Pruning Ornamental Shrubs and Vines

By Neil Bell
Community Horticulturist
Marion and Polk Counties

Contents:
- What is pruning?
- Timing of pruning
- Pruning principles
- Why prune?
- Frequency of pruning
- Pruning references

Specific pruning techniques:
- Shrubs
- Conifers
- Vines

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 before you plant!

Why Prune?
- Remove dead, diseased or broken parts
- Prune out winter injury
- sucker removal
Enhance a characteristic-coppicing

- From the French “to cut”
- used to enhance leaf, stem effect

Shrub dogwood

Coppicing to enhance leaf size...

*Cotinus coggygria* (smokebush)

Develop unusual forms

- espalier, bonsai
- topiary

Train a young plant

*Rosa mulliganii* (Before)  
Later...

Stimulate new wood

- thinning
- rejuvenation
Size Control

short term only!

Why Prune at all?

Pruning is a stress on plants

March       June

Plant will grow unassisted to natural form

Holodiscus discolor (Oceanspray)

is that really desirable?

Timing of Pruning

Depends on:

1. Flowering habit
   - Blossoms on old wood
   - Blossoms on new wood

2. Objectives
   - remove dead wood anytime

3. Rate of healing
   - quickest response is just prior to beginning of new growth

4. Risk of suckers
   - greatest in e. spring
   - less problem in summer
   - Malus, Syringa

5. Risk of winter injury
   - Rosa, Hebe, Salvia etc.
Frequency of Pruning

1. Prune only as needed
   - know what you want to achieve

2. Age of plant
   - Young plants

3. Type of plant
   - clipped hedges

4. Need for size control
   - maybe not practical!

Most importantly: know what the pruning will do!

Know the plant and keep a good reference around...

- don’t obsess about “rules”
- observe growth/flowering
- observe the response

Principles of Pruning

Growth of woody plants
Directing growth
Principal pruning cuts
Adaptations to damage and disease

Growth habit of woody plants

Lilac: Syringa vulgaris  Spring 2011

- Largest buds at branch tips
- Not all buds develop
- twig diameter increases with age
color change in wood

Ribes sanguineum

Parts of a branch

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

Directing growth:
Cutting above a bud

45° angle Good!
Too angular Too low Too high
Alternate-budded plants Opposite

Response to pruning

➢ removal of material causes growth elsewhere
➢ removing terminal bud allows lateral development
➢ topmost remaining bud 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

Positioning shears and making a cut

➤ avoid leaving stubs

➤ use the correct size tool

Pruning cuts

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

Shearing
➤ Non-selective heading: dense growth at branch tips
➤ Unnatural form, appropriate for formal hedges
Thinning

- Specialized technique for succulent tissues
- Promotes branching

Pinching

- Cutting all canes back to near base to renew all growth

Very harsh technique: not appropriate for all plants!

Renovation

February, 2009

April, 2009
Adaptations to damage and disease

Plants have no “wound healing” process: healing in a sense of replacing or repairing injured tissues.

Plants seal off damaged tissue rather than heal it.

CODIT

Compartmentalization
Of Decay
In Trees

- Plants are highly ordered, compartmented
- Instead of healing, plants compartmentalize injured and infected tissues.

Wound paints and dressings

- evidence for use is inconclusive
- no given treatment fulfills all requirements
  1. Prevent decay
  2. Speed wound closure
  3. Inhibit insect or diseases

Pruning Shrubs

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

1. Flowering habit
2. Growth habit

Calycanthus x raulstonii
Salix caprea var. pendula
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

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

Length of bloom period

Spring bloomers: 2 weeks?
Summer bloomers: often more than a month

Flower type: terminal or axillary

“New” wood versus “old” wood

Terminal flowers:
Current season wood
i.e. *Buddleja*
(July-September)

Lateral flowers:
One year-old wood
i.e. *Chaenomeles*
(February-May)
Distinguishing between “New” wood and “old” wood

- Flowering time: spring or summer
- Length of flowering period
- Axillary or terminal flowers

Some shrubs cause confusion! (i.e. *Hydrangea macrophylla*)

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. *Forsythia*
  - Usually deciduous

- **Subshrub:** i.e. *Perovskia*
  - EG or deciduous

- **Permanent f’mwork:** i.e. *Rhododendron*
  - EG or deciduous

Cane growers are easy to identify

- *Hydrangea macrophylla*
- *Philadelphus*

“Cane” growers

- *Deutzia*
- *Forsythia*
- *Hydrangea* (lacecap/mophead)
- *Kolkwitzia* (Beautybush)
- *Philadelphus* (Mock orange)
- *Physocarpus* (Ninebark)
- *Sambucus* (Elderberry)
- *Spiraea* (Bridal Wreath)
- *Rosa* (Rose)
- *Viburnum*
Permanent framework
- Have a “tree-like” structure
- Do not renew themselves from the base
- Often are evergreen shrubs

Examples:
- *Pieris japonica*
- *Rosmarinus officinalis ‘Arp’*

Permanent Framework
- *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...

- *Hamamelis* (witchhazel)
- *Hibiscus syriacus* (Rose of Sharon)

Subshrubs
- Have a woody framework
- Produce flowers on new growth

Examples:
- *Salvia microphylla*
- *Phygelius ‘Sensation’*
Some examples of subshrubs

- Artemisia (Wormwood)
- Caryopteris (Bluebeard)
- Ceratostigma (Plumbago)
- Fuchsia magellanica (etc)
- Gaura lindheimeri
- Heptacodium (7 Sons Plant)
- Hydrangea paniculata
- Lavatera (Tree mallow)
- Salvia (Sage)
- Perovskia (Russian sage)
- Penstemon
- Phyllogloss (Cape Fuchsia)
- Vitex (Chaste tree)
- Zauschneria (California Fuchsia)

Pruning Cane growers

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

- Thin oldest canes
  - 1-2 per year

- Good growth, but dense at base
  - Remove basal canes

- Crowded at base

- Good growth, but dense at base
  - Remove basal canes
Another example...

- Basal growth removed
- Weak canes removed

Deutzia “Pride of Rochester”

Too dense
- thin canes

Too much thinning
- avoid topping canes!

Shearing cane growers
Effects of topping canes (i.e. heading)

*Viburnum opulus*

Few flowers!

February

April