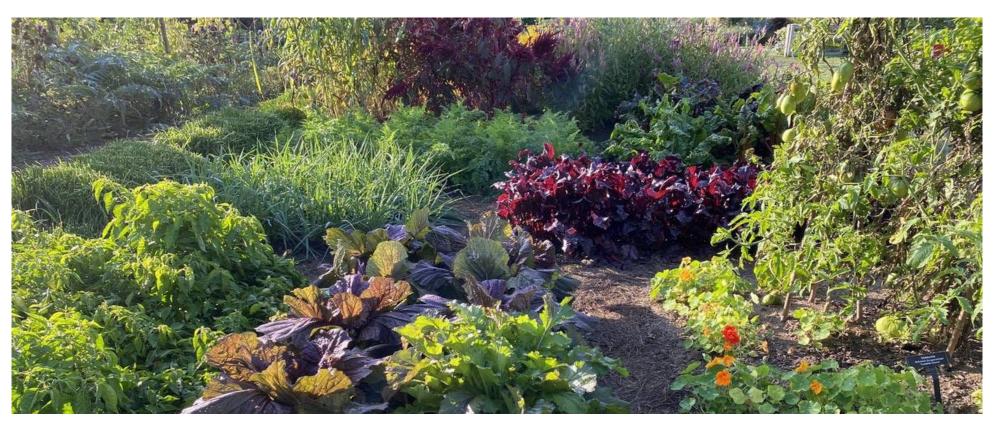
Spring Vegetable Garden Prep 5 steps for success







Brie Arthur "Brie the Plant Lady"

Author of:

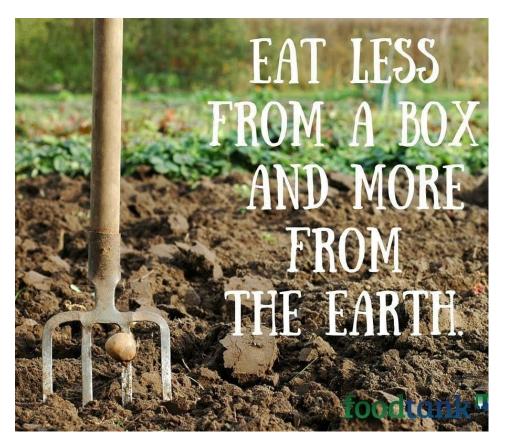
The Foodscape Revolution

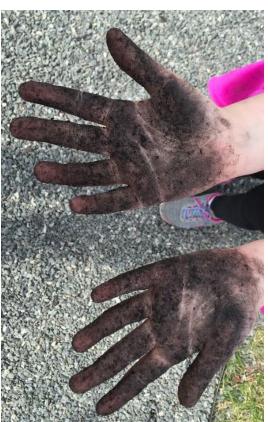
Gardening with Grains

Based in Raleigh, NC Zone 7



Veggie Gardening Basics





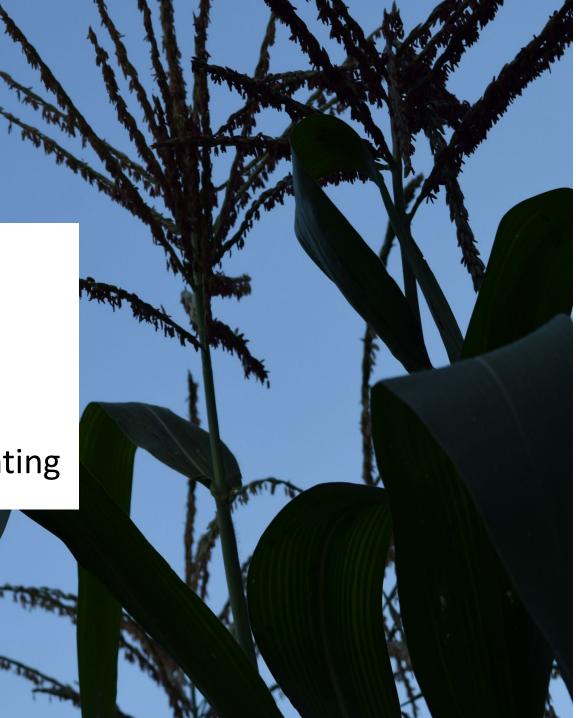


Grow what you love, wherever you can, and get your hands dirty!

Veggie Garden Design

- Draw a plan to scale
- Focus on open, sunny areas
- Rotate crops seasonally
- Utilize cover crops

Focus on diversity not monoculture planting



STEP 1: Garden Location

 Use a compass or ask google "what way does my house face?"

 Watch sun patterns through-out the year as it changes between winter and summer

Direction will help create microclimates



Veggies like FULL SUN

Sunlight:

FULL SUN= 8+ hours

PART SUN = 4-6 hours

SHADE= 4 hours or less

Water:

DAILY = site close to hose!

WEEKLY = once established





IF YOU GROW IT FOR THE FRUIT OR THE ROOT, YOU NEED FULL SUN.

IF YOU GROW IT FOR
THE LEAVES,
PARTIAL SHADE
15 ALL YOU NEED.

UrbanOrganicGardener.com





Gardening with an HOA 2005











Step 2: Realistic Maintenance

Plant where it is convenient to water and harvest



FOOD CROPS NEED WATER

- I primarily water with a hose, by hand
- Drip is good for trees and shrubs, but not ideal for annual edibles
- Soaker hoses are not worth the effort
- Devote resources to soil improvement to lower your watering needs







Dramm Sprinklers are my favorite









Step 3: Have a plan for animals, disease, insects, and weeds

"Is it Animal proof?"

Chapter 9: Gardening with Grains

NOPE, but I have some creative ideas









Repellents

Reflective tape

Vole King Bags







Motion censored irrigation



THIS Repellent Works!



I MUST GARDEN

\$9.99+

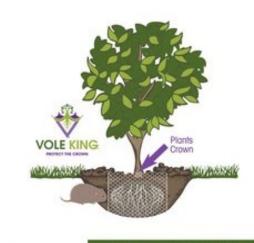


Spray Often when plants are growing

Use a small sprayer
Store it close to a door
Spray when you walk

VoleKing.com

\$15.99 and up 1gl-25gl sizes





PLANT BASKET BENEFITS

www.volking.com scott@voleking.com

(919) 538-6710

- Protects root ball, crown and trunk
- ✓ Eco-friendly oranic gardening✓ Promotes strong root grown
- ✓ Constracted of strong, flexible, stainless steel wire

INSTRUCTION

- 1. Completely urroll mesh basket
- Secure mesh over roat ball, crown and trunk soal is inside basket and covered bymesh
- 3. Plant, fertilize and backfill





Motion Censored Irrigation

- Orbit 62100 Yard Enforcer
- Motion Activated Sprinkler
- Day & Night Detection
- Attach to a hose
- Move around yard every week
- \$72.99 on Amazon





Plant the edge to deter animals!

Spicy Greens
Herbs
Garlic
Onions
Potatoes













Garlic deters VOLES!

and other animals

favorite variety: 'Music'



Hardneck Garlic

- Short Shelf Life (3-6 months)
- Strong flavor
- Impossible to braid
- Thrives in cold climates
- Produces a flower scape
- Common varieties:
 - Music
 - German Red/ White
 - Spanish Roja
 - Red Russian
 - Chesnok Red



Plant along bed edges











Foliage & flower scape are edible

Remove the scape to increase bulb production



Harvest & Cure 2-3 weeks



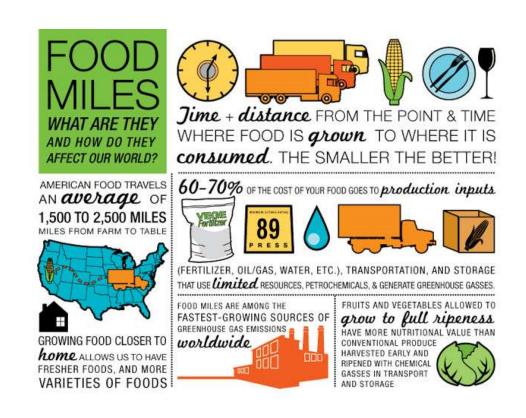


As of 2012, China is the largest producer of garlic

59 million metric tons annually

66% world production

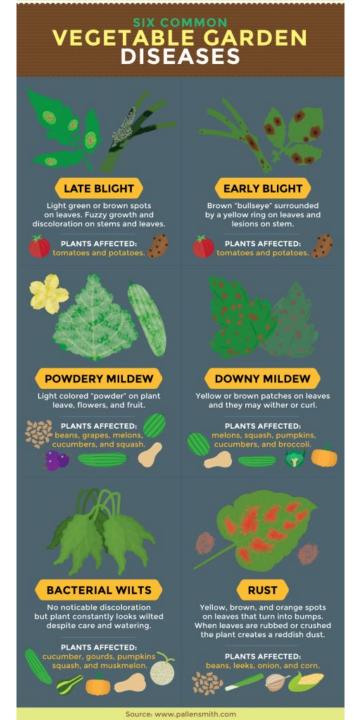
90% US



US AVERAGE 2,200 MILES PER PRODUCT

Common Garden Diseases

- Blossom End Rot
- Curly Top Virus
- Downy Mildew
- Fusarium & Verticullium Wilts
- Powdery Mildew
- Root Rot
- Rust









Garden Disease Control

My approach is simple: PULL THE PLANT OUT









Every fertilizer is DIFFERENT Pay attention to the N- P- K ratios

Most plants cannot absorb fertilizer rates over 10!

Essential macro-nutrients

Higher the number the more concentrated the nutrient is

When you focus on soil health you can fertilize less



Focus on soil health to reduce fertilizer

Look for NPK lower than 10

(N) Nitrogen= new growth & foliage

- (P) Phosphorus= root, blooms, fruit set
- (K) Potassium= root & stem strength



Too much fertilizer leads to insects





Insecticidal Soap

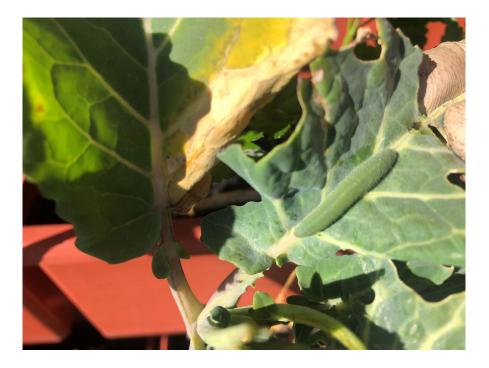
- Nontoxic
- Versatile
- Inexpensive
- Easy to make



- 1 tablespoon castile soap
- 1 quart of water per









Cabbage Worms: Pieris rapae

The adult butterflies are sometimes called cabbage whites or small whites and they lay eggs on plants in the Brassicaceae family, such as cabbage, kale, cauliflower, broccoli, and other members of the cabbage vegetable family



Cross Striped Cabbage Worm: Evergestis rimosalis

- Cross-striped cabbageworm lays its eggs in batches (3 to 25) rather than singly.
- Egg batches are yellow, flattened, and attached to the lower leaf surfaces.
- Larvae grow to 3/4"-long in 2 to 3 weeks.
- The caterpillars are light bluish-grey on top and green underneath, with numerous black bands across their backs and a yellow line down each side.

Horn Worms





Bacillus thuringiensis Bt:

Gram-positive
Soil-dwelling bacterium
Commonly used biological pesticide
"Organic" safe











Organic Pest Control

Horticultural oils: oil extracts from various plants with anti-insect effects

Rotenone: An insecticide used in combination with other organic pesticides











Diatomaceous Earth



- Fossil remains of diatoms
- Not a chemical insecticide
- Substance found in nature

It kills insects by wearing away their protective was or oil on their skin, which leads to dehydration.





The Groundhog Pick and Cultivator









DO NOT USE VINEGAR IN YOUR GARDEN!

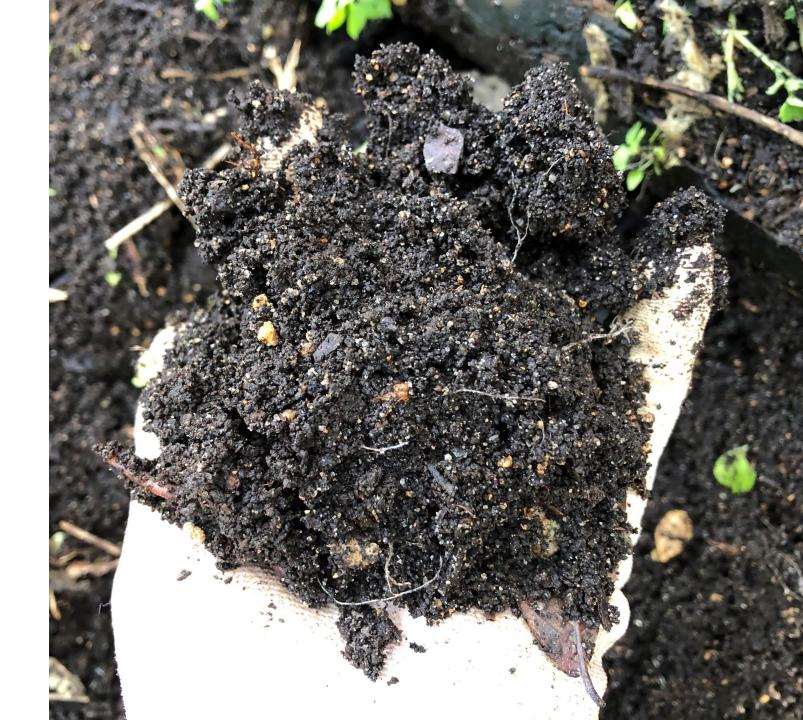
- Vinegar can be used on hardscape spaces at a 15% concentration to be effective; very caustic, will burn skin and eyes and harmful to amphibians. **DO NOT USE VINEGAR!**
- Glyphosate is a broad-spectrum systemic herbicide and desiccant. It is an organophosphorus compound, specifically a phosphonate, which acts by inhibiting the plant enzyme 5enolpyruvylshikimate-3-phosphate synthase. It is used to kill weeds, especially annual broadleaf weeds and grasses that compete with crops.
- Glufosinate does not translocate as well, need to use on seedling broadleaf weeds, glyphosate resistant horseweed. Use with pre-emergent. Does not work as well on Bermuda, pigweed, some annual weeds



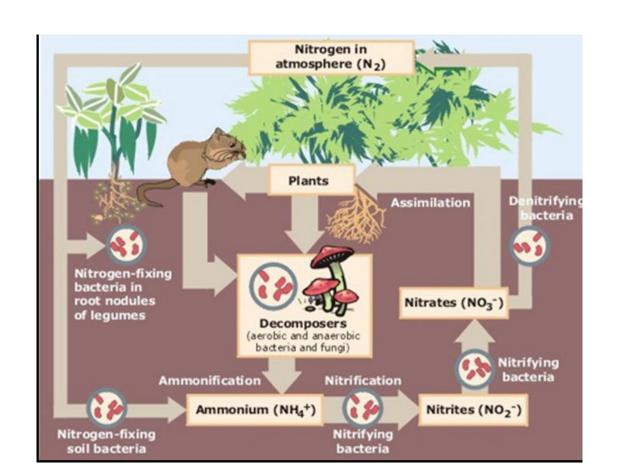


Soil Preparation is 99% of the magic!

- Well Drained
- Not Compacted
- Hummus Rich
- Full of Organic Matter
- Teaming with Microbes



Microbial activity improves pest resistance & nutrient uptake

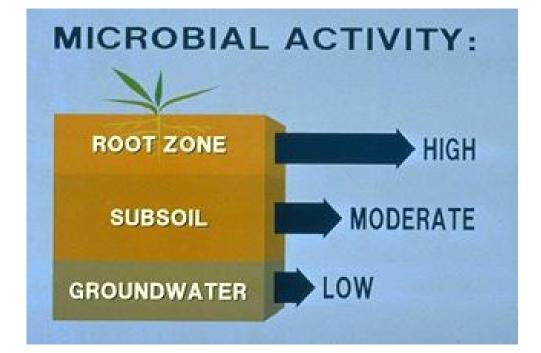




http://soils.usda.gov/sqi/concepts/soil_biology/images/A-3.jpg

Healthy microbial activity in soils improves pest resistance. Biochar has been shown to have a significant positive effect on soil microbial activity. In one vineyard study biochar increased the ratio of beneficial parasitic nematodes & fungi to bacteria ratios which is likely to reduce the incidence of disease in vineyards.

¹³ National Wine and Grape Industry Centre. 2013. Winegrowing Futures Final report. Vine health and environment. New South Wales, Australia. [Internet] Available from: http://www.gwrdc.com.au/wso.content/hugos/c/2013/0.1/MWS-05-01.Therms-2 net/

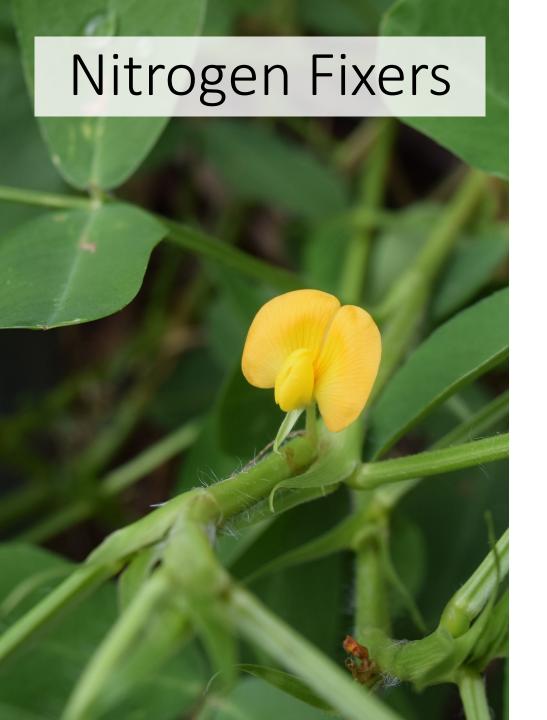


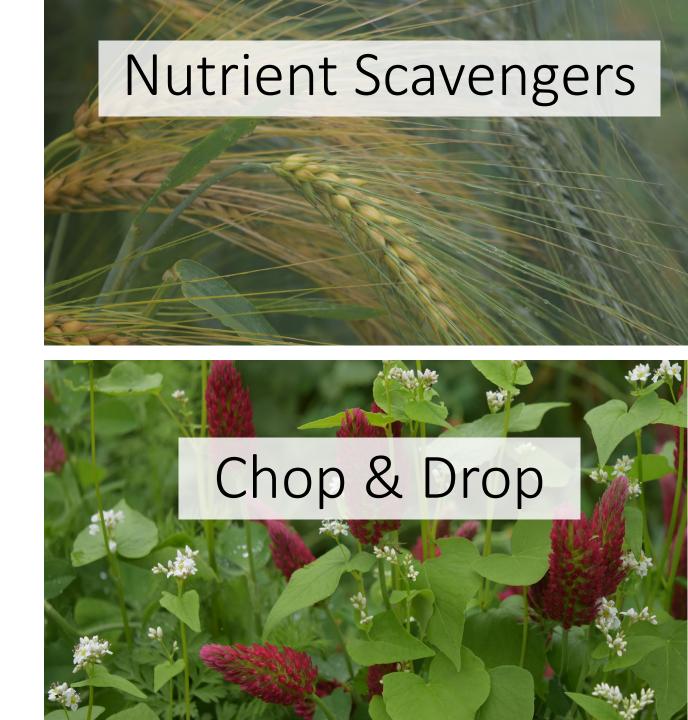
COVER CROPS IMPROVE SOIL FAST!

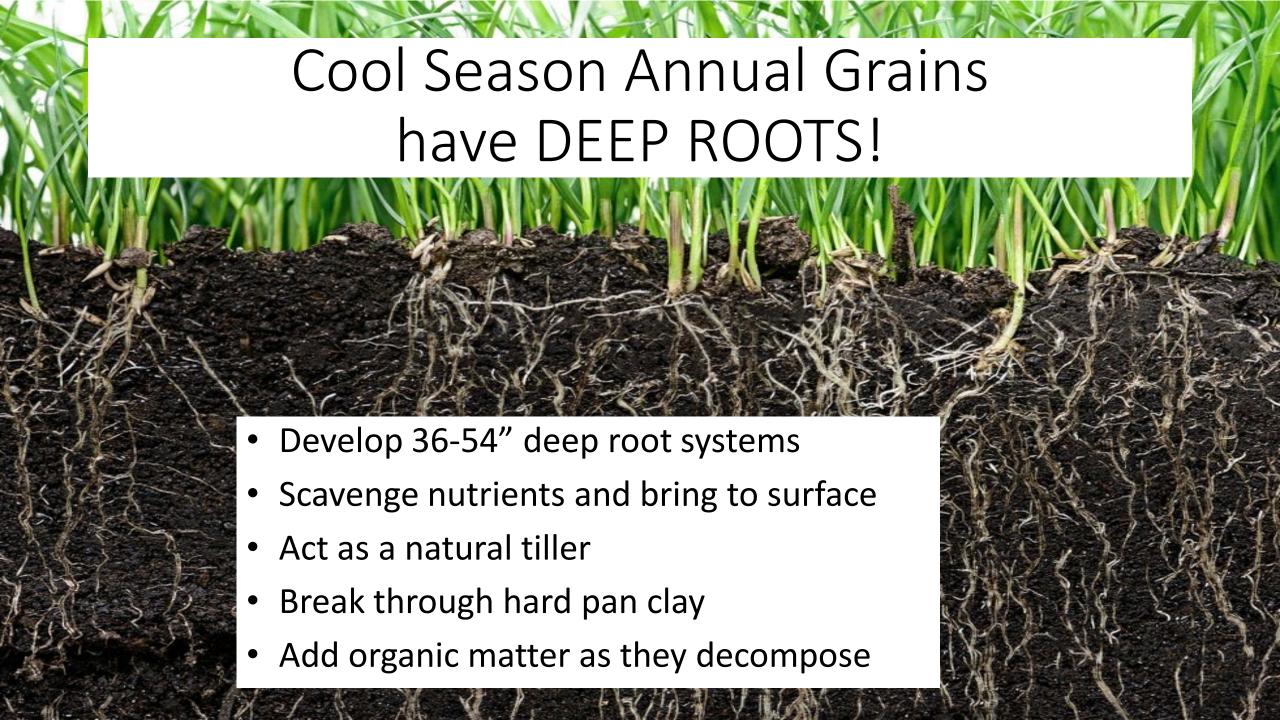
Daikon Radish direct seeded break up compacted soil

PLANT NOW
Harvest Tubers in Dec
Mow foliage





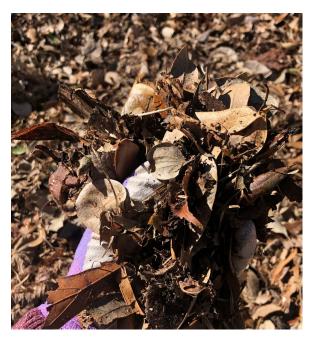
















How to "fix" your soil in ONE easy step without spending any money?

LEAVE the LEAVES

What is the "best" mulch? LEAVES

Triple Shred Hardwood

Pine Nuggets

Pine Straw

Cedar

Cypress

COLORED MULCH IS MADE FROM GROUND PALLETS... BEWARE!

Not rated for food crops





I use a light layer of triple shred hardwood in December & June

- Available locally
- Helps suppress weeds
- Holds in moisture
- Looks neat and tidy
- Breaks down adding organic matter



Step 5: Plant Selection

- Think about what you eat ALL the time
- Focus on growing PRACTICAL food crops that you like to cook with
- Grow A LOT of them to help change your buying habits
- Cultivate extra to share with friends and family





Herbs for Zone 4

- Anise
- Basil
- Borage
- Chamomile
- Chervil
- Chinese celery
- Chinese chives
- Chives
- Cilantro
- Dill
- Garden Orache
- Lemon balm
- Lemon grass
- Lovage

- Mustard
- Oregano
- Parsley
- Pennyroyal
- Redvein Dock
- Rosemary
- Sorrel
- Spearmint
- Stevia
- Summer Savory
- Sweet scented Bedstraw
- <u>Tarragon</u>
- Thyme
- Winter Savory





TOLERANT OF COLDER TEMPS TO 20F





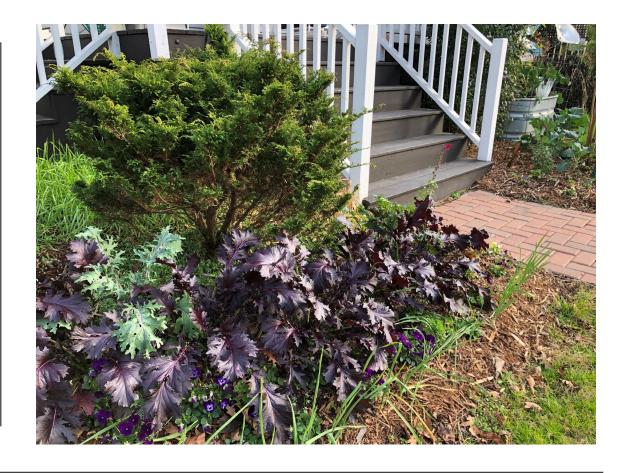
Arugula

Bitter leaf flavor deters deer & rabbits

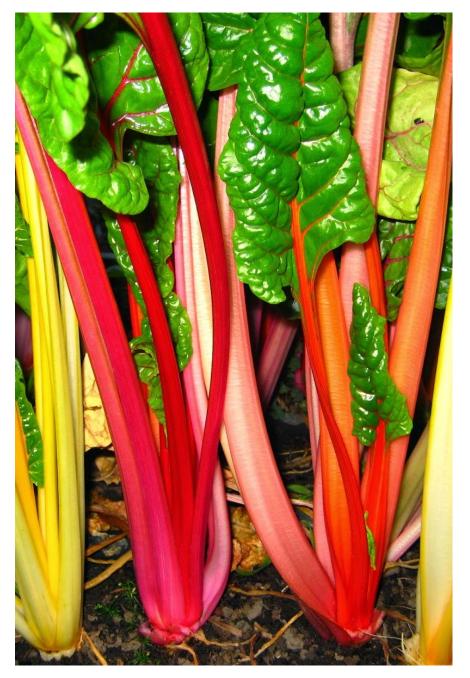








Miz America Mustard along edges deters animals





Swiss Chard 'Bright Lights' & 'Canary Yellow'

Kale 'Prizm'





"Dinosaur Kale"

aka Lacinato or Tuscan Kale

BAKER CREEK HEIRLOOM SEEDS

TARRES QUESTIONS



Direct seed lettuce in baskets



Salad Bowl Basket



Cool Season Heading Vegetables

Best transplanted with appropriate spacing







Lieutenant Broccoli





Romanesco Italia Broccoli

75-90 days





Brunswick- 90 days

Charleston Wakefield- 70 days

Earliana- 60 days

Golden Acre- 60 days

Late Flat Dutch- 100 days

Mammoth Red Rock- 90 days

Red Acre- 80 days

Savoy Perfection- 90 days



Amazing Cauliflower 68 days to maturity





Purple of Sicily Cauliflower 75-85 days till maturity

Kohlrabi 'Early Purple/ White Vienna'







Cool Season Root Crops

Beets

Carrots

Cilantro

Daikon Radish

Garlic

Onions

Parsnips

Potatoes

Rutabaga

Turnips





Daikon Radish direct seeded

break compacted soil, vegetation suppresses RKN

Tomatoes



"Cherries"



"Slicers"



"Paste"

Favorite Seed Source

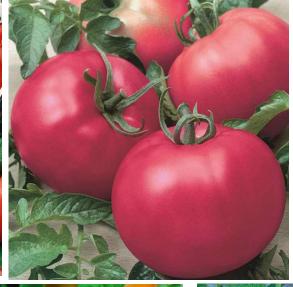
Baker Creek Heirloom Seeds

RareSeeds.com



"Chef's Choice" Series























'Dr Wyche's Yellow'

80 days Indeterminate

'Peche'

75 days Indeterminate







'Purple Cherokee'

80 days Indeterminate











ALL TIME Favorite Tomato 'Cream Sausage'











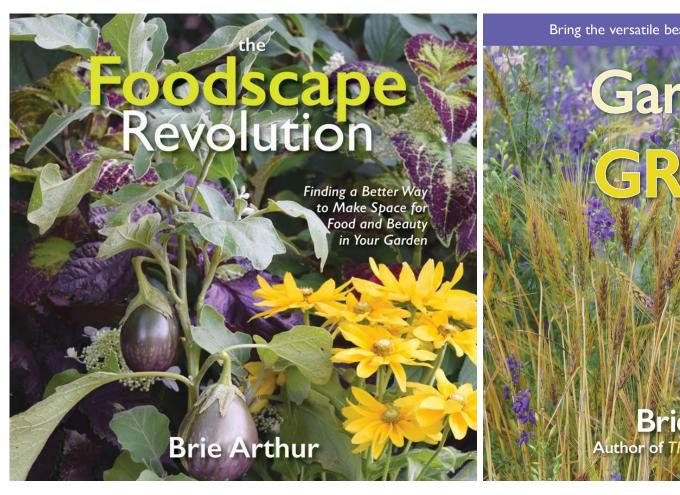
Thank You

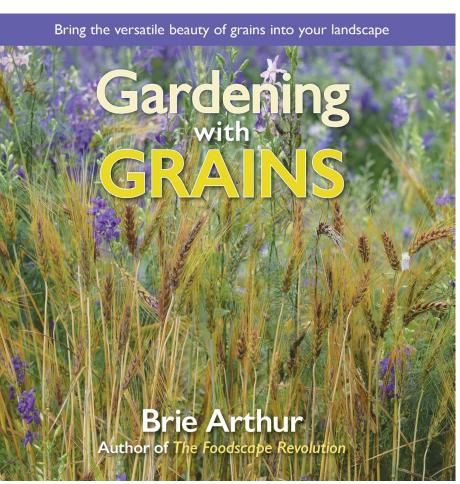






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