

# On-Site Plant Propagation

Techniques and Best-Suited Species

**Forest Steward Training**

**May 1, 2010**

# Divisions

- Taking one plant and dividing it into two or more plants
- Two types
  - Herbaceous
    - Perennials
    - Ferns
  - Woody
    - Suckering shrubs

# Herbaceous Divisions

- How?
  - Dig up the entire plant including as much of the root ball as possible
  - Split the plant in 2 (or more) equal parts using a spade or shovel
  - Make sure growing points of shoots and roots are included
  - Plant the new plants back out into the landscape
- Best Time?
  - When the plant is dormant
    - Usually fall through winter

# Herbaceous Divisions

- Best Candidates
  - Lady Fern (*Athyrium felix-femina*)
  - Deer Fern (*Blechnum spicant*)
  - Sedges (*Carex* spp.)
  - Pacific Bleeding Heart (*Dicentra formosa*)
  - Rushes (*Juncus* spp.)
  - Sword Fern (*Polystichum munitum*)
  - Bulrushes (*Scirpus* spp.)

# Herbaceous Divisions



# Woody Divisions

- How?
  - By removing the rooted sucker from its parent
  - Make sure the parent plant is well established
  - Use a spade or shovel to make a clean cut
  - Dig up the new plant with little disturbance to the parent plant
  - Replant the division out in the landscape
- Best Time?
  - When the plant is dormant
    - Usually fall through winter

# Woody Divisions

- Best Candidates
  - Dewberry (*Rubus ursinus*)
  - Hardhack (*Spiraea* spp.)
  - Hazelnut (*Corylus cornuta*)
  - Mock orange (*Philadelphus lewisii*)
  - Roses (*Rosa* spp.)
  - Salmonberry (*Rubus spectabilis*)
  - Snowberry (*Symphoricarpos albus*)
  - Thimbleberry (*Rubus parviflorus*)

# Woody Divisions



# “Live” Stakes

- Use straight, strong stems with healthy buds
- No “soft” growth
- How?
  - With clean hand pruners, cut long branches
    - 1.5 feet long, no more than 2” diameter
  - Make an angled cut at the bottom to help drive stake into the ground
    - You can tell top from bottom looking at the direction the buds are pointing in
  - Make a flat or slightly angled cut at the top
  - Use a mallet to drive stakes into the ground
    - Leave two nodes above soil level
  - Plant randomly; not in rows
- Best Time?
  - Right after leaves drop or just before buds break
  - The ground must be wet

# “Live” Stakes

- Best Candidates
  - Black Twinberry (*Lonicera involucrata*)
  - Elderberries (*Sambucus* spp.)
  - Pacific Ninebark (*Physocarpus capitatus*)
  - Red-osier Dogwood (*Cornus sericea*)
  - Salmonberry (*Rubus spectabilis*)
  - Willows (*Salix* spp.)

# “Live” Stakes



# Layering

- Producing a new plant by taking a branch still attached to the parent plant, burying it in the ground, and having it root
- Technique
  - Gently bend a long branch towards the ground
  - Form a “U” shape, causing the middle to crack, but still be attached
  - Stake at this point into the ground and bury the” U” with several inches of soil
    - A ground staple can also help to anchor the branch in place
  - A new plant should be ready in 6 months to a year for transplanting
  - Once the plant is ready, use the method for woody divisions to sever the new plant from its parent
- Timing
  - Early spring is best

# Layering

- Best Candidates
  - Black twinberry (*Lonicera involucrata*)
  - Elderberries (*Sambucus* spp.)
  - Indian plum (*Oemleria cerasiformis*)
  - Orange honeysuckle (*Lonicera ciliosa*)
  - Red-osier dogwood (*Cornus sericea*)
  - Willow (*Salix* spp.)
  - Most deciduous and evergreen shrubs

# Layering



# Difficult Species: Salal

- *Gaultheria shallon*
  - Good layering candidate, but does not transplant well
  - Easily propagated by seed in the greenhouse—no treatment necessary
  - Would need to be in a spot without a lot of disturbance if broadcasting seed on-site



# Difficult Species: Oregon Grape

- *Mahonia* spp.
  - Does not transplant well
    - Long roots does not lend itself for this
  - Have had success with collecting seedlings apx 1-2" tall for growing on in the greenhouse



# Difficult Species: Madrone

- *Arbutus menziesii*
  - Another easy candidate for seed germination
  - Volunteer seedlings often found in the field—tempting to try and transplant
  - Low survival rate



# Questions?

## Contact Information

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## Resources:

Grow Your Own Native Landscape.

WSU Thurston County

<http://www.sf.adfg.state.ak.us/SARR/restoration/techniques/livestake.cfm> (Live Staking)