Fall Vegetable Gardening in Oklahoma



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OKLAHOMA COOPERATIVE EXTENSION SERVICE

There are FOUR gardening seasons in Oklahoma

- Spring COOL Start planting mid-February
- Summer WARM Start Planting mid-April
- Fall COOL Start Planting mid-August
- Winter IF you use season extension like cold frames, low tunnels etc. you can get some cool season crops to go all winter

Warm season crops like hot temps and generally cannot take temps below freezing. Cool season crops like cooler temps and can take temps down to low 20's or below in some cases...

LAST FREEZE IN OK COUNTY?? About TAX DAY FIRST FREEZE IN FALL? Very near or after Halloween

Fall is actually one of the best gardening seasons in Oklahoma!

Most gardeners are tired at the end of summer and forget about it...but it is really a good time to grow veggies!



General Vegetable Planting Guidelines

- Seed everything you can to save money
- Seeds must be kept WET to germinate
- Succession (repeat) plant when possible, extends harvest
- Seed with the rain when you can... this is an art form in Oklahoma!
- "Thinning" means to remove seedlings that are too close together
- Why we sometimes must use transplants
- Finding healthy/pest free transplants critical
- Transplants MUST be watered in
- In-row and between-row spacing for seeds and transplants
- North-South rows in most cases, but not that important

WHEN and HOW to plant

Cool season direct sown:

Turnips, beets, snap or snow peas, garden (English peas), carrots, radishes, all greens (leaf lettuce, spinach, collards, etc.) except heading lettuces (like Romaine.)

SOW: Feb. 15 to April 15 (without protection) in 2 week successions. Fall re-planting begins about August 15 with 2-3 successions.

Cool season transplanted:

Brassicas (cabbage, cauliflower, broccoli etc.) head lettuces (like Romaine), onions and potatoes (from seed potatoes)

PLANT: March without frost protection. For fall plant mid-late August or early September.

Warm season direct sown:

Beans, corn, all cucurbits (cucumbers. melons, squash etc.), field peas, okra (soak seed first)

SOW: after April 15 without protection. Okra could wait til May 10. Plant in 2 week successions (except okra) until June 1 **Resume in mid-August for Fall**

Warm season transplanted: tomatoes, peppers, eggplant, all cucurbits (if desired), sweet potatoes (from slips)

PLANT: after April 15 except sweet potatoes go in after May 10. No real need to succession crop except the cucurbits at 2 week intervals ending about June 15 and resuming in mid August for fall. Consider re-planting tomato transplants in late summer for fall cropping

Other planting times

• Fruit trees, nuts and berries are most successfully planted in spring

- Fruit trees do best if planted from "whips" and this is also most economical
- Container grown fruit and nut trees can go in the ground in fall
- Perennial veggies, like asparagus, also go in in spring generally from transplants

Choose the Right Garden Site

- Need lots of sun! 6 8 hours minimum for most fruits and veggies
- Afternoon shade is good though
- Stay away from trees or competing roots
- In most cases, make sure you have access to irrigation, even if you are dry-landing, may need water for establishment.
- If planting into an area that has Bermuda grass, be sure to get it all out first!

Soil Test



Soil Sample Procedure

- Collect form 8 10 spots in a field
- Take from 6 inches deep
- Mix together
- Collect at least one pint
- Make sure the sample is dry
- Take to your County Extension Office
- Cost is \$10 and it take about 2 weeks
- pH analyses
- Macro nutrients and more by request

pH and Nutrient Availability

	Nitrogen											-
	Phosphorus											
	Potassium											
	Sulphur											
						CALCIU	M					
	Magnesium											
						IRON						
	Manganese											
	Boron											
						Done						
	COPPER AND ZINC											
					N	OLYBDE	NUM					
4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0	9.5	10.0
4.0	4.5	5.0	5.5	0.0	0.5	7.0	7.5	0.0	0.5	5.0	5.5	10.0

Soil Management and Preparation

•Generally cultivate before planting and at end of season to prepare beds

• Soil tillage (cultivation) should be kept to a minimum in order to avoid destroying the structure of the soil and can cause erosion

OMulching with organic matter like compost will help
OCover crops generally have to be tilled in and decay
ONEVER till when the soil is wet

Adding Organic Matter

O Use what you can get/recycle locally such as compost, manure, grass clippings, leaves, straw etc. Hot manures need to be composted or field composted first!

- Mulch with organic matter it is the ultimate weed control and continues to feed and nourish the soil and organic mulches conserve moisture in the soil!
- Lasagna gardening or sheet composting are ideal for non-till practices on soils that naturally drain well or have been improved
- Cover crop fallow soils an easy and inexpensive way to improve poor soils or add organic matter

Irrigation

- Consider drip or soaker hoses
- Be sure to put them under your mulch
- Shot for 1-2 inches of water a week which includes rain!!



Consider using wide row planting

• Spacing within rows and between rows is important. On wide row planting you usually make the beds about 24-30 inches and then leave a 24-30 inch walkway between.



Using string line to mark rows



Weed Control Strategies



- MULCH MULCH MULCH MULCH MULCH!!!! Using Organic Matter if at all possible like compost!
- Try to choose land that is not already infested with a difficult weed population
- Eliminate the weed species before planting if at all possible
- Weed barriers such as thick mulches, landscape fabric, cover crops and plasticulture can be used
- Consider cultivation equipment options..hoes, weeding knives etc.
- Design plantings to allow for cultivation, if possible, and NEVER let them go to seed!

WARM SEASON VEGGIES FOR THE FALL GARDEN

Warm season crops for fall will be very limited because we get a freeze somewhere around Halloween and these crops will not tolerate temperatures below freezing plus cool fall temps and short days slow their growth...sooo it can be done but "tricky"...



Tomatoes, peppers, eggplant (the nightshades)

- All transplanted after April 15 for spring and then should go until freeze, except tomatoes IF they get disease, spider mites or heat damage...usually get ripped out.
- You can re plant tomatoes for fall in early August from transplants but they are hard to find. I have done this successfully on occasion and unsuccessfully many times!
- Peppers and eggplant planted after April 15 will go until freeze no problem..no need to re-plant for fall.

Cucurbits (Squash, Cucumbers, Watermelons, Cantaloupe and Pumpkins)

- Summer squash we eat when it is immature, winter squash we eat when rind is hard
- We start planting all of these after April 15 for summer gardens
- SUMMER SQUASH can go in for Fall in mid to late August but too late for winter squash, melons and pumpkins which need to go in by mid July for fall harvest since they take so much longer





Beans and southern peas (cowpeas)

- Easy to grow and don't need much fertilizer
- Start planting after April 15 for summer gardens and August and early September for fall
- Direct sow and space 2-4 inches and plant succession of green beans!
- Pole beans need trellising but bush beans don't
- Try Kentucky Wonder green bean and Pink Eye Purple Hull cowpea



Okra

- LOVES warm weather
- Plant in early May and start harvesting in July and then harvest heavy until it freezes
- Space about 1 foot
- Try Clemson Spineless or Annie Oakley
- Harvest small at 3-4 inches so it's tender
- No real pests although deer love it1
- May need a ladder to harvest at the end of summer!



Sweet potatoes

- Plant from "slips" in early June
- Easy to grow but keep weeds out early
- Be sure to harvest before frost or freeze in October
- Try Jewel or Beauregard





COOL SEASON VEGGIES FOR FALL

Root crops do great in fall!

Radishes

• Plant SEEDS!

- Plant in 2 week successions beginning about August 15 an ending October 1.
- Space about 2-4 inches.
- Ready to harvest in 3-4 weeks
- EASY to grow...a great one for kids to try!



Cherry Belle Radishes



Beets

- Plant SEEDS! Maybe soak over night!
- Plant August 15 September 15.
- Space about 4 inches.
- Thin them if they are closer than that to get BIG Beets
- Ready to harvest in 50-70 days...can take earlier for greens or baby beets.
- Aphids can be a problem...use 3 TBS dish soap in a gallon of water or just a hard stream of water!



"Detroit Dark Red" Beets



Turnips

- Plant SEEDS!
- Plant in 2 week successions beginning about August 15 an ending September 15.
- Space about 4 inches.
- Harvest some turnips very early as turnip greens.
- Ready to harvest in 6-10 weeks...can take them smaller they are sweeter!
- Aphids can be a problem...



Carrots

- For fall...sow SEEDS Mid-August to mid-September
- Space 1 inch apart or thin to 1 inch to get good sized carrots
- They need a loose soil to do well
- MUST stay wet to germinate



Onions

- Purchase to plant in late February or early March for summer
- Get the plants for large onions, the bulbs for small green onions
- FOR FALL plant the bulbs if you can find them around the first of September
- Space plants 4-6" to allow for maximum size or closer with the intention of eating them green!
- No real pests
- Fertilize with Nitrogen Fertilizer (I like blood meal)
 - 1 cup every 20 foot of row every 2-3 w
- (The more leafs, the more rings, the more rings, the larger the onion)

Garlic

- Plant from cloves the end of September to mid-October
- Space 4 inches apart
- Harvest next June!



Potatoes

- Difficult to grow in fall and hard to find seed potatoes in fall but could save from spring crop
- Plant mid August to early September
- 2-3 weeks before planting cut up to "callus"
- Be sure each piece has an "eye"
- Space 1 foot
- Harvest when they start to bloom and fall over. Take new potatoes and then hill the plant back up!

Greens are the perfect fall crop

Leaf Lettuces, Collards, Kale, Chard, Turnips

- All direct sown from SEED except head lettuces
- Leaf lettuces are sown on 2-4 inch centers
- Give kale, chard, collards about 1 foot.
- Turnips you can grow varieties just for greens (like ALLTOP) or just use the greens from your turnip crop. Either way space about 4 inches.
- Chard often goes all winter and through the next summer! It will be your only green that works in summer heat.

Rainbow or Bright Lights Chard



Head Lettuces

- Romaine and Buttercrunch do great in fall
- Use transplants for best results
- Space about 1 foot apart in rows
- Can eat at any stage so you can continue to harvest all fall until December depending on weather!

Romaine



Buttercrunch



Brassicas (Cabbage, Broccoli. Cauliflower. Kale and Brussels sprouts)

- Plant TRANSPLANTS starting late August into September.
- Space 14-18 inches
- Add fertilizer when planting, they are heavy feeders
- Cabbage worm will likely show up to eat your brassicas! Be ready for them with B.t in the powder form!
- WATCH OUT FOR BUNNIES!! May have to fence them out!





Snowball cauliflower



Peas

- Plant SEEDS! Maybe soak over night!
- English peas, sugar snaps and snow peas
- Plant about August 15 September 10
- Space about 2 inches.
- Trellis workd best even for "bush" peas
- Aphids can be a problem...



What is season extension?





For more information... Oklahoma Cooperative Extension Fact Sheets at: <u>http://osufacts.okstate.edu</u>

OKLAHOMA COOPERATIVE EXTENSION SERVICE HLA-6009



Fall Gardening

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Gardening is a year-round activity. Those who garden develop an appreciation and a desire for fresh, nutritious vegetables and fruits. In many situations, the best way to obtain fresh vegetables is to grow them at home.

Some of the best quality garden vegetables in Oklahoma are produced and harvested during the fall season when warm, sunny days are followed by cool, humid nights. Under these climatic conditions, plant soil metabolism is low; therefore, more of the food manufactured by the plant becomes a highquality vegetable product.

Successful fall gardening begins much earlier than the fall season. Factors to be considered are adequate soil prepara-

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proving the soil prior to and during the gardening season is important.

Various fertilizer elements are necessary for plant growth and many can be easily applied. However, other aspects of soil improvement may not be as easily and readily accomplished. In a very sandy soil, the incorporation of organic matter would reduce rapid drying of the soil and improve nutrient availability. In a very heavy clay soil, organic matter would improve soil aeration, water absorption, and drainage.

Desirable Garden Soil

Soil should absorb water readily, not form a crust upon drying and drain sufficiently so that it does not become wa-