

South Plains

horticulture

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PLANT OF THE MONTH: *ELM*

Elm spp., including Cedar Elm, Lacebark Elm, etc., is a medium to large deciduous shade tree commonly found across the South Plains. Some varieties are even Texas natives.

These trees are known to be very tolerant of urban sites- making them a great option for your home landscape. They prefer full sun, are high heat tolerant and have low water needs.

Have you noticed the elms across the South Plains looking sickly lately? I have all around Lubbock County! Read page 4 "Elm Leaf Beetle" to learn what is going on!



Foliar Damage from Elm Leaf Beetles

Severe Infestation Damage



Don't be like this guy.....

Apply Pre-Emergents

Now is the time to apply pre-emergents to your lawn to prevent grassy and broadleaf winter weeds like henbit, Poa annua, rescuegrass, clover and many others. Always follow label instructions.



Fall Gardening Guide: A Second Chance

Did you forget to plant your fruits, herbs, and vegetables in the spring for a summer harvest? Maybe all the rain in May delayed your plants a bit? You're in luck! Fall gives South Plains gardeners, and many others across Texas, a second chance at a bountiful harvest.

Location

If you had a successful spring garden, the same location will be enough for a fall garden. When planning a brand-new garden, keep in mind most plants need 8 hours of direct sun light each day, well-draining soil, and easy access to water.

Your physical location in the state also plays a role in your USDA hardiness zone and Texas gardening zone.



Figure 1. Gardening regions of Texas.

Soil Preparation

Soil is the foundation to a successful garden- if your soil is lacking any necessities, your garden will never reach its full potential.

If you are using an established garden, pull out all spent (dead, diseased, or unwanted) plant materials. Clear any weeds or grass that have gained a foothold in your planting area. Get a soil test done to gain a baseline for nutrient levels and soil pH. Fix any issues according to soil test results.

For a new garden site, clear all unwanted plant materials through use of tilling, herbicides, hand tools and compost. Incorporating 2"-3" of compost, or other organic materials, while tilling will improve the soil's physical quality.

Adding fertilizer is the next step and you have two options. Remember to read all chemical labels for safety. It's the law!

- Apply 1 pound of ammonium sulfate (21-0-0) per 100 square feet (10'x10') before planting. Then sprinkle 1 tablespoon of ammonium sulfate around each plant every 3 weeks and water in.
- Apply 2-3 pounds of a slow release fertilizer (19-5-9, 21-7-14, or 25-5-10) per 100 square feet of garden space. Apply 1 tablespoon of ammonium sulfate around each plant and water in.

The latter of the two fertilizer options should produce a more abundant harvest, especially with hybrid tomatoes and peppers. Watering in the soil additives for several days and allowing the soil to dry out finishes this process.

Do not add too much ammonium sulfate and do not put it too close to the plants. It can seriously burn them. Horse or cattle manure can be substituted for commercial fertilizer at a rate of 60-80 pounds per 100 square feet.

Planting

Fall crops are more successful when planted from transplants rather than seed. The trick to establishing healthy transplants during the heat of the summer is to provide plenty of water. Transplants in peat pots or cell packs with restricted root zones require at least 2 weeks for their root systems to enlarge enough to support active plant growth. Until that time, they need to be watered every day.

Purchase the largest transplants possible. Their root systems will spread faster and the plants will produce more fruit sooner.

Another trick when planting a fall garden in the summer heat is to plant shade-tolerant crops between taller growing vegetables.

Watering

Planting at the proper time is probably the second most important factor in a successful fall garden. Table 1 lists average planting dates for each Texas gardening region.

When making planting decisions, compare the temperature extremes in the USDA hardiness zone map. With these dates in mind, determine which frost-susceptible crops to plant, and when to plant Table 3.

Fall crops can be categorized as long-term or short-term crops. The duration of these crops depend on the date of the first killing frost and the cold tolerance of the crop.

Group plants according to their frost tolerance. Plant long term, frost tolerant crops like beets, broccoli, Brussel sprouts, cabbage, carrots, cauliflower, chard, collard, garlic, kale, lettuce, mustard, onions, parsley, spinach and turnips. Plant short-term, frost-susceptible crops like bean, cantaloupe, corn, cucumber, eggplant, okra, pea, peppers, Irish potato, sweet potato, squash, tomato and watermelon together so, they can be removed after being killed by frost.

Do not water lightly several times a week.

Instead, soak the soil to a depth of 6 inches and only when plants need it.

Determine when to water by examining the soil, not the plants. If the soil surface appears dry, scratch it to a depth of 1 inch to see if the soil is moist. If so, do not water. If it's dry, it's time to water.

For more information on Fall Gardening, please contact Christina Reid, CEA Horticulture.

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	Nov 20	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

Table 3. Average minimum temperatures for Texas gardening zones.

Texas gardening zone	USDA Hardiness Zone	Average minimum temperature
Zone I	Zone 6	-10-0°F
Zone II	Zone 7	0-10°F
Zone III	Zone 8	10-20°F
Zone IV	Zone 9A	20-25°F
Zone V	Zone 9B	25-30°F

Season	Frost-susceptible crops (will be killed or injured by temperatures below 32°F)	Frost-tolerant crops (can withstand temperatures below 32°F)
Early-season vegetables: 30 to 60 days to harvest	Bush bean, summer squash	Beet, leaf lettuce, mustard, radish, spinach, turnip, turnip green
Mid-season vegetables: 60 to 80 days to harvest	Cucumber, sweet corn, lima bean, okra, pepper, cherry tomato	Broccoli, carrots, Chinese cabbage, green onion, kohlrabi, parsley
Late-season vegetables: 80+ days to harvest	Cantaloupe, eggplant, Irish potato, pumpkin, sweet potato, tomato, watermelon, winter squash	Brussels sprouts, bulb onion, cabbage, cauliflower, garlic



Adult Elm Leaf Beetle Photo Courtesy of: Salvador Vitanza Texas A&M AgriLife CEA IPM

Elm Leaf Beetle

Xanthogaleruca luteola

HOW TO PROTECT YOUR ELM TREES

IDENTIFICATION

Adult beetles are about 1/4 inch long and light yellow to brownish green in color. Several black spots decorate the head and thorax and a broad black stripe follows the outer margin of each wing. Females lay yellow-orange pointed eggs that look like miniature lemons in clusters of 5 to 25 on the undersides of elm leaves. Newly hatched larvae are black and slug like.

HABIT

In spring shortly after foliage emerges, adult beetles fly to elm trees which are their only food source. They eat holes in new leaves and deposit eggs. A week later, larvae hatch and begin eating the green portions of leaves leaving behind brown skeletal remains. On the South Plains, 3 or more generations of this pest occur each year. Heavily infested trees will have sparse foliage riddled with holes and a rusty, reddish brown tint. Severe infestations for consecutive years can cause limbs or the entire tree to die. Elm Leaf Beetles do not transmit Dutch elm disease. In the winter, adult beetles seek shelter in any warm dry place.



Eggs of Elm Leaf Beetle Photo Courtesy of: Salvador Vitanza
Texas A&M AgriLife CEA IPM



Damage of Elm Leaf Beetle Photo Courtesy of:
West Texas Nursery- Texas Forestry Service

CONTROL

Early detection of the beetle makes it possible to spray trees before significant damage occurs. Begin checking newly emerged foliage in April for eggs and young larvae. Apply foliar spray insecticides, fully covering all leaf surfaces, when most of the eggs have hatched. Another approach to controlling Elm Leaf Beetle is to use systemic insecticides in late March or early April.

Elm Leaf Beetle Control Recommendations

Ingredient	Trade Name
acephate	Orthene® AceCap®
<i>Bacillus thuringiensis</i> var. <i>tenebrionis</i>	Novodor®
bifenthrin	Talstar® 1
carbaryl	Sevin®
chlorpyrifos	Dursban® 2
cyfluthrin	Tempo® 1 Decathlon® 1
cypermethrin	Demon® 1,3 Cynoff® 1,3
disulfoton	Di-Syston®
imidacloprid	Merit® Bayer Advanced Garden Tree & Shrub Insect Control
lambda-cyhalothrin	Scimitar® 1 Demand® 1
permethrin	Dragnet® 1,3
phosmet	Imidan® 1
spinosad	Conserve®
tralomethrin	Saga®

¹ For commercial use only.

² Dursban products are no longer being sold. Use existing stocks as directed on the product label or learn how to dispose of them by contacting your local or state hazardous waste disposal program.

³ Use on outside surfaces and around buildings only.

Insecticide labels are subject to change and changes may have occurred since this publication was printed. The insecticide user is always responsible for the effects of insecticides on his own property, as well as problems caused by drift from his property to that of others. *Always carefully read and follow the instructions on the insecticide label.*



With cooler temperatures and much needed rains, now is the perfect time to add a new tree or shrub to your landscape.

Many people prefer January through March for planting, but the fall months of September through December have distinct advantages. Plant roots grow anytime the soil temperature is 40 degrees or higher, which may occur all winter on the South Plains. During the winter months, the root systems of the fall-planted specimens develop and become established. When spring arrives, this expanded root system can support and take advantage of the full surge of spring growth.

Follow these tips for a healthy tree!

How to Select a Tree at the Nursery

A High Quality Tree Has:

- Enough sound roots to support healthy growth.
- A single, central trunk or leader
- A trunk free of mechanical wounds and wounds from incorrect pruning.
- A strong form with well-spaced, firmly attached branches.
- Leaves with good color and no obvious insect or disease damage
- Healthy form

What to look for:



A Low Quality Tree Has:

- Crushed or circling roots in a small root ball or small container.
- A trunk with wounds from mechanical impacts or incorrect pruning.
- A weak form in which multiple stems squeeze against each other or branches squeeze against the trunk.

What to avoid:



Planning for Your Available Space

Plan your planting to ensure enough growing space is available for your tree at its mature height and spread. View the tree description page for your chosen tree to determine its size at maturity.

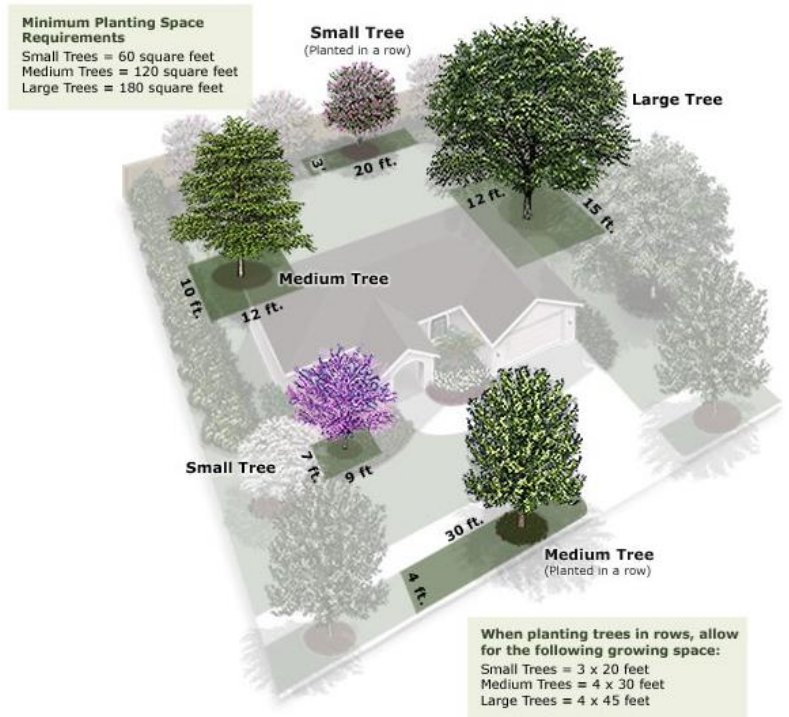


Illustration Copyright © Robert O'Brien

Try these uncommon trees:

Common Name	Scientific Name	Size	Height	Spread
Golden Raintree	Koelreuteria paniculata	Medium	30'	20'
Texas Redbud	Cercis texensis	Small	25'	20'
Desert Willow	Chilopsis linearis	Small	25'	20'
Chinese Pistache	Pistacia chinensis	Medium	45'	35'
American Smoketree	Cotinus obovatus	Small	20'	15'
Chaste Tree	Vitex agnus-castus	Small	25'	20'

PLANTING A TREE

For best results, plant your tree when dormant.

Be sure to remove any twine, tape or tags from your tree.

Only stake your tree for stabilization in windy or high traffic areas. Secure with wide, flexible material. Remove stakes within one year.

The top of the tree's root mass should be at or slightly above the existing grade (dotted line.)

Mulch between 2" and 4" deep but be sure to leave a 1" to 2" clearance between the tree trunk and your mulch.

The root flare at the base of your tree should be visible once planted.

Backfill with native soil from the new hole.

Your hole should be 2-3 times the width of your root ball.

Carefully remove containers, wrappings, wires and ties from root mass before planting. Unwrap or prune any circling roots.

Make sure your root mass is sitting on firm, undisturbed soil at the bottom of your hole.

TREE MULCH

How my friends think it should look

How my parents think it should look

How my neighbors think it should look

How society thinks it should look

How I thought it should look

How it should look

Incorrectly applying mulch around a tree in the shape of a volcano can cause the roots to grow around the trunk, strangling it which could eventually lead to the loss of the tree.

Learn more at <http://texastreeplanting.tamu.edu/>

ASK AN AGENT...

Q: I purchased several tropical plants for my patio this year and I would like to have them make it to next year. What should I do?

A: September is the right time to start preparing your outdoor tropical plants to return indoors for the winter by placing them in a shaded area to adjust to lower light levels. Next month, as we approach our first freeze, make sure to bring your tender plants indoors.

Have a question you would like to see answered in a future issue? Email christina.reid@ag.tamu.edu today!

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The Lubbock Public Library Mahon location, the Lubbock Master Gardeners Association and Texas A&M AgriLife Extension Horticulture have started a seed library and exchange. Go check it out and pick up or donate seeds today! This is truly a wonderful local resource for gardeners of all ages! You do not need a library card to participate!

TEXAS A&M AGRILIFE EXTENSION

For more information on any of the topics, or to ask questions please contact:

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