



# Trees For Laramie

## Trees For Laramie

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Wyoming State Forestry Division



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### Laramie Residents go out of their way to protect their Trees... Some may take it too far!



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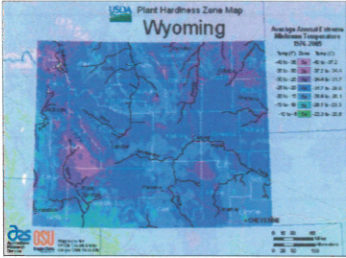
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## Environmental Factors

### HARDINESS ZONES

- ✓ Most of WY is in Zone 4
- ✓ Zones 3 and 5 are also represented
- ✓ Laramie is zone 4b: -20 to -25



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## Environmental Factors

**Moisture-** dry vs. wet sites

**Light-** full sun vs. shaded

**Insects and Disease-** outbreaks, epidemics

**Soil Conditions-** ph, texture



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## The Tree's Purpose

### SHADE

- ✓ Deciduous trees will shade homes in the summer and allow sun to pass through in the winter.
- ✓ ...lower home heating and cooling costs.
- ✓ ...lower watering needs for lawns



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## The Tree's Purpose

### AESTHETICS

- ✓ Fall color
- ✓ Flowers
- ✓ Fruit
- ✓ Bark
- ✓ Crown shape
- ✓ Leaves



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# Trees For Laramie

## Planting Location & Tree Size

- ✓ Available space
  - Overhead lines
  - Underground utilities
  - Sidewalks/curbs
  - Neighbor
  - Nearby trees/shrubs
- ✓ Mature tree size
  - Height
  - Crown spread
  - Root growth




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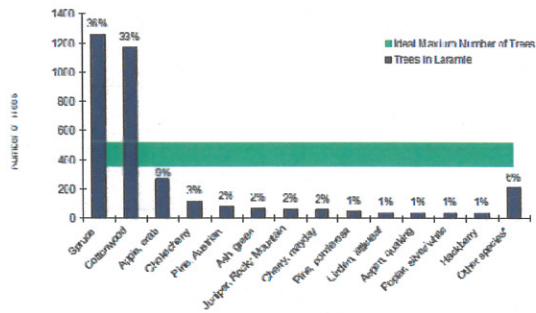
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3,500 trees inventoried

### 2007 Tree Inventory Summary




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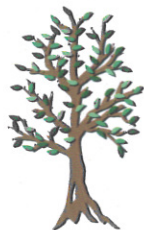
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## Trees for Laramie

These trees should grow and flourish in Laramie. However, proper care and maintenance are needed for any tree to thrive.




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# Trees For Laramie



**Kentucky Coffeetree**  
Zone: 4  
Height: 40-50 ft.  
Spread: 30-40 ft.  
Medium to large open spreading tree. Large compound leaves turning yellow in the fall. Seed pods 6" long. A picturesque tree in winter with deeply furrowed bark and stout branches. Adapted to urban conditions. "Espresso" variety is seedless and has better branching.

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**Bur Oak** Zone: 3 Height: 40-60 ft. Spread: 30-50 ft.  
A vigorous grower with a rounded open form. Interesting winter appearance due to corky bark. Tolerates a wide range of soil types. Fall color is yellowish brown. Acorns relished by squirrels. Very hardy and excellent root system. Bur oak crosses.

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# Trees For Laramie



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## Hackberry

Zone: 2  
Height: 40-60 ft.  
Spread: 40-50 ft.

Medium to large tree. Broad ascending branches with corky gray-brown bark. Purplish fruit is relished by birds and wildlife. Sometimes difficult to get established. Tolerant of a variety of soil types and conditions.

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## Plains Cottonwood

Zone: 4  
Height: 60-100 ft.  
Spread: 50-60 ft.

*Populus sargentii* 'Jeronimus' (Sergeant Straight Cottonwood) Best cottonwood for WY. More available in the nursery industry. Fast growing, very hardy and adaptable to poor soils and high elevations (7,000). Should be planted more often. Lanceleaf and Narrowleaf are other good choices. Several less hardy varieties being sold

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# Trees For Laramie



**Honeylocust** Zone: 4 Height: 50-60 ft. Spread: 30-40 ft.  
‘Shademaster’, ‘Imperial’ and ‘Skyline’ cultivars are the most popular but seem to struggle at higher elevations (7,000 ft.). Fairly fast growing large tree. Fern-like foliage is light green turning yellow in the fall. Casts a light shade. Tolerates a wide range of soil conditions and adverse urban conditions, great for streetscape plantings. “Northern Acclaim” variety is more cold hardy and might do better in Laramie.

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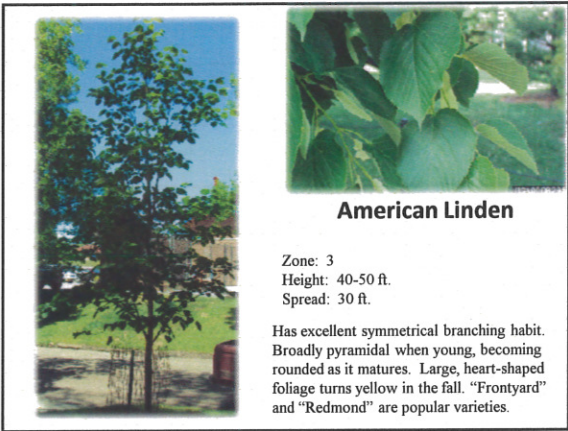
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**American Linden**  
Zone: 3  
Height: 40-50 ft.  
Spread: 30 ft.  
Has excellent symmetrical branching habit. Broadly pyramidal when young, becoming rounded as it matures. Large, heart-shaped foliage turns yellow in the fall. “Frontyard” and “Redmond” are popular varieties.

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# Trees For Laramie



**Littleleaf Linden**  
Zone: 3  
Height: 40-60 ft.  
Spread: 30-40 ft.

A medium to large tree. Dense, symmetrical crown with glossy, dark green foliage. Very fragrant yellow flowers in early summer. Fall color is yellow. Fairly disease free. Branch structure can be problematic.

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**Emerald Queen,  
Emerald Lustre  
Norway Maple**  
Zone: 4  
Height: 45 ft.  
Spread: 30 ft.



Considered hardiest and most well-adapted Norway maples to arid West. Has large, glossy leaves with a dense branching habit. Excellent shade tree but susceptible to leaf scorch and sunscald. Better for parks and yards than streets and parking lots.

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**Cutleaf Weeping Birch**  
Zone: 2  
Height: 40-50 ft.  
Spread: 30-35 ft.



Graceful, white barked tree with drooping limbs and cutleaf foliage. Very cold hardy but struggles where temps fluctuate in winter. Golden yellow fall color. Susceptible to bronze birch borer. Paper birch and western water birch are options.

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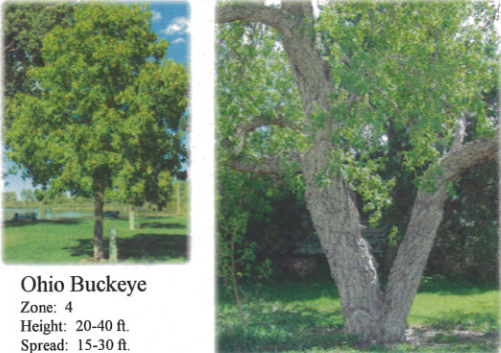
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# Trees For Laramie



**Ohio Buckeye**  
Zone: 4  
Height: 20-40 ft.  
Spread: 15-30 ft.

Oval shaped tree with large palmate leaves and white flowers in upright spikes up to 10". Growth seems to be stunted in WY. Very hardy and drought tolerant. Horsechestnut is very similar and may be even more hardy.

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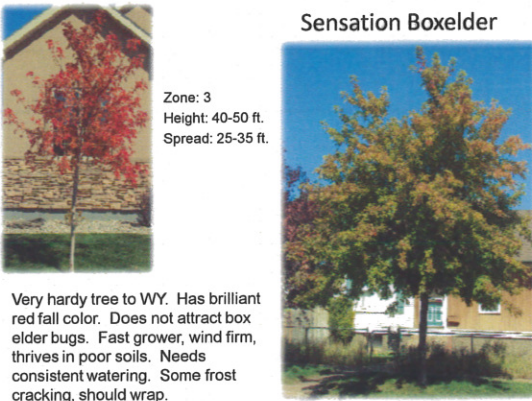
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**Sensation Boxelder**  
Zone: 3  
Height: 40-50 ft.  
Spread: 25-35 ft.

Very hardy tree to WY. Has brilliant red fall color. Does not attract box elder bugs. Fast grower, wind firm, thrives in poor soils. Needs consistent watering. Some frost cracking, should wrap.

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**State Street Maple**

A hardy, alkaline tolerant maple with moderate-fast growth rates. Upright-oval growth form while young, becoming rounded with age. Performing well in Ft. Collins. No serious insect or disease problems.

Zone: 4  
Height: 40 ft.  
Spread: 25 ft.

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# Trees For Laramie

## Accolade Elm

Zone: 4  
Height: 40-50 ft.  
Spread: 30-40 ft.

American Elm-like form and foliage. Graceful V-shaped, formal crown with dark glossy foliage. Excellent street tree and hardy to many different soil conditions. Very good Dutch elm disease resistance and good elm leaf beetle resistance. "Triumph", "New Horizon" varieties are also good choices.



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## Princeton American Elm

Zone: 2b  
Height: 40-50 ft.  
Spread: 30-40 ft.

A true American elm developed prior to the DED epidemic. Good resistance to DED and elm leaf beetle. Very cold hardy, adaptable and grows fast. Has traditional v-shaped crown. Requires more attention to pruning. "Prairie Expedition", "New Harmony" varieties are promising.



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### Spring Snow Crabapple

Zone: 3  
Height: 25-30 ft.  
Spread: 15-20 ft.

A strikingly beautiful tree with masses of white flowers. The foliage is a rich, bright green. This crab is nearly sterile, bearing scarcely any fruit. Fire blight resistance is fair to good.



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### Radiant Crabapple

Zone: 3  
Height: 15-20ft.  
Spread: 15-20ft.

An upright, compact grower with red-purple leaves changing to green. Flowers are deep pink followed by 1/2" red fruit. Highly resistant to fire blight.



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### Thunderchild Crabapple

Zone: 3  
Height: 15-20 ft.  
Spread: 15-20 ft.

Leaves are deep purple and flowers are delicate, pink blooms, appearing before the foliage. Very resistant to fireblight and powdery mildew. Dark red, 1/2 inch fruit.



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# Trees For Laramie

## Crimson Cloud Hawthorn

Zone: 4  
Height: 15-20 ft.  
Spread: 12-18 ft.

Large, single, bright red flowers with a star-shaped white center. Foliage resistant to leaf blight. Glossy red fruit persists into winter. Thornless, upright grower. Coppery-red fall color.



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## Toba Hawthorn

Zone: 3  
Height: 12-15 ft.  
Spread: 12 ft.

Double, white flowers that age to pink mid to late May. Bright red fruit persisting into winter. Foliage is glossy, resistant to leaf spot. Very hardy, thornless tree. Coppery-red fall color.



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## Oakleaf Mt. Ash

Zone: 3  
Height: 12-15 ft.  
Spread: 12 ft.

Double, white flowers that age to pink mid to late May. Bright red fruit persisting into winter. Foliage is glossy, resistant to leaf spot. Very hardy, thornless tree. Coppery-red fall color.



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# Trees For Laramie



**Hotwings Tatarian Maple**

Zone: 3  
Height: 20-25 ft.  
Spread: 15-20 ft.

Developed in Ft. Collins. Excellent performer in rugged climates. Red samaras from mid-late summer. Orange-red fall color. Tree is in high demand.

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### Questionable Trees

- Autumn Blaze Maple
- Lombardi Poplar
- Boleana Poplar
- Silver Poplar
- Fallgold Black Ash
- Willows



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### Spruce Alternatives

- White fir
- Douglas fir
- Ponderosa pine
- Austrian pine
- Limber pine
- Black hills spruce
- Norway spruce
- European larch



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## Which Planting Medium?

**Balled and Burlapped**

Largest trees  
Hardest to move  
Most difficult to plant  
Plant in spring or fall

**Potted**

Smaller trees  
Easy to plant  
Girdling roots?  
Plant in spring or fall

**Grow Bag**

Large tree compared to root ball  
Mass of small feeder roots  
Easy to plant  
Plant in spring or fall

**Bare Root**

Smaller trees  
Easy to plant  
Cheaper  
Underutilized  
Plant in spring  
Roots must be kept moist

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Bare Root      B&B      Container

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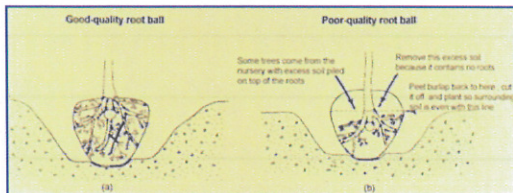
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## Find the Root Flare

- Nurseries often add soil to the top of the root ball
- If planted with soil on top of the root ball:
  - roots don't get enough oxygen, water
  - tree struggles/takes longer to establish
  - roots often grow up into soil and circle the stem
- Find the root flare and plant at that depth



Graphic by Ed Gilman

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### Circling Roots Cause Big Problems



Picture by Ed Gilman

- Occurs when tree is in the container too long or when root pruning is not done
- After planting, roots will continue to circle and girdle the tree
- Pull the roots out horizontally to avoid circling or cut the circling roots
- Investigate at nursery before purchase

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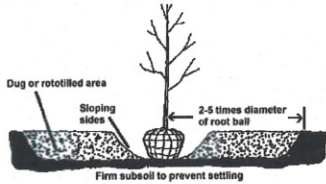
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### Proper Planting Hole Roots Are Not Battering Rams

Plant tree with top of root ball even with grade or just a bit above grade  
✓ never position below grade (beware of backhoes!)  
Backfill with native soil and water in tree  
✓ do not amend the native soil  
Tamp backfill gently to fill large air pockets



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### Proper Planting Hole Wider Is Better!



← Good Hole



Bad Hole →

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## Watering



- ✓ Water when backfilling planting hole
- ✓ Consider a basin around the planting hole
- ✓ Water right on top of the root ball
- ✓ Consider drip irrigation
- ✓ Slowly water tree once a week during dry summer months for B&B trees
- ✓ Water 2-3 times per week for potted and grow bag trees
- ✓ Winter water when soil is not frozen- especially evergreens

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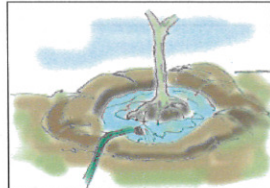
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## Watering



- ✓ Water where the roots are, not where they will be.
- ✓ Never allow the roots to dry out, or become flooded.
- ✓ Frequency depends on the soil, the tree and the site.



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## Mulching

- ✓ Mulch newly planted trees with wood chips or bark
- ✓ Avoid using grass clippings or leaves
- ✓ Mulch as large an area as possible up to 4" in depth

### Benefits

- ✓ Prevents competition with grass and weeds
- ✓ Retains soil moisture
- ✓ Improves soil nutrient levels
- ✓ Improves soil aeration
- ✓ Protects from lawnmower and string trimmer damage
- ✓ Reduces soil temperature extremes

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## Mulching

"Extremes" slow root development. Mulching moderates soil temperature and moisture fluctuations...



but, don't bury stems with mulch.

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## The End...

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