

SHRUBS FOR IRRIGATED LANDSCAPES



Contact Information

- Robert Pitman Bannock County Horticultural Assistant
- 236-7310
- rpitman@uidaho.edu

What this Talk is **Not**

- This talk does not deal with native or water wise shrubs for wild or semi-wild landscapes, that will be dealt with in another presentation.
- This talk does not deal with trees, that will also be dealt with in another presentation.

What this Talk Is

- This presentation will cover those shrubs which will grow well in this climate and soil in human-made irrigated landscapes.
- This presentation will focus on planting schemes to minimize fire danger using shrubs
- This presentation will include information on which shrubs are mostly deer resistant and which are often eaten by deer.
- This presentation will have some information on how to properly irrigate shrubs
- This presentation will include information and slides about shrubs which are sold in this area but which are poorly adapted.
- This presentation will include information and slides about shrubs which are some of the best to plant here and are usually available commercially.

- FireWise Guidelines
- Some tips to follow when planning a FireWise landscape include:
 - Landscape according to the recommended defensible-space zones. The plants nearest your home should be more widely spaced and smaller than those farther away.
 - Plant in small, irregular clusters and islands, not in large masses.
 - Break up the continuity of the vegetation (fuel) with decorative rock, gravel and stepping stone pathways. This will help modify fire behavior and slow its spread across your property.
 - Plant a variety of types and species. Besides being aesthetically pleasing, this will help ensure a healthier landscape by reducing insects and diseases.
 - Mulch to conserve moisture and reduce weed growth. Mulch can be organic (wood chips or small bark pieces) or inorganic (gravel or rock). Avoid pine bark, thick layers of pine needles or other materials that can easily carry fire.

- Plants that are fire-resistant have the following characteristics:
- Leaves are moist and supple
- Plants have little dead wood and tend not to accumulate dry, dead material within the plant.
- Sap is water-like and does not have a strong odor
- Sap or resin materials are low
- Most deciduous trees and shrubs are fire-resistant.

- In contrast, plants that are **highly flammable** generally have several of these characteristics:
- Contain fine, dry or dead material within the plant, such as twigs, needles, and leaves
- Leaves, twigs, and stems contain volatile waxes, terpenes, or oils
- Leaves are aromatic (strong odor when crushed)
- Sap is gummy, resinous and has a strong odor
- May have loose or papery bark

- *Adapted from University of California*

- *Cooperative ExtensionHortscript, 1996, No. 18.*

My Personal Recommendations

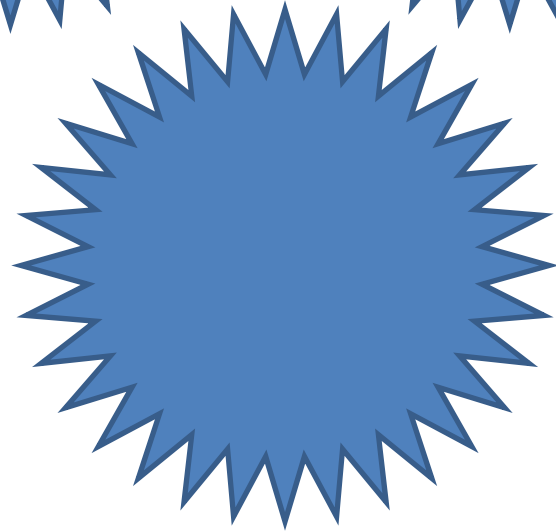
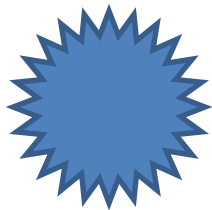
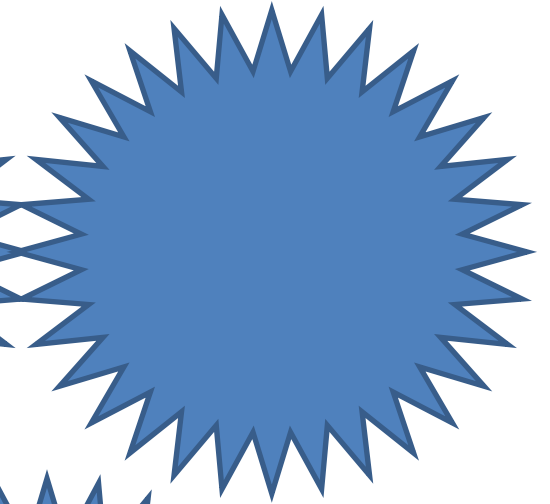
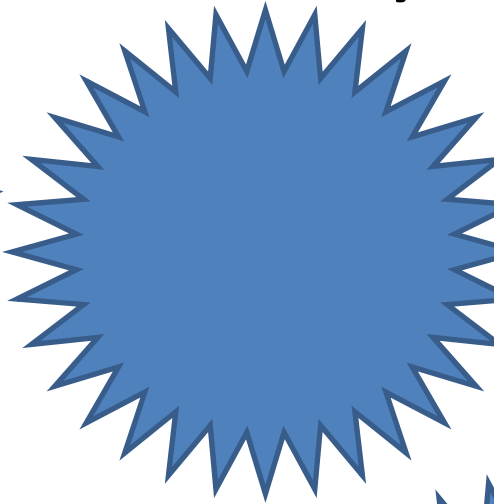
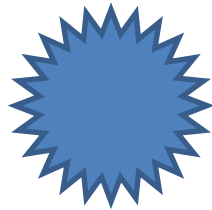
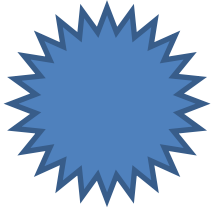
- Do not overplant – small shrubs become big shrubs, shrubs that may have been far apart at planting time soon grow close together.



Use some measuring device to get an idea of how large the shrub will be near maturity



Plant the shrubs for what they will
look like in 5 to 10 years



Another Severely Overplanted Shrub Bed



Interplant new shrub beds with annuals and/or perennials so they don't look sparse when young.



- One alternative is to buy fewer but larger shrubs, then your planting will look a bit “fuller” when you are done but will not be overgrown in 10 years.
- Do not be fooled by the words “dwarf” or “compact” or “pygmy”. Those words are relative to the full sized species. For example a Dwarf Burning Bush will still get 6 to 8 feet tall. The regular non-dwarf Burning Bush will be 12-15 feet tall.

Two most important questions to answer:

- Is it cold hardy



- Will it grow in our soil



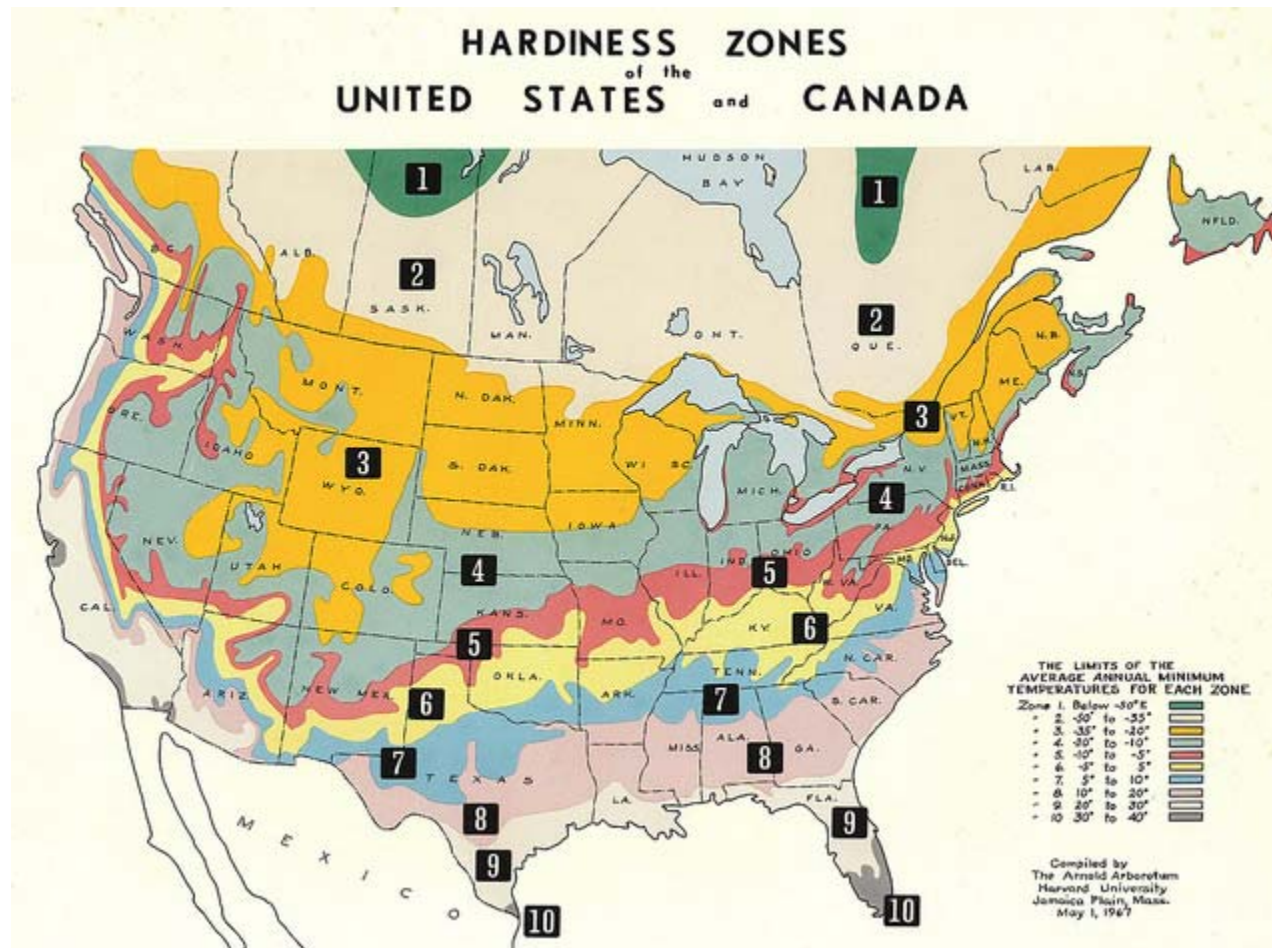
Hardiness Zones

- My recommendation is **Don't Use Them.** Or at least don't put too much faith in them.

Why do I recommend not using them:

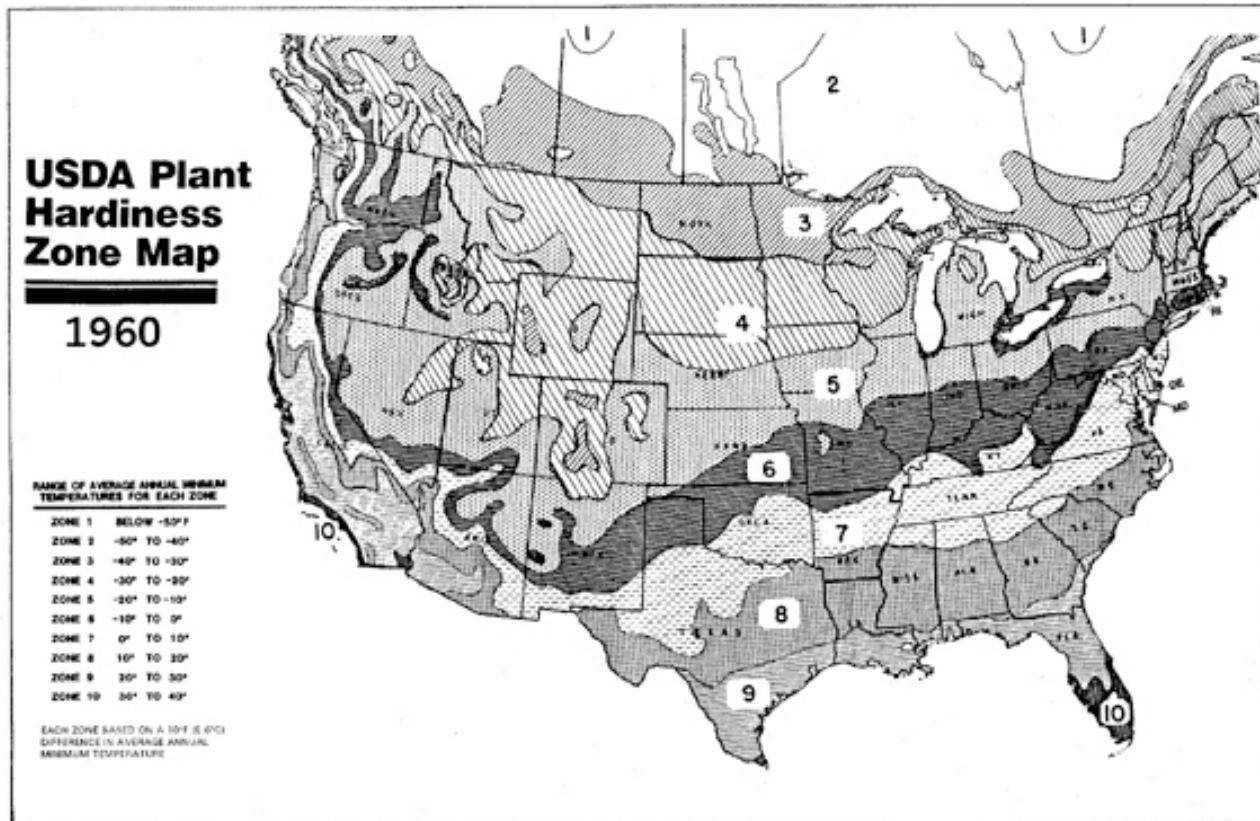
- There are 6 or more different hardiness maps floating around & they can be quite different.
- If you look at enough publications you easily find 2 or 3 different zones listed for the same plant.
- There are no official zone ratings for any plant, anyone can give any plant any zone rating they wish.

Arnold Arboretum Zone map



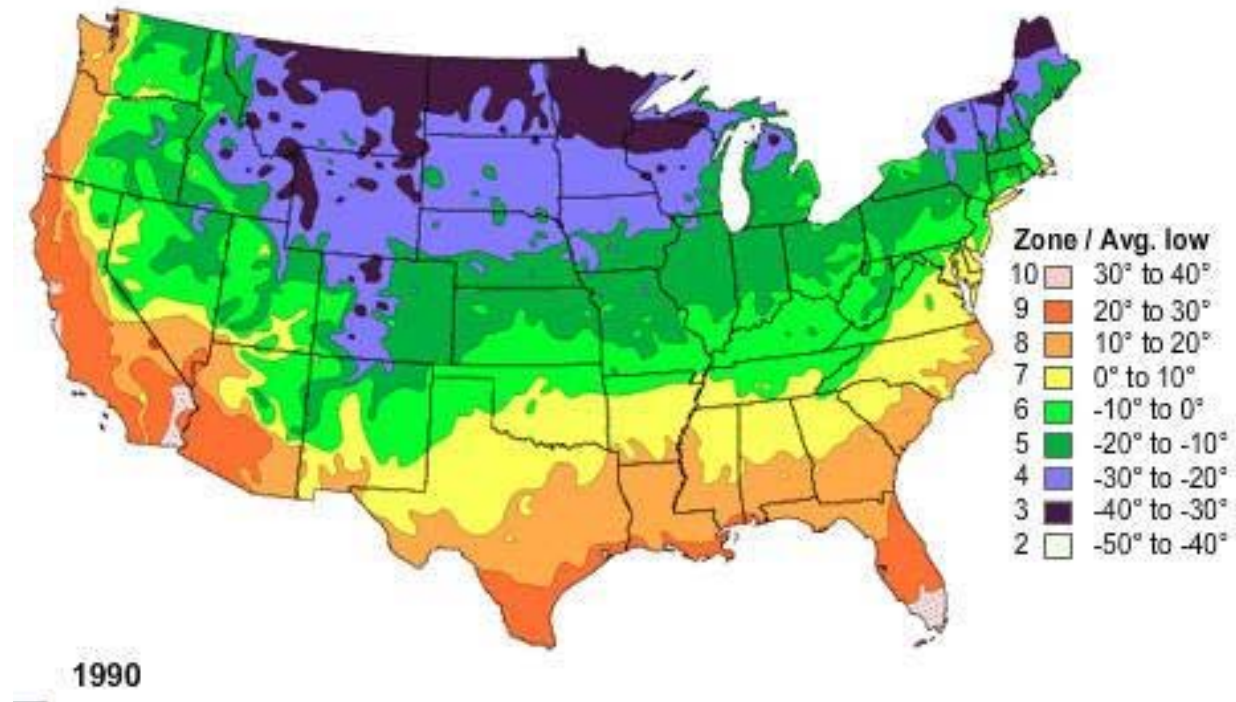
- On this map Pocatello is in Zone 4 but the temperature range for this zone 4 is the same as USDA Zone 5

Old USDA Zone Map 1960



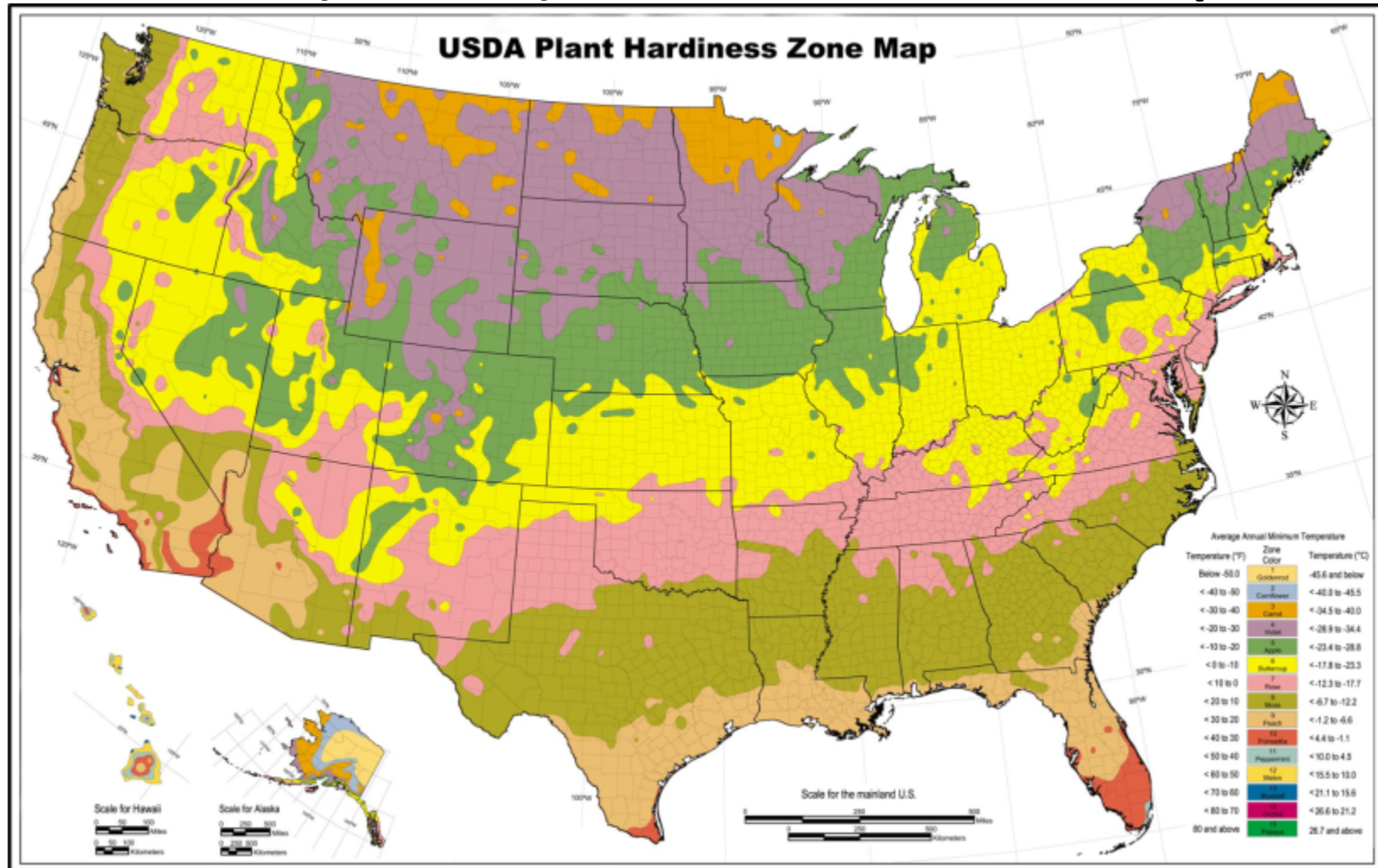
- On this map Pocatello is in Zone 5

(New)1990 USDA Zone Map



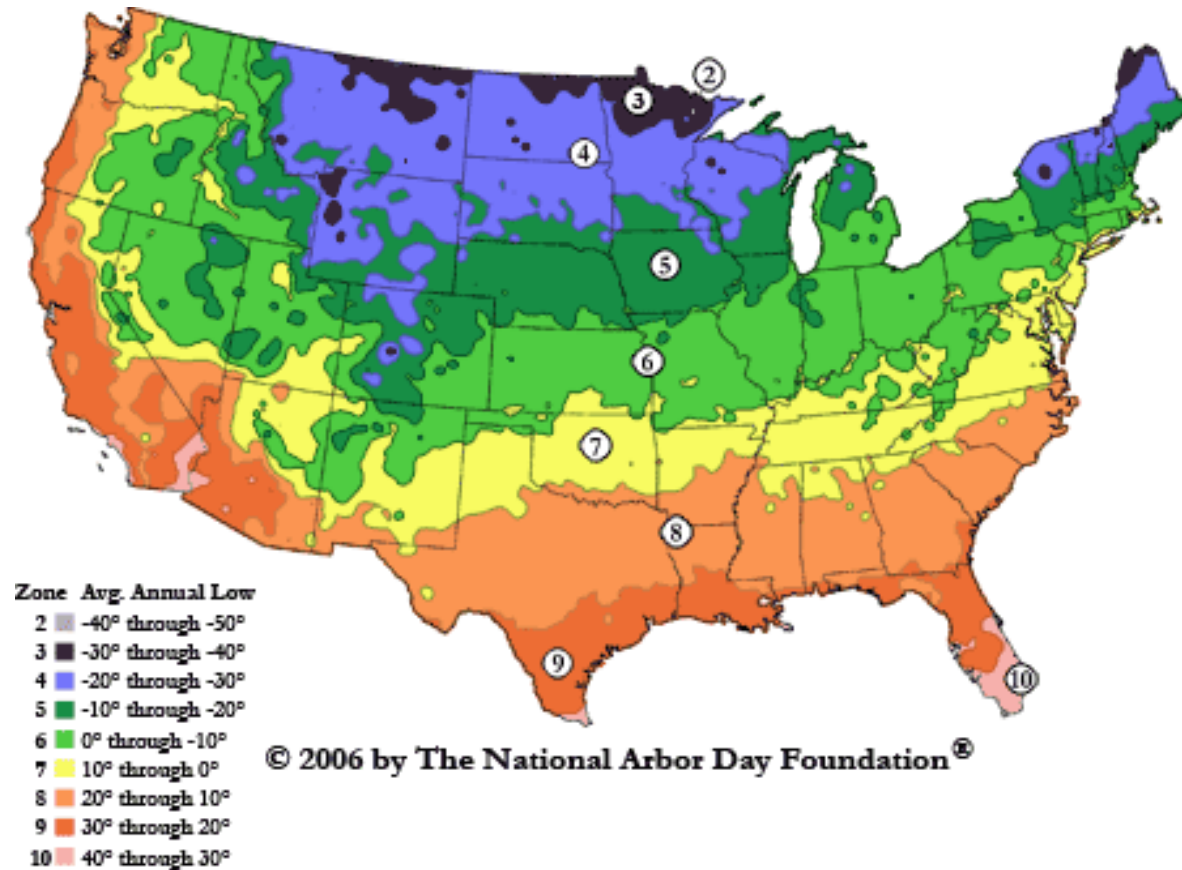
- On this map Pocatello is in Zone 5

New (2010) USDA Zone Map



- On this map some of Pocatello is in Zone 6 and some is in Zone 5

Arbor Day Zone Map



- On this map Pocatello is shown on the border of Zone 6 and Zone 5. If you enter any Pocatello zip code in the Arbor Day Zone Lookup it comes up as Zone 5-6.

Sunset Western Garden Book Zone



- This map shows Pocatello in Zone 2 which is basically the equivalent to USDA Zone 5

Shrubs as Screens



Shrubs to frame a view



Shrubs to line a walkway



Shrubs for seasonal color



Shrubs that bloom all season



Potentilla



Shrubs that bloom all season



Hardy Shrub Roses

All sizes

All Colors

Not your grandma's
shrub rose



You can even use shrubs to send a message to neighbors you don't like.



Irrigation for Shrubs

- Most shrubs will do well with 1" to 1 ½" inches of water per week during the growing season.
- Shrubs and shrub beds should not be watered with lawns if possible. They should be on their own circuit.

How to measure irrigation



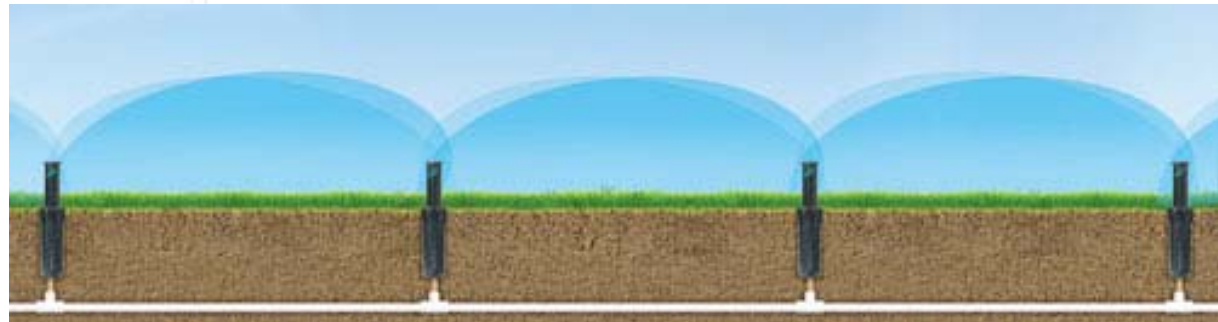
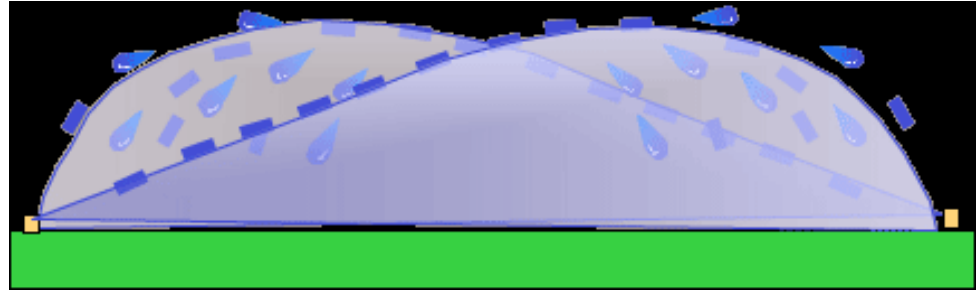
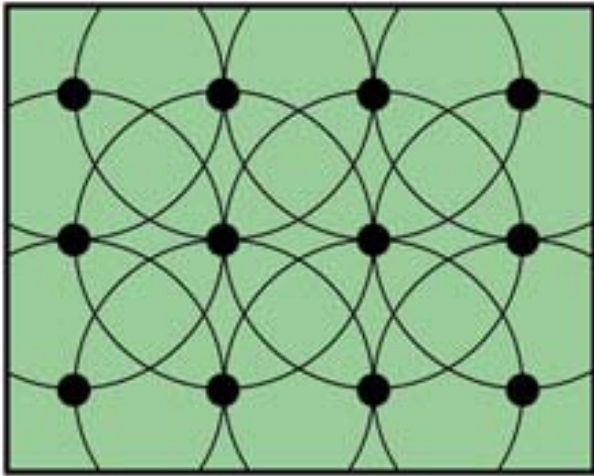
- Most often shrub beds are irrigated with spray heads.



- These spray heads can pop up or stay stationary.
- Spray heads put out around 1 ½ inches per hour at head to head coverage.
- Spray heads are available in full circle, half circle, strip spray etc.

- Our soils can accept about ½ inch of water per hour before run off occurs and less than that on a slope.
- Most spray heads put water out at about 3 times the rate that our soils can accept it. Spray heads should usually be run for no longer than 20 minutes at a time if head to head coverage.
- What is head to head coverage?

Head to Head Coverage



- Shrubs may be irrigated without head to head coverage in which case the precipitation rate is cut in half and the distribution is less even.

- Often shrub irrigation heads must be on tall risers.



- Irrigation systems should be installed so that taller risers can be added as shrubs grow taller.

Drip Systems

- Many different drip system components are excellent for shrubs.
- For most purposes the various drip hoses are superior because they rarely clog, are less likely to be damaged and generally put out a more even distribution of water.



Other Drip Systems

- Other drip systems can be used including traditional drippers and spaghetti tubing however these are easily damaged and often inadequate for larger shrubs.
- Mini-sprayers work well for shrub beds but can be easily damaged.

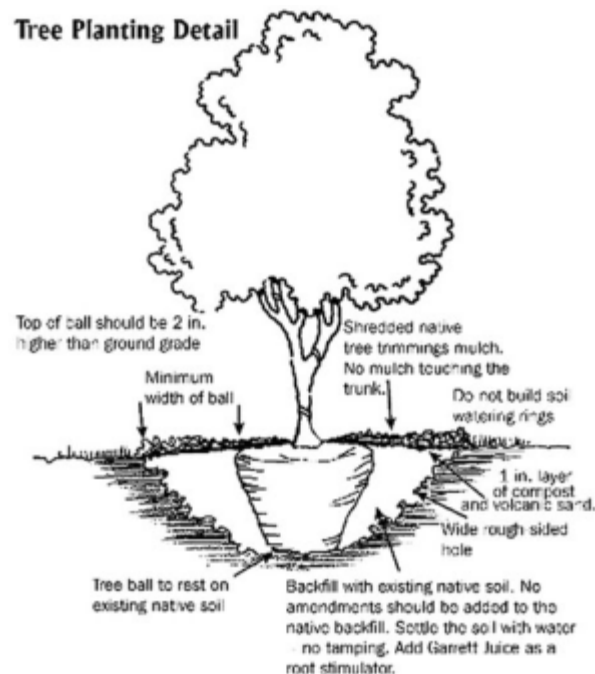


Over-Watering

- The various drip systems are more often the cause of over-watering than other systems of watering because it is more complicated to estimate how much water is being applied.
- Over-watering damages shrubs because it restricts the amount of oxygen available in the soil. Symptoms can include nutrient deficiencies, poor growth and often brown edges on leaves.

Planting methods

- Green side up 
- The same depth that it was in the container



Do we really need all that junk?



Some Evergreen Shrubs that are not Fire Hazards

- Oregon Grape (*Mahonia aquifolium*) and Creeping Oregon Grape (*Mahonia repens*)



- Evergreen Euonymus (Euonymus fortunei & Euonymus kiauchovicus)



Boxwood (*Buxus sempervirens* & *Buxus microphylla*)



Butterfly Bush (Buddleia davidii)



Blue Beard (Caryopteris x clandonensis)



Red Stem Dogwood (*Cornus alba* & *C. stolonifera*)



Smoke Tree (*Cotinus coggygria*)



Flowering Almond (true) otherwise know as Double Flowered Plum (*Prunus trilobata*)



Nanking Cherry (*Prunus tomentosa*)



Tallhedge and Fernleaf Buckthorn (*Rhamnus frangula*)



Sumac



Hardy Shrub Roses



More Hardy Shrub Roses



Elderberry (Sambucus species)



Lilacs (Syringa species)



Viburnums

