

Backyard Vegetables

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Two Key Principles

- n Work with nature, not against it
- n Better to have a small, well-tended garden than a large neglected one

Five Factors to Consider in Selecting a Garden Site

- n # 1: Sunlight—6-8 hours per day
- n # 2: Convenient water source
- n One inch per week (60 gallons per 100 sq feet)
- n Avoid overhead watering
- n Water less often and more deeply
- n Water directly to the roots

Drip Irrigation

- n Easier than you might think
- n Everything you need available at the big box home improvement stores or online
- n Screws or snaps together without a lot of tools
- n Puts water where the plants need it
- n Peace of mind when you go on vacation

Five Factors to Consider in Selecting a Garden Site

- n # 3: Well-drained soil (fill 1-ft hole with water, should drain within 30 minutes)
- n Organic matter can help
- n If soil drainage is poor, consider raised beds
- n Raised beds also help with limited space, sloping terrain, weed encroachment, saving your back, etc.
- n Warm faster in spring, but dry out faster

Five Factors to Consider in Selecting a Garden Site

- n #4: Site near your home
- n Need to check daily (insects, disease, fruit, leaky irrigation, weeds)
- n #5: Air drainage
- n Avoid low spots (trap cold air)

Fertility - Healthy Soil is Key

- n Get a soil test
- n Soil pH
 - n Most vegetables prefer 6.2-6.8
 - n If acid, add lime
 - n Dolomitic lime adds calcium and magnesium
 - n If alkaline, add pine sawdust
- n Nutrient analysis: Phosphorus, potassium, magnesium, calcium
- n Organic matter

Fertility - Healthy Soil is Key

- n Soil Test Report will recommend lime and fertilizer
- n Apply fertilizer as recommended
- n Fertilizer bag numbers: N-P-K
- n Compost is also a source of nutrients

Fertility - Healthy Soil is Key

- n Long season and short season crops
- n Long season crops (tomatoes, peppers, okra, sweet potatoes, and cabbage) need more fertilizer
- n Short season crops (squash, lettuce) need less fertilizer

Two Ways to Plant

- n Direct Seeding
- n Transplants

Direct Seeding

- n Plant into moist but not saturated soil
- n Follow seed packet directions re spacing
- n Lightly firm soil over seed after planting
- n Keep soil moist until seed germinates
- n You can plant more closely and then thin

How deep?

- n Smaller seeds—no more than ¼" deep
- n Larger seeds—¾ to 1½" deep

Advantages of Transplants

- n Jump start on growth
- n Avoid having rain wash away seeds
- n Some types of plants don't germinate well if direct seeded

Disadvantages of Transplants

- n Can't find desired variety in store
- n Plants not in store at the right time

Solution? Start your own seeds at home

When to Plant? What Varieties?

- n "Planting Guide for Home Gardening in Alabama" (ANR-0063)
- n Choose varieties resistant to diseases and pests

Planting Transplants

- n At container level, except tomatoes
- n Or a little deeper than root ball
- n Water to settle roots
- n Space plants according to guidelines
- n Too close: humidity and poor air circulation increases disease risk
- n Too far apart: reduced yields, wasted space, more weeds

Caring for Plants - Mulch

- n Leave no bare soil
- n Conserve soil moisture
- n Moderate soil temperature
- n Suppress weeds
- n Prevent soil crusting
- n Reduce erosion

Caring for Plants – Mulch Materials

- n Newspaper
- n Decomposed leaves
- n Straw or hay
- n Grass clippings
- n WeedGuard
- n Black plastic

Succession Planting

- Plant every three weeks
- Tomatoes, beans, corn
- Maximizes yield
- Helps with determinate crops (so you won't have all your corn at one time)

Weed Control

- Mulch 6-8 inches thick
- Newspaper: 8 sheets thick

Cover Crops

- Weed suppression
- Production of mulch
- Control erosion
- Nitrogen fixing – Sunn hemp, lupin, crimson clover, peas
- Breaking up hard soil

Before You Plant

- Garden hygiene - clear all dead plants, debris, etc.
- Eliminate weeds—severe? Solarize
- Plan crop rotation based on “Crop Rotation: An Essential Part of Planning a Home Garden”
 - Diseases/pests persist in soil
 - Nutrient depletion

Vegetables By Season

- Warm Season
- Cool Season
- First we'll look at Warm Season
- Plant after average last frost (right about now!)

Southern Peas (Cowpea)

- Germinate best in 60° soil
- Vining types need a trellis
- Drought resistant, but irrigation improves yields
- Can plant purple hull peas as late as July and still get a crop

Potatoes

- n Best planted in late winter or early spring
- n February is recommended
- n Edible plant part is the tuber
- n Choose early/early mid-season varieties that do not require a long growing season
- n Too hot in Alabama for long-season types, like Russet

Potatoes

- n 3-4 days before planting, cut into egg-sized pieces
- n Place in well-ventilated area so cut can heal
- n Plant pieces 2-3" deep about 1' apart in rows 3' apart
- n Protect growing tubers from sunlight by covering with thick mulch when plants are 8-10" tall
- n Harvest when vines die and turn yellow
- n Allow potatoes to cure 2 weeks prior to consumption

Corn

- n Plant on or within a few days of last killing frost
- n For us, that's about now
- n Corn needs to mature before it gets really hot
- n Early planting also helps with insects
- n Plant in blocks, not long rows (helps with pollination and ear fill)

Peppers and Eggplant

- n Nightshades
- n Not cold tolerant
- n Handle heat well
- n Germinate slowly
- n May need staking as the season progresses
- n Eggplant susceptible to flea beetles but can bear through them
- n Plants can get large, so space accordingly

Cucurbits

- n Cucumbers, cantaloupes, watermelons, squash, and pumpkins
- n Vine crops – need lots of space
- n Often planted in hills, usually 5-7 seeds per hill
- n Thin to 1-2 seedlings per hill at 2-4 leaf stage
- n Spacing varies from 1' (cukes) to 5' (watermelon, vining pumpkins)

Cucumbers

- n Cucumbers can be trellised to save space
- n Select bitter-free cucumber varieties
- n Keep soil fertile
- n Water consistently
- n Keep pH from getting too low
- n Keep well-picked

Cantaloupes

- Place small squares of wood underneath fruit to prevent rotting of bottom
- Harvest when fruit separates easily from stem

Watermelons

- Harvest when ground spot turns yellow
- Fruit looks more dull
- Dead tendril attached to vine
- Fruit sounds dull when thumped

Squash and Pumpkin

- Vine borers and squash bugs are major pests
- Row cover will help deter borers; keeps out moth that lays eggs.
- Remove barrier when blossoms appear
- Borer damage — entire plant wilts
- One remedy is to cut open stem, remove borer, replant and water well

Squash and Pumpkin

- You'll probably get at least one free year
- Plant resistant varieties like Waltham butternut squash - good resistance to vine borers
- Not resistant: yellow squash and zucchini

Dealing with Squash Bugs

- Consistent scouting essential
- Eggs laid in leaf margins on both tops and undersides of leaves
- Hand removal works unless there is an infestation
- Mulch can be a problem as the bugs can hide under there
- Put down small squares of wood
- Wait for the bugs to gather under there
- Lift the board and kill them

Okra

- Direct seed in warm soil
- Can cut back to 6-8" from ground in late summer for second crop
- Keep well picked

Sweet Potato

- n Plant transplants in April-June (they like it warm)
- n Well-drained, coarse-textured soil that is relatively low in N; can be trellised
- n Exposure to sunlight will cause fruit to turn green, so protruding potatoes should be harvested
- n Crop is ready for harvest when the greatest number of 8-10 ounce potatoes are found under each plant

Sweet Potato

- n Cure 7-10 days at 80-85 degrees and 70-90% humidity
- n Store at 55 degrees, 85 % humidity
- n But we must confess . . .

Beans

- n Direct seed in well-drained soil in April-May
- n Bush beans mature faster than pole beans, which will require trellis
- n Maintain adequate water supply, especially at bloom and pod-setting time

But Amanda . . .

. . . What about *tomatoes????*

Why Tomatoes Are Challenging

- n Hornworms
- n Blossom end rot
- n Early blight, late blight, Southern blight
- n Other diseases and viruses
- n Long, hot summers
- n Distracted gardeners

But you're gonna grow tomatoes anyway, right?

- n Plant in April
- n Plant deep
- n Pinch off lower leaves
- n Dig a trench
- n Plant root ball and most of stem in the soil, cover and water all along the planted area

Tomatoes

- n Space 2-3 feet apart
- n I prefer 3 feet for air circulation

Tomatoes

- n Trellis, stake, or cage
- n Companion planting important (basil, marigolds, herbs to attract braconid wasps)
- n Keep watering level consistent to avoid blossom end-rot
- n Prune suckers (lateral branches) in early mornings when small (2-4")

Tomatoes

- n Harvest when tomato is full-sized and has reached "breaker stage" (color just beginning to show)
- n Store out of sunlight 44-60°
- n Greener tomatoes need higher temps

Two Types of Tomatoes

- n Indeterminate
 - n Vining plant
 - n Keeps producing as long as environment is favorable
- n Determinate
 - n Less common among backyard gardeners
 - n Limited height (3-4 feet)
 - n Bears most fruit within 4-6 weeks
 - n Not much after that

Now We Shift to Cool Season

- n Refer to Planting Guide for dates

Brassicas

- n Plant in the fall
- n They'll bolt in the spring when it warms up
- n Transplants generally better than direct seeding
- n If you start seed, allow 5-6 weeks from seeding to transplants
- n Plant spacing varies – see Planting Guide or plant tag

Broccoli

- Harvest center head when flower shows slight yellow

Cauliflower

- When curd develops, tie leaves together to block out sunlight
- Cut heads while still tight

Brussels Sprouts

- Sprouts form on the stalk
- When lower leaves yellow, cut them off and remove sprouts that are 1" in diameter
- I've had success cutting tops off plants

Cabbage

- Harvest when head is firm

Collards and Kale

- Harvest lower leaves
- Plant will continue growing new leaves

Mustard and Turnips

- Magnesium deficiency common, so use dolomitic limestone
- Harvest lower leaves until weather gets too hot
- Harvest turnip roots when 2 -2½" in diameter

Rutabaga

- n Can direct seed in July or plant transplants in the Fall
- n Both leaves and roots are edible
- n Harvest roots when 3-5" in diameter

Lettuce

- n Better to start with transplants
- n If direct seeding, make sure water is available until plants are established
- n I've had good results with transplants if I wait until it's really fall (not just September 21!)

Beets, Carrots and Radishes

- n Need well-drained loam soil high in organic matter (like every other vegetable!)
- n Harvest at proper root sizes
 - n Beet: golf ball
 - n Carrot: 1" or less in diameter at crown
 - n Radish: ¾-1¼ inch

Chives

- n Direct seed or transplant in spring
- n Harvest leaves as desired during growing season
- n Cut back to ground after freeze
- n They'll come back in the spring
- n After 3-4 years they form separate plants
- n You can divide them

Onions

- n You can plant short day transplants in the fall if you can find them
- n Roots develop better if you plant in fall (after it turns cool)
- n You can plant in the spring, but you'll get tiny little onions

Garlic

- n Plant in October or November
- n Harvest in early summer when half the leaves have turned brown
- n No water for at least a week before harvest

English ("Garden") Peas

- n Include both shelling and sugar snap varieties
- n Seeds germinate best in 40° soil
- n For us, that's February
- n They need a trellis

Asparagus

- n Perennial, thrives for 15+ years
- n Plant in March in a weed-free bed
- n Dig v-shaped furrow 12" deep
- n 1-2" compost, then crowns, then 2-3" inches of soil
- n When the plant pokes through, fill remainder of furrow with soil

Harvesting Asparagus

- n Year 1 - no harvest
- n Year 2 – 2 weeks and then stop
- n Year 3 – 4 weeks and then stop
- n Year 4 and all subsequent – 6 weeks and stop
- n Stop when spears are smaller than a pencil
- n When ferns turn brown, cut them back

Plants That Frost Will Kill

- n Nightshades
- n Cucurbits (yes, that includes winter squash)
- n Okra
- n Corn
- n Sweet potatoes
- n Beans
- n Melons
- n Southern Peas (not spring peas)

Plants That Will Survive Frost

- n Broccoli and cabbage
- n Cauliflower
- n Chard
- n Lettuce
- n Mustard
- n Onion, radish, and turnip
- n Frost blanket gives us 6° or so protection

Cold Weather Champs

- n Beets
- n Brussels sprouts
- n Carrots
- n Collards and kale
- n Parsley
- n Spinach

Whatever you decide
to plant . . .

Have fun!

ACES website: www.aces.edu
ANR-0479 – The Alabama Vegetable Gardener
ANR-63 – Planting Guide for Home Gardening in
Alabama
ANR-2051 - Tomatoes
ANR-1422 – Basics of Fall Vegetable Gardening
ANR-1254 – Crop Rotation
ANR-1345 – Raised Bed Gardening
ANR-1045 – Garden Bugs
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