



# Conservation Trees and Shrubs

Kansas Forest Service offers low-cost tree and shrub seedlings for use in conservation plantings. These plants are 1 or 2 years old, and their sizes vary from 12 to 18 inches, depending on species.

**Orders** will be accepted the first week of December through 5 p.m. on the first Monday in May. Order early to be sure of getting the items you want.

Before submitting an order, please check the current list of available species and prices. Order forms and price sheets are available at your local K-State Research and Extension office, Natural Resources Conservation Service office, Conservation District office, and on our Web site [www.kansasforests.org](http://www.kansasforests.org).

The minimum order is 50 bare-root seedlings or 25 container-grown seedlings. Bundles and other items must be ordered in whole units. Orders for a partial unit (½ unit, for example) or a mixed unit (such as ½ unit of Austrian pine and ½ unit of Ponderosa pine) will not be accepted.

In the event that some items ordered are sold out, we reserve the right to ship any remaining items ordered.

## Approved uses

This cooperative state and federal program encourages landowners to plant trees and shrubs for conservation purposes. The seedlings may not be used for landscape (ornamental) plantings or resale for landscaping.

Approved uses of these plants include:

**Windbreak** — one or more rows of tree and/or shrub seedlings planted for wind protection.

**Woodlot** — an area of land planted to trees primarily managed for the production of timber products.

**Riparian planting** — a tree and/or shrub planting adjacent to creeks or rivers for bank stabilization and improvement of water quality.

**Wildlife habitat** — a group of tree and/or shrub seedlings planted to provide habitat for wildlife.

**Christmas trees** — a group of tree seedlings planted for cutting as Christmas trees.

## Correct address a must

Use a legal address including the first five digits of the ZIP code, street numbers and names including rural areas where RFD addresses have been converted, and apartment

and suite numbers when applicable. Kansas Forest Service will not be responsible for delivery to inaccurate or incomplete addresses.

## Delivery information

Order shipments, including bare-root and container-grown seedlings, will begin in mid-March as the weather permits.

All shipments will be shipped to the shipping address shown on the order form. Persons living in Riley County are asked to pick up their order at the Kansas Forest Service office.

**Pick up orders:** Check the “pick up” box on the form if you wish to pick up your order at Kansas Forest Service, 2610 Claflin Road, Manhattan. You will not be notified when your order is ready. Orders can be picked up from mid-March through the first Monday in May. **Please call 1-888-740-8733 before coming**

**to be sure that the items you ordered are on hand.**

Our pick-up hours are Monday through Friday, 8 to 11:30 a.m. and 1 to 4:30 p.m.

**All orders that have not been picked up or are being held for any reason at 5 p.m. on the first Monday in May will be shipped the following weekday. Shipping charges will be added to the order and will be the responsibility of the customer.**

## Claims and cancellations

**Claims must be made within 60 days of receiving the plants.** Adjustments, refunds, and cancellations are made at the discretion of the Kansas State Forester. Kansas Forest Service does not warranty the survival of the plants and is not responsible for economic loss by the customer.

## Container-grown seedlings vs. bare-root seedlings

Container-grown seedlings are grown in a greenhouse where temperature, humidity, light, carbon dioxide, and nutrients are carefully controlled. When seedlings are removed from the container, the roots hold the soil in a plug. The seedling roots and soil remain undisturbed when planted, assuring that growth will be nearly uninterrupted.

The advantages of container-grown seedlings compared with bare-root seedlings are:



- Improved survival and first-year rate of growth under most conditions.
- Extended spring planting season.
- Greater flexibility in scheduling tree planting around soil and weather conditions and work schedule.
- Easier to plant properly.

Only selected species are offered as container-grown seedlings.

Bare-root seedlings are grown 1 to 2 years in a field nursery, then lifted and shipped without soil on the roots.

### Status of order

To check on the status of your order, call the agency that helped you with your order or Kansas Forest Service, 2610 Claflin Rd., Manhattan, KS, 66502-2798 (1-888-740-8733).

### Windbreak spacing

#### Between rows

Western Kansas — 12 to 25 feet.

Central and eastern Kansas — 10 to 20 feet.

Large, fast-growing trees statewide — 20 feet from slow-growing trees and shrubs.

#### Within rows

*Single-row plantings*

Pines — 8 to 12 feet.

Redcedar — plant at 6 feet, then thin to 12 feet, or plant at 8 feet and do not thin.

Juniper — plant at 6 to 8 feet (normally no thinning needed).

Shrubs — 3 to 6 feet.

Deciduous trees — 8 to 15 feet.

*Multiple-row plantings*

Pines

Windward row — same as in single-row planting.

Interior rows — 8 to 12 feet.

Redcedar and juniper

Windward row — same as in single-row planting.

Interior rows — 8 to 12 feet.

Shrubs

Windward — 3 to 5 feet.

Leeward — 3 to 6 feet.

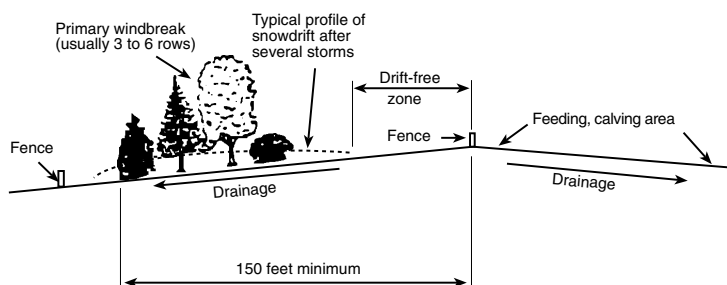
Small deciduous trees — 6 to 12 feet.

Medium to tall deciduous trees

Western Kansas — 6 to 20 feet.

Central Kansas — 6 to 20 feet.

Eastern Kansas — 6 to 20 feet.



### Woodlot spacing

Firewood — 6 × 10 feet or 8 × 8 feet.

Timber — 10 × 10 feet to 15 × 15 feet.

### Riparian plantings

Shrubs — 1½ to 4 feet between plants, 8 to 10 feet between rows.

Deciduous trees — 8 to 10 feet between plants and rows.

### Wildlife habitat spacing

Same as in windbreaks.

### Christmas tree spacing

6 × 6 feet to 7 × 7 feet.

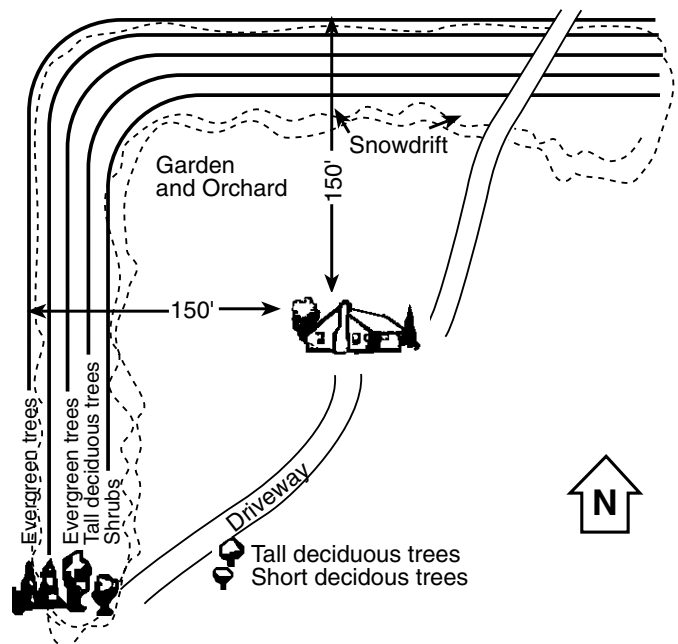
### Technical assistance

Several sources of free technical assistance are available for designing and managing your conservation planting:

#### Kansas Forest Service

- Manhattan, 2610 Claflin Rd., 66502 (785-532-3300)
- Hays, 1232 240th Ave., 67601 (785-625-3425 ext. 220)
- Dodge City, 107 Layton, 67801 (620-227-2392)
- Hutchinson, 9 West 28th Ste. B, 67502 (620-663-3501)
- Manhattan, 1125 Westport Dr., 66502 (785-776-5182)
- Topeka, 2914 SW Plass Court, Ste. C, 66611 (785-267-2275)
- Valley Falls, 318 Broadway, 66088 (785-945-6147)
- Chanute, 308 West 14th St., 66720 (620-431-1530)

Your local K-State Research and Extension office; your County Conservation District; your local representative of the Kansas Department of Wildlife and Parks also can lend technical assistance.



*This windbreak design is for prevailing winds from the north and west. Snowdrifts form downwind from the windbreak.*

# Shrubs

## American Plum



Adapted  
Statewide

Used for wildlife habitat and erosion control. Forms thickets and grows well on most soils. Reaches a mature size of 6 to 12 feet and bears edible fruit.

## Caragana (Pea Shrub)



Adapted  
Statewide

Used to attract grasshoppers for game birds and provide cover for upland game birds. Grows best on dry, well-drained soils and suffers few diseases. Reaches a mature size of 6 to 12 feet and recovers well from grasshopper damage.

## Choke Cherry



Adapted  
Statewide

Used for wildlife habitat and erosion control. Forms thickets and grows well on most soil conditions. Reaches a mature size of 6 to 10 feet and bears edible fruit.

## Fragrant Sumac



Adapted  
Statewide

Moderate growth on dry, well-drained soils. Excellent for wildlife habitat and is drought-tolerant. Reaches a mature size of 3 to 6 feet.

## Golden Currant



Adapted  
Statewide

Moderate growth on dry, well-drained soils. Excellent for wildlife habitat and is drought-tolerant. Reaches a mature size of 3 to 5 feet.

## Lilac



Adapted  
Statewide

Slow growth on dry, well-drained soils. Used in windbreaks and for wildlife habitat. Long-lived with profusion of purple flowers. Reaches a mature size of 8 to 12 feet.



# Shrubs

## Peking cotoneaster



Moderate growth on well-drained soils. Used in windbreaks and wildlife habitat. Attractive shrub that reaches a mature size of 5 to 7 feet.

Adapted  
Statewide

## Sand Hill Plum



Grows naturally on dry, sandy, well-drained soils. Forms thickets and serves as excellent wildlife habitat. Reaches a mature size of 3 to 4 feet and bears edible fruit.

Adapted  
Statewide

# Deciduous Trees

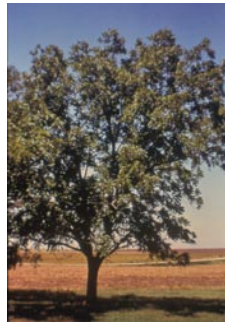
## Baldcypress



Grows best on wet, well-drained soils, but will tolerate seasonal droughts. Do not plant on alkaline soils. Used for stream bank stabilization and reaches a mature size of 60 to 100 feet.

Adapted to  
Eastern Half  
of Kansas

## Black Walnut



Limited to deep, well-drained, fertile soils. Used for timber and firewood production and wildlife habitat. Reaches a mature size of 50 to 90 feet.

Adapted to  
Eastern Two Thirds  
of Kansas

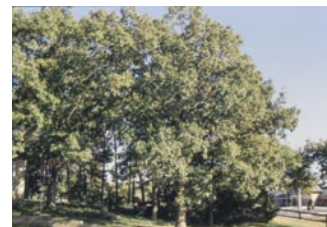
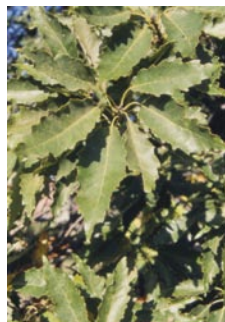
## Bur Oak



Slow to moderate growth on most soil conditions. Long-lived and durable. Used for windbreaks, timber production, and wildlife habitats. Reaches a mature size of 50 to 80 feet.

Adapted  
Statewide

## Chinkapin Oak



Slow to moderate growth. Prefers moderate to slightly acidic dry, well-drained soils. Its acorns are eaten by a variety of wildlife. Reaches a mature size of 30 to 60 feet. Produces a low spreading crown and low branching pattern. Has few pest problems.

Adapted  
Statewide

# Deciduous Trees

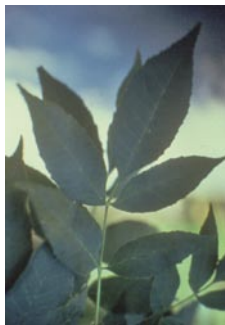
## Cottonwood



Adapted  
Statewide

Rapid growth on wet, well-drained soils. Used for windbreaks, streambank stabilization, timber and firewood production. Well-suited for turkey and deer habitat. Reaches a mature size of 70 to 100 feet.

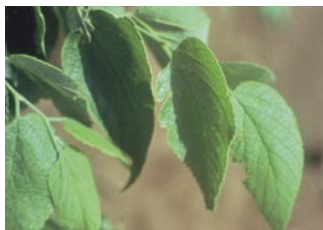
## Green Ash



Adapted  
Statewide

Moderate growth on moist, well-drained soils. Not well-suited for dry upland sites. Used for windbreaks and firewood and timber production. Reaches a mature size of 35 to 60 feet.

## Hackberry



Adapted  
Statewide

Fast growth on deep, dry, well-drained, fertile soils. Used in windbreaks, wildlife habitat, and timber production. Reaches a mature size of 45 to 70 feet.

## Honeylocust



Adapted  
Statewide

Moderate to fast growth on dry, well-drained soils. Drought-tolerant and about 90 percent are thornless. Used for windbreaks and firewood production. Reaches a mature size of 30 to 60 feet.

## Lacebark Elm



Adapted  
Statewide

Used in windbreaks and grows best on dry, well-drained soils. Drought-tolerant and resistant to elm leaf beetle and Dutch elm disease. Reaches a mature size of 30 to 35 feet.

## Northern Red Oak



Adapted to  
Eastern Half  
of Kansas

Moderate growth on well-drained soils. Used for woodlots, wildlife habitat, firewood production, and windbreaks. Reaches a mature size of 50 to 70 feet.



# Deciduous Trees

## Pecan



Requires moist, well-drained soils for nut and timber production and rapid growth. Kansas or western Missouri seed source. Reaches a mature size of 80 to 100 feet.

Adapted to Eastern Half of Kansas

## Redbud



Grows best on well-drained soils and used in windbreaks. Profusion of bright pink flowers and reaches a mature size of 10 to 20 feet.

Adapted to Eastern Two Thirds of Kansas

## Russian Mulberry



Fast growth on dry, well-drained soils. Small tree used for wildlife habitat. Reaches a mature size of 15 to 20 feet.

Adapted Statewide

## Sawtooth oak



Grows quickly on well-drained soils and produces acorns much earlier than other oak species. A red oak that is especially good for wildlife and has no serious pests. Reaches a mature size of 50 to 60 feet.

Adapted to Eastern Two Thirds of Kansas

## Silver Maple



Grows quickly on moist, well-drained soils. Do not plant on alkaline soils. Used for firewood and timber production and streambank stabilization. Reaches a mature size of 70 to 80 feet.

Adapted to Eastern Half of Kansas

## Sycamore

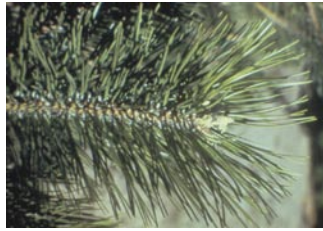


Rapid growth on moist, well-drained soils. Serves well for a den and roost tree. Good riparian tree that reaches a mature size of 50 to 80 feet.

Adapted to Eastern Half of Kansas

# Evergreen Trees

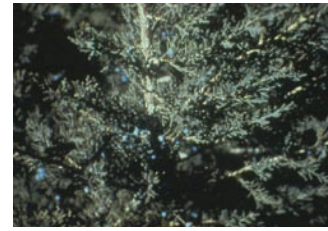
## Austrian Pine



Moderate growth on dry, well-drained soils, but is able to adapt to most other soils. Used for windbreaks and Christmas trees. Drought-tolerant and reaches a mature size of 30 to 50 feet.

Adapted Statewide

## Eastern Redcedar



Moderate growth on dry, well-drained soils. Basis for windbreaks and wildlife habitat. Very drought-tolerant. Reaches a mature size of 30 to 50 feet.

Adapted Statewide

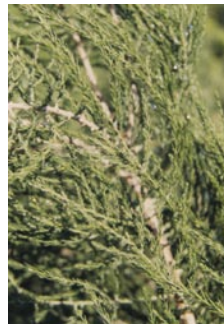
## Eastern White Pine



Grows best on well-drained soils and is used for windbreaks and Christmas trees. Reaches a mature size of 50 to 60 feet.

Adapted to Eastern Third of Kansas

## Oriental Arbovitae



Moderate growth on well-drained soils. Aromatic tree used in windbreaks. Reaches a mature size of 30 to 50 feet.

Adapted Statewide

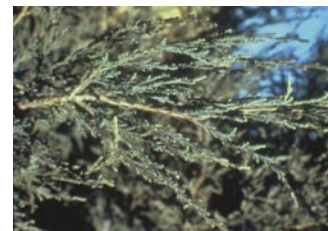
## Ponderosa Pine



Moderate growth on dry, well-drained soils. Most drought-tolerant pine and used in windbreaks. Reaches a mature size of 40 to 50 feet.

Adapted to Western Two Thirds of Kansas

## Rocky Mountain Juniper



Grows best on dry, well-drained soils. Similar to redcedar, but subject to disease in eastern Kansas. Reaches a mature size of 20 to 30 feet.

Adapted to Western Quarter of Kansas



## Evergreen Trees

### Southwestern White Pine



Grows best on dry, well-drained soils. Used for Christmas trees and requires more attention than Austrian or Ponderosa Pines during establishment. Reaches a mature size of 35 to 50 feet.

Adapted  
Statewide

## Bundles

**Tree bundles are sets of trees that can be planted for a specific purpose.**

**Songbird bundle** — Partially financed by Nongame Wildlife Checkoff on state income tax forms. Contains three redcedar, three Peking cotoneaster, three redbud, five fragrant sumac and four golden currant seedlings.

**Quail bundle** — Endorsed by Quail Unlimited. Contains 25 each American plum, fragrant sumac and Peking cotoneaster.

**Pheasant bundle** — Endorsed by Pheasants Forever. Contains 50 Sandhill plum, 25 Skunkbush sumac, 25 Peking cotoneaster.

**Wildlife Mast bundle** — Contains 50 bur oak, 25 black walnut, 25 sawtooth oak, and 25 chinkapin oak seedlings.

## Other Information

Landowners interested in obtaining more information on how to increase the success of their conservation tree and/or shrub planting may find the following publications of interest.

*Conservation Tree Planting Schedule*, L-871  
*Tips On Planting Trees And Shrubs*,  
*Tree Planting Guide*, L-596  
*Weed Control Options In Tree Plantings*, L-848  
*Windbreaks For Kansas*, MF-2120

*Chemical Weed Control in Tree Plantings*, MF-656  
*Fabric Mulch for Tree and Shrub Plantings*, MF-2216  
*Trees and Shrubs for Difficult Sites*, MF-2205  
*Living Snow Fences in Kansas*, L-744  
*Windbreaks for Wildlife*, MF-805

These, as well as several other publications relating to Kansas Forest Service's Community Forestry, Rural Forestry, and Fire Management programs are available by calling Kansas Forest Service at 785-532-3300, or by visiting our Web site at [www.kansasforests.org](http://www.kansasforests.org) and selecting "Publications" at the bottom of our home page.

### Kansas State University Agricultural Experiment Station and Cooperative Extension Service

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