

# 2005 COLORADO FRONT RANGE TREE PLANTING SURVEY

ARBORISTS SURVEYED: 12

LANDSCAPE ARCHITECTS SURVEYED: 7\*

## SPECIES SELECTION

- List the top six large shade trees that you prefer/specify.

### Arborist Responses

12	Bur Oak <i>Quercus macrocarpa</i>	100%
9	Kentucky Coffeetree <i>Gymnocladus dioicus</i>	75%
9	Linden <i>Tilia</i> , unspec.-7, Littleleaf-2	75%
6	Catalpa <i>Catalpa speciosa</i>	50%
6	Hackberry <i>Celtis occidentalis</i>	50%
6	Honeylocust <i>Gleditsia tricanthos</i>	50%
3	English Oak <i>Quercus robur</i>	
3	Northern Red Oak <i>Quercus rubra</i>	
3	Swamp White Oak <i>Quercus bicolor</i>	
3	White Ash <i>Fraxinus americana</i>	
2	Green Ash <i>Fraxinus pennsylvanica</i>	
2	Ohio Buckeye <i>Aesculus glabra</i>	
2	Chinkapin Oak <i>Quercus muehlenbergii</i>	
2	Japanese Pagoda Tree <i>Sophora japonica</i>	
1	Autumn Blaze Maple <i>Acer x freemanii</i>	
1	Red Maple- <i>Acer rubrum</i>	
1	Norway Maple <i>Acer platanoides</i>	

### Landscape Architect Responses

7	Linden <i>Tilia</i> , Unspec. 3, Sterling Silver 1, Redmond 1, Greenspire 1	100%
6	Green Ash <i>Fraxinus pennsylvanica</i> - Cent. 1, Patmore 2, Marshall 1, Summit 1	86%
5	Bur Oak <i>Quercus macrocarpa</i>	71%
4	Autumn Blaze Maple <i>Acer x freemanii</i>	57%
4	Honeylocust <i>Gleditsia tricanthos</i> , Imperial 2	57%
3	Hackberry <i>Celtis occidentalis</i>	
2	Catalpa <i>Catalpa speciosa</i>	
2	White Ash <i>Fraxinus americana</i>	
2	Maple <i>Acer</i> , Norway-1	
2	Kentucky Coffeetree <i>Gymnocladus dioicus</i>	
2	English Oak <i>Quercus robur</i>	
1	Northern Red Oak <i>Quercus rubra</i>	
1	Swamp White Oak <i>Quercus bicolor</i>	
1	Red Maple- <i>Acer rubrum</i>	

Front Range Urban Forestry Council

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Added one LA response on 1/27/05

2. List the top six ornamental trees that you prefer/specify.

**Arborist Responses**

<b>16</b>	Hawthorn <i>Crataegus</i> -Unspec.-4, Winter King-1, Russian-3, Cockspur-6, Wash.-2	100%
<b>13</b>	Crabapple <i>Malus</i> - Unspec.3, S. Snow-6, Radiant-2, Prairie Fire-1, Brandywine-1	100%
<b>11</b>	Pear <i>Pyrus calleryana</i> - Unspec.-3, Chant.-5, Arist.-1, A. Blaze-1, Prairie Gem-1	92%
<b>5</b>	Amur Maple <i>Acer ginnala</i>	
<b>4</b>	Golden Raintree <i>Koelreuteria paniculata</i>	
<b>3</b>	Ohio Buckeye <i>Aesculus glabra</i>	
<b>2</b>	Ussurian Pear <i>Pyrus ussuriensis</i>	
<b>2</b>	Bigtooth Maple <i>Acer grandentatum</i>	
<b>2</b>	Serviceberry <i>Amelanchier</i> - Autumn Brilliance (1)	
<b>2</b>	Japanese Tree Lilac <i>Syringa reticulata</i>	
<b>1</b>	Eastern Redbud <i>Cercis canadensis</i>	
<b>1</b>	Gambel Oak <i>Quercus gambeli</i>	
<b>1</b>	Wavyleaf Oak <i>Quercus</i>	
<b>1</b>	Mountain Ash <i>Sorbus</i>	
<b>1</b>	Newport Plum <i>Prunus Newport</i>	
<b>1</b>	Chokecherry <i>Prunus virginiana</i>	
<b>1</b>	Tatarian Maple <i>Acer tataricum</i>	
<b>1</b>	Princess Kay Plum <i>Prunus nigra Princess Kay</i>	

**Landscape Architect Responses**

<b>10</b>	Hawthorn <i>Crataegus</i> - Unspec. -2, Toba-1, Russian-1, Th. Cockspur-2, Wash.-4	100%
<b>6</b>	Crabapple <i>Malus</i> - Unspec.-2, S. Snow-2, Radiant-1, Prairie Fire-, Thunderchild-1	86%
<b>3</b>	Pear <i>Pyrus calleryana</i> - Unspec.-1, Chant.-2, Arist.-1, A. Blaze-1, P. Gem-1	43%
<b>3</b>	Serviceberry <i>Amelanchier</i> - Unspec.-1, Autumn Brilliance 2	43%
<b>3</b>	Birch <i>Betula</i> , River 2	43%
<b>2</b>	Newport Plum <i>Prunus cerasifera</i>	
<b>2</b>	Eastern Redbud <i>Cercis canadensis</i>	
<b>2</b>	Cherry <i>Prunus</i> , Montmorency-1	
<b>1</b>	Amur Maple <i>Acer ginnala</i>	
<b>1</b>	Aspen <i>Populus tremuloides</i>	
<b>1</b>	Golden Raintree <i>Koelreuteria paniculata</i>	
<b>1</b>	Ohio Buckeye <i>Aesculus glabra</i>	
<b>1</b>	Japanese Tree Lilac <i>Syringa reticulata</i>	
<b>1</b>	Wafer Ash <i>Ptelea trifoliata</i>	
<b>1</b>	Thinleaf Alder <i>Alnus</i>	

3. List the top six evergreen trees that you prefer/specify.

**Arborist Responses**

12	Austrian Pine <i>Pinus nigra</i>	100%	
9	Colorado Blue Spruce <i>Picea pungens</i> , Includes Bakeri (1)	75%	
8	Ponderosa Pine <i>Pinus ponderosa</i>	67%	
6	Southwestern White Pine <i>Pinus strobiformis</i>	50%	
6	Pinyon Pine <i>Pinus cembroides edulis</i>	50%	
6	Scotch Pine <i>Pinus sylvestris</i>	50%	
5	Bristlecone Pine <i>Pinus aristata</i>		
4	White/Concolor Fir <i>Abies concolor</i>		
3	Limber Pine <i>Pinus flexilis</i>		
2	Douglas Fir <i>Pseudotsuga menziesi</i>		
2	European Larch <i>Larix decidua</i>		
1	Cologreen Juniper <i>Juniperis scopulorum</i>		
1	Utah Juniper <i>Juniperus osteosperma</i>		
1	White Spruce <i>Picea glauca</i>		

**Landscape Architect Responses**

7	Austrian Pine <i>Pinus nigra</i>	100%	
7	Colorado Blue Spruce <i>Picea pungens</i> Fat Albert 1, Bakeri 2, Mont. 1	100%	
5	Ponderosa Pine <i>Pinus ponderosa</i>	71%	
5	White/Concolor Fir <i>Abies concolor</i>	71%	
4	Pinyon Pine <i>Pinus cembroides edulis</i>	57%	
3	Limber Pine <i>Pinus flexilis</i> , Vanderwolf 2	43%	
3	Bristlecone Pine <i>Pinus aristata</i>	43%	
2	Juniper <i>Juniperus</i>		
2	White Pine <i>Pinus strobis</i>		
1	Scotch Pine <i>Pinus sylvestris</i>		
1	Douglas Fir <i>Pseudotsuga menziesi</i>		

4. Please list any commercially available trees that you **do not** use and the reason why.

**Arborist Responses**

11	Russian Olive/invasive,	92%
10	Silver Maple/ weak wooded, chlorosis	83%
5	Autumn Blaze Maple/ chlorosis, dieback, overused, pH sensitive	42%
5	Cottonwoods- weak wooded, suckers	42%
3	Aspen <i>Populus tremuloides</i> / poor performer, multiple problems	
3	Willows <i>Salix</i> / weak wooded, water use, invasive roots	
3	Mountain Ash/ sunscald, fireblight, not hardy	
2	Red Maple/Not adaptable, chlorosis, dieback	
2	Bechtel Crabapple- disease	
2	Ash- overused, borers, EAB threat	
2	Lombardy Poplar- short lived, weak wooded	
2	Newport Plum <i>Prunus cerasifera</i> / overused, borers	
1	Narrowleaf Cottonwood <i>Populus angustifolia</i> / suckers	
1	Norway maple/ sunscald, high mortality	
1	Spring Snow Crabapple- fireblight	
1	Hopa Crabapple- disease	
1	Autumn Purple Ash- overused, borers	
1	Sunburst Honeylocust- sunscald, not hardy	
1	Chokecherry-invasive	

**Landscape Architect Responses**

4	Russian Olive/weak, prohibited	57%
3	Silver Maple/ weak wooded, chlorosis	43%
3	Cottonwoods- weak wooded, suckers, messy	43%
2	Box Elder/weak, insects	
2	Aspen <i>Populus tremuloides</i> / disease, hardiness	
2	Newport Plum-short lived, Mt. St. Helens 1	
2	Japanese Maple/Not hardy	
2	Arborvitae	
1	Sweetgum/ not hardy	
1	English Oak/ mixed results	
1	Bradford pear/ weak	
1	Narrowleaf Cottonwood <i>Populus angustifolia</i> / suckers	
1	Willows <i>Salix</i> /	
1	Mountain Ash/ borers	
1	Buckthorn	
1	Most Birches-disease	
1	Most Crabapple- disease	
1	Pinyon Pine	
1	Sugar Maple- sunscald	
1	Canada Red Cherry -suckering	
1	Serviceberry-crown suckering	
1	Golden Raintree- weak, reseeding	

5. With regard to the record-setting drought of the last few years, and water restrictions in most landscapes during that time period, please list species you consider as “winners” (drought tolerant) and “losers” (non drought-tolerant) from your observations to date. Please briefly list why you consider each species a “winner” or “loser”:

#### **Winners- Arborist Responses**

- 6 Bur Oak-tough, did well once established, drought tolerant
- 6 Hackberry- drought tolerant
- 4 Honeylocust-tough
- 4 Kentucky Coffeetree
- 3 Hawthorns
- 3 Swamp White Oak- growth rate, drought tolerant
- 1ea Ohio Buckeye, Austrian Pine, Ginnala Maple, English Oak-tough, Catalpa- surprise, Crabapples, Chinkapin Oak, White Fir- drought tolerant, Northern Red Oak- solid performer in drought situation

#### **Winners-Landscape Architect Responses**

- 3 Hackberry- drought tolerant
- 2 Ash-tough, Patmore-1
- 2 Austrian Pine- drought tolerant
- 2 Hawthorns, Washington 1
- 2 Honeylocust-tough
- 1ea Blue Spruce, Ginnala Maple, Oak-tough, Maple-tough, Chanticleer Pear- drought tolerant, Bur Oak-tough, did well once established, drought tolerant, Catalpa, Buckthorn, Tree of Heaven *Ailanthus*

#### **Losers- Arborist Responses**

- 7 Colorado Blue Spruce- borers, low vigor
- 4 Norway Maples- leaf scorch, low vigor
- 4 Populus species- dieback, high losses
- 3 Lindens-leaf scorch, low vigor
- 2 Silver Maple- not drought tolerant
- 1ea Autumn Blaze Maple- leaf scorch, leaf drop, Newport Plum- poor performer, Willows, Eastern White Pine-dieback, scorch, Black Walnut-high losses, Red Maple-intolerant, Euro. Mountain Ash, Honeylocust- not drought tolerant, Green Ash- decline, borers, Autumn Purple Ash- not drought tolerant

#### **Losers-Landscape Architect Responses**

- 2 Ponderosa Pine- less drought tolerant, poor root establishment
- 2 Aspen
- 2 Birch
- 2 Linden-Greenspire-1
- 1ea Cottonwood, Ash, Oak, Honeylocust- less drought tolerant

## **PLANTING DETAILS**

6. Do you specify wire basket removal on B&B trees?  
**Arborist Responses**  
Complete removal **9**  
Top& sides **4**  
**Landscape Architect Responses**  
Top& sides **4**  
Top only **1**  
Complete removal **1**  
No **1**
7. Do you specify burlap removal?  
**Arborist Responses**  
Top only **5**  
Top& sides **5**  
Complete removal **4**  
**Landscape Architect Responses**  
Top only **3**  
No **2**  
Top &sides **2**
8. What do you specify as a back fill mix?  
**Arborist Responses**  
Existing soil **7**  
Amended existing soil **5**  
**Landscape Architect Responses**  
Amended existing soil **6**  
Imported topsoil **1**
- What amendments do you specify if any?  
**Arborist Responses**  
Peat moss **2**  
Compost **1**  
1/3 organics where needed **1**  
Mycorrhiza & polymers **1**  
**Landscape Architect Responses**  
Compost **4**  
Aged manure/ compost (site soil prep) **1**
9. Do you specify granular or tablet fertilizer or mycorrhiza in tree backfill mix?  
**Arborist Responses**  
No **9**  
Mycorrhiza **2**  
Granular **1**  
**Landscape Architect Responses**  
No **5**  
Tablets **1**  
Granular **1**
10. Do you require guying and staking of newly planted trees?  
**Arborist Responses**  
Deciduous trees **7**  
Evergreens **7**  
Special circumstances only **6**  
**Landscape Architect Responses**  
Deciduous trees **6**  
Evergreens **6**  
Special circumstances only **1**
11. Do you specify structural pruning for young trees and if so when after planting?  
**Arborist Responses**  
3<sup>rd</sup> year **6**  
No **4**  
2<sup>nd</sup> year **2**  
**Landscape Architect Responses**  
No **6**  
Every year as needed **1**

12. How do you specify planting elevation in relation to existing grade?  
**Arborist Responses** Based on original soil line **4**  
Based on top of rootball **3**  
Root flair/collar **3**  
Top most root in rootball **1**  
No spec **1**
- Landscape Architect Responses**  
Based on original soil line **3**  
Based on top of rootball **3**  
Root flair/collar **1**
13. What planting elevation do you specify in relation to existing grade?  
**Arborist Responses** 2-3" above **6**  
1-2" above **3**  
At grade **2**  
3-4" above **1**
- Landscape Architect Responses**  
2-3" above **4**  
Varies by soil, species **2**  
1-2" above **1**
14. What size mulch ring do you specify on newly planted trees?  
**Arborist Responses** 4' Radius **5**  
3 times ball diameter **2**  
None **2**  
5' Radius **1**  
3' Radius **1**  
2' Radius **1**  
To dripline **1**
- Landscape Architect Responses**  
3' Radius **3**  
4' Radius **1**  
Size of planting pit **1**  
Two times rootball width **1**  
None **1** (trees planted in beds only)
15. Do you require tree wrap on newly planted deciduous trees?  
**Arborist Responses** Fall planting only **5**  
No **4**  
Yes **3**
- Landscape Architect Responses**  
Fall planting only **3**  
No **2**  
Yes **2**
16. What size B&B deciduous trees do you most often specify for planting?  
**Arborist Responses** 2" **9**  
2.5" **2**  
3" **1**
- Landscape Architect Responses**  
2.5" **4**  
2" **2**  
3" **1**
17. What is the largest size B&B deciduous trees you specify for planting?  
**Arborist Responses** 2.5" **4**  
4" **4**  
3" **3**  
3.5" **1**
- Landscape Architect Responses**  
2" **1**  
2.5" **1**  
3" **1**  
4" **1**  
4.5" **1**  
6" **1**

## **IRRIGATION**

18. What type of irrigation do you predominately specify for trees in planting beds?
- | <b><u>Arborist Responses</u></b> | <b><u>Landscape Architect Responses</u></b> |
|----------------------------------|---|
| Bubbler 6                        | Spray heads 4                               |
| Drip 3                           | Drip 2                                      |
| Spray heads 1                    | Drip or Bubbler 1                           |
| Drip or Bubbler 1                |   |
19. Do you specify separate bubbler zones to irrigate trees installed in irrigated turf?
- | <b><u>Arborist Responses</u></b> | <b><u>Landscape Architect Responses</u></b> |
|----------------------------------|---|
| No 5                             | No 6  |
| Yes 4                            | Yes 1                                       |
| If possible 1                    |   |
| Starting to 1                    |   |

## **PRESERVING EXISTING TREES**

20. Do you have a detail/specification for protecting existing trees?
- | <b><u>Arborist Responses</u></b> | <b><u>Landscape Architect Responses</u></b> |
|----------------------------------|---|
| Yes 8                            | Yes 6                                       |
| No 4                             | No 1  |
21. If you have one, how does your tree protection detail protect root zones?
- | <b><u>Arborist Responses</u></b> | <b><u>Landscape Architect Responses</u></b> |
|----------------------------------|---|
| T-post& fence 7                  | T-post& fence 6                             |
| Top-dress w/ mulch 1             |   |
- At what distance from the trunk?
- | <b><u>Arborist Responses</u></b>   | <b><u>Landscape Architect Responses</u></b> |
|------------------------------------|---|
| dripline 6                         | Dripline 3                                  |
| 6" to 1 foot per inch of caliper 2 | Greater of 6 feet or ½ dripline 1           |
|                                    | Work limits 1                               |
|                                    | Varies 1                                    |
22. Have you used a consulting arborist for tree protection advice?
- | <b><u>Arborist Responses</u></b> | <b><u>Landscape Architect Responses</u></b> |
|----------------------------------|---|
| Yes 4                            | Yes 5                                       |
| No 8                             | No 2  |

## **WEBSITES:**

ISA tree planting and care information	<a href="http://www.treesaregood.com/">www.treesaregood.com/</a>
Structural pruning-Dr. Ed Gilman	<a href="http://hort.ifas.ufl.edu/woody/pruning/index.htm">hort.ifas.ufl.edu/woody/pruning/index.htm</a>
Colorado Tree Coalition	<a href="http://www.coloradotrees.org/">www.coloradotrees.org/</a>
GreenCo Best Management Practices (BMPs)	<a href="http://www.greenco.org/">www.greenco.org/</a>
CSU Extension tree information sheets	<a href="http://www.ext.colostate.edu/pubs/garden/pubgard.html#tree">www.ext.colostate.edu/pubs/garden/pubgard.html#tree</a>