



# Tips on Planting Trees and Shrubs

**When planting trees purchased from the Kansas Forest Service Conservation Tree Program, inspect trees as soon as you receive them. Report concerns at 1-888-740-8733.**

## Plant Spacing

Proper plant spacing is recommended for optimal growth and survival.

The recommendations for plant spacing are based on annual precipitation, landowners' preference for a particular geographic location, and plant species.

Between rows, plants in western Kansas should be spaced 12 to 18 feet apart; plants in eastern and central Kansas 12 to 16 feet apart; and large, fast-growing trees statewide should be 20 to 24 feet apart.

Within rows, shrubs should be placed 3 to 6 feet apart; redcedar and rocky mountain junipers, 6 to 12 feet apart; pine, 8 to 12 feet apart; and deciduous trees, 8 to 18 feet apart.

## Prepare Planting Site

Remove competing vegetation at least 48 inches (4 feet) in diameter around the tree planting area.

Keeping the trees and shrubs free from surrounding vegetation

after planting will ensure a greater chance of survival. This can be done by using cultivation, installing weed barrier fabric, or using appropriate herbicides.

After planting, protect seedlings from livestock and wildlife. Wrapping, wire screens, and repellents can be used to protect young trees from damage.

If plants tend to lay down, they should be staked upright.

## Irrigation and Fertilization

Irrigate thoroughly, saturating the entire root zone, then let the soil partially dry out.

Trees on sandy soils should be watered every 3 to 5 days, and trees on heavier soils every 7 to 10 days.

Heavier soils will need longer drainage time before re-irrigating.

Most soils have adequate nutrients to support seedlings the first year. It is best to fertilize seedlings when nutrient deficiency symptoms are present.

Evergreen trees have a low nutrient demand and normally do not need fertilizer at any age. On newer plantings, too much fertilizer may be harmful and lower the plant's chances of survival.

Deciduous trees on poorer soils may respond well to a ¼ cup of 12-12-12 fertilizer in a 2-foot

diameter area around the seedling. A soil test will determine the precise nutrient needs.

## Bare Root Seedlings

Seedlings should be planted as soon as possible. They can be held for a couple of days in a cool, shaded location within the box. Do not store seedlings in water or allow to freeze. To store longer, place the sealed box in a 33 degrees Fahrenheit to 38 degrees Fahrenheit cooler, or heel in the seedlings protected from wind and sun.

To heel in seedlings, dig a V-shaped trench, place and spread seedlings out evenly, cover roots with soil, and pack firmly. Seedlings will need to be planted into their permanent location before they start growing and should be watered thoroughly.

Planting depth should be at the same depth, or slightly deeper, than they grew in the nursery. Roots may be trimmed to a minimum of 8 inches. Do not twist or force roots into the hole.

During the planting process, keep seedling roots moist at all times. This can be done by wrapping roots in wet burlap or in a bucket with water submerging just the roots. Plant as soon as seedlings are removed from coverings. Seedlings

### Claims and cancellations related to Conservation Tree Program seedling purchases:

All sales are final. No guarantee of survival after shipment or delivery is made. The plants are guaranteed to be the species and quantities ordered, fresh, and capable of growing. Claims must be made within 7 days of receiving the plants. No refunds less than \$5. The Kansas Forest Service does not warranty the survival of plants and is not responsible for economic loss by the customer.

must not be stored for an extended period of time submerged in water.

Make sure to irrigate seedlings thoroughly immediately after planting.

## Container Seedlings

For the best results, container seedlings should be planted immediately. With proper storage, they can be held for several weeks. Remove plants from cardboard and store on a solid surface upright in light shade. Protect against wind and saturate with water three times a week. Water more frequently if plugs are drying out more rapidly.

Planting depth should be ½ to 1 inch above the root plug. Remove plants from the container before planting.

Place soil around the root plug and firm it to remove air pockets and irrigate seedlings after planting.

## Stratified Seedlings

The seeds available from the Kansas Forest Service have been stratified to enhance germination.

Typically, 40% to 80% of seeds will germinate the first growing season, while a few may remain dormant until the following spring.

For best results, plant immediately. Seeds can be held for several weeks if kept moist and stored at 33 to 40 degrees Fahrenheit.

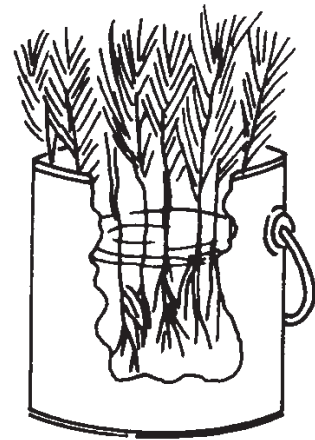
Planting depth should be 2 inches deep with two to three seeds in each hole. Firm soil around seeds and water.

Seeds should be planted in their permanent locations. If needed, transplant seedlings before the second growing season.

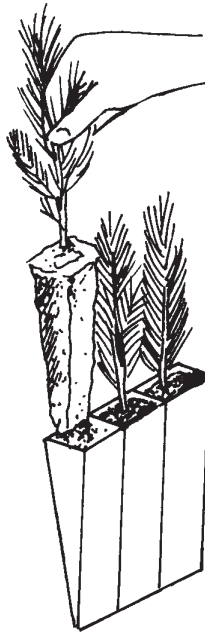
## For More Information

Additional information on designing, planting, and tree planting care may be obtained by your local

**Bare Root.** To plant bare-root trees and shrubs, remove the seedlings from the box or "heeling in" trench. Seedling root length varies within each bundle or group of plants. To make planting easier, roots can be pruned or cut to a minimum length of 8 inches. This can be done by pruning the entire bundle of seedlings at one time with a sharp knife or hand pruners. Once pruned, place the seedlings in a bucket partially filled with water. Make sure the roots are submerged. Carry the bucket to



each planting site, removing the plants as they are needed. Keep seedling roots moist at all times.



**Container Plants.** Container-grown plants should be carried to the field in their container. Remove the seedling, soil and all, from the container before planting. Remaining trees at the end of the day can be stored in their container in a protected area until needed.

**Seeds.** Stratified seeds should be taken to the planting site in their plastic storage bag. Remove seeds individually for planting. Rewrap in the plastic bag at the end of the day and store in a cool place.



district forester, your local K-State Research and Extension office, the county conservation district, the Kansas Department Wildlife Parks, and Tourism, or by contacting:

### Kansas Forest Service

2610 Claflin Road  
Manhattan, KS 66502-2798  
(785) 532-3300

[www.kansasforests.org](http://www.kansasforests.org)

For questions about compliance with USDA civil rights issues, contact the Kansas Forest Service at (785) 532-3300 or [www.kansasforests.org/civilrights.html](http://www.kansasforests.org/civilrights.html)

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