

Gardening 101 Watering

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<http://extn.msu.montana.edu/counties/FlatheadRes>



Watering

- Equipment
- Vegetables
- Fruits
- Trees / shrubs
- Lawn
- Flowers



Equipment

- Drip or trickle
- Soaker
 - Least expensive
 - Fibrous hose
 - Water seeps out along length
- Hoses with holes
 - Similar to soaker
- Emitter system
 - Short tubes from main supply
 - Most expensive
 - Raised beds
 - Container gardens



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Equipment

- Emitters
 - Used in combination with coarse mulch or black plastic
 - Drip systems have problems with clogging
 - Soil particles
 - Mineral salts
 - Look for filters
 - Self-flushing



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Watering Vegetables

- Sprinkle only in the morning
 - Wet foliage encourages disease
- Oscillating sprinkler
 - Use platform
 - Prevent water diversion from plant leaves
 - Move sprinkler to overlap ½ pattern
- Adjust the rate to ½" per hour to reduce runoff
 - Small tin cans placed randomly
 - Check water level every 15 minutes
- Perforated plastic hoses
 - Place holes down
 - Along side crop
 - Underneath mulch



Watering Vegetables

- Soak the soil to 5-6 inches
 - 2.3 gallons / sq ft
 - 65-130 gallons / 100 sq ft
 - Lasts longer with mulch
- Frequent light watering
 - Produces shallow roots
 - Plants suffer during drought
- Too much water
 - Reduces oxygen to roots
- Remember critical watering periods
 - First few weeks of development
 - Immediately after transplant
 - During development of edible storage organs

Other things to think about ...

- Plant drought resistant cultivars
 - Apply gray water to soil, not leaves
- Gray water
 - Don't use black water
 - Don't use kitchen water with grease, cleaners, ammonia, bleach, softeners, non-biodegradable detergents
 - Don't use on crops to be eaten
 - Root crops accumulate pollutants
 - Can be used on ornamentals

Trees / Shrubs

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Fruit Trees


- Fruit Trees
 - First Year:
 - If less than 4 to 5 inches precip
 - Apply 5 gallons of water around the base of each tree during early summer
 - Slack off in early fall to allow tree to harden
 - Subsequent years
 - Don't water at trunk ...
 - Deep water under drip line to get water on feeder roots and encourage deep rooting
 - During fruiting



Small Fruits


- Strawberries
 - Strawberries are mostly water
 - Pump up their size with diligent watering
 - Overwatering
 - Large, hollow fruit
 - Tasteless
 - Provide 1-2" per week
 - Use soaker hose or drip system to keep fruit dry





Raspberries

- Provide 2 to 3" per week
- Essential when berries begin to ripen
- Drip irrigation best
 - Raspberries susceptible to disease
- Don't overwater
 - Prevents plants from hardening in the fall
 - Don't apply more water than soil can absorb



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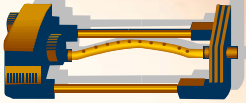
Watering Lawns

- Most lawns
 - Kentucky blue grass
 - Perennial rye grass
 - Fescue
- Need frequent watering
 - During hot summer to keep green
- Too much, too shallowly, too frequently
 - Keeps upper layer near saturation
 - Encourages shallow rooting
 - Weak turf
 - Susceptible to damage from drought, traffic, pests
 - Encourages weedy grasses



Watering Lawns

- Water no faster than soil can absorb
 - Heavy soils should receive water slowly to soak in
 - Heavy compaction reduces infiltration
- Watering amount
 - Water holding capacity
 - Drainage
 - Apply slow, steady stream
 - Should be moist to a depth of 6"
 - 1 1/2" early season to 2 1/2" late season, (less the amount of rainfall)



Watering Lawns – How often?

- That depends ...
 - Grass species
 - Humidity
 - Rainfall
 - Wind
 - Soil type
- General rule of thumb
 - Water when grass begins to wilt
- Newly seeded lawns
 - Don't let dry out
 - Apply 1" water/week during spring & fall
 - Apply 2" water/week during mid summer
- Water when temperature rising
 - Early morning
 - Heat of day loss through evaporation
 - At night increases chance of disease



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Watering Flowers

- Annuals
 - Plan to irrigate moderate but thorough at least once per week
 - After watering, allow the soil to dry moderately before watering again
 - A soaker hose works well
 - Water wands are good
 - Sprinklers are not as effective
 - Wet foliage and flowers
 - Water droplets may puddle and crust soil



Watering Flowers

- Perennials and biennials
 - Encourage deep roots
 - Proper watering promotes good root development
 - Water the soil to the depth of at least 12 inches each time you water



Reducing Water Demand

- Mulch (organic v. manmade)
- Soaker hose & drip irrigation v. oscillating
- Sandy and cobbled soils very well drained
 - Add compost, peat moss, humus
- Clay soils hold water too tightly
 - Increase drainage with sand
- Shading and wind breaks conserve moisture
- Plants that wilt in sunny areas benefit from shade
- Companion planting
 - Shade plants
 - Conserve soil moisture with leaf-to-leaf canopy