

Fall Yard Maintenance



City of Bothell™

City of Bothell - Natural Yard Care



Fall Yard Maintenance

- Understanding the Pacific Northwest climate
- Companion planting
- Fall maintenance
- Pruning

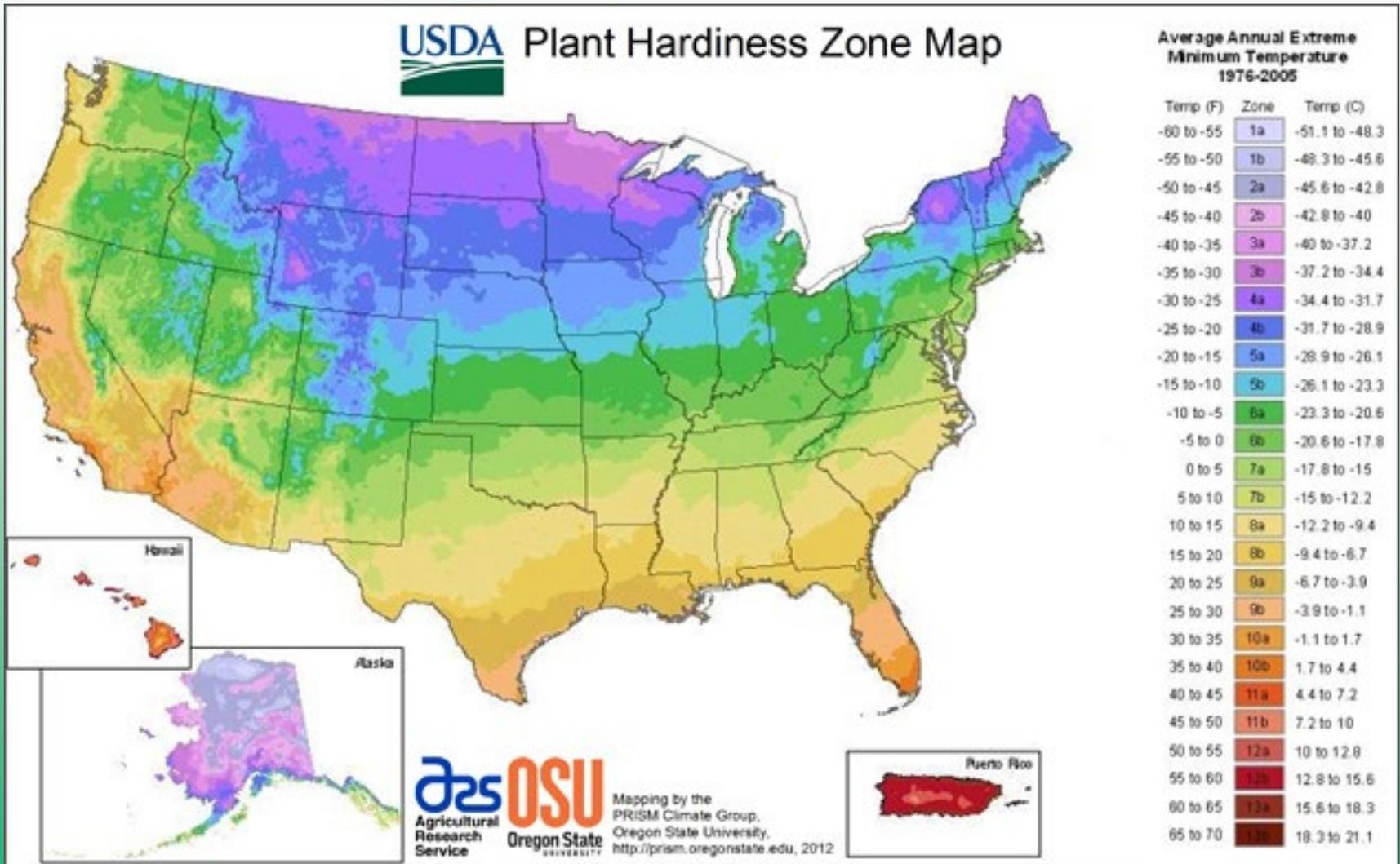


Understanding the Pacific Northwest Climate

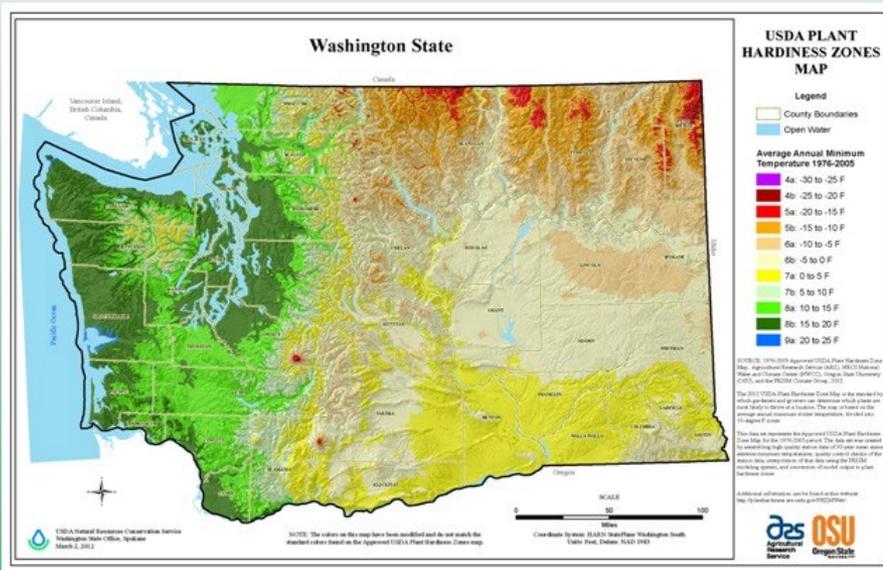


Photo: TripAdvisor

USDA and SUNSET ZONES



Washington State Zone Maps

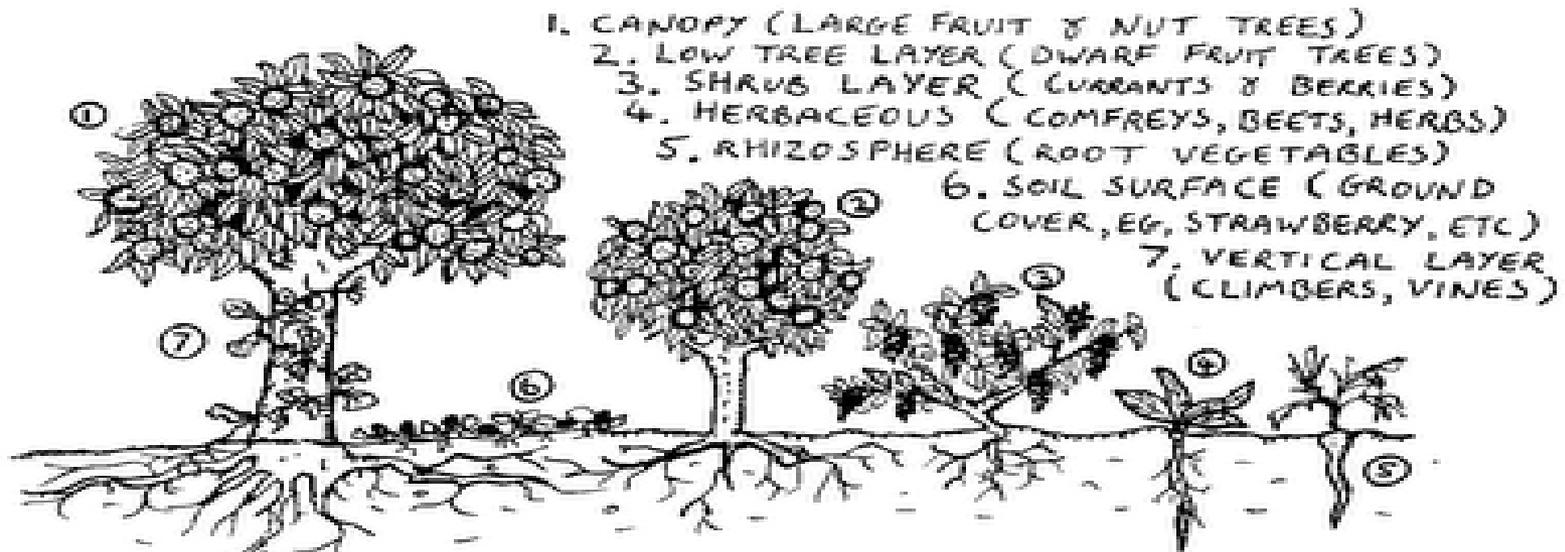


Plan a Diverse Garden

- Provide year-round interest – fall color, winter structure, spring bloom, summer fruit
- Attract beneficial wildlife – birds, bees, bats and more!
- Include edibles – plan for water management
- Provide two functions – espalier an apple fence!
- Height variation – Canopy Layer
- Texture
- Mass groupings
- Odds and thirds
- Evergreen and deciduous



Look to the forest!



THE FOREST GARDEN: A SEVEN LEVEL BENEFICIAL GUILD

Group Plants with Like Needs

- Drought tolerant plants – Euphorbia, grasses, Sedum, Ceanothus, lavender, sea holly, Russian sage
- Bog plants – Bog rosemary, blueberry, red stemmed dogwood, Carex, Juncus



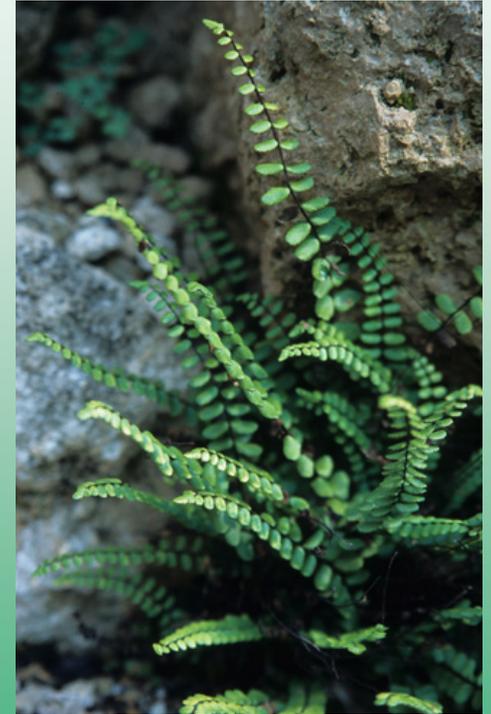
More efficient to water

Soil conditions are similar

Washington Natives

thrive without irrigation and are pest and disease resistant

- **Groundcovers** – Wild Ginger, Sword Fern, Deer Fern, Salal, Vancouveria, Trillium, Oxalis, Low Oregon grape
- **Shrubs** - Red Stemmed Dogwood, Snowberry, Ninebark, Tall Oregon Grape, Oceanspray, Evergreen Huckleberry, Mock Orange, Red Flowering Currant, Thimbleberry, Salmonberry, Rhododendron
- **Small Trees** – Serviceberry, Vine Maple, Elderberry
- **Large Trees** – Douglas Fir, Bigleaf Maple, Western Hemlock, Western Red Cedar



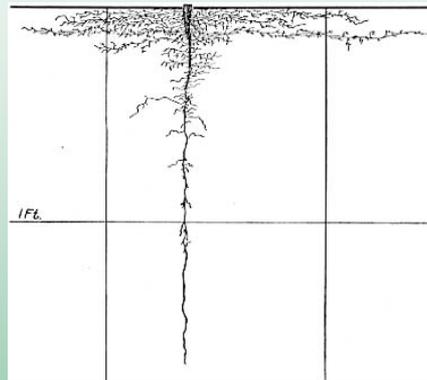
Companion Planting



In the simplest terms companion planting is the technique of combining two plants for a particular purpose.

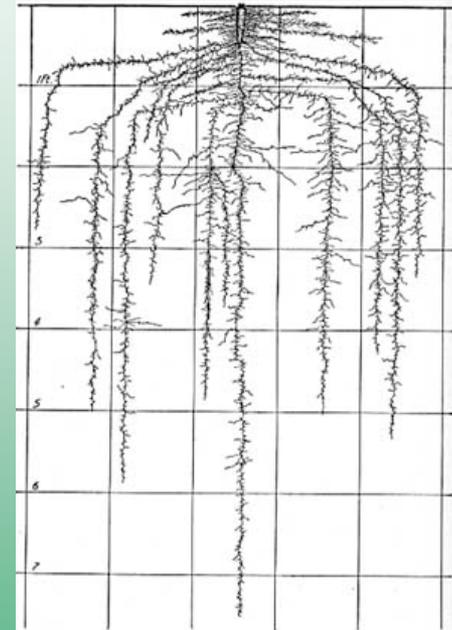
~ Rodale's Successful Organic Gardening Companion Planting

Shallow and Deep Rooting



Lettuce roots

Each vertical line represents 1 foot.



Carrot roots

Short and Tall Growing



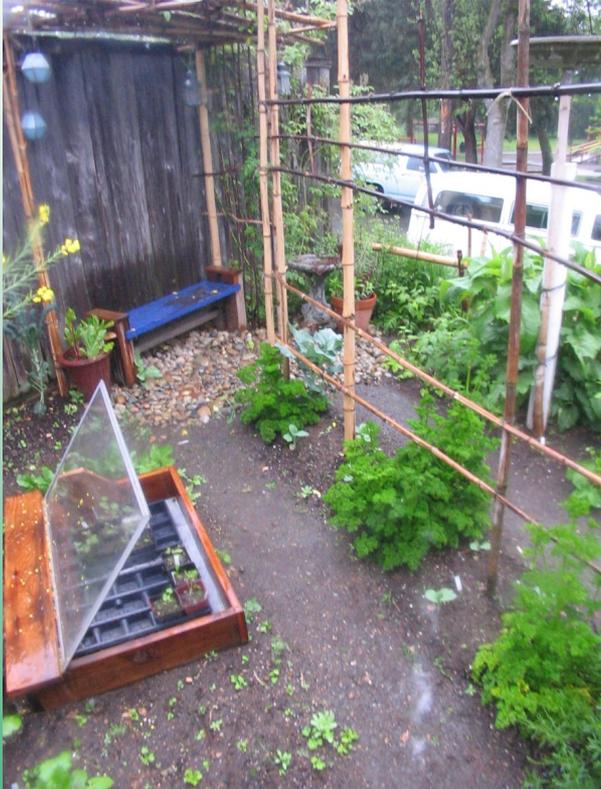
Creating Shade



Direction of sun

Different Harvest Times

Seasons



Spring and Summer

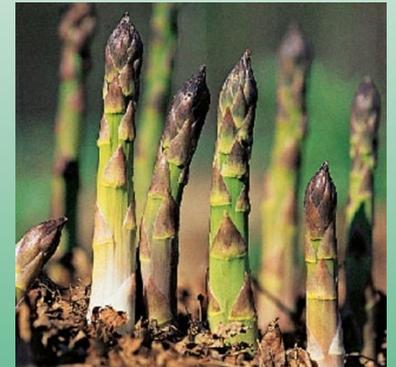


Fall and Winter

Different Harvest Times

Type of plant

- Annual long season
 - Tomatoes
- Annual short season
 - Lettuce
- Biennial
 - Many brassicas and root crops
- Perennial
 - Artichoke



Symbiotic Nitrogen Fixation

Three Sisters

- Squash
- Corn
- Beans



Pest Control

- Pest Suppression
 - African Marigolds
 - Allelopathy
 - Black walnut
 - Rye
- Trap crops
 - Nasturtium
 - Roses
- Attracting beneficial animals



Fall Maintenance



Basic Needs Of a Healthy Sustainable Lawn



- **Lawns need 6-8 hours of sun** – if too shady try alternatives
- **Provide adequate water** - 1 inch per week to 6-inch depth
- **Good drainage matters** - aerate and de- thatch and spread compost and reseed regularly to keep them invigorated
- **Choose the best site for your lawn!**

Growing a Healthy Sustainable Lawn



- **Mowing height** – 2 inches minimum to outcompete weeds, shade soil, conserve moisture – especially important as we go into winter weather
- **Grasscycle** – reduces need for fertilization to one application in the fall
- Use **natural, organic lawn fertilizer** instead of chemical fertilizers
- **No Phosphorus** is allowed in lawn fertilizers unless your soil test shows P depletion – protects waterways

Lawns – Fall Care

Take advantage of the naturally occurring rain and moderate temperatures to insure proper seed germination and growth. Renovate in fall (September to mid-October) and/or spring (April to mid-May)

- Reseed or install new lawn
- Aeration
- Topdress with compost
- Dethatching
- The best time to fertilize is September, when grass plants are building root reserves for the next year.



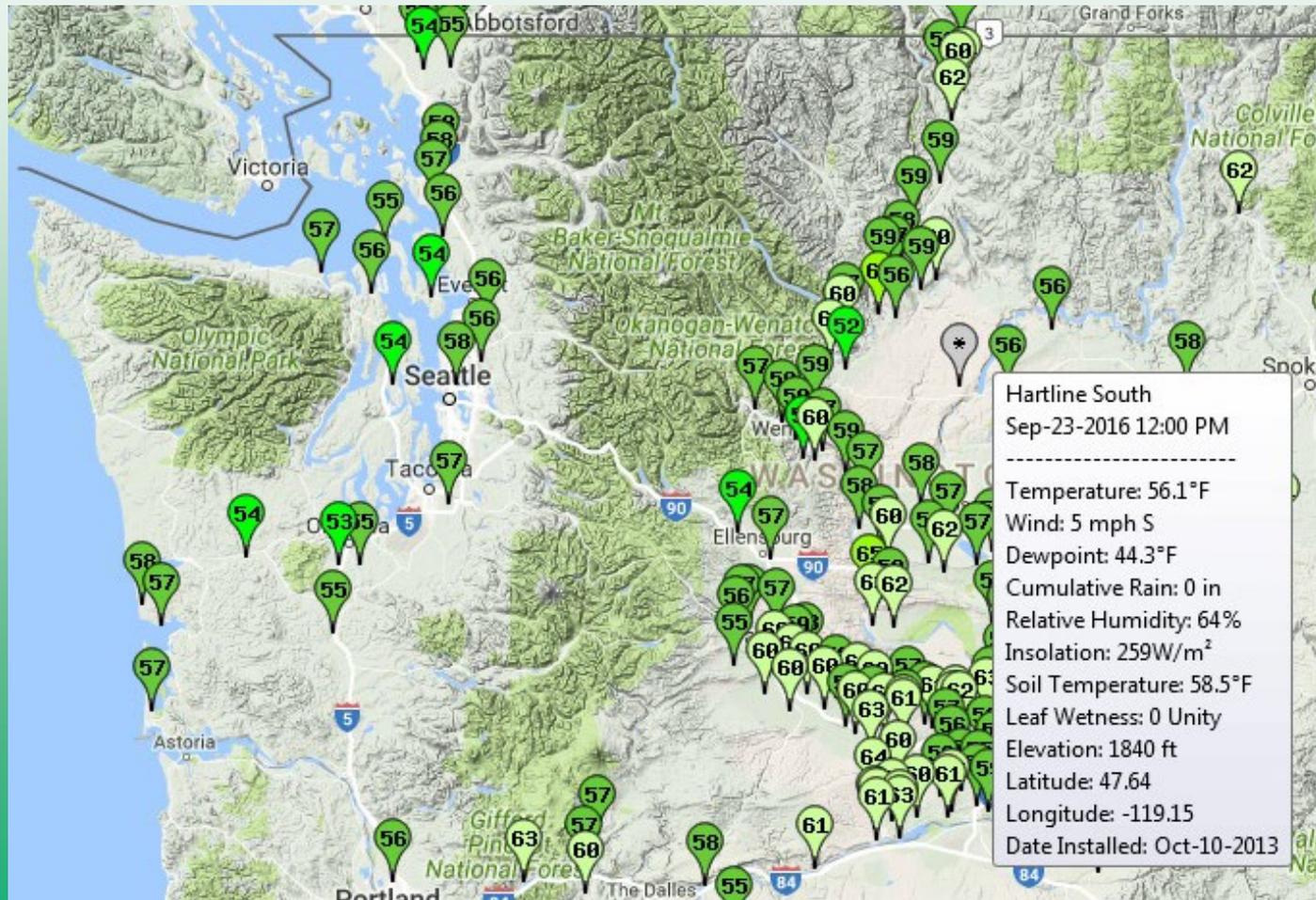
Why Plant in the Fall?



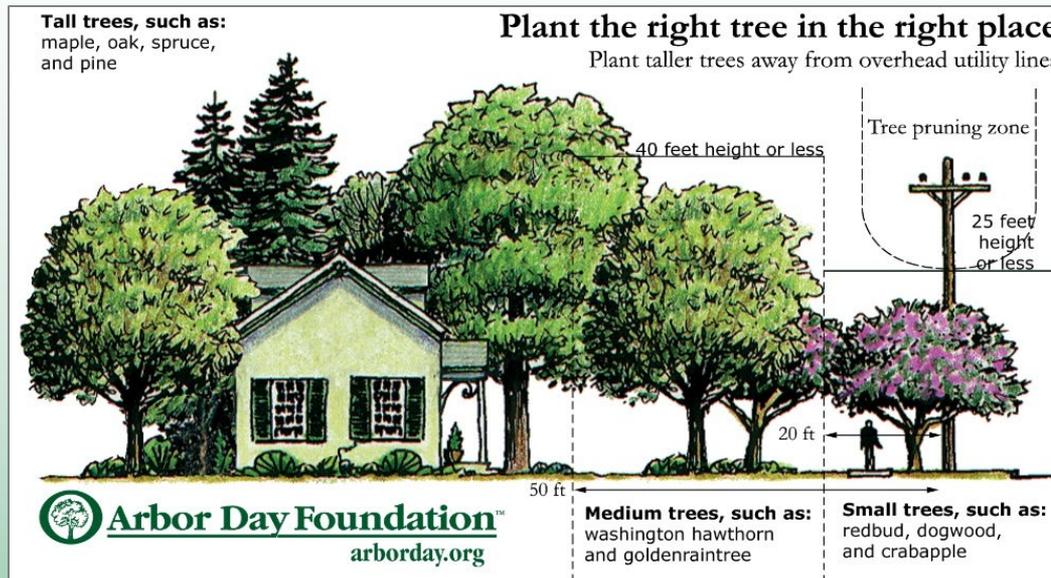
- Soil temperatures - warm enough to encourage root growth
- Plant establishment
- Winter rain will keep them watered for you!
- Spring bulbs – good time to add
- Less stress for the plants
- Comfortable working temperatures

Winter Soil Temperatures

- Washington State University soil temperature map
- <http://weather.wsu.edu/index.php>



Plants and Stress

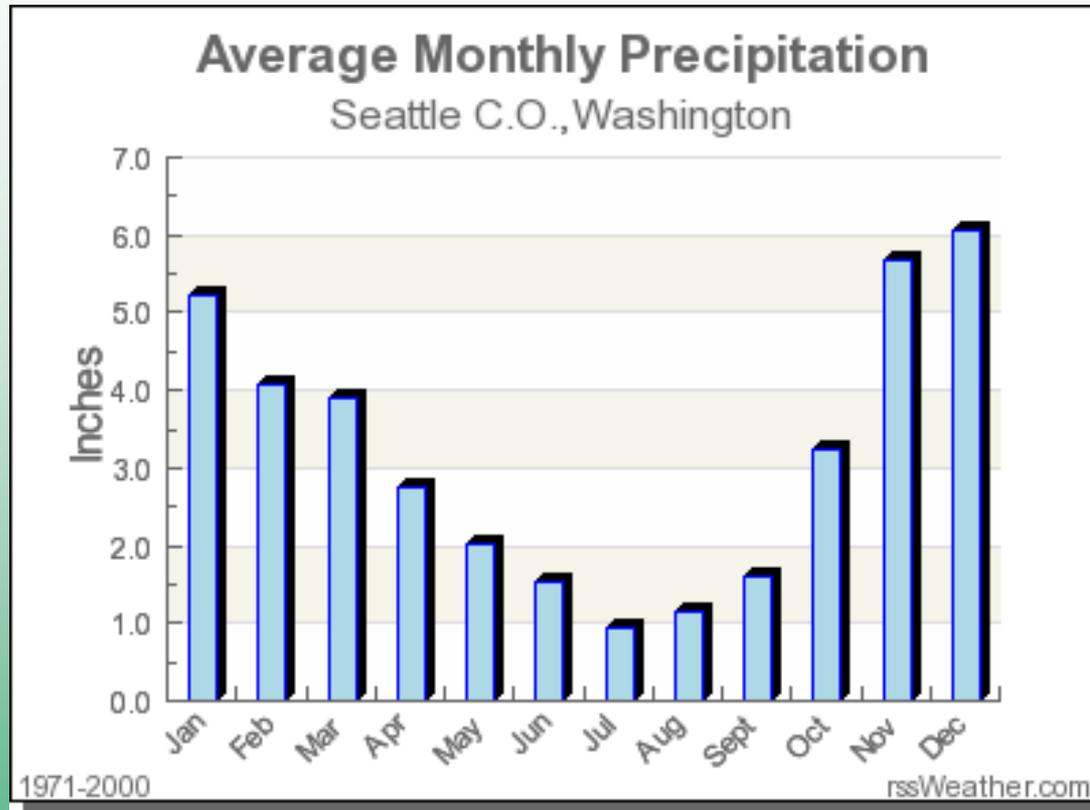


- Cooler temperatures create less stress on plants when planting in the fall.
- Add mulch to the soil after planting to help moderate soil temperatures – allows plants to grow healthy roots

PLANT IN THE RIGHT PLACE

- to ensure successful establishment of your plant
- to allow for proper water management
- to allow plant to reach its potential – less pruning = less stress

Winter Rains



- Winter rainfall helps establish plants
- June rain helps recharge soil to get plants through July and August

Plan for Smart Watering Practices

Choose the Right Irrigation Option

- Automatic Irrigation Systems
- Drip Irrigation
- Soaker Hoses
- Hand Watering
- Rain Collection Systems



Soil Testing; A Good Tool

- Get a baseline for your soil fertility
- Determine needs for your soil
- If you are concerned about toxins

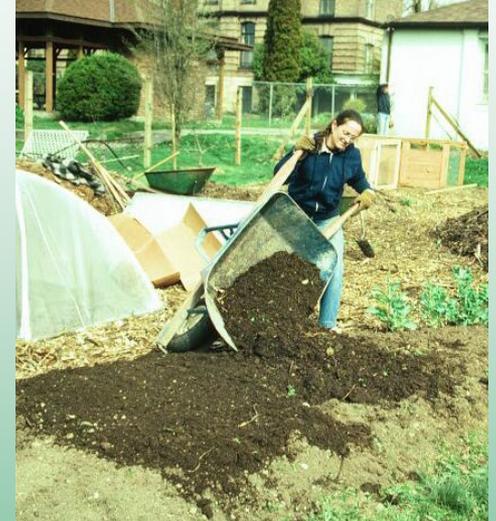
Toxin Concerns for Edible Gardening

- Houses built pre – 1978
- Old orchard grounds
- Industrial sites (old substations, auto shops)
- Downwind of cement plants
- Areas affected by Asarco Smelter plume
- Along a busy highway



Growing Healthy Soil

- Add compost to your soil
- Mulch garden beds with leaves, chips, compost, etc.
- Grow cover crops
- Choose “natural organic” fertilizers
- Aerate and top-dress lawns with compost
- Avoid chemical products that destroy soil life
- Sheet mulch to jump start a garden space



Choose the Right Mulch

Conserve moisture, moderate soil temperature, keep weeds down



- **Wood Chips:** perennials, tree and shrub beds, groundcovers, paths
- **Compost:** vegetable gardens, annual beds
- **Leaves:** All of the above!
- **Straw:** veggie gardens, perennials
- **Commercial Mixes:** manure and wood products for all areas
- **Gravel:** paths

Benefits of Cover Crops

- Protects soil from winter rain- leaching of nutrients
- Prevents soil compaction
- Adds nitrogen to soil
- Enriches soil with microorganisms
- Adds organic matter to soil
- Keeps weeds at bay – sometimes inhibiting certain types of weeds
- Referred to as “green manures” and fall into two main categories: annual grasses and legumes



Cover Crops

- Annual cereal grasses:
Ryegrass, barley, oats and winter wheat
 - Quickly produce dense growth
 - Produces a substantial amount of organic matter added to the soil.
 - Their roots tend to form fibrous mats, providing the added benefit of breaking up clay soil or binding together sandy soils.



Cover Crops

- Annual legumes: Common vetch, Fava beans, crimson clover, Austrian field peas
 - Able to transform otherwise inaccessible atmospheric nitrogen into a form usable by plants.
 - By leaving legume plant material in the soil to break down, this nitrogen is made available to your next generation of crop plants.
 - In addition, they often have strong, deep roots that are able to break up compacted soils.



Basics in Pruning



Basic: Techniques

First and foremost

- Know plant's flowering time
- Know the growth habit of the plant
- Remove diseased branches
- Sanitize between cuts to prevent spread of any diseases to other plants
- Remove dead and crisscrossing branches
- Tree-like shrubs should be 'fixed' over -5 years
- Stand back and look at the shrubs often to see the shape progress



Basic: Tools

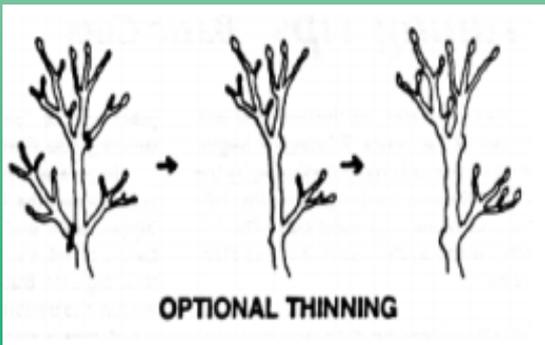
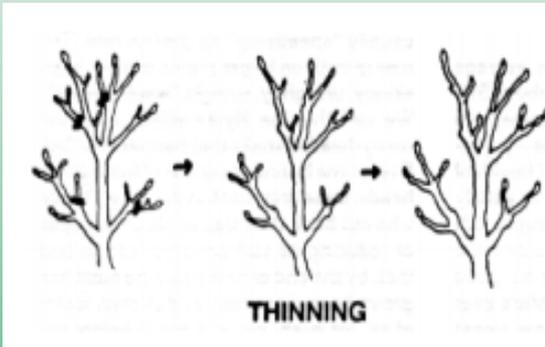
- Hand pruners – 1/4”-3/4”
- Pruning loppers – 3/4” – 2”
 - Bypass vs anvil
- Saw – 2” – 5”
- Sharpeners
- Oil



Basic: Cuts

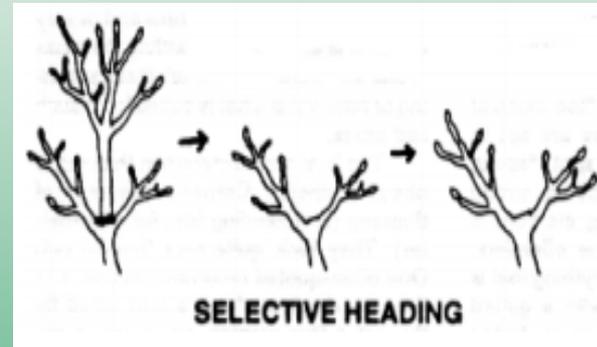
- Thinning

- Prune a branch back to where it originates on the stem, another branch or trunk



- Heading

- Cutting off the tip of the branch causing the shrub to 'bush-out'



Basic: Spring – March through June



- Fast growth period
- Pruning stimulates growth
- Prune broken branches from winter or animals
- Refrain from pruning plants that 'bleed' in spring
 - Dogwood
 - Grapes
 - Birches
 - Maples
 - Walnuts



Spring Blooming

- Bloom on growth formed from last year
- Prune as soon as flowers have faded



Basic: Summer - June through August



- Hot, dry summers are hard on plants and heavy pruning makes it worse
- Newly exposed bark to sun can damage plants – be careful
- Great time to deadwood
- Prune plants prone to water-sprouts
 - Dogwood trees
 - Cherries
 - Crabapples
 - Plums
 - Magnolias
 - Witch hazels
 - Deciduous *Viburnum*
- Prune water sprouts that have formed
- **Early summer:** prune spring blooming plants
- **Late summer:** good time to prune if you want to reduce regrowth on fast growing plants

Summer Blooming

- Bloom on current years growth
- Be aware of weather and drought stress conditions



Basic: Fall September through November



- Heading back cuts can stimulate growth on semi-hardy plants making them more susceptible to frost damage
- Can be a continuation of drought from summer so be cautious
- Fungal diseases are more prominent due to the increase in fall rains
- Good time for thinning and deadwooding
- Good time to see the structure when the leaves are gone, can encourage quick regrowth on fast growing plants

Fall blooming

- *Callicarpa*
- *Camellia sasanqua*
- *Rhododendron*
- *Mahonia*



Basic: Winter December through February



- **Late winter:** good time to see the structure when the leaves are gone, can encourage quick regrowth on fast growing plants
- Prune deciduous plants
- Stone fruits are prone to disease during the rainy season so refrain from any pruning

Winter blooming

- Witch hazel
- *Viburnum* 'Pink Dawn'
- *Sarcococca*
- Winter hazel
- *Edgeworthia*



Resources



- Garden Hotline – 206-633-0224 – www.gardenhotline.org
- Tilth Alliance- www.seattletilth.org
- Cascade Water Alliance - www.cascadewater.org
- City of Bothell www.bothellwa.gov/fallmaintenance
- Puget Sound Starts Here www.pugetsoundstartshere.org
- Great Plant Picks <http://www.greatplantpicks.org>
- Plant Amnesty <http://www.plantamnesty.org>
- *Guide to Pruning*, Cass Turnbull
- *Right Plant, Right Place*, Nicola Ferguson