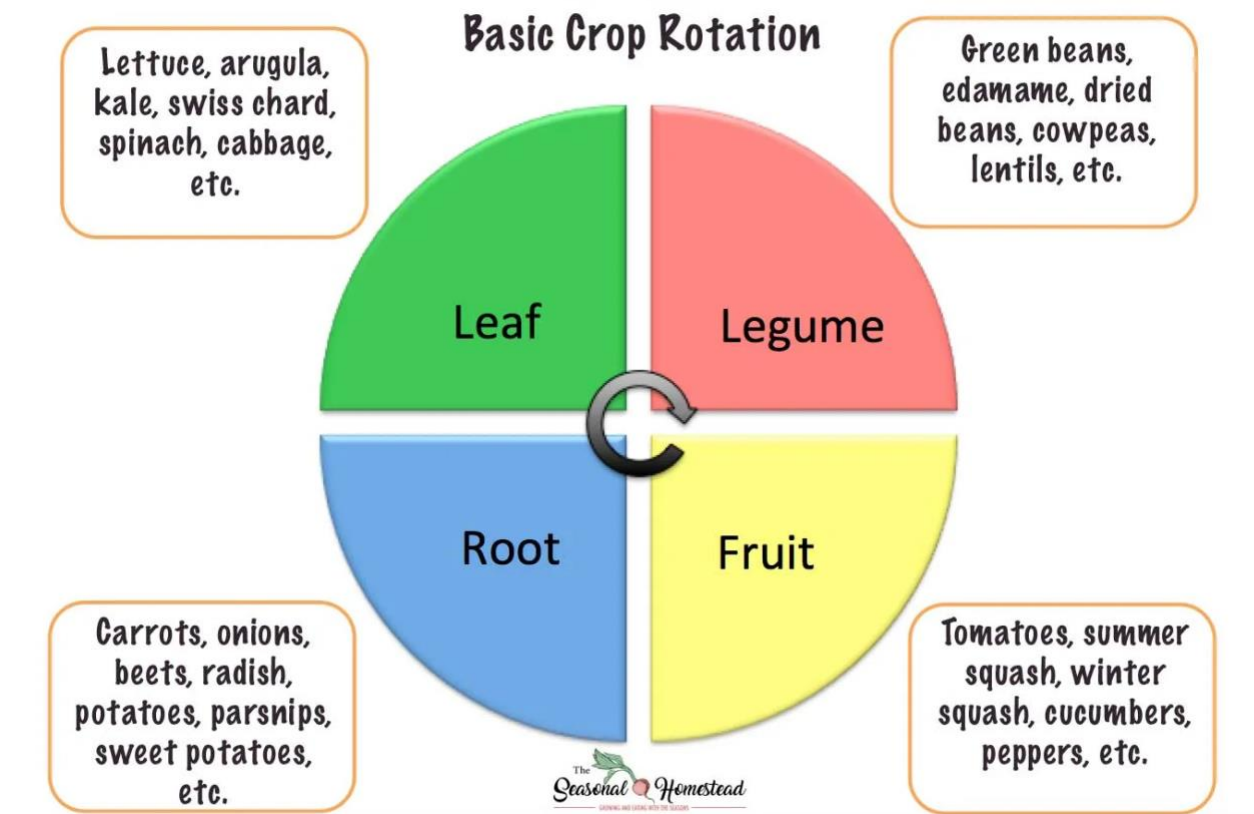
For brassicas such as broccoli, cabbage and kale, the smell of onion and garlic planted nearby will repel pests. If you plant legumes such as green beans near the brassicas, the legumes will fix nitrogen in the soil. In other words, as your brassicas pull nitrogen from the soil, the beans can put it back in! Legumes pull nitrogen directly from the air and transfer it back through their root system.

For an extensive guide to companion planting, go to:

<https://www.almanac.com/companion-planting-guide-vegetables>

Plant Rotation

Plant rotation is a gardening practice where you move plant families to different garden beds each season to improve soil health, prevent the buildup of pests and diseases, and manage soil fertility. To rotate, divide your garden into sections and plant different families of vegetables in each section, following a specific cycle, such as a three- or four-year rotation for the same family not returning to a specific spot for that long. This prevents soil-borne pests and diseases from accumulating and ensures nutrients are balanced, as different plants have different nutritional needs. Below is a basic chart:




While the above chart is helpful, it should be adjusted when companion planting is taken into consideration. For example, if in a given planting season you plant beans and onions with your brassicas, the next year the entire planting group can be rotated to the next quadrant. Since at Yard Farms we will be growing in separate boxes, we will be adapting the principles of crop rotation accordingly.

Seedlings or Direct Sow

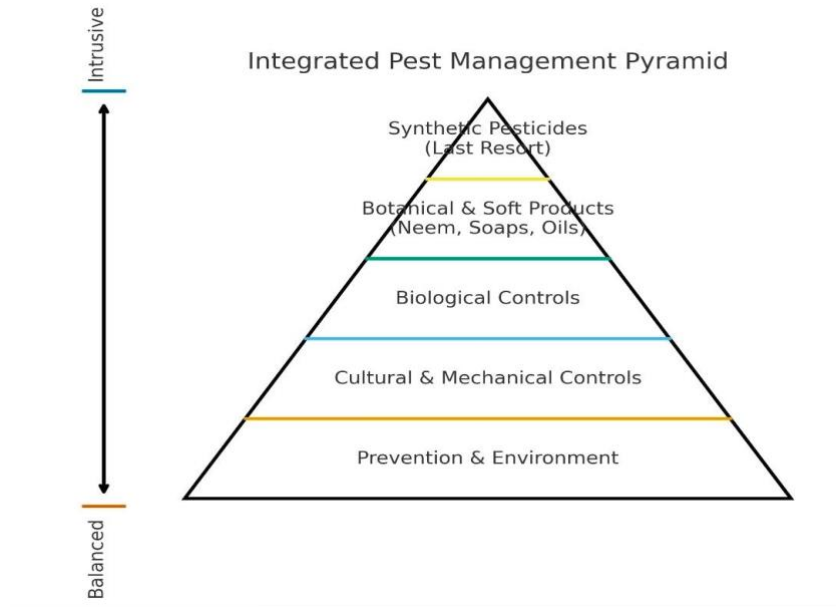
Seedlings are started indoors in pots and transplanted outdoors, which offers an earlier start date, better control over germination, and protection from pests, but requires more effort and space. Direct sowing is planting seeds straight into the garden, which is

simpler, cheaper, and avoids transplant shock, but leaves seedlings vulnerable to weather and pests and is best for plants that dislike root disturbance, such as carrots and beans. For detailed planting guide concerning transplantability, See: The UF Seasonal Planting Guide, Appendix B.

 For free seeds for your garden from the HCC seed library, go to: <https://libguides.hccfl.edu/c.php?g=691663&p=4894646>

MANAGING PESTS

Just as day follows night, pests will find their way into your garden. Some pests or insects are beneficial while others can be very harmful. Do not despair, with integrative pest management (IPA), you can reduce and eradicate harmful pests without destroying the plants and beneficial insects in your garden. IPA is a regenerative system of pest management that emphasizes using the least harmful methods before resorting to more harmful ones. On the following page is a diagram and explanation of the pyramid with the best practices at the bottom or base of the pyramid and the practices to avoid at the top.



Least Harmful : prevention and environment

Strong soil biology, compost, mulch, proper spacing, watering correctly, sunlight, airflow, are the best way to control and avoid harmful pests.

Second Level: culture and mechanical controls

This level includes techniques we have already discussed such as companion planting, crop rotation and planting schedule; planting a diverse selection of crops; selecting plants that are Florida friendly and pest resistant; and including native plants and flowering borders. Also, handpicking harmful insects and removing diseased leaves as soon as they appear.

Third Level: biological controls

This method boosts the beneficial insects, bacteria and fungicide so they overwhelm the harmful pests. Examples include the introduction of lacewings and ladybugs, beneficial nematodes, bacillus bacteria (BT) and friendly fungicide.

Fourth Level: botanicals and soft products

These should be used sparingly and include cold-pressed neem oil, soaps, oils, and naturally-derived products that disrupt pests without totally disrupting the ecosystem of your garden. Since these products can be damaging to the overall health of your growing area, once the issue calms down, cease the use of these products.

Fifth Level: synthetic pesticides

Pesticides are extremely damaging to your garden and quite possibly to your health. For this reason we do not recommend the use of these products under any circumstances. If you think you want to go this route, may we suggest you first review the research on chemical pesticides. For award winning documentaries on the harmful effects of synthetic pesticides, See: <https://commongroundfilm.org/> and <https://farmersfootprint.us/films/>

HARVESTING CROPS

When you think your crops are ready to harvest, it is good to consult your Planting Guide and Gardeners Journal for timing and to do a little research on the best harvest methods for your particular plant.

Some plants are better harvested in the early stage so they remain tender and to avoid bitterness, while others plants such as carrots and potatoes are best harvested later to encourage growth. For leafy greens it is best to pick from the outside of the plant first, and let the inside leaves continue to grow and ripen. This extends the harvest time of the vegetable.

Generally, once the vegetables or fruits reach a dark distinct color or once they reach their ideal size it is time to pick them. It is important to ensure that all handling of fruits and vegetables is gentle to prevent bruising.

CONCLUSION

If you have come this far, you deserve a pat on the back for all of your hard work. While farming is full of highs and lows and many wonderful surprises, know that regardless of your results, you have begun to accumulate a treasure trove of knowledge which will serve you and the people you love.

So let the fun begin!

Bonne Farming,

The Folks at Yard Farms

DEDICATION

This booklet is dedicated to the farmer in all of us and especially those who have shared their enthusiasm, knowledge and experience in growing affordable, healthy and delicious food.

ACKNOWLEDGEMENTS

Special acknowledgement to Adrianna and Jay Silver who suggested we begin by gaining experience at Abby's Community Farm and for their generosity in allowing us to place our first garden boxes at their beautiful farm.

Thank you to Brianna Pierce, our intern from USF/Home Grown Hillsborough who assisted in the research and writing of much of this booklet and who helped design our garden and plant and grow our first harvest of healthy and delicious food.

Appreciation is also extended to our editor, Augustus Truslow, who gently and skillfully guided the writing of this booklet.

And thank you to our web designer, Hunter Cartan, who brought our vision to life through photos and text on our website, YardFarms.org and has allowed easy additions of blog posts as we learn and grow through experience.

To obtain an E-book and learn more go to: Yardfarms.org.

CROP	*	Vegetable Gardening Central Florida Planting Dates												DAYS TO HARVEST**	
		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.		
Beans, bush	3														50 - 60
Beans, pole	3														55 - 75
Beans, lima	3														65 - 75
Beets	1														50 - 65
Broccoli	1														75 - 90
Cabbage	1														90-110 (70-90)
Cantaloupes	3														75-90 (65-75)
Carrots	2														65 - 80
Cauliflower	1														75-90 (55-70)
Celery	2														115-125 (80-105)
Chinese Cabbage	1														70-90 (60-70)
Collards	1														70 - 80
Corn, sweet	3														60 - 95
Cucumbers	3														50-65 (40-50)
Eggplant	1														90-110 (75-90)
Endive/Escarole	1														80 - 95
Kale	1														80 - 95
Kohlrabi	2														70-80 (50-55)
Lettuce: Crisp	1														50 - 90
Butterhead	1														50 - 90
Leaf	1														50 - 90
Romaine	1														50 - 90
Mustard	2														40 - 60
Okra	3														50 - 75
Onions: Bulbing	3														120-160 (110-120)
Green	3														50-75 (30-40)
Shallots	3														50-75 (30-40)
Peas, English	3														50 - 70
Peas, Southern	3														60 - 90
Peppers	1														80-100 (60-80)
Potatoes	2														85 - 110
Pumpkin	3														90-120 (80-110)
Radish	3														20 - 30
Spinach	2														80-110 (70-90)
Squash, summer	3														40-55 (35-40)
Squash, winter	3														80-110 (70-90)
Strawberry	1														(90 - 110)
Sweet Potato	1														(120 - 140)
Tomatoes: Stake	1														90-110 (75-90)
Ground	1														90-110 (75-90)
Container	1														90-110 (75-90)
Turnips	3														40 - 60
Wtr'melon: S, M, L	3														85-95 (80-90)

Planting Period



Harvest Dates



Harvest dates assume transplants were used.
If using seeds, the harvest dates will be later.

UF/IFAS Extension Hillsborough County
5339 County Road 579, Seffner FL 33584
Office: Mon. - Friday, 8:00AM - 5:00PM
Phone: (813) 774 - 5519 ext: 54102
email: hillsmsg@mail.ufl.edu
<https://sfyl.ifas.ufl.edu/hillsborough/>

*Transplantability
1 Easily survives transplanting
2 Survives with care
3 Use seeds or containerized transplants only

Additional Resources:
<https://gardeningolutions.ifas.ufl.edu/plants/edibles/vegetables/vegetable-gardening-in-florida/>
<https://edis.ifas.ufl.edu/publication/EP450>
<https://edis.ifas.ufl.edu/publication/vh021>

** Days to Harvest
Days from seeding to harvest: Values in parentheses are from Transplanting to harvest.