What is Pruning?

The selective removal of specific parts of the plant to benefit the whole plant.
Pruning is NOT:
a way to compensate for inappropriate plant placement!

Plant placement
Consider the mature size of plants and available space

There is an exception...

Principles of Pruning
Growth of woody plants
Directing growth
Principal pruning cuts

Growth habit of woody plants
- Growth resumes at shoot tip
- Not all buds develop
- Shoot length decreases yearly
- Twig diameter increases with age
color change in wood

Flowering currant: *Ribes sanguineum*

"Current season" versus "previous season" growth

Stachyurus praecox 'Variegata'

Parts of a branch

- Terminal Bud (auxin)
- Axillary Bud
- Node
- Flower Bud
- Latent Bud

Growth occurs from buds: vegetative or flower

Rhododendron: *Rhododendron* sp.
Vegetative buds live (more or less) indefinitely

Flower buds/flowers/fruit are for one season only...

Serviceberry (Saskatoon): *Amelanchier alnifolia*

Boxwood: *Buxus ‘Vardar Valley’*

Wintersweet: *Chimonanthus praecox*

Bay Laurel: *Laurus nobilis*

Flowering currant: *Ribes sanguineum*
Winter-flowering Honeysuckle: Lonicera x purpusii

Chaparral Currant: Ribes malvaceum

Sweetbox: Sarcococca hookeriana

February Daphne: Daphne odora

Spiraea: Spiraea thunbergii 'Fujino Pink'

Evergreen Huckleberry: Vaccinium ovatum
Directing growth: Cutting above a bud

- Alternate-budded plants
- Opposite

45° angle
Good! Too angular Too low Too high

Response to pruning

- Removing terminal bud allows lateral development
- Topmost remaining bud(s) grows most strongly

Alternate opposite

Another way to force branching...

Cutting back branches

Cut back always to a part that will continue to grow

At least ½ the size of the part being removed

Pruning cuts

Cutting back branches

Cut back always to a part that will continue to grow

At least ½ the size of the part being removed

Thinning

- Removal of entire stem or section of stem
- Opens up the plant to admit light
- Reduces overall height and promotes regrowth
Heading (selective)

- Cutting back to a bud or shoot
- Promotes branching, will “fill in” the plant

Thinning cut

Heading cut
Shearing

- Non-selective heading: dense growth at branch tips
- Appropriate for formal hedges

Privet: *Ligustrum* sp.

Port Orford Cedar: *Chamaecyparis lawsoniana*

Atlas Blue Cedar: *Cedrus atlantica*

Pruning Shrubs

When and how to prune a shrub depends on...

1. Flowering habit
2. Growth habit

- *Calycanthus x raulstonii*
- *Forsythia x intermedia*
Determining time to prune flowering shrubs
The “flowering habit”

1. Blooms on “old” wood: after flowering
2. Blooms on “new” wood: early spring

The issue is:
When does the shrub form the flower buds?

Distinguishing between “old” and “new” wood
Spring blooming shrubs develop buds in fall
➢ Tend to bloom early in season

Flowering Quince: Chaenomeles sp.

Summer/fall blooming shrubs form buds as they grow
➢ Tend to bloom later in season

Japanese Spiraea: Spiraea japonica

Length of bloom period
Spring bloomers: 2 weeks?

Rhododendron
Summer bloomers: often more than a month

Hardy Fuchsia: *Fuchsia magellanica*

Flower type: terminal or axillary

Axillary

Fuchsia-flowered gooseberry: *Ribes speciosum*

Terminal flowers

*Hydrangea paniculata*

*Spiraea thunbergii ‘Fujino Pink’*

“How” wood versus “old” wood

i.e. *Buddleja*

- May-October
- Long bloom time
- Terminal flowers
  - Current season wood

i.e. *Chaenomeles*

- November-May
- Short bloom time
- Axillary flowers
  - Previous season wood
Some shrubs cause confusion!

Genera with species that flower on both new and old wood

- **Rosa**
  - New: Repeat bloomers
  - Old: Once-blooming, species

- **Hydrangea**
  - New: *H. paniculata*, *H. arborescens*
  - Old: *H. macrophylla*

- **Spiraea**
  - New: *S. japonica*, *S. ‘Bumalda’*
  - Old: *S. x vanhouttei*, *S. ‘Arguta’*

How to prune: depends on growth habit

- Cane growers: i.e. *Philadelphus*
- Permanent framework: i.e. *Rhododendron*
- Subshrub: i.e. *Perovskia*
Cane growers are easy to identify

Hydrangea macrophylla

Cane growers

Deutzia
Forsythia
Hydrangea (Mophead etc.)
Kolkwitzia (Beautybush)
Philadelphus (Mock orange)
Physocarpus (Ninebark)
Ribes (Currant/Gooseberry)
Sambucus (Elderberry)
Spiraea (“Bridal Wreath”)
Rosa (Rose: shrub types)
Viburnum
Weigela

“Cane” growers
Permanent Framework

- Have a “tree-like” structure
- Do not renew themselves from the base
- Often are evergreen shrubs

### Plants
- *Arctostaphylos* (Manzanita)
- *Ceanothus* (Wild lilac)
- *Cistus* (Rockrose)
- *Daphne*
- *Hamamelis* (Witchhazel)
- *Hebe*
- *Hibiscus* (Rose of Sharon)
- *Ilex* (Holly)
- *Lavandula* (Lavender)
- *Pieris* (Andromeda)
- *Rhododendron* (and azalea)
- *Rosmarinus* (Rosemary)
Some are deciduous...

- Witch Hazel: *Hamamelis*
- Rose of Sharon: *Hibiscus syriacus*

Subshrubs

- *Salvia microphylla*
- *Phygelius capensis*

- Have a woody framework
- Produce flowers on new growth

- *Artemesia*
- *Vitex agnus-castus*
Some examples of subshrubs

Artemisia (Wormwood)
Caryopteris (Bluebeard)
Epilobium canum (CA Fuchsia)
Fuchsia magellanica (etc.)
Gaura lindheimeri (Windflower)
Heptacodium (7 Sons Plant)
Hydrangea paniculata
Lavatera (Tree mallow)
Salvia (Sage)
Perovskia (Russian sage)
Penstemon (woody types)
Phygelius (Cape Fuchsia)
Rosa (repeat-flowering shrubs)
Vitex (Chaste tree)

Pruning Cane growers

- Remove:
  - dead
  - damaged
  - crossing
  - twiggy growth

Deutzia ‘Pride of Rochester’
Fuzzy Deutzia: *Deutzia scabra*

“Limbing up”

Snowball Bush: *Viburnum opulus*

Shearing cane growers

Over-thinning (and topping)

Japanese Barberry: *Berberis thunbergii*

Forsythia: *Forsythia x intermedia*

Effects of topping canes (i.e. heading)

Snowball Bush: *Viburnum opulus*

Few flowers!
Pruning permanent framework

Generally assume regular shape

Many of these plants form a dome-shaped canopy

Remove dead or damaged growth

Removal of errant shoots help shape
“Cubist” pruning is common...

Or the meatball variation...

Tea tree: *Leptospermum* sp.

*Arctostaphylos ‘Lusko’s Pink’*
Think about flowering time before pruning!

Rosemary: *Rosmarinus officinalis*

Escallonia: *Escallonia* sp.

Rhododendron sp.

Pruning subshrubs

- avoid pruning until after risk of severe freeze

*Salvia desoleana*
**Small subshrubs which may be sheared:**
- California Fuchsia: *Epilobium canum*
- Pineleaf Beardtongue: *Penstemon pinifolius*

After...

**Remove most shoot growth to base**

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**Larger subshrubs...**
- Hypericum sp.
- Spiraea

- *Salvia desoleana*
Large subshrubs

- Remove dead stems, prune hard in spring

*Lavatera: early spring*  
10 minutes work!

Note where cuts made...

Look how much growth is removed!

Later...

*Seven Sons Plant: Heptacodium miconioides*
Other references:

PNW-International Society of Arboriculture
http://www.pnwisa.org/
- Pruning Information
- Publications
- List of Consulting Arborists

PlantAmnesty
http://www.plantamnesty.org/
- Pruning tips

Mock Orange: Philadelphus lewisii

Russian Sage: Perovskia atriplicifolia

Smooth Hydrangea: Hydrangea arborescens 'Annabelle'
Snowball Bush: *Viburnum opulus*

Wild Lilac: *Ceanothus ‘Victoria’*

Fuchsia

Elderberry: *Sambucus sp.*

Mount Etna Broom: *Genista aethnensis*

Jerusalem Sage: *Phlomis fruticosa*
Bridal Wreath: *Spiraea 'Arguta'*

Carpenteria californica

Privet: *Ligustrum sp.*