



Introduction to Green Gardening & Sustainable Landscapes

By Robert Petersen and Jason Hammond

What are Green Gardens? Sustainable Landscapes?

- ▶ Reduce Negative Environmental Impacts
 - ▶ Water Consumption, Energy Consumption, Support Ecosystems
- ▶ Utilize Available Resources
 - ▶ Native Soils, Rainwater, Plant Debris
 - ▶ Be Creative, Resourceful
- ▶ Low Maintenance
 - ▶ Natural Systems, Hardscapes
- ▶ Bring Diversity
 - ▶ Reduce Grassy Areas, Replace With Native Plants
- ▶ Reduce CO₂ emissions, Increase Oxygen. Grow More.
 - ▶ Less Lawnmowers, More Plants
- ▶ Plants Suitable for Our Climate
- ▶ Increase Wildlife Habitat
 - ▶ Nature's Landscapes Support Entire Ecosystems



Soil Health Composition



Acidic or Alkaline

Acidic: pH under 7, Alkaline: pH over 7, Neutral: 7



Plant Indicators

Acidic plants: Moss, Plantains
Alkaline plants: Chicory, Mullein, Chickweed



How Determine Soil Type

Clay, Sand, Loam
Touch Test
Water Test



Soil Tests

UMASS
Cornel
Oregon State
Simply Soils (www.simplysoiltesting.com)

The Magic of Mulch

- ▶ Nature Builds from the Top, Down
- ▶ Nature Makes Its Own Mulch
- ▶ Fallen Plant Debris (Trees, Leaves, Branches)
- ▶ Annual Application Mulch in Fall
- ▶ Retains Moisture, Nutrients
- ▶ Slow-Release Fertilizer
- ▶ Feeds the Soil, Worms, and Beneficial Fungi
- ▶ Better than synthetic fertilizers
- ▶ Add 1-3 Inches Per Year, Depending on Soil
- ▶ 6 Inches Woodchip = 2+ Years Weed Control
- ▶ Free Arborist Chips from ChipDrop.com
- ▶ Commercial Alternatives
 - ▶ Shredded Wood Mulch
 - ▶ Shredded Bark Mulch
 - ▶ Cedar Bark
 - ▶ Bark Nuggets



Right Plant, Right Place

- ▶ Know Your Garden Site
 - ▶ What Does it Look Like?
 - ▶ What Type of Soil?
 - ▶ Sun Exposure?
 - ▶ Is it Sloping?
- ▶ Plan Your Garden
 - ▶ Draw a Simple Map
- ▶ Selecting Plants
 - ▶ Favor Native Plants When Possible
 - ▶ Moisture Requirements
 - ▶ Sunlight Requirements
 - ▶ Space Requirements
 - ▶ Suitable for Climate





Pest Management

- ▶ Be Inclusive, Not Exclusive.
- ▶ We Are the Invasive Species!
- ▶ Broad-Spectrum Insecticides are Counter Productive
- ▶ Natural Controls:
 - ▶ Crop Rotations
 - ▶ Pest/Disease Resistant Varieties
 - ▶ Manual Pest Removal (Slugs, Caterpillars)
- ▶ GrowSmartGrowSafe.org
- ▶ Pest Sense, Hort Sense
- ▶ If Using Chemical Control:
 - ▶ Use as a Last Resort
 - ▶ Use Least Toxic First
 - ▶ Read Label, Directions, Warnings
 - ▶ Hazardous Waste Disposal Facility



Habitats & Wildlife

- ▶ Part of Garden & Site Planning
- ▶ Plant for Pollinators (Bees, Butterflies, and More)
 - ▶ On Your Map, Plan a variety of plants to bloom year round
 - ▶ Pollen source year round
- ▶ Plant for Birds
 - ▶ Fruiting Trees, Food Source for Birds
- ▶ Discouraging Animal Pests From Food Gardens
 - ▶ Fencing, Row Covers

Utilizing Available Resources

- ▶ Use What You Have, Be Resourceful
- ▶ Harvest Rainwater with Rain Barrels
- ▶ Compost
 - ▶ Kitchen Waste, Plant Debris
- ▶ Hügelkultur
 - ▶ Use Things You Would Compost
 - ▶ Repurpose Old Wood (Unpainted, Non-Treated): Bury It!
- ▶ Upcycling, Be Creative!



A Hügelkultur Example



Natural Lawn Care

- ▶ Soil Test
 - ▶ Soil Type? How to Care for it Naturally?
 - ▶ After Soil Test, We know How to Amend and Improve Soil Health
 - ▶ Compost, Mulch, Organic Fertilizer
- ▶ Lawn
 - ▶ Spring:
 - ▶ Mowing 2-3 Inches High, Every 2-3 Weeks,
 - ▶ Fertilize With Organic, Slow-Release. Avoid Phosphorous!
 - ▶ Amend With Lime if Needed, Based on pH of Soil
 - ▶ Leave Grass Clippings (Mulching in Place)
 - ▶ Summer: Let Lawn Go Dormant. Water 1 Inch per Month
 - ▶ Fall: Aerate, Top Dress with 1-inch Compost, then Overseed
 - ▶ Healthier Grass is More Resistant to Pest/Disease

Smart Watering

- ▶ Early Morning Watering
 - ▶ Mid Day = Sun Evaporation
 - ▶ End of Day = Moisture-Related Disease
- ▶ Climate-Appropriate Plant Selection
- ▶ Mulching
- ▶ Rain Barrels
- ▶ For Garden Beds: Soaker Hoses, Drip Irrigation



Resources, Questions?

- ▶ Choosing the Right Plants
- ▶ The Plant List
- ▶ Composting at Home
- ▶ Growing Healthy Soil
- ▶ Garden Wise, Non-Invasive Plants for Your Garden (Western Washington)
- ▶ Noxious Weeds that Harm Washington State
- ▶ Natural Lawn Care
- ▶ Natural Yard Care
- ▶ Natural Pest, Weed & Disease Control
- ▶ Smart Watering
- ▶ How to be A Salmon Friendly Gardener
- ▶ Master Gardeners Hotline:
 - ▶ 425-357-6010
 - ▶ MG.help@wsu.edu
- ▶ www.mastergardens.com/resources
- ▶ Email: jason@mastergardens.com

