

Woody-Ornamentals-Supplemental-Handouts

- 4122
- **Planting**
The hole should be no deeper than the root ball but 2 to 3 times its diameter.
 - **Staking**
Stake only as high as necessary to prevent movement of the root ball, so that the upper trunk can still move in the wind.
 - **Wrapping**
If sunscald is a concern, wrap trunk with light-colored material or paint with white latex paint.
 - **Mulching**
Apply mulch no deeper than 4 inches and taper down to less than an inch deep near the trunk to make a mulch "beget," as shown below, not a mulch "volcano."

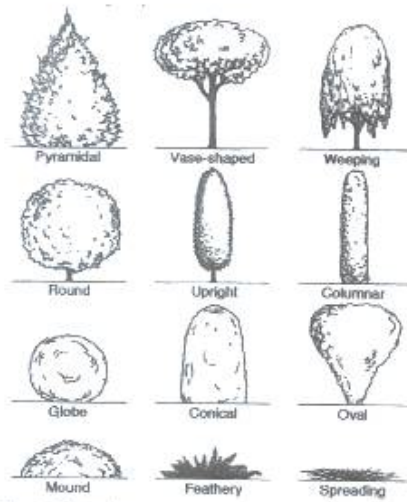
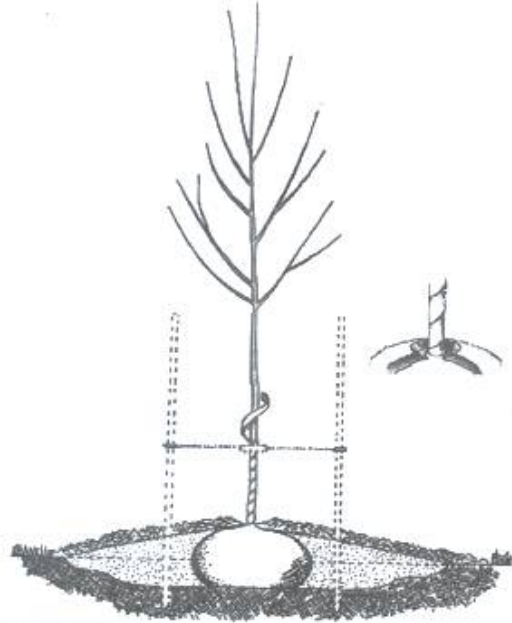


Fig. 1. Plant shapes.

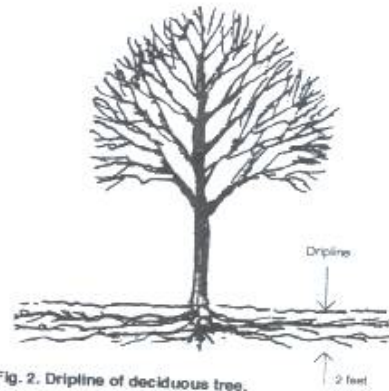


Fig. 2. Dripline of deciduous tree.

Plant uses and characteristics and site characteristics to consider when selecting woody ornamentals.

Plant uses:

Attract birds or other wildlife
Attract butterflies or hummingbirds
Bonsai
Borders
Container or patio plants
Edible parts or fruits
Espalier
Fast growth
Foundation plantings
Ground cover
Native plants
Rock gardens
Screen or windbreak
Shade
Variety of specimens
Vines for fences or trellises
Vines to cling to stone or brick
Understory for woodland setting
Weeping form

Site characteristics:

Acid soil
Alkaline soil
Arid sites
Dry or sandy soil
Heavy clay soils
Saline soil
Shady areas
Low maintenance areas
Wet sites
Windy areas

Plant characteristics:

Colored summer foliage
Columnar, pyramidal, or globe shape
Decorative fruits and berries
Decorative or interesting bark
Fragrant flowers
Good fall color
Multiple trunks
Ornamental seed pods
Showy flowers

Shrubs with continuous basal growth.

Plants flowering on mid portions of stems:

Barberry (*Berberis* spp.)
Beauty bush (*Kolkwitzia amabilis*)
Brooms (*Cytisus*, *Genista* spp.)
Cotoneaster spp.
Flowering quince (*Chaenomeles* spp.)
Forsythia spp.
Holly (*Ilex* spp.)
Honeysuckle (*Lonicera* spp.)
Kerria japonica
Mock orange (*Philadelphus* spp.)
Spiraea spp.

Plants flowering on terminal tips:

Azaleas, evergreen (*Rhododendron* spp.)
Dogwoods, shrubby (*Cornus* spp.)
Hydrangea spp.
Lilac (*Syringa* spp.)
Magnolia spp., shrubby
Oregon grape (*Mahonia* spp.)
Photinia spp.
Potentilla fruticosa
Privet (*Ligustrum* spp.)

Flowering shrubs.

Examples of spring flowering shrubs:

Azaleas, deciduous and evergreen (*Rhododendron* spp.)
Barberry, deciduous and evergreen (*Berberis* spp.)
Beauty bush (*Kolkwitzia amabilis*)
Brooms (*Cytisus*, *Genista* spp.)
Daphne spp.
Dogwood, shrubby (*Cornus* spp.)
Flowering almond (*Prunus triloba*)
Flowering plum (*Prunus cistena*)
Flowering quince (*Chaenomeles* spp.)
Forsythia spp.
Heather (*Erica* spp.)
Honeysuckle (*Lonicera* spp.)
Kerria sp.
Lilac (*Syringa* spp.)
Mongolia (*Magnolia* spp.)
Mountain laurel (*Kalmia latifolia*)
Oregon grape (*Mahonia aquifolium*)
Pieris spp.
Pussy willow (*Salix* spp.)
Serviceberry (*Amelanchier* spp.)
Siberian pea shrub (*Caragana arborescens*)
Spiraea spp. (white flowering types)
Viburnum spp.
Weigela spp.
Witch hazel (*Hamamelis* spp.)

Examples of summer flowering shrubs:

Butterfly bush (*Buddleia davidii*)
Cherry laurel (*Prunus laurocerasus*)
Chokeberry (*Aronia arbutifolia*)
Cotoneaster spp.
Euonymus spp.
Heather (*Calluna* spp.)
Heavenly bamboo (*Nandina domestica*)
Holly (*Ilex* spp.)
Hydrangea spp.
Mock orange (*Philadelphus* spp.)
Potentilla fruticosa
Privet (*Ligustrum* spp.)
Pyracantha spp.
Roses, shrubby (*Rosa* spp.)
Rose of Sharon (*Hibiscus syriacus*)
Spiraea spp. (pink flowering types)
St. John's wort (*Hypericum* spp.)
Tamarix spp.

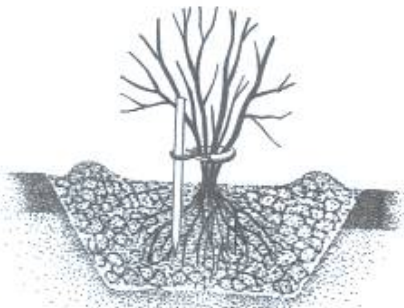
Carefully observe when blooming occurs on species not listed.

Carefully observe where flowers are produced on species not listed.

Planting

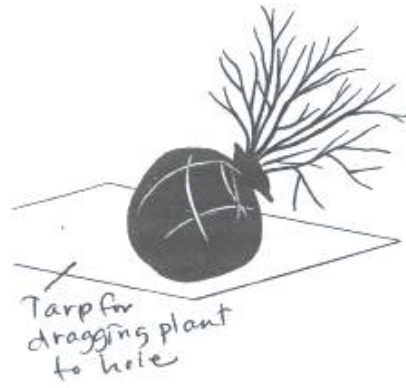
Handle bare-rooted shrubs with care, and keep the roots wet until planting.

Prune branches to compensate for root damage. Stake to prevent toppling by winds.

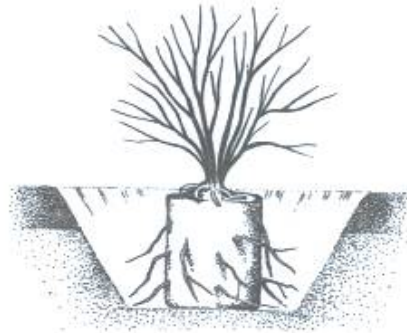


Place a balled and burlapped shrub in the hole with burlap still attached.

Partially fill the hole, cut ropes, and push burlap down into the hole. If wrapping is not biodegradable, remove it before planting.

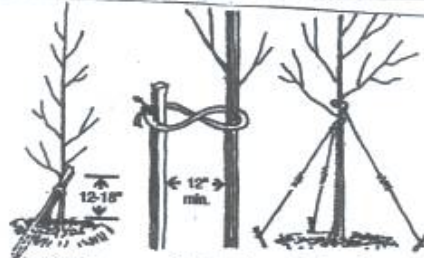


Container-grown shrubs may be pot bound. Check for girdling roots and cut them off close to the crown. Pry long roots out of the root ball and direct them into the new soil.



Transplanting

1. Use a spade to make a continuous cut 10-12 inches from the stem and 10-12 inches deep. Make sure all roots are severed.
2. Using the spade as a lever, lift the shrub carefully out of the soil. Carry or drag it on a tarpaulin to the new hole.
3. Plant to the same depth as the shrub grew in the original hole.
4. Prune off about one-third of the top growth to compensate for severed roots and to encourage new growth.



Three ways to stake a young tree.

For large trees. Springs in the guy provide flexibility.

Table 4. Suggested pruning time for common flowering trees, shrubs and vines.

Prune after flowering:			
Azalea	Deutzia	Japanese Pieris	Star Magnolia
Beautybush	Dogwood	Lilac	Shrub Honeysuckle
Bigleaf Hydrangea	Doublefile Vibernum	Mockorange	Thunberg Spirea
Bradford Pear	Flowering Almond	Oakleaf Hydrangea	Weigela
Bridalwreath Spirea	Flowering Cherry	Pearbush	Winter Daphne
Clematis	Flowering Quince	Pyracantha	Wisteria
Climbing Roses	Forsythia	Redbud	Witchhazel
Crabapple	Japanese Kerria	Saucer Magnolia	
Prune before spring growth begins:			
Beautyberry	Floribunda Roses	Japanese Barberry	Rose-of-Sharon (Althea)
Camellia	Fragrant Tea Olive	Japanese Spirea	Sourwood
Chaste Tree (Vitex)	Grandiflora Roses	Mimosa	Anthony Waterer Spirea
Cranberrybush Viburnum	Glossy Abelia	Nandina	Sweetshrub
Crepe myrtle	Goldenrain Tree		

TOOLS for Pruning

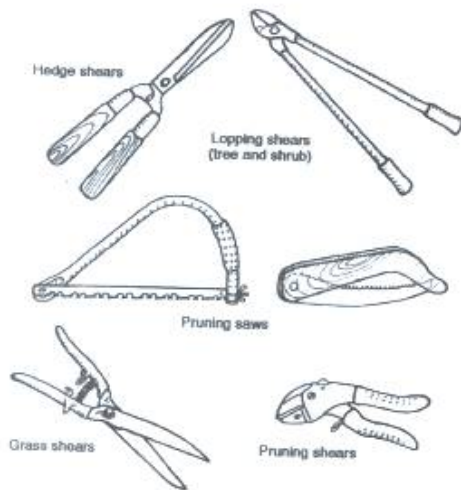


Fig. 3. Various types of pruning tools.

Thinning



Shearing





1. Cutting on line shown by dashed line is too often done when pruning shrubs.



2. Same plant after being pruned as indicated above. All sucker growth remains.



3. Final result: beautiful natural shape of shrub is lost and bloom is sparse and ineffectual.



1. Shrub before pruning. Remove all weak and dead branches.



2. Same shrub after removal of weak and interfering branches and with base sucker growth removed.



3. Final result: beautiful natural and distinctive form of plant retained. Vigorous growth and prolific and effective blooming.

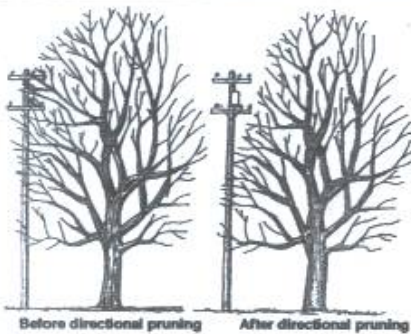
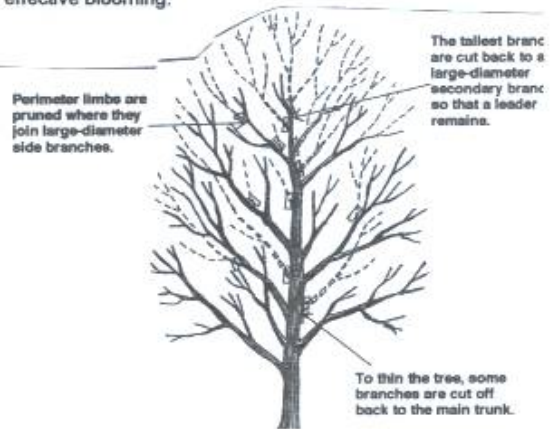


Fig. 16. Pruning can change the direction of a tree.



Mounding-Habit Shrubs

Abelia	<i>Abelia</i>
Aucuba	<i>Aucuba</i>
Barberry	<i>Berberis</i> (except <i>B. julianae</i> ; see Chapter 8, Cane-Growing Shrubs)
Boxwood	<i>Buxus</i>
Box honeysuckle	<i>Lonicera nitida</i>
Broom	<i>Cytisus</i>
Burning bush	<i>Euonymus alata</i>
Ceanothus	<i>Ceanothus</i> (some species)
Cinquefoil	<i>Potentilla</i>
Escallonia	<i>Escallonia</i>
Evergreen azalea	<i>Rhododendron</i>

Evergreen euonymus	<i>Euonymus japonica</i>
Heath	<i>Erica</i>
Heather	<i>Calluna vulgaris</i>
Juniper	<i>Juniperus</i>
Japanese holly	<i>Ilex crenata</i>
Laurustinus	<i>Viburnum tinus</i>
Lavender	<i>Lavandula</i>
Mexican orange	<i>Chalcya temata</i>
Pernettya	<i>Pernettya mucronata</i>
Rockrose	<i>Cistus</i>
Snowberry	<i>Symphoricarpos</i>
Spiraea	<i>Spiraea</i>

Also see the list "Not One or the Other: In-Between Mounding-Habit, Cane-Growing, and Tree-Like Shrubs" at the end of Chapter 9.

Cane-Growing Shrubs

Bamboo	Family Poaceae (Gramineae)
Butterfly bush	<i>Buddleia</i>
Fatsia	<i>Fatsia japonica</i>
Forsythia	<i>Forsythia</i>
Heavenly bamboo	<i>Nandina domestica</i>
Hydrangea	<i>Hydrangea</i>

Julian's barberry	<i>Berberis julianae</i>
Kerria	<i>Kerria japonica</i>
Red twig dogwood	<i>Cornus stolonifera</i>
Rose	<i>Rosa</i>
Oregon grape	<i>Mahonia aquifolium</i>

Also see the list "Not One or the Other: In-Between Mounding-Habit, Cane-Growing, and Tree-Like Shrubs" at the end of Chapter 9.

Tree-Like Shrubs

TREE-LIKES THAT TAKE MODERATE THINNING

Deciduous azalea	<i>Rhododendron</i>
Enkianthus	<i>Enkianthus</i>
Fothergilla	<i>Fothergilla</i>
Huckleberry	<i>Vaccinium</i>
Lilac	<i>Syringa</i> (or can be pruned like a cane-grower; see Chapter 8)
Mountain laurel	<i>Kalmia latifolia</i>
Pacific Wax Myrtle	<i>Myrica californica</i>

TREE-LIKES THAT WATER-SPROUT READILY SO THIN LIGHTLY

Beautyberry	<i>Callicarpa</i>
Coloneaster	<i>Coloneaster</i>
Doublefile viburnum	<i>Viburnum plicatum tomentosum</i>
Filbert	<i>Corylus</i>
Persian parrotia	<i>Parrotia persica</i>
Star magnolia	<i>Magnolia stellata</i>
Mountain laurel	<i>Kalmia latifolia</i>
Viburnum bodnantense	<i>Viburnum bodnantense</i>
Winter hazel	<i>Corylopsis</i>
Wintersweet	<i>Chimonanthus praecox</i>
Witch hazel	<i>Hamamelis</i>

TREE-LIKES THAT TAKE MORE THINNING

Andromeda	<i>Pieris</i>
Camellia	<i>Camellia</i>
English laurel	<i>Prunus laurocerasus</i>
Photinia	<i>Photinia fraseri</i>
Pine	<i>Pinus</i>
Portuguese laurel	<i>Prunus lusitanica</i>
Rhododendron	<i>Rhododendron</i>
Strawberry tree	<i>Arbutus unedo</i>
Thread cypress	<i>Chamaecyparis pisifera</i> 'Filifera'

TREE-LIKES TOUGH ENOUGH FOR SHEARING

English holly	<i>Ilex aquifolium</i>
English laurel	<i>Prunus laurocerasus</i>
Firethorn	<i>Pyracantha</i>
Photinia	<i>Photinia x fraseri</i>
Portuguese laurel	<i>Prunus lusitanica</i>
Privet (evergreen and deciduous)	<i>Ligustrum</i>
Sweet bay	<i>Laurus nobilis</i>
Yew	<i>Taxus</i>

Also see the list "Not One or the Other: In-Between Mounding-Habit, Cane-Growing, and Tree-Like Shrubs" at the end of Chapter 9.

Not One or the Other: In Between Mounding-Habit, Cane-Growing, and Tree-Like Shrubs

Beauty bush (*Kolkwitzia*). A big shrub that needs room to be 10 to 12 feet tall and as wide as a small outbuilding. Prune as a tree-like shrub, or renovate as a cane-grower.

Ceanothus (*Ceanothus*). There are many species and varieties of this plant; some are a low-trailing ground cover, some are mounding-habit shrubs, others will grow into open trees. All have small leaves, but many become large plants. They are drought tolerant and short lived. Pruning literature is contradictory on subjects of shearing, heading, and renovation. I suggest light thinning only.

European cranberry (*Viburnum opulus*). Preferably pruned as a tree-like or mounding-habit shrub, but can be renewed by cutting trunks/canes to the base. Wants to be 10 to 20 feet tall, the size of the garage. Cute dwarf buns (2 by 2 feet) are available in the nursery trade.

Mock orange (*Philadelphus*). Prune as a tree-like shrub; renovate like a cane-grower by cutting all trunks/canes back to a 1-foot framework. Must have at least 8 feet to look good—remember that this is taller than you, reaching almost to the bottom of the eaves.

Pearl bush (*Exochorda racemosa*). Prune as a tree-like shrub; renovate like a cane-grower. Grows 10 to 15

feet tall. Hybrid *E. macrantha* 'The Bride' is smaller at 4 by 4 feet.

Quince (*Chaenomeles*). Can be pruned as a mounding-habit, cane-grower, or tree-like shrub. Withstands radical renovation. Difficult to keep from spreading by runners. Large shrub with mature height of 10 feet. Dwarf varieties now available.

Smoke bush/Smoke tree (*Cotinus coccinifera*). Difficult to prune because of contrast between the newer, upright, unbranched growth and the older, loosely curving branches. Several systems are advanced in pruning literature: annual stooling, annual cutting to a 2-4 foot framework, or light pruning as a tree-like (which I prefer). Take note, the mature size is 25 feet; ultimate size is twice that.

Snowball bush (*Viburnum* spp.). Several species are called "snowball." Prune as a tree-like or mounding-habit shrub. Can renovate like a cane-grower, cutting canes to the ground. All grow about 10 feet tall and wide, which is taller than you.

Spindle tree (*Euonymus europaeus*). Prune as a tree-like shrub, but canes can be removed to ground level. New canes (suckers) can be allowed to grow into replacement trunks. Mature height is 10 to 15 feet.

Table 2 Branching patterns and latent buds on coniferous plants.

Whorled branching pattern

Latent buds in old wood?

Yes	No
Spruce (<i>Picea</i> spp.)	Pine (<i>Pinus</i> spp.)
True fir (<i>Abies</i> spp.)	
Douglas-fir (<i>Pseudotsuga menziesii</i>)	

Random branching pattern

Latent buds in old wood?

Yes	Some	No
Hemlock (<i>Tsuga</i> spp.)	True cedar (<i>Cedrus</i> spp.)	Juniper (<i>Juniperus</i> spp.)
Yew (<i>Taxus</i> spp.)	Larch (<i>Larix</i> spp.)	False cypress (<i>Chamaecyparis</i> spp.)
	Dawn redwood (<i>Metasequoia glyptostroboides</i>)	Arborvitae (<i>Thuja</i> spp.)
	Cryptomeria japonica	<i>Platycladus</i> spp.)
	Giant sequoia (<i>Sequoiadendron gigantea</i>)	Incense cedar (<i>Calocedrus</i> spp.)
		Staghorn cypress (<i>Thujaopsis dolabrata</i>)
		True cypress (<i>Cupressus</i> spp.)
		Western red cedar (<i>Thuja plicata</i>)

*May be some on spur-like shoots or a few in older wood.

Table 2. Recommended fertilization rates for newly planted ornamental plants during the first growing season (use only one of the fertilizers listed at the rate recommended).

Plant type/size	Application rate ¹ /plant			Application frequency
	12-4-8	16-4-8	10-10-10	
1-gallon shrubs	1 tsp.	1 tsp.	1 tbsp.	March, May, July
3-gallon shrubs	2 tsp.	2 tsp.	2 tbsp.	March, May, July
5-gallon shrubs	3 tsp.	3 tsp.	3 tbsp.	March, May, July
Trees under 4 feet	1 tbsp.	1 tbsp.	2 tbsp.	March, July
Trees 4 to 6 feet	3 tbsp.	3 tbsp.	5 tbsp.	March, July
Trees 6 to 8 feet	4 tbsp.	4 tbsp.	6 tbsp.	March, July
	Application 100/sq. ft			
Ground covers, annuals & herbaceous perennials	½ lb.	½ lb.	1 lb.	Each 4 to 6 weeks

¹tsp. = level teaspoon; tbsp. = level tablespoon; lb. = pound. When using slow-release or soluble fertilizers, follow label recommendations for application rate.

Broadcast fertilizer along the perimeter of the planting hole. Remember that newly trans-planted ornamentals are under stress while they are trying to adapt to their new location and they can be easily injured by over-fertilization.

The quantity of fertilizer applied on established ornamentals depends on the analysis of the fertilizer used, the area fertilized and the amount of growth desired. Nitrogen controls vegetative growth, so application rates are based on this primary nutrient. Table 3 lists suggested application rates for several general-purpose fertilizers.

Table 3. Recommended application rates of various general-purpose granular fertilizers on established ornamental plants in the landscape.

Source	Application rate*					
	1000 sq. ft.		100 sq. ft.		10 sq. ft.	
	pounds	cups	pounds	cups	tablespoons	
10-10-10	10.0	20	1	2.0	4.0	
8-8-8	12.5	25	1/2	2.5	5.0	
13-13-13						
12-3-6	6.0	12	3/4	1.5	3.0	
12-4-8						
12-6-6						
16-4-8	6.0	12	1/2	1.0	2.0	
4-12-12	25.0	50	2 1/2	5.0	10.0	
5-10-10	20.0	40	2	4.0	8.0	