



Gardening Clinic

Cool Season Vegetable Gardening



WHAT TO PLANT

Root crops like turnip, radish, beet, carrots, onion, garlic, and kohlrabi. Leafy greens like mustard, spinach, cabbage, kale, leaf lettuce, broccoli, cauliflower, Brussels sprouts, etc. These are frost-tolerant crops, meaning they can withstand temperatures below 32 degrees Fahrenheit. (See the detailed list on the last page.)

WHEN TO PLANT

Now. Fall cool season crops are planted in early to mid-September (after **Labor Day**). These would be followed by Spring cool season crops like potatoes and onions, which are often planted in mid-February (**Valentine's Day** or **Presidents Day**). Warm weather crops are planted on or around April 1 (**April Fool's Day**).

Planting times are calculated based on first and last frost dates. Those are the dates that, historically, an area experiences its first and last frost of the year. Knowing these two dates will allow you to determine when to plant any crop that you might be interested in.

First Frost in Collin County, Texas – **November 15**

Last Frost in Collin County, Texas – **March 15**

These dates are NOT set in stone. They are guidelines based on historical data and our USDA Climate Zone (8a). It's possible that we could see a frost before Nov. 15 in a given year, and we have certainly had frost after March 15 in recent years.

WHERE TO PLANT

Nearly all vegetable crops need a minimum of 8 hours of direct sunlight for best yields. If your garden is in full shade, don't expect much success.

RAISED BEDS & CONTAINERS

Planting directly in our heavy clay soil is not for the faint of heart and certainly not something a beginning gardener wants to tackle. Raised beds, containers, and flower pots allow you to control the quality and health of the soil, better prevent weeds, and have adequate drainage. These are all things that will improve your success.

SOIL PREPARATION

If you have an existing raised bed – that you've grown veggies in before – you probably don't need to do anything except amend with a fresh bag or two of compost and a bit of organic fertilizer. If you're starting from scratch, use a 50/50 mix of soil and compost.

- **Texas Pure Planting Mix** – 1 cubic foot bag @ \$8.99 or \$8 for 10+ bags
Essentially a mix of soil and compost comprised entirely of herbaceous materials, containing no manures. Organic and OMRI listed.
- **3-Way Mix** (sandy soil, compost & pine bark) – available in bulk only \$64.99 p/yard or \$32.50 /half yard
- **Raised Bed Mix** – 1.5 cubic foot bag @ \$16.99 or \$15.50 for 10+ bags
Specially formulated to be an ideal soil to use in raised beds and large containers. Easy-to-use, just fill and plant. Contains compost, coir, expanded shale, worm castings, mineral boost, and diatomaceous earth.
- **Nature's Creation Organic Potting Soil** – 1.5 cubic foot bag @ \$14.99 or \$13.49 for 10+ bags
Ingredients: coco fiber, compost, mushroom compost, pecan mulch, perlite, molasses, native recycled trees / shrubs and mycorrhizal fungi.
- **Topsoil** – 1 cubic foot bag @ \$9.99 or \$9 for 10+ bags
- **Organic Recycler Landscape & Grower's Mix** – 3 cubic foot bag @ \$8.99 or \$8 for 10+ bags.
An all-purpose soil mix with compost, sand, and peat moss.

If it's a brand new bed, you may want to kick start the beneficial microbial activity with one of the following.

- **Bio-Tone Starter Plus** – 4# bag @ \$12.99 – (4-3-3) / 25# bag @ \$61.99 – Grows larger root mass to help plants establish fast & reduces transplant loss.
- **Worm Castings** – 5# bag @ \$16.99 / 10# bag @ \$29.99 – All-natural source of organic matter with nutrients and moisture-holding capabilities. Helps improve soil structure and microbial activity.
- **Texas Pure Compost** – OMRI listed, making it approved for use in the USDA Organics program. 1 cubic foot bag @ \$7.99 or \$7.20 for 10+ bags.

Organic fertilizers are always preferred because they release slowly over time and won't burn your crops if used correctly. We recommend:

- **Bio-Tone Starter Plus** – 4# bag @ \$12.99 / 25# bag @ \$61.99
- **Garden Tone** – 4# bag @ \$12.99 / 18# bag @ \$29.99
(3-4-4) Long lasting, slow-release feeding with Bio-tone Microbes

Always apply according to label directions. You'll typically fertilize once a month during the growing season. If you want to pamper your plants with some extra vitamin goodness, we recommend **Superthrive™**.

FROST PROTECTION

In the event of *really* cold weather (which means below 28 degrees to most people around here), you will want to cover your plants. A frost cloth is often the best and easiest choice. The fabric is breathable, so it will let air in while retaining heat. Sheets of plastic, burlap, or bed sheets are poor choices as they often cause more damage than they prevent.

In a pinch, I've used 5-gallon buckets to protect tomatoes from a late spring cold snap, but for covering an entire garden frost cloth is much easier and more economical. Kept folded in a garage, it can be reused for many, many years.

PEST & DISEASE CONTROL

Unfortunately, vegetable gardening in Texas means having to deal with almost every known disease and bug that exist. Or at least it seems that way. The best defense against bugs and disease is healthy plants and that begins with healthy soil. However, you can do everything right and have the best soil in the world and still run into problems. When that happens, you might want to have these products at the ready.

- **BT, *Bacillus Thuringiensis*** – Controls destructive caterpillars in and around vegetable and flower gardens. Has no effect on birds, earthworms or beneficial insects such as honey bees and lady bugs. May be used on edibles right up to the day of harvest.
Many of the fall crops are leafy greens and they attract Cabbage White Butterflies that lay eggs on the underside of your cabbage, kale, lettuce, and seemingly anything else nearby. When the eggs hatch the tiny, hungry caterpillars begin devouring your veggies.
- **Captain Jack's Deadbug Brew** – Contains Spinosad (spin-OH-sid). Kills bagworms, borers, beetles, caterpillars, codling moth, gypsy moth, loopers, leaf miners, spider mites, tent caterpillars, thrips and more! (**Read all Directions for Use carefully before applying.**)
- **DE, Diatomaceous Earth** – Crawling Insect Killer – DE's mechanical mode of action works by contact and by ingestion. Insects cannot become immune to its action. Bed bugs, Asian lady beetles, box elder bugs, mites, ants, flies, fleas, spiders, other beetles and crawling insects all succumb within 48 hours of contact.
- **Copper Fungicide** – Protects a wide range of plants from turf to veggies, to fruit and flowers from a host of listed diseases. Suitable for organic gardening. Use for early and late blight on tomatoes and potatoes. Treats: powdery mildew, rusts, blackspot, leaf & fruit spot, downy mildew, fruit rot, late blight.
- **Revitalize Bio Fungicide** - A high potency biofungicide/bactericide that controls blight, molds, rots, spots and mildews on vegetables, fruits, nuts, ornamentals, lawns, houseplants and tropical plants grown inside and out. This organic gardening product may be used right up to the day of harvest.

AVERAGE PLANTING DATES

Collin County is Region III.

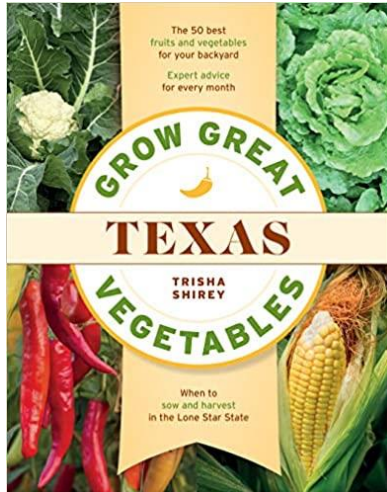
You can find this cart online at: <https://agrillifeextension.tamu.edu/browse/featured-solutions/gardening-landscaping/fall-vegetable-gardening-guide-for-texas/>

Table 1. Average planting dates for fall vegetables in various growing regions of Texas.

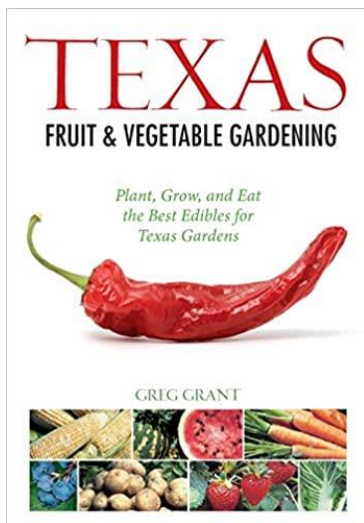
Vegetables	Region I	Region II	Region III	Region IV	Region V
Beans, snap bush	Jul 15	Aug 1	Sep 1	Sep 10	Oct 1
Beans, Lima bush	Jul 15	Jul 25	Aug 20	Sep 1	Sep 15
Beets	Aug 15	Sep 1	Oct 15	Nov 1	Dec 15
Broccoli	Jul 15	Aug 1	Sep 1	Oct 1	Nov 1
Brussels sprouts	Jul 15	Aug 1	Sep 1	Oct 1	Nov 1
Cabbage	Jul 15	Aug 1	Sep 1	Oct 1	Nov 1
Carrots	Jul 15	Aug 15	Nov 10	Nov20	Dec 15
Cauliflower	Jul 15	Aug 1	Sep 1	Oct 1	Nov 1
Chard, Swiss	Aug 1	Aug 15	Oct 1	Oct 20	Dec 15
Collards	Aug 1	Aug 15	Oct 10	Oct 20	Dec 15
Corn, sweet	Jul 1	Aug 10	Aug 20	Sep 10	Sep 20
Cucumber	Jul 15	Aug 1	Sep 1	Sep 10	Oct 1
Eggplant	Jul 1	Jun 15	Jul 1	Jul 10	Aug 1
Garlic (cloves)	Jul	Aug	Oct	Nov	Dec
Kohlrabi	Aug 15	Sep 1	Sep 10	Oct 1	Nov 1
Lettuce, leaf	Sep 1	Sep 15	Oct 10	Nov 1	Dec 1
Mustard	Sep 1	Oct 1	Nov 1	Dec 1	Dec 15
Onion (seed)	Not recommended	Not recommended	Nov 1	Dec 1	Dec 15
Parsley	Sep 15	Oct 1	Oct 10	Nov 1	Dec 1
Peas, southern	Jun 15	Jul 1	Aug 1	Aug 15	Sep 1
Pepper	Jun 1	Jun 15	Jul 1	Jul 15	Aug 1
Potato	Not recommended	Aug 1	Sep 1	Oct 1	Not recommended
Pumpkin	Jun 1	Jul 1	Aug 1	Aug 10	Sep 1
Radish	Sep 1	Oct 1	Nov 25	Dec 1	Dec 15
Spinach	Aug 15	Sep 1	Nov 15	Dec 1	Dec 15
Squash, summer	Aug 1	Aug 15	Sep 10	Oct 1	Oct 10
Squash, winter	Jun 15	Jul 1	Aug 10	Sep 1	Sep 10
Tomato	Jun 1	Jun 15	Jul 1	Jul 10	Aug 1
Turnip	Sep 1	Oct 15	Nov 1	Dec 1	Dec 15

BOOKS

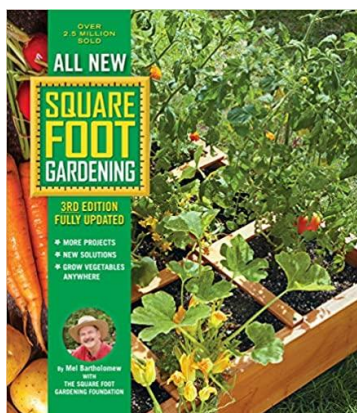
If you'd like to study more, here are 3 great books worth reading.



Grow Great Vegetables in Texas
by Trisha Shirey – Published in 2020



Texas Fruit & Vegetable Gardening: Plant, Grow, and Eat the Best Edibles for Texas Gardens
by Greg Grant – Published 2012



All New Square Foot Gardening, 3rd Edition, Fully Updated: MORE Projects - NEW Solutions - GROW Vegetables Anywhere (All New Square Foot Gardening)
by Mel Bartholomew – Published 2018



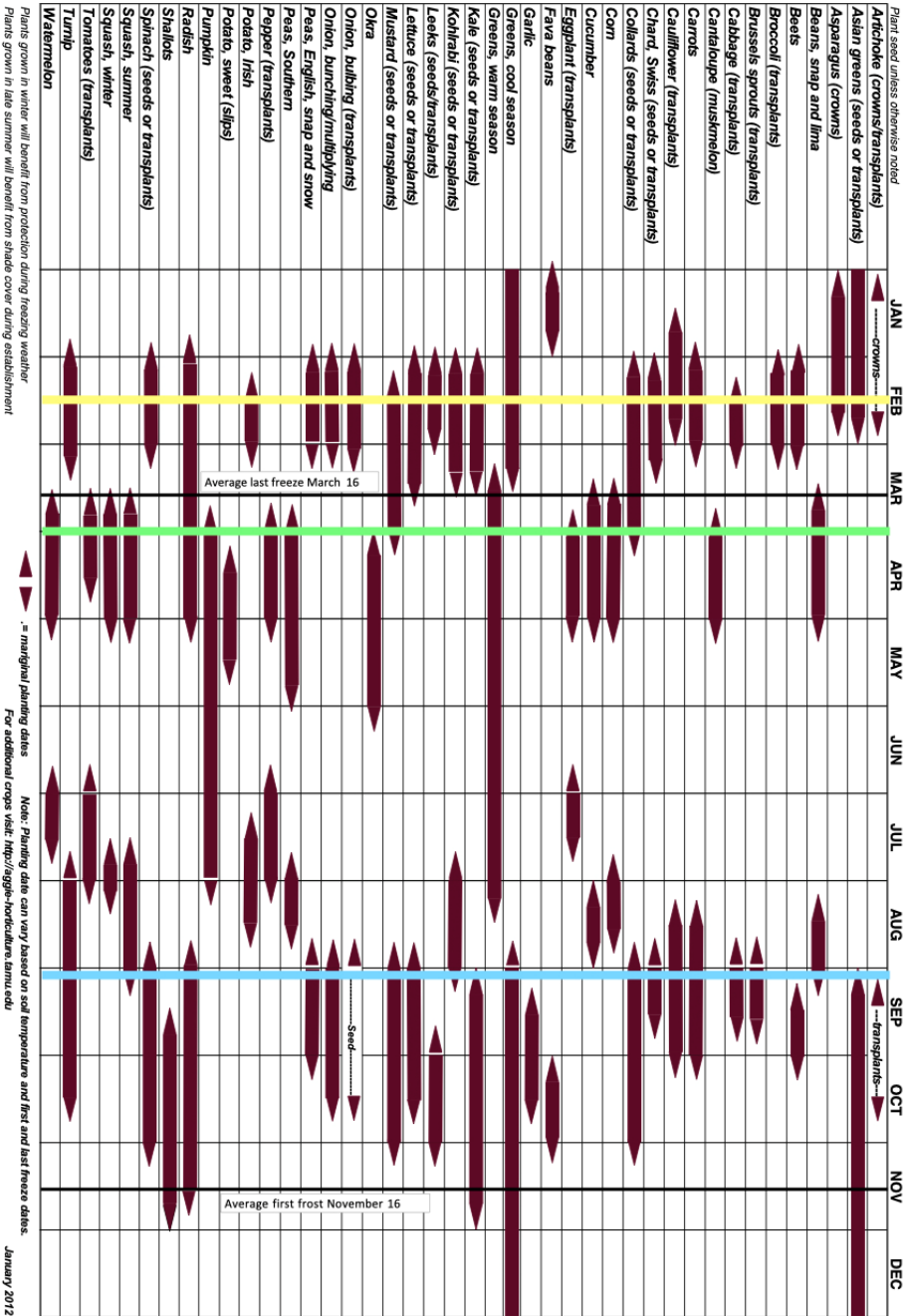
Vegetable Garden Planting Guide

Texas A&M AgriLife Extension Service
 Collin County Master Gardener Association
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- ## Valentine's Day Feb. 14
- Broccoli
 - Carrots
 - Chard
 - Collards
 - Kale
 - Lettuce
 - Mustard
 - Onions
 - Potatoes
 - Spinach

- ## April Fool's Day April 1
- Beans
 - Cantaloupe
 - Corn
 - Cucumber
 - Eggplant
 - Okra
 - Peas
 - Pepper
 - Squash
 - Tomatoes
 - Watermelon



- ## Labor Day First Monday in September
- Cabbage
 - Cauliflower
 - Chard
 - Garlic
 - Kale
 - Lettuce
 - Radish
 - Spinach