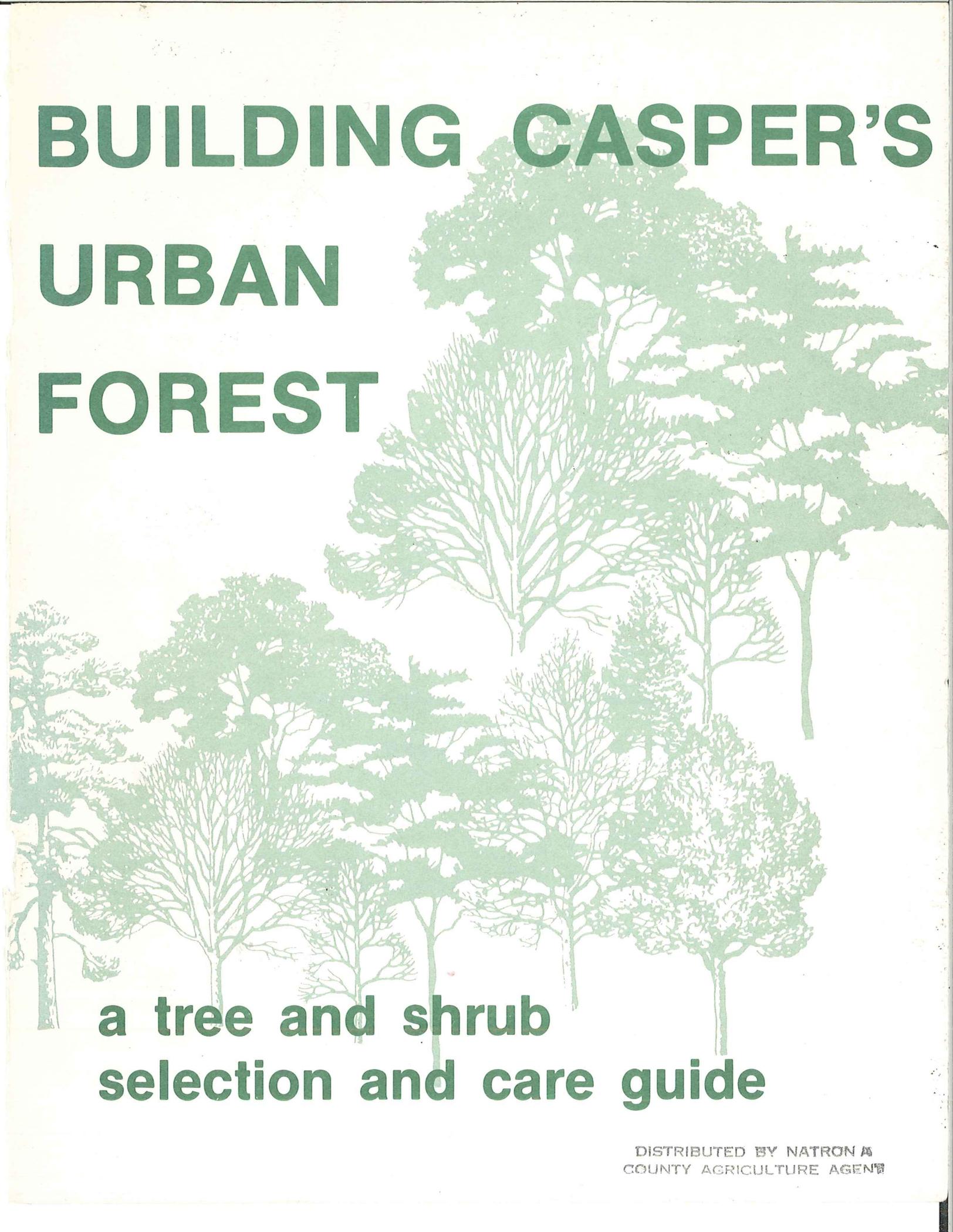


BUILDING CASPER'S URBAN FOREST



**a tree and shrub
selection and care guide**

DISTRIBUTED BY NATRON A
COUNTY AGRICULTURE AGEN

AUTHOR

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“LATELY MAN HAS SHOWN CONCERN FOR THE FUTURE OF MOTHER EARTH. HE HAS EXPRESSED CONCERN THAT HIS OWN EXISTENCE MAY BE THREATENED BY BREATHING NOXIOUS AIR, LISTENING TO EARSPLITTING NOISE, DRINKING FOUL WATER AND VIEWING GRACELESS LANDSCAPES.

IN THE MIDST OF THE ENVIRONMENTAL UPROAR, THE TREE STANDS BY LIKE A FAITHFUL WATCHDOG DISPERSING LIFE—GIVING BENEFITS AND LIVES ON LIKE A SILENT LAPDOG TAKEN FOR GRANTED AND YET ONE OF MAN’S BEST FRIENDS.

WISE MEN PLANTED TREES IN BACK YARDS, ON WOODLANDS, AND ALONG CITY STREETS SINCE COLONIAL DAYS. NOW, AS THEN, THEIR INVESTMENT IS RETURNING AN ALMOST INFINITE NUMBER OF BENEFITS AND SERVICES FOR MAN AND MOTHER EARTH.

TO AFFIX A PRICE TAG TO AN URBAN TREE, LIKE AFFIXING A PRICE TAG TO A FAMILY PET, IS VIRTUALLY IMPOSSIBLE . . .”

U. S. FORST SERVICE

WE NEED YOUR HELP . . .

to insure you will get quality information you can use. Please complete the following questionnaire and return to the address printed on the back of this page.

1. How would you rate the sections found in this publication?

WHY PLANT TREES AND SHRUBS.....	GOOD	FAIR	POOR
PLANT SELECTION.....	GOOD	FAIR	POOR
SPECIES LIST FOR CASPER.....	GOOD	FAIR	POOR
CONSIDERATIONS WHEN BUYING.....	GOOD	FAIR	POOR
PLANTING.....	GOOD	FAIR	POOR
CARE AND MAINTENANCE.....	GOOD	FAIR	POOR
TREE AND SHRUB DESCRIPTIONS.....	GOOD	FAIR	POOR

2. Will you use any of this information? YES NO

What? _____

3. If another publication were written, which **one** of the following subjects would benefit you most? (check one)

- SOIL IMPROVEMENT
 MAINTENANCE OF TREES AND SHRUBS
 LOW MAINTENANCE LANDSCAPING
 OTHER _____

4. How long have you lived in Casper, (circle one)

- A. Less than 1 year
B. 1 to 5 years
C. 5 to 10 years
D. More than 10 years

5. Comments:

FOLD

STAMP

NATRONA COUNTY EXTENSION SERVICE
CITY-CENTER BUILDING
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CASPER, WYOMING 82601

FOLD

INTRODUCTION

In the 1880's the Fremont, Elkhorn and Missouri Valley Railroad Company extended its line westward to an area in the central part of the not yet state of Wyoming. The settlement that resulted emerged from sagebrush and grass and developed into the bustling city we know as Casper.

Along the way people saw the need to plant trees and shrubs, not only for their beauty, but for their functional values as well. This booklet will hopefully encourage this practice, and offer information that will aid in establishing, maintaining, and enjoying these plants.

CLIMATE

Casper's climate is characterized by low precipitation, cold winter and hot summer temperatures, strong southwest winds and a high percentage of sunny days.

Low winter temperatures average 13° F. while the average highs in summer are approximately 83° F. Minimum winter temperatures of -10 to -20° F. can be expected. Freezing may occur in any month of the year, but generally, the last freeze is the middle of May and the first freeze the middle of September.

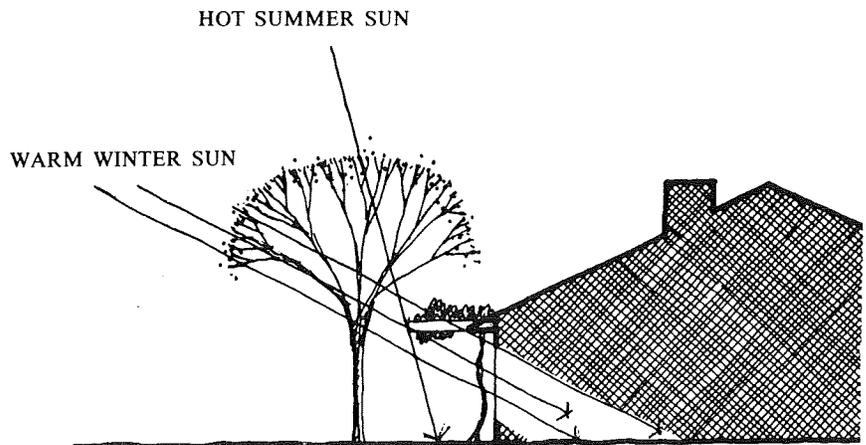
Annual wind speeds average 13 miles per hour. Gusting winds of 50 miles per hour are not uncommon and may reach into the 80 mile per hour range.

SOILS

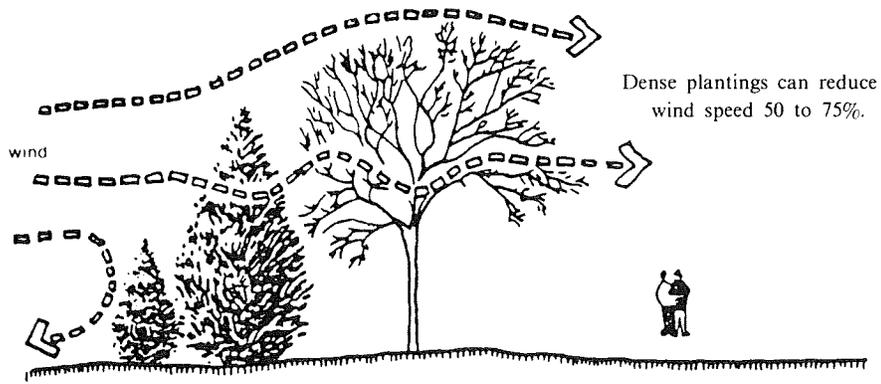
During the Cretaceous period, 70-130 million years ago, the shale formation underlying most of the Casper area, aside from Casper Mountain, was deposited. Through the ages this material has been weathered and eroded, resulting in the heavy of or clayey soils of the Casper area. Wind and water have deposited materials from other places and formed our sandy and gravelly soils.

Generally, all of these soils are alkaline in nature.

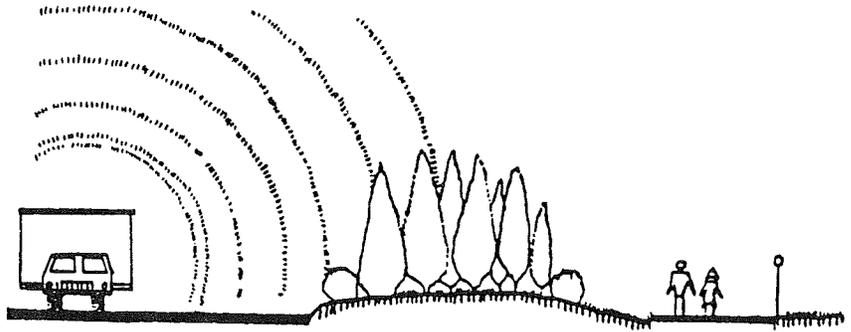
WHY PLANT TREES AND SHRUBS?



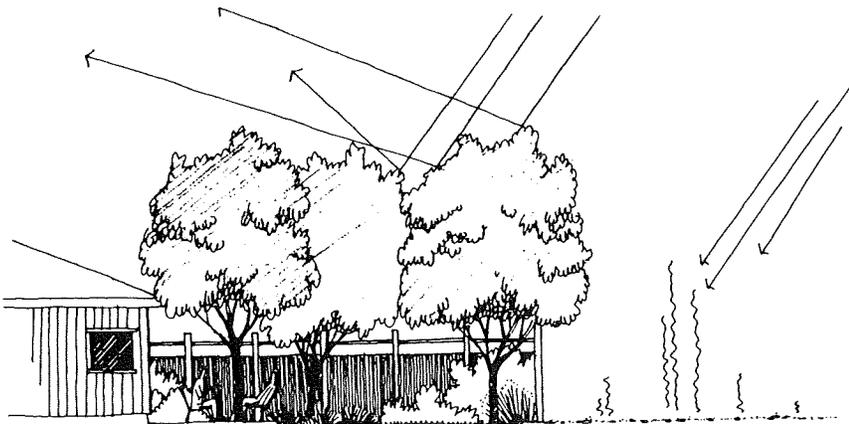
Planting the right species in the right locations can reduce heating costs in the winter and cooling costs in the summer.



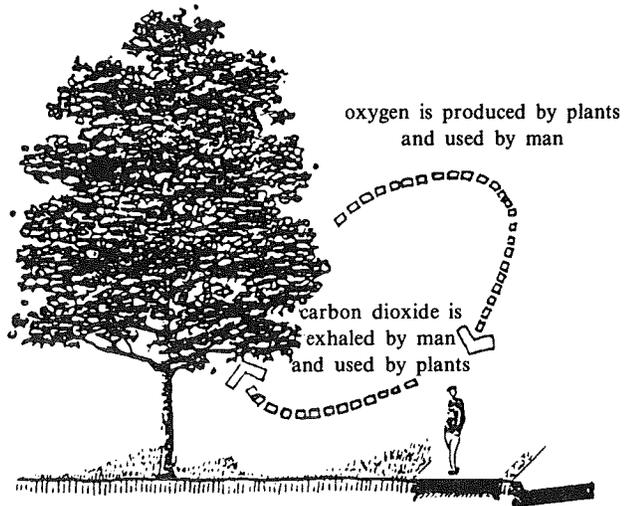
Fuel savings may also be realized by plantings that reduce wind speeds.



Screenings are another functional use of trees and shrubs. They may be planted to reduce noise levels from a busy street or hide an unsightly area from view.



With the right species for shade, people and plants both may benefit from the lower temperatures.



Plants are Mother Nature's way of helping keep our air breathable.

Trees and shrubs may also be planted to reduce soil erosion, provide cover for wildlife or fruit for consumption.

Besides being functional, plantings can also be beautiful. With good planning and species selection, color may be enjoyed every season.

"Remember that planning for beauty does not cost; it pays." George Kelly

PLANT SELECTION

To help get the most from an investment, several items need to be considered *before* going to the nursery.

What Purpose Will The Tree or Shrub Serve?

1. privacy screen, windbreak or noise buffer
2. shade
3. color, fragrance, attractive form, interesting bark or foliage
4. fruit producer

When Choosing a Plant Consider:

1. elevation of planting area (Casper is approximately 5100 feet above sea level)
2. annual precipitation (Casper averages approximately 12 inches)
3. soil characteristics (a soil sample may help)
4. species that need wind protection
5. susceptibility to insects and disease
6. maintenance required
7. available root space
8. growth rate and eventual size
9. life span
10. what plant will fit into your overall landscape plan
11. trees and shrubs growing in your area
12. what plant will fit into scheme of neighborhood

SPECIES LIST FOR CASPER

The following is a list of trees and shrubs that are reliable for the Casper area. DESCRIPTIONS AND POTENTIAL PROBLEMS ARE NOTED IN THE APPENDIX FOR EACH SPECIES. Further information may be found in the University of Wyoming Extension Publications list and the bibliography listed at the end of this booklet.

Large Trees

Bolleana Poplar	<i>Populus alba</i> "Bolleana"
Boxelder	<i>Acer negundo</i>
Colorado Spruce (evergreen)	<i>Picea pungens</i>
Green Ash	<i>Fraxinus pennsylvanica</i>
Hackberry	<i>Celtis occidentalis</i>
Thornless Honeylocust	<i>Gleditsia triacanthos inermis</i>
Limber Pine (evergreen)	<i>Pinus flexilis</i>
Cottonless Cottonwood	<i>Populus species</i>
Ponderosa Pine (evergreen)	<i>Pinus ponderosa</i>
Siberian Elm (Chinese Elm)	<i>Ulmus pumila</i>
Weeping Birch	<i>Betula pendula</i>
White Poplar	<i>Populus alba</i>
Willows	<i>Salix species</i>

Small Trees

Bristlecone Pine (evergreen)	<i>Pinus aristata</i>
Ginnala Maple	<i>Acer ginnala</i>
Hawthorn	<i>Crataegus species</i>
Pinyon Pine (evergreen)	<i>Pinus edulis</i>
Rocky Mountain Juniper (evergreen)	<i>Juniperus scopulorum</i>
Russian Olive	<i>Elaeagnus angustifolia</i>
Staghorn Sumac	<i>Rhus typhina</i>
Utah Juniper	<i>Juniperus osteosperma</i>

Shrubs

Bush Honeysuckle	<i>Lonicera tatarica</i>
Caragana	<i>Caragana arborescens</i>
Chokecherry (Western)	<i>Prunus virginiana demissa</i>
Common Lilac	<i>Syringa vulgaris</i>
Cotoneaster	<i>Cotoneaster acutifolia</i>
Flowering Almond	<i>Prunus glandulosa</i>
Hawthorn	<i>Crataegus species</i>
Juniper (evergreen)	<i>Juniperus species</i>
Mugho Pine (evergreen)	<i>Pinus mugo</i>
Nanking Cherry	<i>Prunus tomentosa</i>
Potentilla	<i>Potentilla fruticosa</i>
Red-twig Dogwood	<i>Cornus sericea</i>
Russian Olive	<i>Elaeagnus angustifolia</i>
Serviceberry	<i>Amelanchier alnifolia</i>
Silver Buffalo Berry	<i>Shepherdia argentea</i>
Staghorn Sumac	<i>Rhus typhina</i>
Van Houtte Spirea	<i>Spiraea vanhouttei</i>

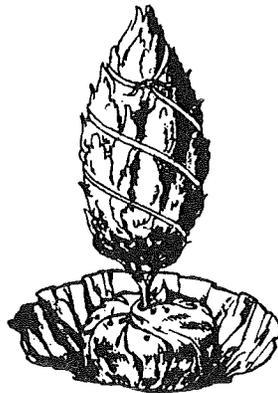
CONSIDERATIONS WHEN BUYING

After you have made the decision on what species to purchase, there are still observations and decisions to be made at the nursery.

The plant you are looking for will probably be available in one or more of these forms:



1.) Container-grown



2.) Balled and burlapped



3.) Bare-root

Container-grown and balled and burlapped stock are the most expensive. The soil surrounding their roots lessens the shock of transplanting and increases the chances of survival. When handling this type of stock, great care should be taken not to lift or carry by the trunk, but rather by the root-ball or container. The root-ball **should never** be broken or disturbed. If you are unable to plant right away, these trees and shrubs can be temporarily kept in a cool, protected area. The soil should not be allowed to dry out. This is especially true with evergreens.

Bare-root trees and shrubs are less expensive but require extra care. Special steps must be taken to protect the roots from drying out and mechanical damage. If they cannot be planted immediately, cover the roots with a moist mulch of sphagnum or sawdust and keep cool for brief storage. For longer periods the plants should be "heeled in". To do this, select a protected and shaded area with loose soil. Dig a trench with one sloping side and deep enough to accommodate the roots. Rest the trunk **against the sloping side**, spread and cover the roots with sand, soil, peatmoss or sawdust. Lightly press the covering around the roots and **keep moist** until time for planting.

Avoid plants that show wilting of new growth; broken branches; poor leaf color; bruises to the trunk; soil loosened or disturbed around the roots; insect and disease damage; narrow angles between the stem and branches; and excessively crooked stems. Always try to buy nursery stock grown for northern climates. Beware of "bargain" trees and shrubs.

PLANTING

Planting involves 3 steps:

- 1.) preparing the soil
- 2.) placing the plant
- 3.) backfilling

Planting is best done in the spring when plants are dormant and after the frost has left the soil. Container-grown plants can be planted as late as mid-July.

PREPARING THE SOIL

The hole the tree or shrub will go in should have vertical sides, a flat bottom and be at least one and one half times larger than the root spread. In hard or compacted soils, the bottom and side walls should be loosened.

A good soil should allow for sufficient drainage, adequate moisture retention, aeration, and should not be too alkaline. Casper area soils usually do not meet these requirements. If the soil you remove from the hole is clayey, mix in coarse sand and peatmoss or **well-rotted** manure. If the soil is sandy, mix in the peat moss or manure. The final mix should contain about one-third organic matter. Do **not** add fresh manure or fertilizer to this mix. These will burn the roots.

PLACING THE PLANT

There is no need to remove the burlap from balled and burlapped plants. Untie the burlap from around the stem and fold back so it can be completely covered by soil. Burlap left uncovered can act as a wick and draw moisture from the soil. Remove containers made of plastic, metal or other non-degradable materials. Be sure to cut any roots which are circling around the outside of the root-ball. Bare-root stock should have their roots spread out in as natural a way as possible.

Trees and shrubs should be planted no deeper than the depth they were grown in the nursery. When planting in a lawn, it's a good idea to plant the tree about 1 inch higher than it grew originally.

Bare-root plants should have 1/3 to 1/2 of their top growth pruned off after planting. This helps promote better growth by bringing the top to root ratio into better proportion.

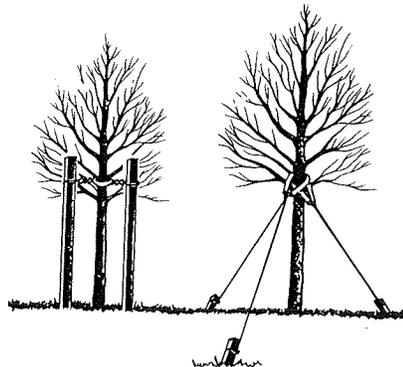
BACKFILLING

Hold the plant in the desired position, sifting soil around and under the roots. Be careful to tamp well enough to remove air spaces. When the hole is about two-thirds full, fill with water and let it drain. Then, finish filling with soil. Form a ridge of soil around the edge of the filled hole. Fill this basin with water, let it drain, and apply a mulch. The mulch will aid by reducing evaporation and weed growth.

CARE AND MAINTENANCE

STAKING

Newly planted trees need extra support for a year or two until the roots have a firm hold—especially in Casper's wind. Smaller trees can be supported by putting one or two stakes in the hole before backfilling and attaching with a soft material. One stake should be on the windward side. Large trees may require 3 guy lines attached half-way up the stem. Insulate the lines with rubber hose, carpet, canvas or similar material to avoid damaging the trunk.



WRAPPING

Wrap trunks of transplanted deciduous trees with strips of burlap or commercial tree wrap. Start at soil level and wrap up to the first branches. This is very important the first few winters. Put it on at Thanksgiving, take it off April Fool's Day.

WATERING

Improper watering is probably the biggest cause of tree and shrub failure. Avoid frequent shallow waterings. Try to wet the entire root zone, at least three feet deep, when watering. When the soil is dry three inches down or more, it's probably time to water again. Water monthly November through March, if there is no snow cover and the ground will allow water to seep in.

FERTILIZING

Fertilizing is beneficial only if the elements applied are not available or are lacking in the soil. Slowing in annual growth and poor color may be the result of one or more nutrients lacking. The best time to fertilize is early spring or after the first of October. Avoid fertilizing in midsummer or early fall. This will cause a flush of growth that may be killed back in winter. Fertilizers with analyses such as 16-8-8, 20-10-5, or 24-12-12 are good choices. **DO NOT** use fertilizers with weed killers combined!

TYPE OF TREE	AMOUNT OF FERTILIZER CONTAINING 20% NITROGEN*
Deciduous	
Small;	
Trees 1 to 6 feet tall	1 tablespoon per foot of height
Trees over 6 feet tall up to 6 inches in diameter at 4 1/2 feet above the ground	1/2 lb. per inch of trunk diameter
Large;	
Trees over 6 inches in diameter at 4 1/2 feet above ground	1 lb per inch of trunk diameter
Evergreen	
Small;	
Trees 1 to 6 feet tall	
Trees over 6 feet tall up to 6 inches in diameter at 4 1/2 feet above ground	Reduce amounts above by one-half
Large;	
Trees over 6 inches in diameter at 4 1/2 feet above ground	

*Increase the amounts proportionally if your fertilizer contains less than 20% nitrogen.

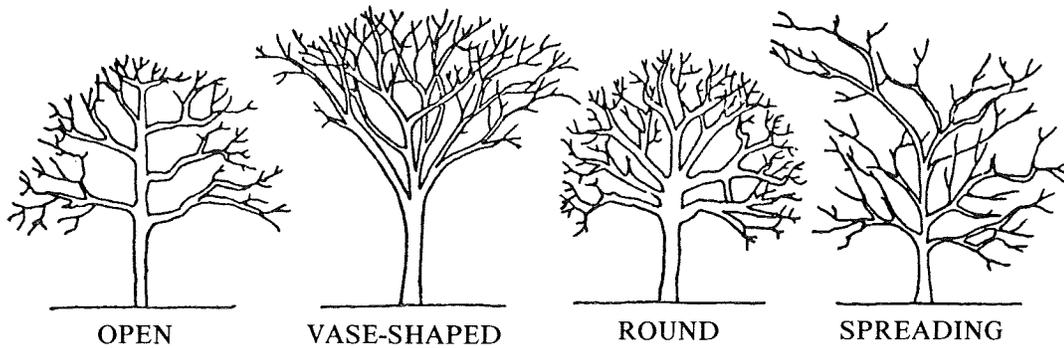
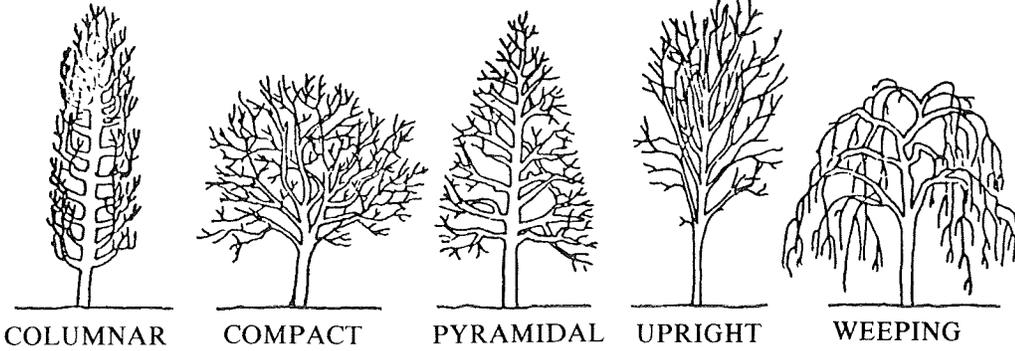
PRUNING

Generally, pruning is done to thin dense growth, remove dead or diseased wood, repair damage, control height, encourage flowers or to achieve a special effect. There are several Extension publications with good working diagrams and more complete information than would be practical to explain here.

APPENDIX

TREE AND SHRUB DESCRIPTIONS

NOTE: The height, growth rate and expected spread figures are approximate and will vary with the site and care given. They should be useful in planning. Insect and diseases that may be problems are noted. The diagrams below are the basic growth forms used in the species description.



LARGE TREES

Bolleana Poplar (*Populus alba* "Bolleana")

Mature Height: 50'

Growth Rate: 24 + "/year

Form: Columnar

Expected Spread: 15'

Comments: Fast growing, short-lived, weak branches and fair drought tolerance. Will get into sewer lines. Like other poplars this tree is susceptible to several major diseases. Cytospora canker could be a problem.

Boxelder (*Acer negundo*)

Mature Height: 30'-60'

Growth Rate 24 + "/year

Form: Spreading

Expected Spread: 30'

Comments: A member of the maple family. This tree is hardy, fast growing and short-lived. It tends to damage easily in storms. Boxelder beetles, scale and gall formers are major pests. This tree may prove valuable in areas where others will not survive.

Colorado Spruce (*Picea pungens*)

Mature Height: 70'-80'

Growth Rate: 4" -10"/year

Form: Pyramidal

Expected Spread: 20'-30'

Comments: Does very well in Casper. Good cold tolerance, deep root system and sturdy branches. Requires winter screening when young and winter watering whenever there are prolonged dry periods. Pine needle scale and spruce gall aphid are common pests of this tree.

Green Ash (*Fraxinus pennsylvanica*)

Mature Height: 45'-60'

Growth Rate: 12" -24"/year

Form: Compact to Round

Expected Spread: 30'

Comments: Tolerates alkaline soils and hardy once established. Fair to sturdy branch strength. Borers are a potential problem. Varieties include: Marshall's Seedless Ash and Summit Ash.

Hackberry (*Celtis occidentalis*)

Mature Height: 30'-60'

Growth Rate: 12"-24"/year

Form: Round

Expected Spread: 15'-30'

Comments: Excellent shade tree for Casper. Drought tolerant, deep root system, sturdy branches, tolerant of city conditions and requires little maintenance. Hackberry nipple gall is a common pest of this tree, but usually does not affect its health.

Thornless Honeylocust (*Gleditsia triacanthos inermis*)

Mature Height: 40'-60'

Growth Rate: 12"-24"/year

Form: Open to Round

Expected Spread: 30'-40'

Comments: Sturdy branches, hardy, drought tolerant tree providing light shade. Will sunscald when young. Thyronectria canker is a potentially serious disease. Check trees for symptoms before buying. (See extension publication B-776.) Varieties of Honeylocust are Shademaster, Skyline and Moraine.

Limber Pine (*Pinus flexilis*)

Mature Height: 40'-50'

Growth Rate: 4"-8"/year

Form: Pyramidal

Expected Spread: 20'

Comments: Needles 2 1/2" long in bundles of 5, clustered at branch ends. Once established will tolerate drought. Avoid highly alkaline soils. Winter watering, screening and well drained soils required.

Cottonless Cottonwood (*Populus* species)

Mature Height: 40'-60'

Growth Rate: 24 + "/year

Form: Open to Spreading or Columnar.

Expected Spread: 15'-40'

Comments: Fast growing, hardy, but short-lived. May cause heaving of sidewalks and clogging of sewer lines if not planted in an appropriate site. Cytospora canker is a disease that infests this and most poplars. Other species may be available.

Ponderosa Pine (*Pinus ponderosa*)

Mature Height: 60'-80'

Growth Rate: 6"-12"/year

Form: Pyramidal, becoming Open-Round

Expected Spread: 25'

Comments: This is the most widely distributed pine in North America. It has good drought, cold and alkali tolerance once established. Requires well-drained soils, winter screening, and winter watering. This tree has sturdy branches and a deep root system. Can be killed by overwatering. Bark beetles and pine needle scale are common pests.

Siberian Elm (*Ulmus pumila*)

Mature Height: 50'-60'

Growth Rate: 24 + "/year

Form: Open to Spreading

Expected Spread: 30'

Comments: Commonly called "Chinese Elm". This is a fast growing, short-lived tree that has weak branches subject to storm damage. Seeds are borne in the spring. Fair drought tolerance. Winter die back may be a problem. Elm leaf beetle is a destructive pest of this tree. Wetwood (slime flux) is a common bacterial infection.

Weeping Birch (*Betula pendula*)

Mature Height: 35'-50'

Growth Rate: 24" + "/year

Form: Weeping

Expected Spread: 35'

Comments: Graceful, short-lived ornamental. White, papery bark and drooping branches. Tops may die back in winter. Thin bark is easily damaged. Requires moist well-drained soils. Subject to aphids and borers.

White Poplar (*Populus alba*)

Mature Height: 60'-80'

Growth Rate: 24 + "/year

Form: Open

Expected Spread: 45'

Comments: Also known as "Silver Poplar" and may be confused with "Silver Maple". Requires less water than most poplars. This tree will send up suckers from its roots which cause severe problems in yards. Roots may also get into sewer lines. It is fast growing and has fair to sturdy branches. Subject to Cytospora canker, oyster shell scale, aphids.

Willows (*Salix* species)

Mature Height: 3'-60'

Growth Rate: 24 + "/year

Form: Variable

Expected Spread: 35'

Comments: Fast growing, weak branches and usually short-lived. Roots wide spreading and may get into sewer lines. Subject to Cytospora canker, oyster shell scale and aphids.

SMALL TREES

Bristlecone Pine (*Pinus aristata*)

Mature Height: 20'-40'

Growth Rate: Less than 12"/year

Form: Pyramidal

Expected Spread: 15'

Comments: The oldest known living trees are bristlecone pines. Strong branches, shallow root system and drought tolerant once established. Plant in full sun. Requires winter screening and watering. Bark beetles and pine needle scale are pests that may infest this tree.

Ginnala Maple (*Acer ginnala*)

Mature Height: 15'-20'

Growth Rate: 12"-24"/year

Form: Open

Expected Spread: 25'

Comments: Most reliable maple for the Casper area. This is a tall shrub that may be trimmed to a small single stemmed tree. It has sturdy branches, fair drought tolerance and a shallow root system. Fragrant flowers and brilliant red foliage in the fall. Needs supplemental watering in dry weather.

Hawthorn (*Crataegus* species)

Mature Height: 20'-25'

Growth Rate: 12"-24"/year

Form: Compact

Expected Growth 15'-20'

Comments: Sturdy branches and fair drought tolerance. Attractive flowers. Some species have brightly colored fruits which persist into the fall. Fireblight, a bacterial infection, and juniper-hawthorn rust a fungus infection, can cause problems.

Pinyon Pine (*Pinus edulis*)

Mature Height: 15'-20'

Growth Rate: Less than 12"/year

Form: Round

Expected Spread: 15'

Comments: Sturdy branches, shallow root system and very drought tolerant. This tree seems to be doing very well in Casper. Overwatering will cause a thinning of the foliage and death. The seeds (pine nuts) are edible. Requires winter screening and watering if there are extended dry periods.

Rocky Mountain Juniper (*Juniperus scopulorum*)

Mature Height: 15'-25'

Growth Rate: Less than 12"/year

Form: Pyramidal to Round

Expected Spread: 10'-20'

Comments: Good evergreen for Casper. Tolerates cold, drought and alkaline soils. It has sturdy branches and a deep root system. Colors may vary from green to blue-grey and grey-green. Winter screening and watering should be given to this tree. Some ornamental varieties include: Green Spire, Sutherland, Cologreen, Grey Gleem and Wichita Blue. Susceptible to spider mites and juniper-hawthorn rust.

Russian Olive (*Elaeagnus angustifolia*)

Mature Height: 20'-30'

Growth Rate: 12"-24"/year

Form: Open to Spreading

Expected Spread: 20'

Comments: Sturdy branches, good tolerance of drought and alkaline soils. This plant may be used as a large shrub or pruned to a tree form. It does not like shade. Abundant fruit well liked by birds. No serious insect or disease problems.

Staghorn Sumac (*Rhus typhina*)

Mature Height: 8'-15'

Growth Rate: Less than 12"/year; 24-48"/year from roots

Form: Spreading

Expected Spread: 4'-10'

Comments: Tall shrub or small tree. Hardy once established, tolerates drought. Attractive red fruits in clusters—mid summer, and bright red fall foliage. Spreads by root suckers. Aromatic Sumac (*Rhus aromatica*), a sprawling 2' to 3' shrub, will also do well in Casper.

Utah Juniper (*Juniperus osteosperma*)

Mature Height: 8'-18'

Growth Rate: Less than 12"/year

Form: Round to Pyramidal

Expected Spread: 4'-10'

Comments: Found in the Alcova Lake area. Very drought tolerant. It is not uncommon for this plant to have several stems. Spider mites and juniper-hawthorn rust are pests of this plant.

SHRUBS

Honeysuckle (*Lonicera tatarica*)

Mature Height: 8'-10'

Growth Rate: 12"-24"/year

Form: Open

Expected Spread: 4'-8'

Comments: Drought tolerant shrub with fragrant blossoms. May be planted in partial shade. The persistent berries add color in the fall.

Caragana (*Caragana arborescens*)

Mature Height: 10'-15'

Growth Rate: 12"-24"/year

Form: Spreading

Expected Spread: 10'-15'

Comments: Introduced as an ornamental from Siberia. Good tolerance to cold, drought, alkaline and salty soils. Used in windbreaks, formal and informal hedges. Small yellow flowers in the spring. Grasshoppers and blister beetles can defoliate this species, but it seems to recover well. No major disease problems known. There are also dwarf forms of the Caragana.

Western Chokecherry (*Prunus virginiana demissa*)

Mature Height: 10'-20'

Growth Rate: 12'-24"/year

Form: Spreading

Expected Spread: 15'-20'

Comments: Tolerates cold and drought but not alkali soils. Does well in moist, well-drained, fertile sandy soils. White flowers in spring and black fruits used for jams or jellies, in late summer. The chokecherry tends to suckers.

Common Lilac (*Syringa vulgaris*)

Mature Height: 8'-12'

Growth Rate: 24 + "/year

Form: Compact Shrub

Expected Spread: 4'-6'

Comments: This shrub was introduced from eastern Europe. It is tolerant to temperature extremes, drought and adaptable to different soils. Many horticultural varieties are available that differ in color of bloom. Suckers readily. Oyster shell scale and leaf miners are common pests of this plant.

Cotoneaster (*Cotoneaster acutifolia*)

Mature Height: 5'-10'

Growth Rate: 12"-24"/year

Form: Spreading

Expected Spread: 4'-6'

Comments: Cotoneaster has good tolerance for cold and alkali soils. It is fairly tolerant to drought. Good fall color and black fruit that may persist into the winter and is well liked by birds. There are dwarf varieties that do well here also. Fireblight and oyster shell scale may be serious pests.

Flowering Almond (*Prunus glandulosa*)

Mature Height: 3'-5'

Growth Rate: 12"-24"/year

Form: Compact—Round

Expected Spread: 2'-4'

Comments: Not a true almond. White or pink flowers in early spring. Likes full sunlight. Probably will require pruning every year to keep it compact. This plant is a good choice for Casper.

Mugho Pine (*Pinus mugo*)

Mature Height: 15'-20'

Growth Rate: Less than 12"/year

Form: Spreading

Expected Spread: 6'-10'

Comments: Fair drought tolerance, sturdy branches and a shallow root system. This pine has many branches and may be either prostrate or upright and spreading. Prefers a hot, sunny location. Overwatering should be avoided. Needs winter screening and watering during prolonged dry periods. Pine needle scale can be a pest.

Nanking Cherry (*Prunus tomentosa*)

Mature Height: 6'-10'

Growth Rate: 24 + "/year

Form: Upright stems/densely branched

Expected Spread: 4'

Comments: This plant will tolerate cold and drought. Somewhat tolerant to alkali soils. White flowers in the spring turning to bright red, tart, cherry-like fruit in late summer. Short-lived.

Potentilla (*Potentilla fruticosa*)

Mature Height: 2'-4'

Growth Rate: Less than 12"/year

Form: Open

Expected Spread: 1'-2'

Comments: Excellent shrub for Casper. Native to Wyoming. Yellow flowers from June to early fall. There are also other species of Potentilla that will do well here.

Red-Twig Dogwood (*Cornus sericea*)

Mature Height: 5'-10'

Growth Rate: 24 + "/year

Form: Compact

Expected Spread: 4'-6'

Comments: This plant will tolerate cold and shade but prefers a moist site. It has small white flowers in late spring, reddish foliage in fall and bright red twigs which contrast nicely with evergreens in the winter. Aphids can be a problem.

Serviceberry (*Amelanchier alnifolia*)

Mature Height: 5'-15'

Growth Rate: Less than 12"/year

Form: Spreading

Expected Spread: 6'-10'

Comments: Serviceberry is cold tolerant and somewhat drought tolerant. Prefers a sunny or lightly shaded location. Large white flowers in the spring, which develop into dark blue edible berries.

Silver Buffalo Berry (*Sheperdia argentea*)

Mature Height: 6'-12'

Growth Rate: 24 + "/year

Form: Spreading

Expected Spread: 4'-8'

Comments: This shrub is tolerant of cold and alkaline soils but does not tolerate drought or shade. Red berries in the summer that make good jelly. Found growing wild along streams and in bottomlands. A heart rot disease can cause problems.

Van Houtte Spirea (*Spiraea vanhouttei*)

Mature Height: 4'-6'

Growth Rate: Less than 12"/year

Form: Upright

Expected Spread: 2'-3'

Comments: Tolerates city conditions. A slender shrub with arching branches and clusters of white blossoms in May and June. Leaves may yellow in soils that are too alkaline. Threelobe Spirea (*Spiraea trilobata*) also good but 2 to 3 feet in height.

PROFESSIONAL ASSISTANCE

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