

Organic Raised Bed Gardening Basics for Great Results

Cyndi McGill, Georgia Master Gardener

Extension Volunteer

February 14, 2026



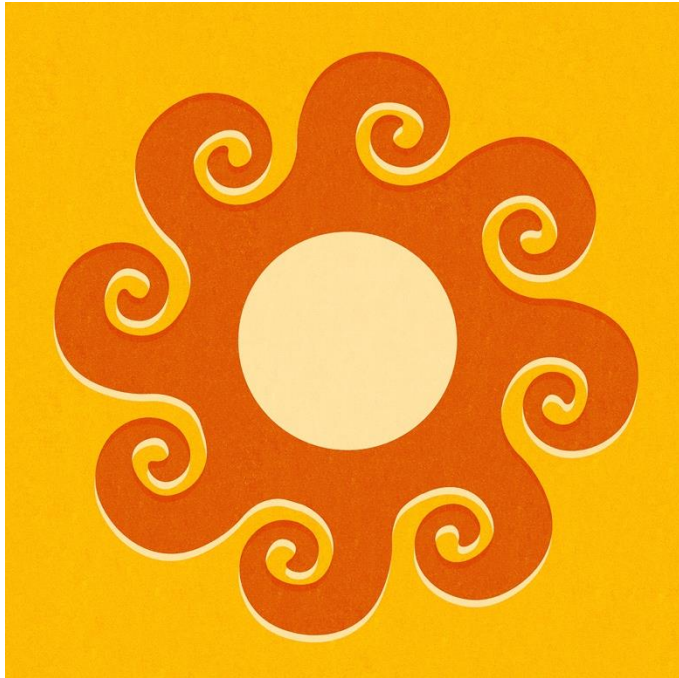
Why A Raised Bed?

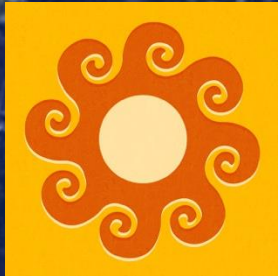
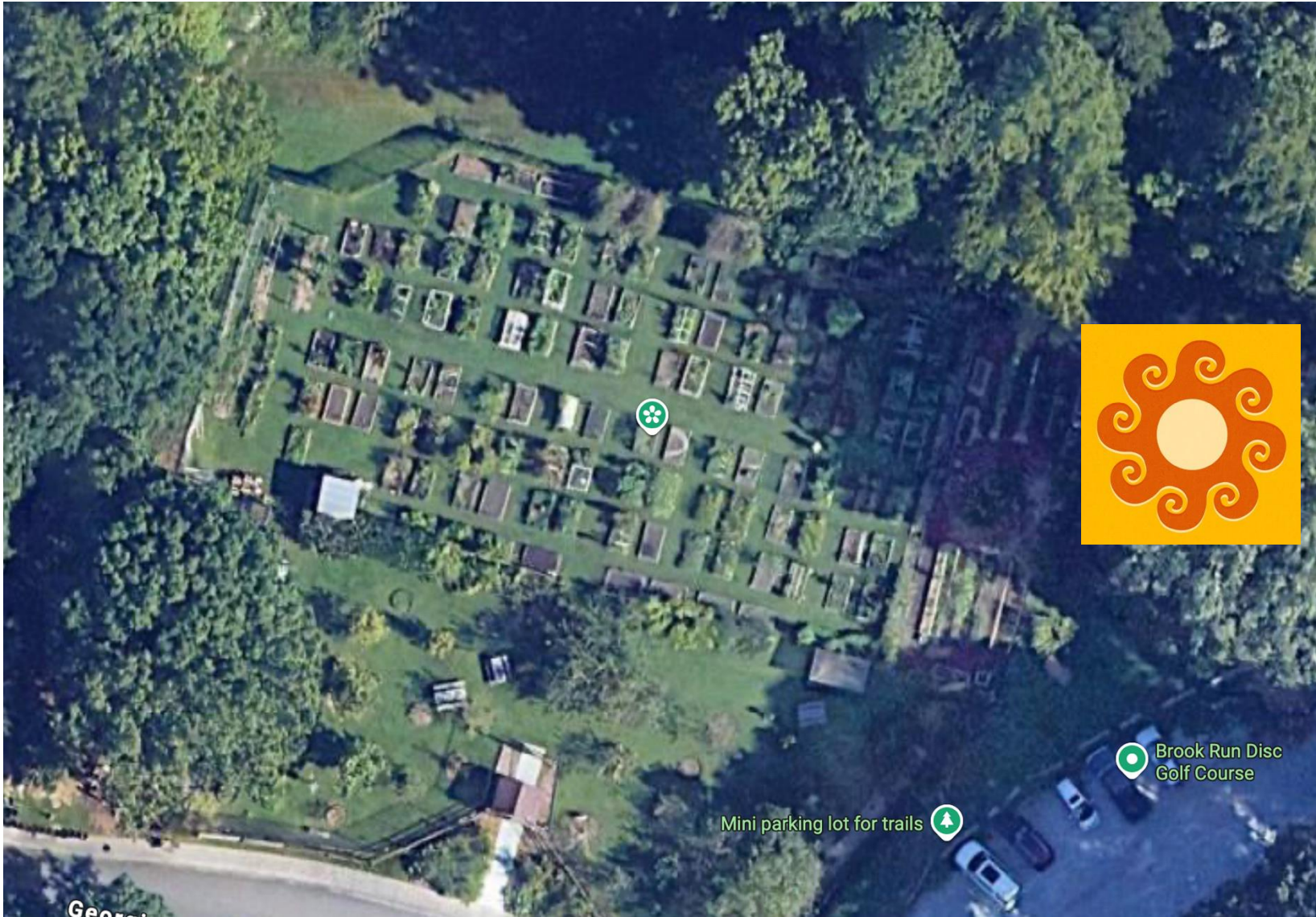


Today's Topics

- Garden site basics: plot site and preparation
- Our Gardening Zone
- What and When to Plant
- Garden Plot Designs
- Garden Care and Maintenance
- Supporting Structures
- Managing Pest and Diseases
- Basic Equipment List

Right Place!





Brook Run Disc Golf Course



Mini parking lot for trails

Geo

Right Soil!

- Soil rich in organic matter (compost, leaf litter)
- Added element(s) for drainage (e.g. perlite, sharp sand) and tested for herbicide residue
- pH between 6.5 and 6.8 best for most vegetables and herbs

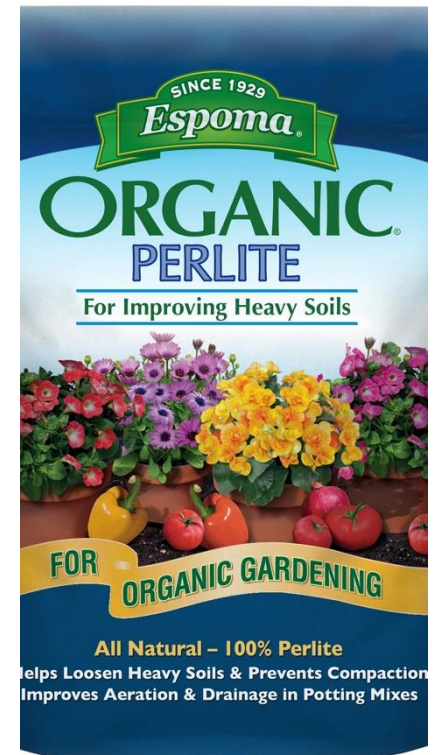
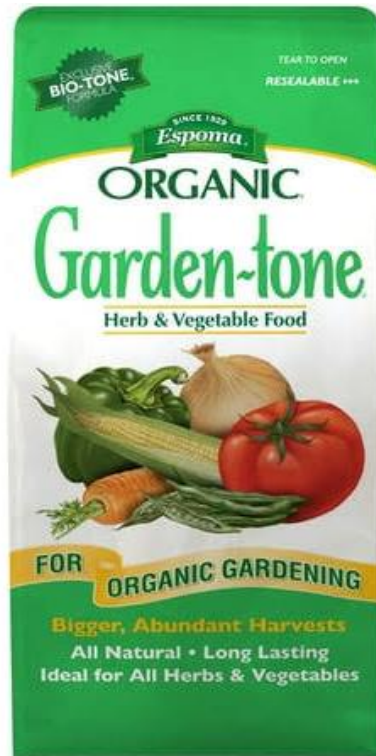


Prepare Your Plot (1st Time)

- Cultivate (dig/turn) existing soil to a depth of 8” and remove any additional unwanted plant material
- Fill the bed to the top with fresh soil
- Mix together recommended amount of fertilizer* then work into the top 4” to 5” of soil
- Take care around the corner of the plot with the water outlet!
- Once filled: never never never walk on the plot!

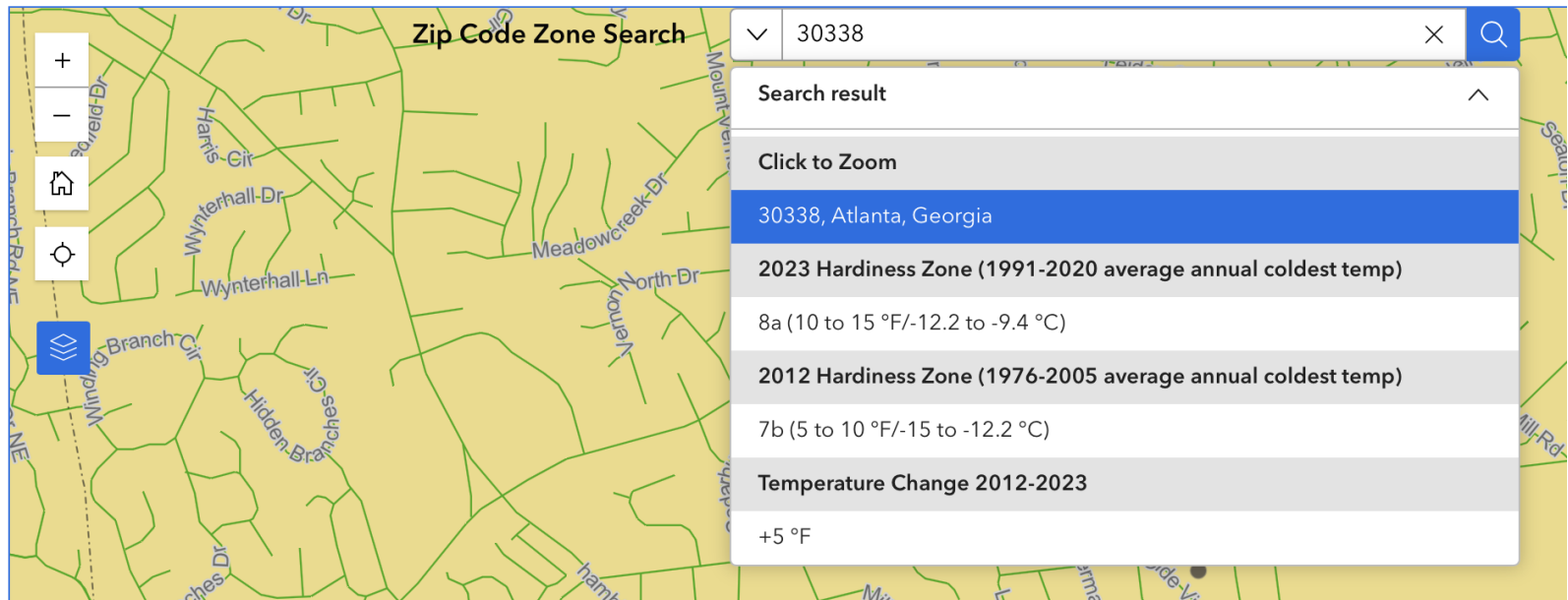
*For Garden-Tone, 2 lbs for this initial application

Amendments





2023 USDA Plant Hardiness Zone Map



We are in Hardiness Zone 8A.

Average Last Frost Date: End of March – April 15

Average First Frost Date: Late October – Mid November



UGA Weather Network



- Home
- Maps and Summary
- Crop Weather
- Drought
- Calculator
- Background Info
- Site Map
- Contact us

- Past Data >
- Graph >
- Seasonal >
- Forecast >
- Site Information

Weather Stations

Select a station from drop down list below

Select a Station

Nearest Stations

Enter a GA ZIP Code to check three nearest stations

Cherokee Town and Country Club

Sandy Springs, Fulton County, Georgia

Current Conditions

Today is Saturday, January 3, 2026. The time is 11:05:23 AM

Graph Weather Data

Conditions at 11:00 AM EST on January 3, 2026	Data
Temperature	52 °F
Relative Humidity	97.4 %
Dew Point Temperature	51.3 °F
Wet Bulb	51.6 °F
Atmospheric Pressure	29.87 in.
Wind Direction	
Wind Speed	2.1 mph
Wind Gust	7.8 mph at 11:00 AM
WBGT Index	59.5 °F
2 Inch Soil	50.4 °F
4 Inch Soil	50.2 °F
8 Inch Soil	50.4 °F
Soil Moisture	14 %
Solar Radiation	73.8 W/m2

Weather.uga.edu

Planting: What, When, How

The Cucurbit Family: Squashes, Melons, Cucumbers

- **Require warm weather (April – September)**
- Growth habit = spreading/vines
- *Male and female flowers = insect pollinators required!*



The Nightshade Family: Tomatoes, Peppers, Eggplant, Potatoes

- **Require warm weather (April – October)**
- Require space, air flow, consistent water
- All are wind/self-pollinating – but insects help!



The Legume Family: Beans, Peas, Peanuts

- **Growing temperatures vary – Green beans and Southern peas need warm weather. Snap peas like cool (not cold) weather**
- Require space to climb and airflow
- Almost all are self/wind pollinating



The Brassica Family: Cabbage, Broccoli, Kale, Turnip, Radish, Arugula

- Prefer cool weather and bolt (flower) in hot weather
- Cabbages and Broccoli require space!
- Pollination required for seed production



Mints

*Mint, Basil,
Rosemary,
*Oregano,
Sage, Salvia.



*Can grow
very
aggressively!

Umbels

Carrot,
Parsley, Dill,
Fennel



Alliums

Onions, Garlic,
Leeks, Shallots,
Chives



**Lettuces
(Aster)**

DCGO OGs: Cool Season

- Lettuce and spinach: Grow from seed or transplants. 'Cut and Come Again' varieties are more successful.
- Collards, Broccoli, Cabbage: Best grown from transplants. Monitor for pests.
- Bok Choi, Tatsoi: Grow from seed or transplants

Note: All are frost tolerant; however, if temps fall below 30 degrees for an extended period (>24 hours) a frost row cover is recommended.

DCGO OGs: Tomatoes

- **Require warm weather**
- Plant DEEP! Remove all but the top few leaves and bury the stem
- Allow plenty of space in between plants for air circulation and growth
- Control fungal diseases by using ground cover (landscape cloth, newspaper) to prevent water splashback and remove leaves within 1' of the ground as the plant grows
- Tap blossoms with a pencil eraser to ensure pollination
- Side-dress every 4 weeks ONCE flowering starts
- Best performers: Better Boy, Sungold, Cherokee Purple, Indigo Rose
- Pinch back suckers to promote blossoms



A close-up photograph of a tomato plant stem. The main stem is vertical and green, with fine hairs. A branch extends horizontally to the right from the main stem. A sucker grows from the node where the branch meets the main stem. The background is a light-colored, textured surface, possibly a wall or a piece of paper.

**Main
Stem**

Sucker

Branch

DCGO OGS: Warm Season

- Peas: Sugar Snap (Spring/Fall), Field (e.g. crowder)
 - Beans: Bush Beans, Pole Beans*. Avoid Wax Beans!
 - Peppers: Jalapenos, Lunchbox, all types of Bell peppers and hot peppers
 - Squash and Zucchini*
 - Eggplant
 - Okra
 - Turmeric
 - Herbs: Basil, parsley, cilantro, sage, chives
- *See DCGO Planting Guide for recommended varieties that are pest-resistant

DCGO OGS: Season-spanning

- Carrots
- Radishes
- Leeks
- Onions: Grow from Sets
- Garlic: Grow from Sets
- Chives: Grow from Seed or Transplants
- Beets: Grow from Seed – Spring and Fall

DCGO OGS: Perennials

- Strawberries
- Herbs: Oregano, Rosemary, Thyme
- Blueberries
- Blackberries

Dunwoody Community Garden and Orchard Planting Guide 2026

p = planting time

Plant	Type	Ideal Seed Germ. Soil °F	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Preferred Method	Support	Plants : SQ FT
Arugula	A	50-77			p	p	p				p	p	p		DS		9 : 1
Basil	A	60-80				p	p	p							T		1 to 4 : 1
Beets	A	40-75		p	p	p	p	p			p	p			DS		4 to 9 : 1
Broccoli	A	60-80			p	p					p	p			T		1 : 1
Bush Beans	A	60-80				p	p	p	p	p					DS		4 to 6 : 1
Cabbage	A	60-70		p	p						p	p	p		T		1 : 1 to 2
Carrots	A				p	p	p	p	p	p	p	p			DS		9 to 16 : 1
Chives	TP	60-70			p	p					p	p			DS or T		9 to 16 : 1
Collards	A	60-70		p	p						p	p	p		T		1 : 1
Cucumber	A	60-70				p	p	p							DS or T	T	1 : 1
Eggplant	A	60-70				p	p	p	p						T		1 : 2
Field Peas	A	>70					p	p	p	p					DS	T	8 : 1 (T)
Garlic (soft-neck)	A	60-70										p	p	p	clove		4 to 9 : 1

Download the .xlsx format of the complete DCGO Planting Guide at
DCGO.org > Resources > Master Gardener Talks

COLLARDS Top Bunch 2.0

Brassica oleracea var. *viridis* (hybrid)

\$4.49

500 mg

**FROST TOLERANT
70 DAYS**

Sow in early spring
or late summer

Lightly
savoyed
leaves cover
this highly
productive,
vitamin
rich plant.
An early
maturing
variety that
has great
resistance
to bolting.



Botanical INTERESTS®

PEEL BACK FLAPS
MORE INFO INSIDE

5 27900 01295 2



COLLARDS Top Bunch 2.0



Seedling

Days to Emerge:
10 - 15 Days

Seed Depth:
1/2"

Seed Spacing:
A group of 3 seeds
every 18" - 24"

Row Spacing:
24"

Thinning:
When 3" tall, thin
to 1 every 18" - 24"

Maturity:
70 Days

Date Seed Sown

As another great way to get your greens in, collards are a fantastic source of vitamins and minerals. While many think that collards can only grow in the South, this plant can grow in most regions quite successfully. As an added bonus for those growing collards in more Northern climates, gentle frosts will improve the flavor as the cold temperatures help to turn starches into sugars. 'Top Bunch 2.0' boasts early maturity and rapid regrowth for an endless harvest throughout your growing season. And for those growing in more Southern regions, this variety has great resistance to bolting. *This packet sows up to 53 feet.*

When to sow outside: 2 to 4 weeks before your average last frost date, when soil temperature is at least 55°, ideally 75°-85°F, or 14 to 16 weeks before your average first fall frost date. *In mild climates, sow in fall for cool-season harvest.*

When to start inside: 4 to 6 weeks before your average last frost date.

We are dedicated to inspiring and educating the gardener in you.
That's why we've put even more helpful information inside.



cut out for
plant tag

**ALL OUR
SEEDS ARE
UNTREATED**



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660 Compton Street, Broomfield, Colorado 80020
www.botanicalinterests.com

Lot #1 • Packed for 2025
Sell by 12/31/2025

BEAN BUSH *Provider*

Phaseolus vulgaris



\$6.49
50 grams

FROST SENSITIVE 50 DAYS

Sow after
last chance of
spring frost

HEIRLOOM

Like its name suggests, this plant provides a big harvest! Upright plants make it easy to reach right in and grab a handful of beans. Disease resistant heirloom with great flavor.

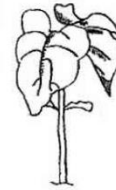


Botanical INTERESTS.

PEEL BACK FLAPS
MORE INFO INSIDE



BEAN *Provider*



Seedling

Your neighbors will love all your extra beans! 'Provider' is a high-yielding and early producing bean with great disease resistance to bean common mosaic virus (NY15), pod mottle virus, and mildew. These stringless, straight beans germinate in cooler soils than other beans, allowing for earlier sowing. One of the best for freezing and canning. Delicious fresh bean flavor from this 1965 cultivar. *This packet sows up to 40 feet*

When to sow outside: RECOMMENDED. 1 to 2 weeks after your average last frost date and when soil temperature is at least 65°F, ideally 70°-85°F. *Successive Sowings:* Every 7 to 14 days up to 80 days before your average first fall frost date. **NOTE:** In very hot summer areas, skip sowing as high heat approaches, temperatures consistently above 90°F will prevent beans from forming.

When to start inside: Not recommended; bean seedlings are sensitive to root disturbance

Days to Emerge:
6 - 12 Days
Seed Depth:
1"
Seed Spacing:
1 seed every 4"

Row Spacing:
24"

Thinning:
Not required

Maturity:
50 Days

Date Seed Sown

cut out for
plant tag

OPEN POLLINATED
AND
UNTREATED

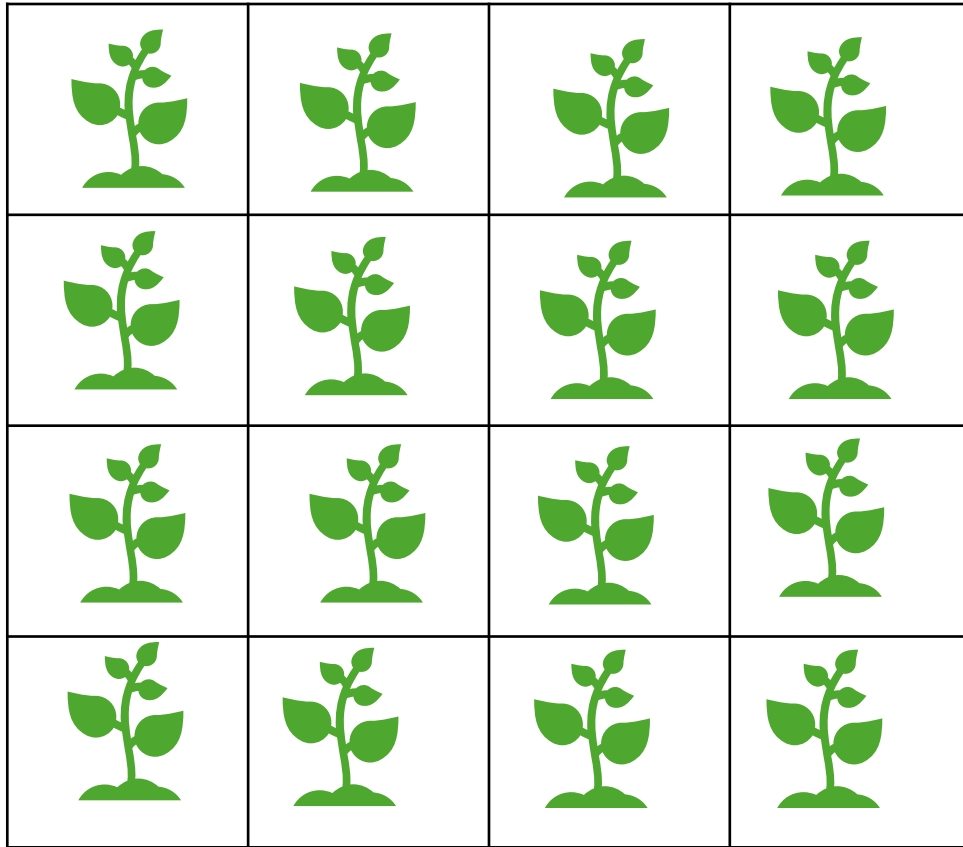


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Certified Organic
by the Colorado Dept. of Agriculture

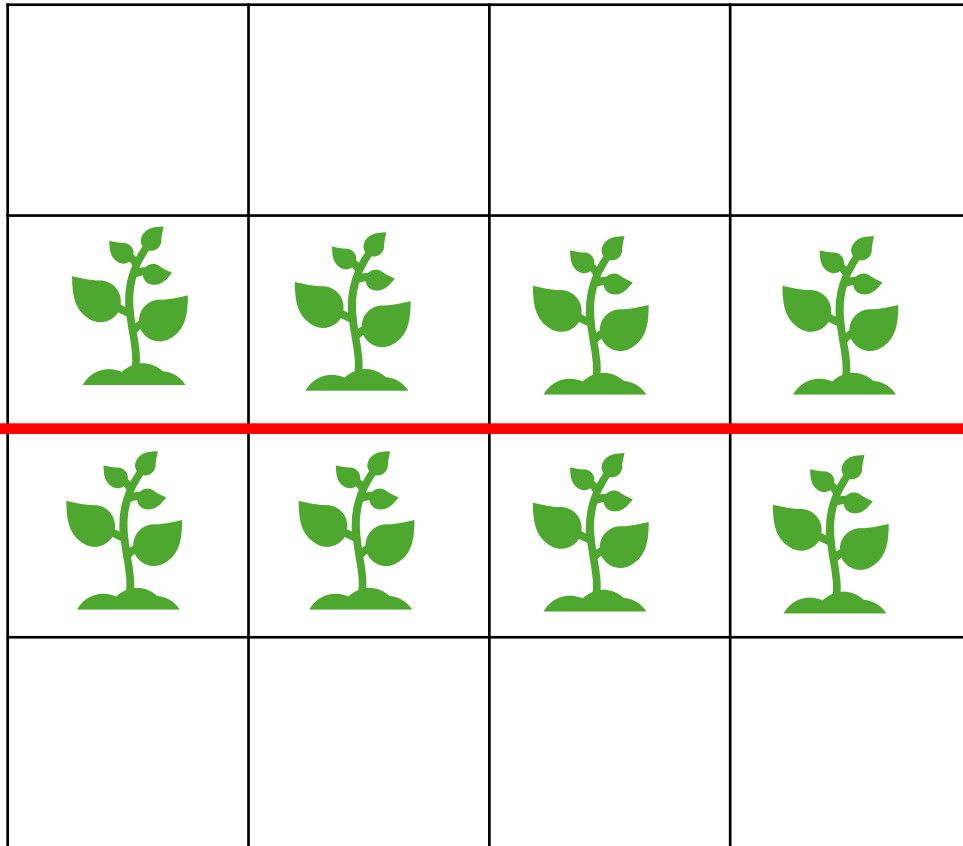
12 Inches



3" Spacing =
16 Plants per Sq Ft

Best for:
Carrots (small)
Radishes
Scallions

12 Inches



3" Spacing on a
Trellis

8 Plants per SqFt

Best for:

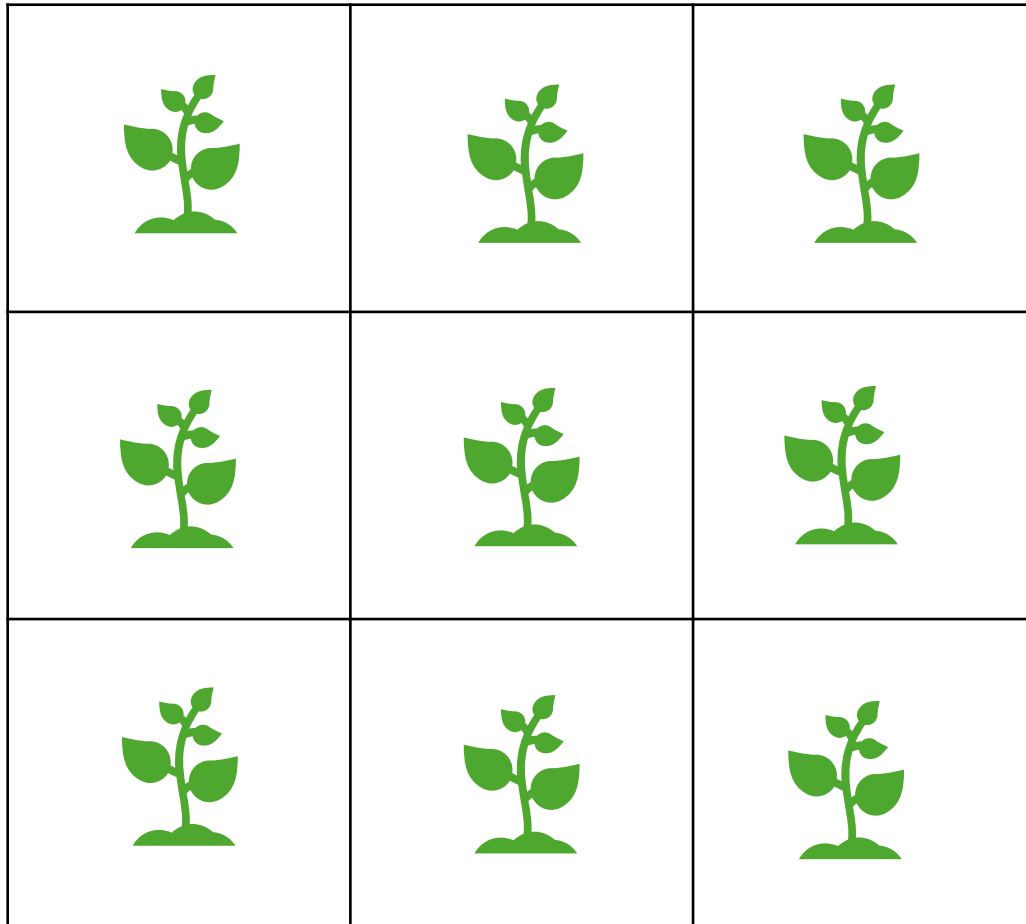
Peas

Climbing Beans

(Pole Beans,

Snap Beans)

12 Inches

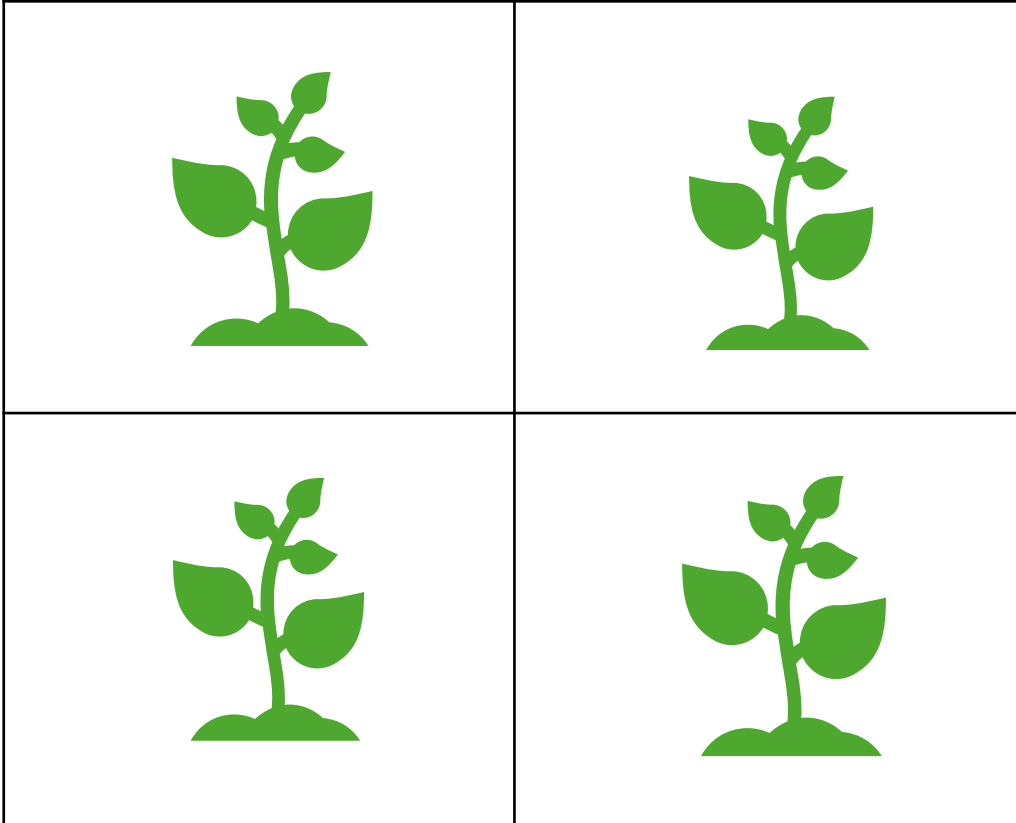


4" Spacing =
9 Plants per SqFt

Best for:

- Baby Arugula
- Carrots (larger)
- Chives
- Baby Lettuces
- Spinach
- Turnips

12 Inches



6" Spacing =
4 Plants per SqFt

Best for:

- Beets
- Bush Beans
- Garlic
- Kale (baby)
- Leaf Lettuce
- Leeks
- Shallots
- Onions
- Parsley
- Swiss Chard

12 Inches



*some varieties may need more space

12" Spacing =
1 Plant per SqFt

Best for:

Broccoli

Cabbage*

Collards

Cucumbers (on
a **trellis**)

Kale (full size)

Lettuce (head)

Most Herbs

Okra

Peppers*

Potatoes

And More!!!

- 1 Plant per 2 Sq Ft: Eggplant
- 1 Plant per 4 Sq Ft: Melons, Tomatoes, Squash, Zucchini

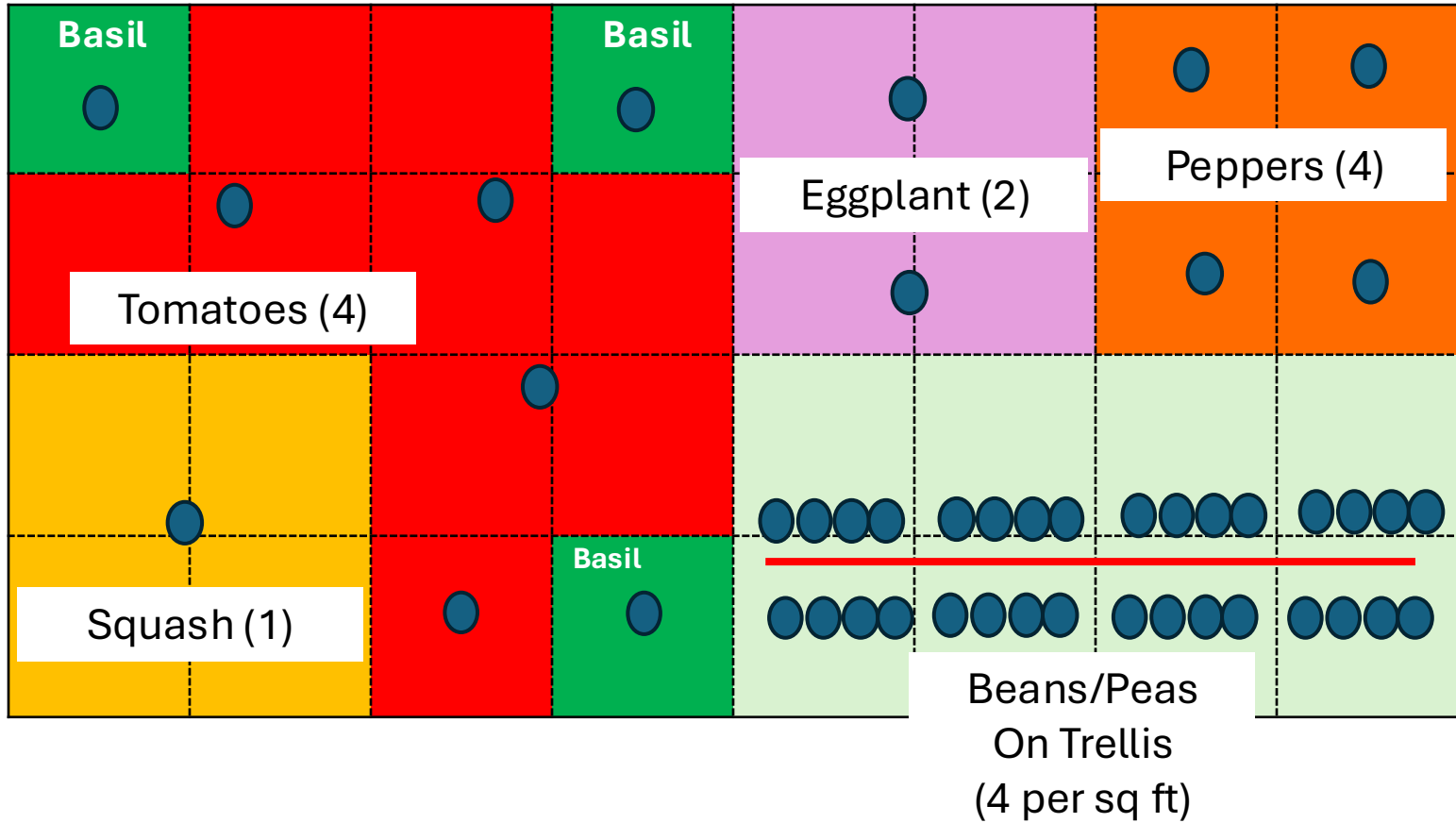
Family Feuds!

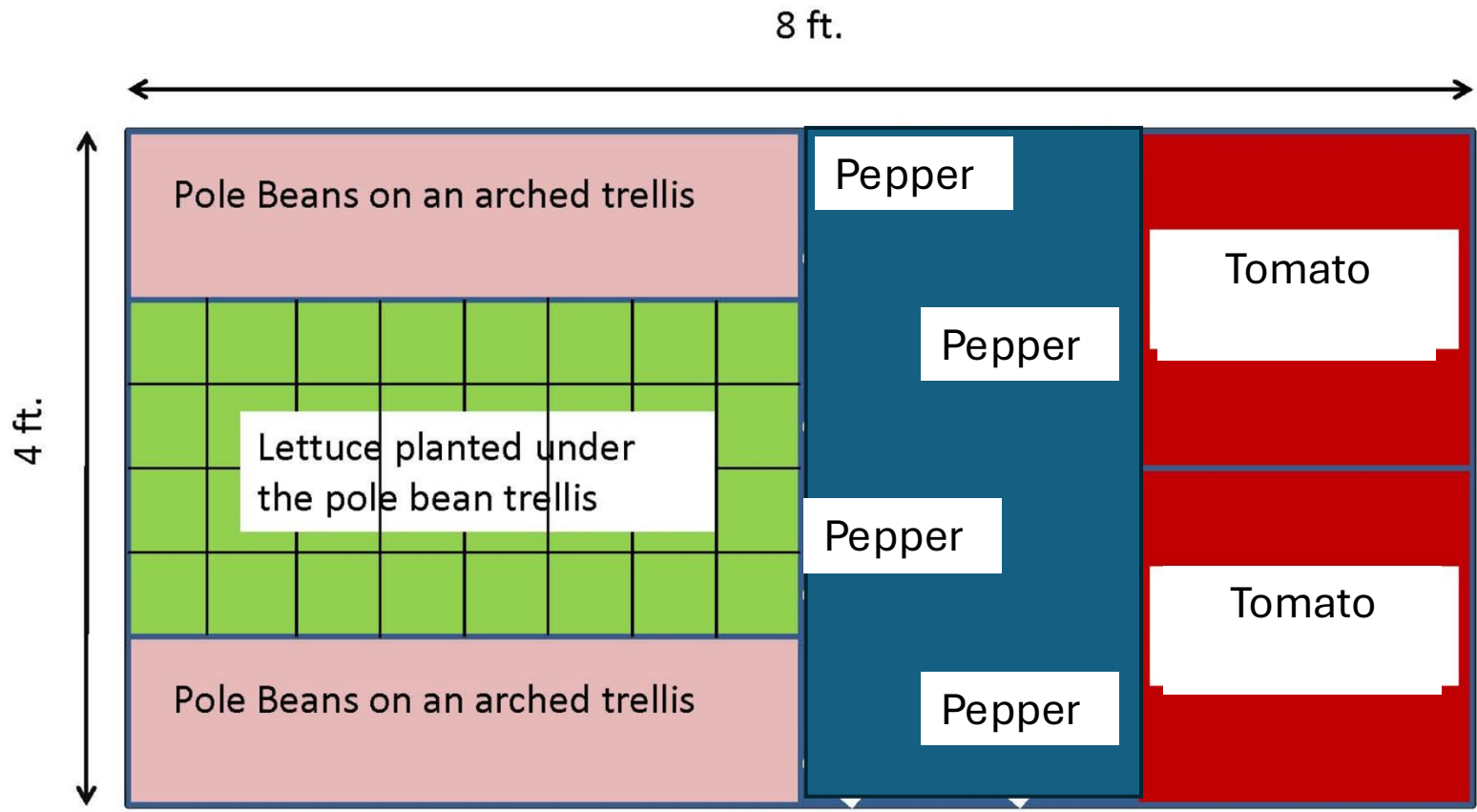
Onions/Alliums ↔ Legumes!

Brassicas ↔ Nightshades & Legumes

Potatoes ↔ Cucurbits!

Summer Garden #1





Summer Garden with Lettuce

Lettuce may be planted 4-6 times throughout the summer to prevent bitterness. Vining cucumbers could be substituted for pole beans.




Seasonal Rotation

Winter (January – February – March)

Sage (P)	Collards (Holdover)			Garlic			Rosemary (p)
Kale (Holdover)		Carrots		Onions		Baby (Wild) Arugula	
Chives (p)	Strawberries (P)			Turnips (Holdover)			Oregano (P)




Seasonal Rotation

Spring (April – May - June)

Sage (P)	Marigold			Garlic (Holdover)			Rosemary (p)
Tomatoes (2)			Carrots (Holdover)		Onions (Holdover)		Tomato
							
Chives (p)	Strawberries (P)			Cucumbers on Trellis			Oregano (P)

Seasonal Rotation

Summer (July – August - September)

Sage (P)	Marigold			Bush Beans			Rosemary (p)
Tomatoes (2)		Peppers		Field Peas On Cages/Trellis		Tomato 	
							
Chives (p)	Strawberries (P)			Cucumbers on Trellis			Oregano (P)

Seasonal Rotation

Fall (Oct – Nov - Dec)

Sage (P)	Collards			Mustard Greens			Rosemary (p)
Kale		Peppers (holdover) followed by Carrots		Lettuces and Arugula			
Chives (p)	Strawberries (P)			Turnips			Oregano (P)



Irinavoss502571 - Vecteezy

Marigolds/Calendula

Awesome Fillers!



Seksak Kerdkanno - Vecteezy

Basil



Wattanaphob kappago - Vecteezy

Zinnias

Ongoing Care and Maintenance

“The best fertilizer is the shadow of the gardener.”

”90% of success is showing up.”

Mulch!



Water!

1 to 2 inches per week in spring and fall
– more in summer or windy weather

Water deeply - a dry surface doesn't
necessarily mean water is needed

Try to water early in the day

Water the soil, not the leaves

Carefully monitor automatic drip
systems!!!

Fertilize!

- Begin side-dressing 4-6 weeks after planting
- Side-dress every 4-6 weeks following product instructions
- ***Organic fertilizers are slow release and gentler than non-organic options***
- Signs of overfertilizing: Leaf burn, lots of leaves but no blossoms/fruits/vegetables





Weed!

Cool weather weeds





Weed!

Warm weather weeds



Rabbit Exclusion – Highly Recommended!

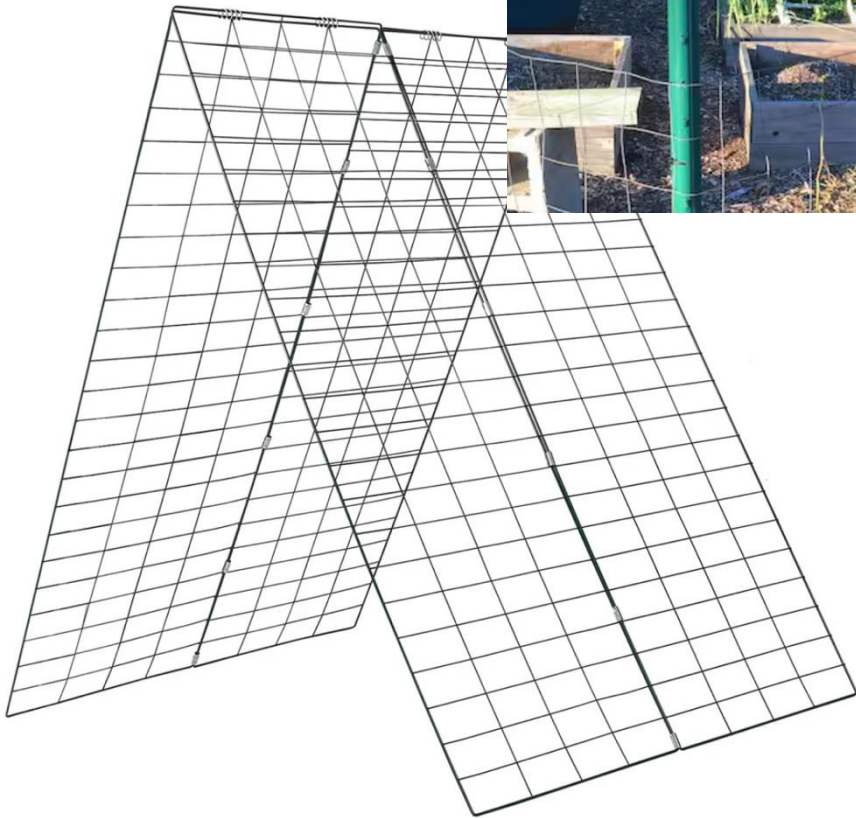
Physical Barrier at least
2' high with no more
than 2" holes in plastic
mesh or chicken wire



Support!



Support!



Support!



Garden Trellis Frame from Electrical Metal Tubing

- Lightweight
- Easy to assemble and install
- Virtually weatherproof
- Materials are inexpensive and readily available at any big-box store*

*More info in Appendix

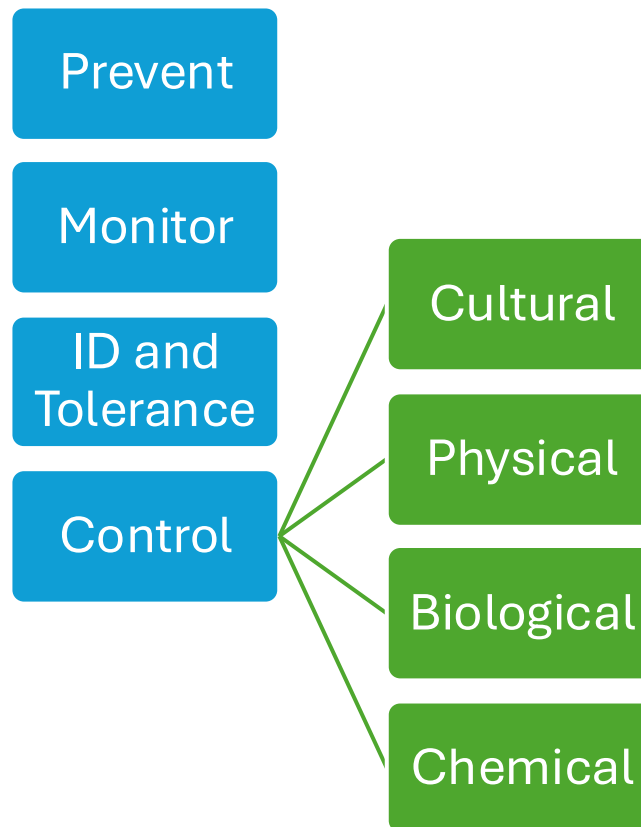
Floating Row Covers:

- Insect exclusion
- Creates Shade
- Protects from frost and wind



Managing Pests and Diseases

(Integrated Pest Management)



Prevent!!!

Clear
away

Dispose of all spent/dying/diseased/dead plant material ASAP! Sanitize tools.

Follow

Follow proper plant spacing guidelines

Plant

Plant disease and pest resistant varieties: See appendix for examples



Gerald Holmes, California Polytechnic State University at
San Luis Obispo, Bugwood.org



Clemson University - USDA Cooperative
Extension Slide Series, Bugwood.org

Spotted Squash Lady Beetle

Mexican Bean Beetle

R_x Neem Oil;
Hand Pick
and Squash





James Castner, University of Florida



Lyle J. Buss, University of Florida

Squash Vine Borer

R_x

Floating Row
Covers; Wrap main
stems with foil or
panty hose; inject bT

Insect-Resistant Varieties

Resistant to Mexican Bean Beetles

- **Snap/Pole Beans:** Logan Giant, Louisiana Purple Pod
- **Bush Beans:** Refugee, Wade, Black Valentine, Royal Burgundy
- **Lima Beans:** Baby Fordhook, Baby White
- **Pole Beans:** Purple-hulled, Asparagus (yard-long)

Resistant to Squash Vine Borers and Squash Beetles

- **Winter Squash** Butternut, Royal Acorn, Pink Banana, Sweet Cheese, Green Striped Cushaw
- **Summer Squash:** Troboncino / (Rampicante) vs. Zucchini; Passion Golden Marbre Scallop vs. yellow summer squash



Aphids



Aleksandr Rybalko | Adobe



Blast with water;
Neem Oil;
insecticidal soap



[Whitney Cranshaw, Colorado State University, Bugwood.org](https://www.bugwood.org)

Flea Beetles

R_x

Floating row covers; Neem Oil



UGA Extension

Japanese Beetles

R_x

Monitor; hand pick and squash or drop in rubbing alcohol

Tomato Hornworm



Whitney Cranshaw, Colorado State University, Bugwood.org



Michigan State University Extension

R_x

Monitor!!! Watch for droppings. Hand Pick and drop in alcohol. Leave any parasitized worms alone!!!

Tomato Fruitworm

R_x

Monitor!!! Remove and destroy infected fruit immediately. Handpick and destroy caterpillars. Apply Bt weekly for heavy infestations.



bugwood.org



bugwood.org



bugwood.org



University of Missouri Extension



Rebecca A. Melanson, Mississippi State University Extension,
Bugwood.org



R_x Early Blight on Tomatoes
Cover soil with landscape fabric or paper to prevent splashback. Remove bottom 1 to 2 feet of leaves as plant grows. Apply copper fungicide or neem oil.



Brenda Kennedy, University of Kentucky, bugwood.org

Blossom End Rot

Calcium Issue
Uneven/inadequate watering



Catfacing

Excessive Nitrogen, Excess Water



Poor/incomplete pollination
Extreme heat
Not enough water

Root Knot Nematode Galls



<https://content.ces.ncsu.edu/control-of-root-knot-nematodes-in-the-home-vegetable-garden>

Basic Equipment

- Sunscreen, hat, gloves, insect repellent
- Plenty of drinking water
- Hand tools: trowel, pruners, weeder, scissors, ruler
- Plant stakes/supports. Garden twine. Scissors.
- Spray bottle of rubbing alcohol or Lysol (from concentrate)
- If at home: rake, place to dispose unwanted plant materials, place to compost (if desired).
- Organic fertilizer. Insecticidal soap. Neem oil.
- **Harvest Basket!!!**

In Closing...

- You reap what you sow (and tend and monitor and water and weed and and and and.....)
- Consider the source
- You don't have to enrich your garden with your credit card
- Plant what you love and love what you plant!

Visit [DCGO.org/Resources/Master Gardener Talks](https://www.dcmgo.org/Resources/Master-Gardener-Talks) to download a copy of this presentation and the planting guide!



Appendix

Source List*

- **Seed Companies:** Johnny's, Eden, Botanical Interest, Park, SeedSavers.org**
- **Makerpipe.com:** Great source of videos and how-tos on creating garden support structures as well as connectors for electrical metal tubing
- **Gardeners.com** – Gardener's Supply Company

*This information is intended for educational purposes and does not constitute an endorsement of any commercial products or businesses.

**These are just a few of the sources we've used

Materials for Plant Trellis Frame (These came from Lowe's)

EMT
1/2"

Two-Hole Strap



5 Pack

PRO CONNEX
SIGMA ENGINEERED SOLUTIONS

816301
42820

1k+ views last week


5.0-ft Stainless steel EMT Conduit

Item #118909 | Model #807256

Materials for Plant Trellis Frames

EMT
1/2"

90° EMT Elbow



PRO CONNEX
SIGMA ENGINEERED SOLUTIONS

75738
02-55541PE

EMT
1/2"

Steel Set Screw Coupling



Concrete Tight
When Taped
Steel

5 Pack

PRO CONNEX
SIGMA ENGINEERED SOLUTIONS

816322
46520

ACC
#0

Conduit Hanger



1/2" EMT
3/8"-1/2" RIGID

PRO CONNEX
SIGMA ENGINEERED SOLUTIONS

75278
49100

RELIABILT 50.0-ft x 0.25-in Braided Polyester Rope (By-the-Roll)

Item #1289877 | Model #AC1195R



Connect.Makerpipe.com