Common Lawn Problems

David Rice
Conservation Programs
Weber Basin Water Conservancy District

Biotic and Abiotic Problems

- Biotic injury results from insects, pathogens, animals, etc (living)

- Abiotic injury is due to activity, lack of water, temperature, mowing, fertilizer, or other non-living factors (sometimes harder to identify the issue)

Abiotic Factors

- Dormancy
- Dull Mower Blades
- Fertilizer Burn
- Herbicide Damage
- Improper Irrigation
- Compaction
- Soil Ph
- Shade

Drought

- First symptom is darkening (charcoal-green color) of the lawn
- Prolonged drought causes turf to go dormant and turn straw colored
- Check for drought by inserting a screw driver into the soil; if too dry it will penetrate no more than about half an inch
- Grass suffering from drought will not pull up easily
- Turf with mild drought stress will green up within an hour of thorough watering
- May take 10 days of proper irrigation to recover from severe drought

Bill Bugs

- Causes brown lawn areas, similar to drought
- Grass pulls up easily; often in clumps
- Small, white, legless grubs with an orange-brown head
- Adult is small, black beetle with a snout
- Damage appears in late June through August

White Grubs(June Beetles)

- Brown lawn areas, similar to drought
- Grass pulls up easily, sod can be rolled back like a carpet
- Birds and skunks often feed in infested areas
- Large, white grub with 6 legs and a brown head
- Grub curls into a “C” when disturbed
- Adults are large beetles


May/June beetle adult (left) and larva or white grub (right).

Chinch Bugs

- Feed on many varieties of grass
- Cause small to large patches of dead turf, mid to late summer
- Can sometimes resemble drought stress
- Adults and nymphs are damaging
- Controlled by insecticide-pyrethroids

Sod Webworm- Cranberry Girdler

- Larvae feed on blades just above the crown of grasses
- Can look like white grub damage at times
- Identify them by seeing the moth fly as you walk through lawn
- Control when larva are present with pyrethroid or other

Ascochyta Leaf Blight

- Leaves die back from the tip
- Does not cause permanent damage
- Common in hot, dry weather but can be anytime.
- Overwinters as spores and spreads during wet weather (heavy irrigation) and by mowers
- Prevention: avoid drought stress don’t over fertilize and avoid excessive irrigation

Ascochyta Leaf Blight

Fairy Ring

- Appears as a ring or arc of darker, lush grass with lighter colored center
- Caused by a fungus growing on organic matter in the soil, forming a mass of white mycelial threads
- Mushrooms (fruiting bodies of the fungus) appear around the edge of the fairy ring during wet periods
- Ring enlarges by 6 to 24 inches each year
- Soil in the center of ring is resistant to water absorption; grass may die during dry weather
- Buried organic matter or thick thatch encourages fairy ring growth
- Overwatering may encourage fairy rings

Snow Mold (gray/pink)

- Circular patches visible after snow melt
- Leaves are matted and often covered with white or pink mycelium
- Usually only leaves are affected
- Avoid heavy fall fertilization and mow a little shorter on the last mowing of the season.
- Rake to help grass recover after snow melt and when its not really wet.

Snow Mold

Necrotic Ring Spot

- Main Host is Kentucky Blue Grass
- Circular patches develop during cool, wet weather
- During drought patches can be 3 ft wide
- Fungus is active when soil temp reaches 60-70

- Avoid drought stress
- Apply a fungicide for control
- Short daily watering can help cool lawn and minimize spread
- USU has more info on this

Necrotic Ring Spot

- https://digitalcommons.usu.edu/extension_curall/924/

- Fungal Disease the affects the roots of primarily Kentucky Bluegrass
- Difficult to treat, use the above fact sheet

Summer Patch

- Main host is Kentucky bluegrass
- Similar to Necrotic Ring Spot but usually smaller patches
- Occurs from late spring to early fall but infected plants can be seen next season
- Control is the same as NRS
- Reduce stress

Animal Damage

- Skunks
- Voles
- Ground Squirrels
- Pocket Gophers
- Dog Urine

Weeds and Pest Control

Dandelions

- Perennial weeds:
- Pull or dig out
- Broadleaf post-emergent herbicides can be applied in late fall or late spring

Black Medic

- Annual weed
- Usually grows in compacted soils (indicator of soil issues)
- Controlled by good aeration
- Can be controlled with broadleaf herbicide.

Clover

- Perennial weed
- Thrives when lawns are undernourished (it produces its own nitrogren)
- Control by proper fertilization & proper mow height
- Kill with broadleaf herbicide or hand dig

Bermudagrass

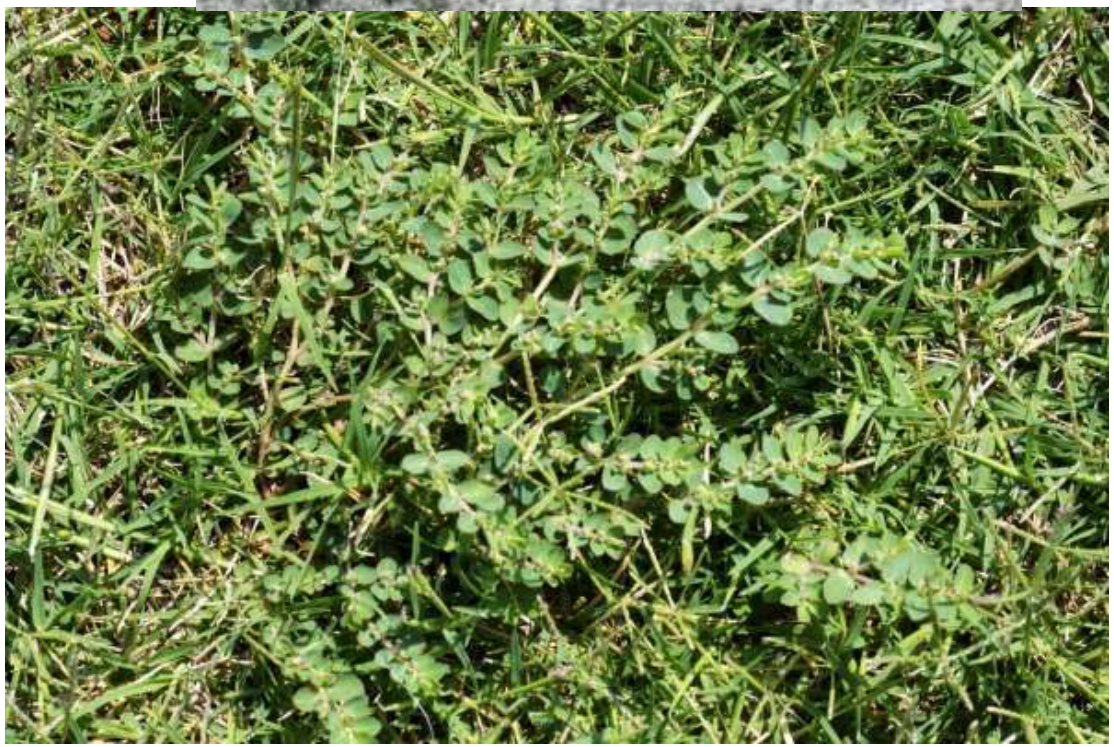
- Perennial
- Wiry, strong, stem runners above ground
- Creeping below-ground roots
- Herring bone leaf pattern along the stem
- Seed head composed of 3 to 7 finger-like spikes
- Thrives under dry, hot conditions
- Controlled by selective herbicides, can take a long time to eradicate

Tall Fescue as a weed

- Cool Season perennial grass
- Course and clump forming
- Planted for paster or for grass hay
- Control by digging them out then reseed or sod
- Kill by using non-selective herbicide

Spurge

- Summer annual weed
- Thrives in the heat
- Proper fertilization and healthy lawn will outcompete spurge
- One plant can produce thousands of seeds
- Use broadleaf herbicide for kill



Crab Grass

- Annual Grassy Weed
- Removing by hand is most effective but must also remove and replace soil.
- Apply pre-emergent in late winter or early spring or a post-emergent once it has germinated

Goosegrass

- Annual Grassy Weed
- Remove by hand if you can get at least ¾ of the root
- Selective pre-emergent herbicide if necessary

Redstem Filaree

- Annual or biennial broadleaf weed
- Hand weeding is the best way to eliminate
- Broadleaf weed herbicide can be used

Bluegrass going to seed

- Caused by overly stressed lawn and lack of fertilization
- Cut lawn and bag clippings 2 to 3 times
- Fertilize with high nitrogen content fertilizer

Resources

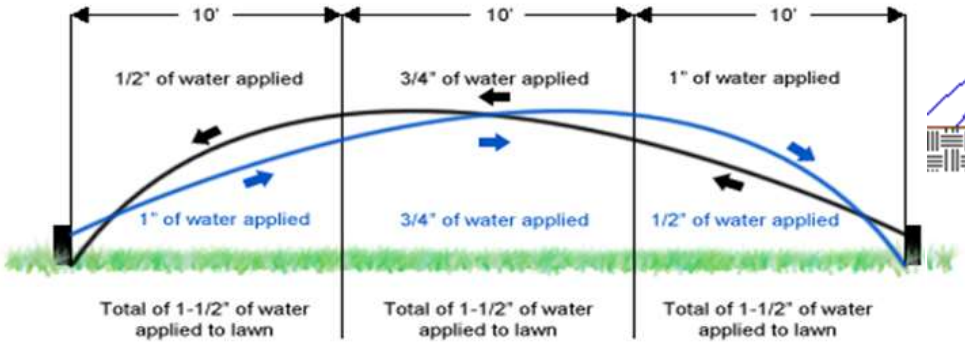
- https://extension.usu.edu/yardandgarden/lawns
- https://extension.usu.edu/yardandgarden/research/northern-utah-turfgrass-management-calendar

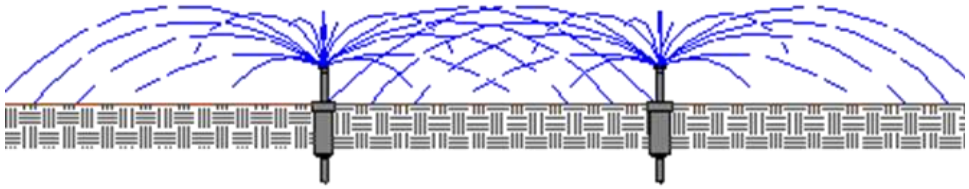
Have appropriate expectations for a yard

Lawn in appropriate areas

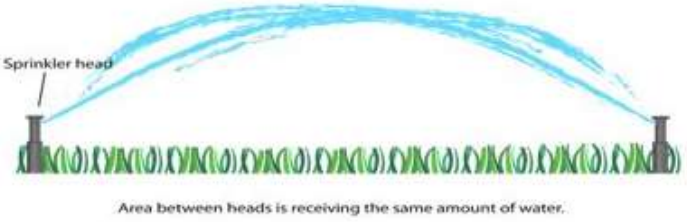
Artificial grass has different rules

Proper Irrigation is Key to an Attractive, Healthy Lawn

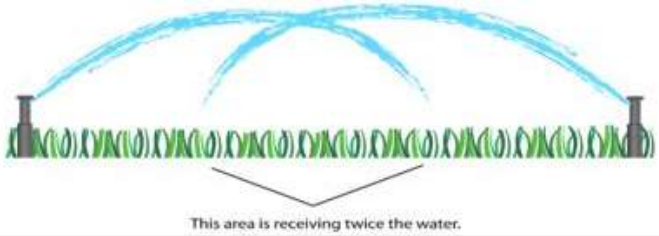




"HEAD-TO-HEAD COVERAGE"
THE WATER FROM ONE SPRINKLER GOES ALL THE WAY TO THE NEXT SPRINKLER



GOOD BAD



DIFFERENT IRRIGATION FOR DIFFERENT PLACES

Spray or Rotary for Turf

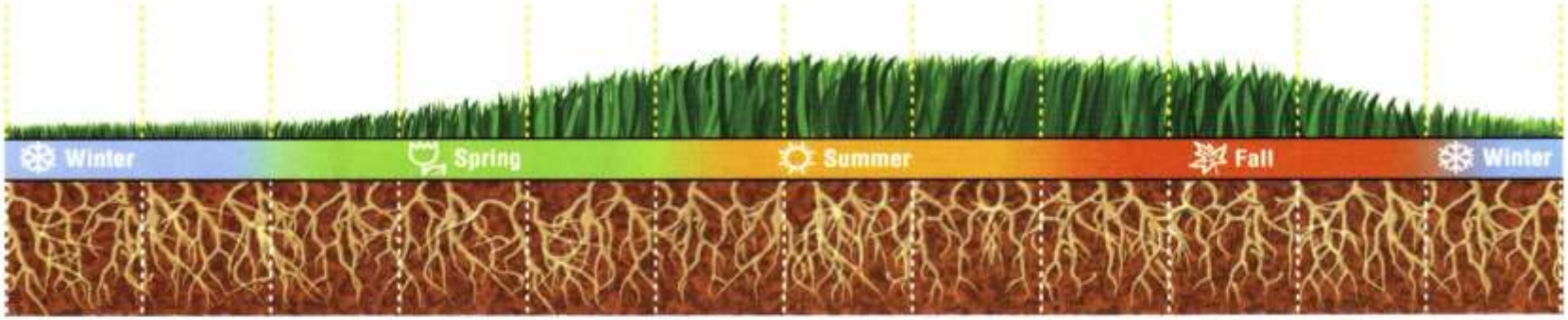
- Head-to-head coverage
- Good areas to irrigate
- Area no smaller that 8’ wide
- NO IRRIGATING on SIDEWALKS/DRIVEWAYS/ROADS!

Turf Types

- Cool Season: Kentucky Blue Grass, Perennial Rye and Fescue (Tall and Fine)
  - Primary active growth occurs spring and fall
  - Will go dormant (brown) if drought stressed
- Warm Season: Buffalo Grass, Blue Grama
  - Active growth occurs in the summer months and requires heat to germinate and grow well.

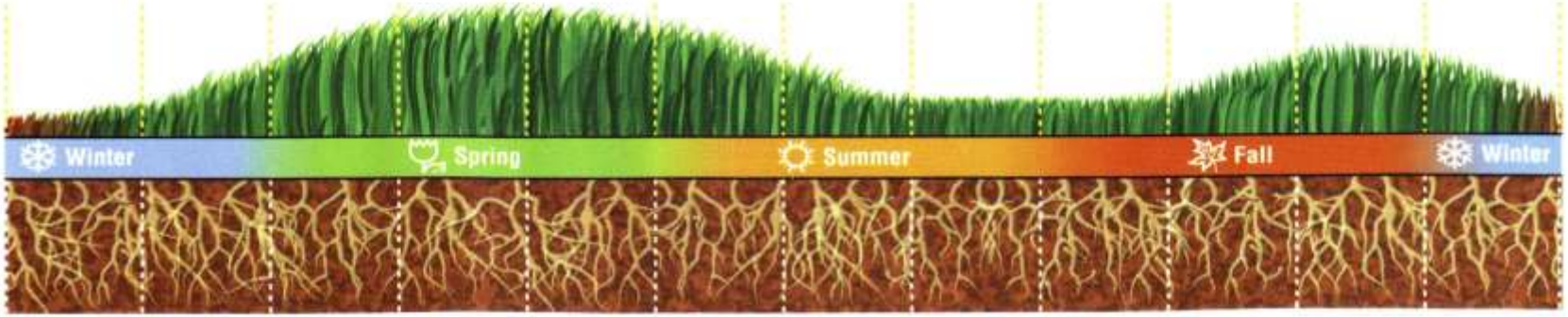
Grass Growth Cycle

Growth calendar for warm-climate grasses



Warm-climate grasses grow slower during the summer months when the temperatures are above 95 degrees F. When the weather cools down (below 80 degrees), the growing rate speeds up. It slows down again when temperatures fall below 55 degrees.

Growth calendar for cool-climate grasses



Cool-climate grasses have two distinct growing periods, the main one in the spring and a shorter one in the fall. During the hot, stressful summer months, growth slows.

Turf Varieties

Tall Fescue

- Bunchgrass
- Not rhizomateous
- Drought Resistant if soil is prepared properly before installation

Lawn care practices do help create more drought tolerance.

- Mowing
- Fertilization
- Aeration
- Weed Control
- Proper Irrigation

Mowing

- Wait as long as you can to mow
  - Mow to a 2.5-3” height
  - Never mow more than 1/3 the blade
  - Mulch clippings and leave on the lawn
  - Taller Grass means deeper roots
  - Keep blades sharp

Fertilization

Fertilizing

- 2-5 lbs/per 1000 ft2 nitrogen per year (average need)
- Balanced Weed and Feed –April to Memorial Day
- Optional-Regular Fertilizer –-Independence Day
- Optional-Regular Fertilizer - Labor Day
- Winterizer - after Halloween (This is the most important fertilization of the year!)

N, P, K (Nitrogen, Phosphate, Potash) 16-16-16 (16% of each by weight)

N- top growth and foliage

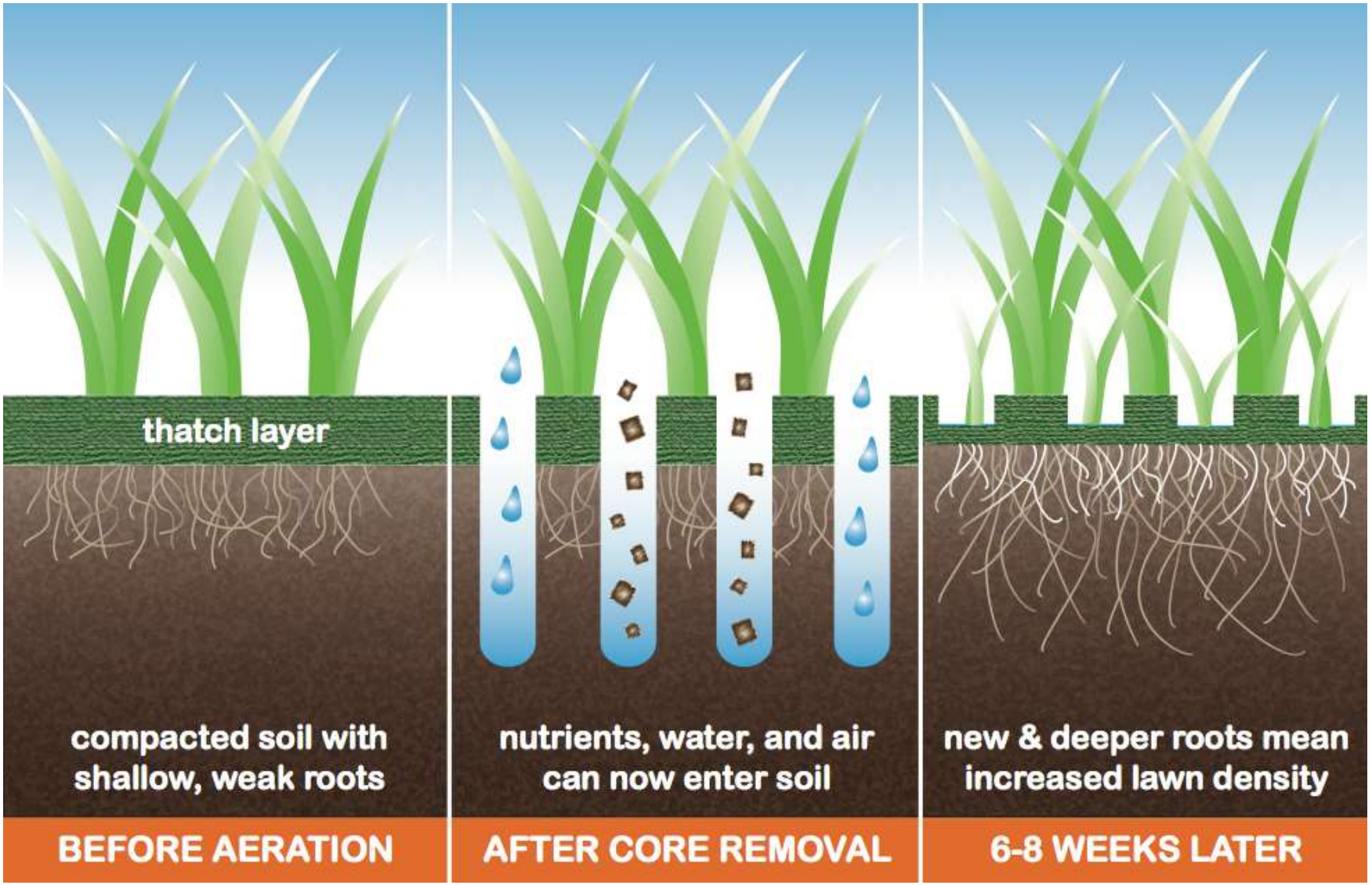
P- Rooting, flower blooms and fruiting

K-strong cells, plant tissues (helps with disease, stress, pests, etc.


Molinos & Cía. S.A.
FERTILIZANTES
UREA
FERTILIZANTE
46% NITROGENO
PESO: 50 Kg
PRODUCTO IMPORTADO POR:
MOLINOS & CIA. S.A.
LIMA
PIURA (073)
TRUJILLO (044)
CHICLAYO (074)
AREQUIPA (054)
MATARANI (054)


BEST
AMMONIUM SULFATE
21-0-0
• QUICK ACTING FORM OF WATER SOLUBLE NITROGEN
• CONTAINS HIGH SULFUR (24%)
• HIGH QUALITY SCREENED CRYSTALLINE MATERIAL
Net Wt.
LBS (22.68 kg)
BEST

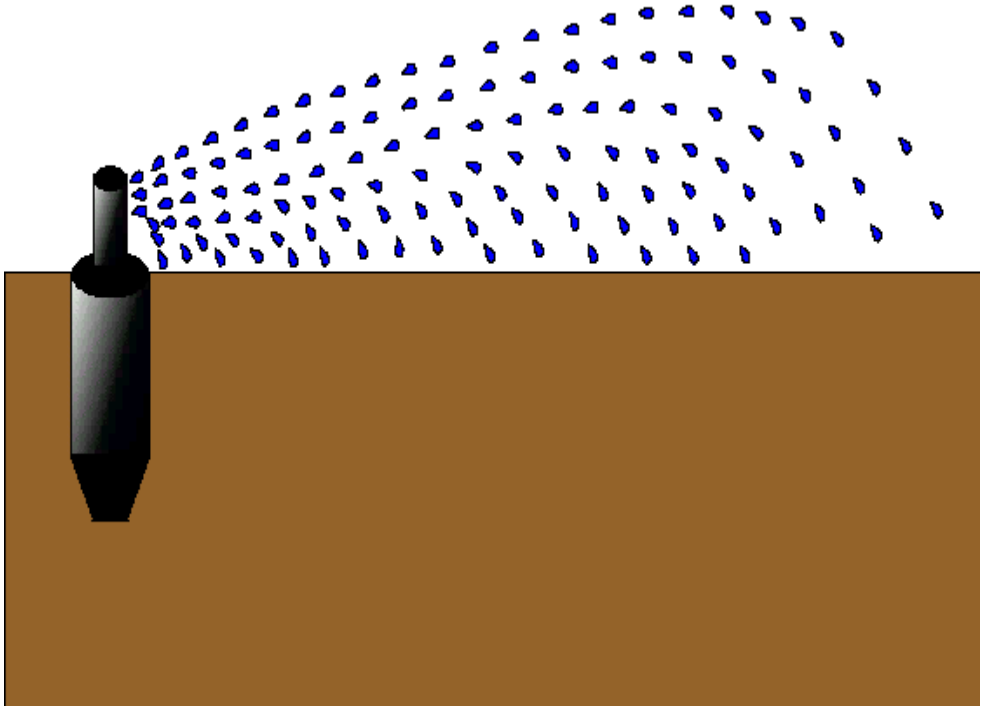
Aeration

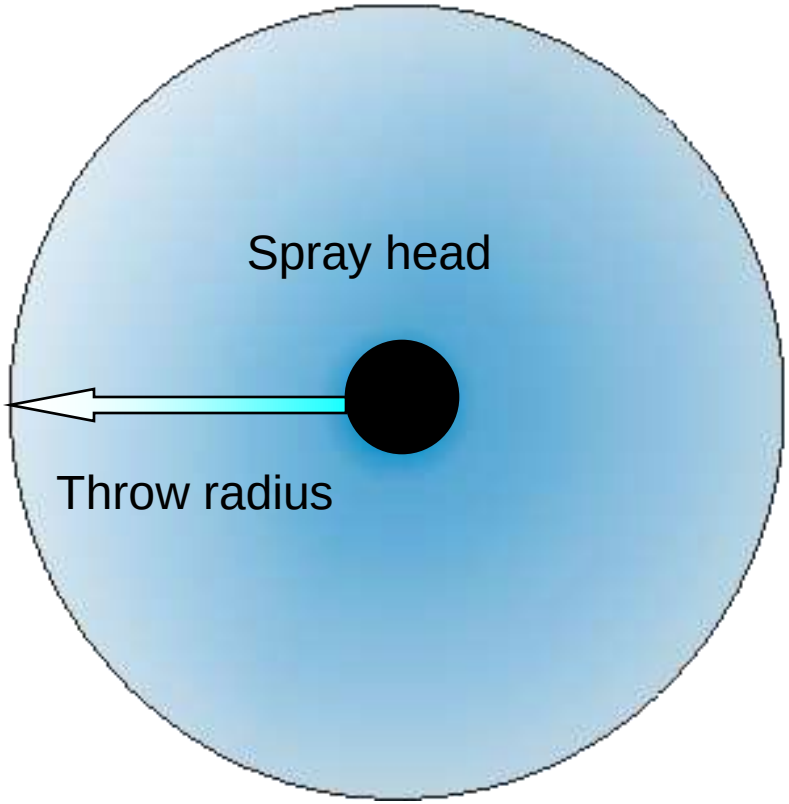

thatch layer
compacted soil with shallow, weak roots
nutrients, water, and air can now enter soil
new & deeper roots mean increased lawn density
BEFORE AERATION
AFTER CORE REMOVAL
6-8 WEEKS LATER

Tine Aeration & Overseeding

Irrigation Design

- Single sprinkler heads have non-uniform coverage
- Spray heads apply less water the farther away from the head

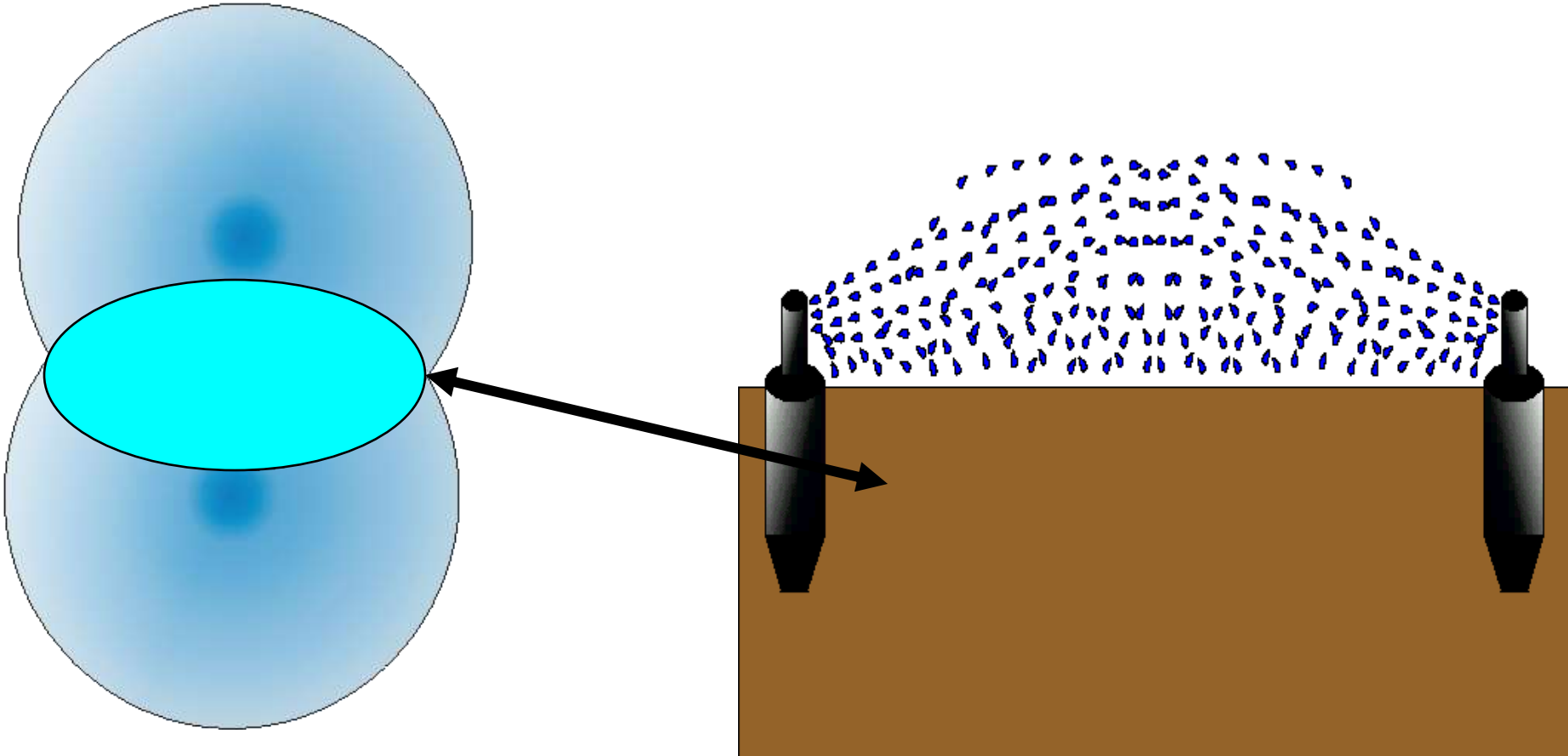




Irrigation Design

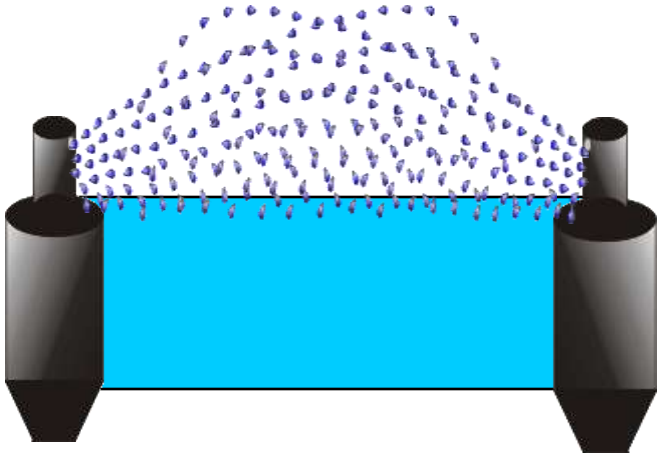
- Sprinklers: need to achieve overlap coverage to emulate rainfall

Precipitation (application) rate calculated from spray overlapped area

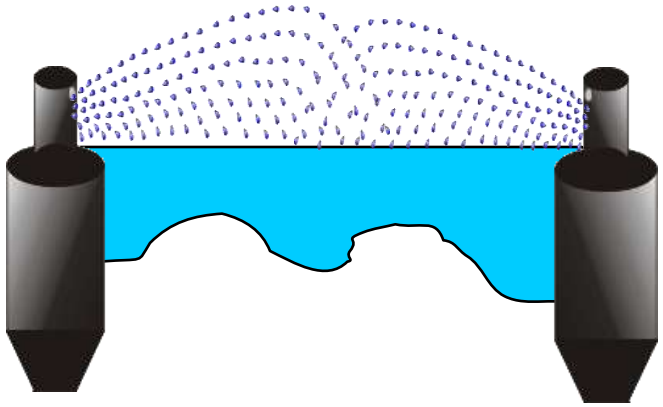


Irrigation Design

- Pressure below or above the specified range results in poor coverage



Coverage within specified pressure range



Coverage when below specified pressure range

Irrigate Efficiently

- Proper irrigation saves water and results in healthier more drought resistant plants and happy neighbors ☺.
- **Apply the proper amount and only when needed**
- Understand different water requirements for different areas of the landscape- Hydro-zones
- Program the system in response to changing seasonal variations in temperature and rain.
- Be aware and monitor your sprinkler system and make adjustments as needed to get a good uniform application.

Determine Watering Practices By Watching Your Lawn

- Try to apply needed water in 1 application
- If you get run-off or puddling break up into cycles on same day (called cycle and soak)
- If your lawn goes dry between watering break into watering on several days

Watering New Sod

Volume (depth) in Inches To Apply

Week	1st	2nd	3rd	4th
How often to water	Every day	Every other day	Every third Day	Every fourth day
April	*			
May	*	1/3	1/2	2/3
June	1/4	1/2	2/3	3/4
July	1/4	1/2	3/4	1
August	1/4	1/2	2/3	3/4
September	*	1/3	1/2	2/3
October	*			
	*Apply 1/4 of an inch as needed			

Watering Chart

North/Central Utah	
April	**No irrigation recommended, unless needed under extremely dry periods**
May	**1 inch every 7-10 days**
June	**1 inch every 4-7 days**
July	**1 inch every 3-5 days**
August	**1 inch every 3-6 days**
September	**1 inch every 7-10 days**
October	**A good soaking to a depth of six to eight inches around the middle of the month- Each year may be different**
November	**No irrigation recommended unless unusually warm and lawn shows signs of stress Trees should be watered good going into winter**

Watering Tips

- Avoid watering in the wind
- Water at night or early in the morning
- Water deep and less frequently
- Stressing your lawn by going longer between watering will create a healthier, more drought tolerant lawn (healthy, deep roots), but soils play a major role

Reading Your Lawn

Usually an area of the lawn will turn a blue-gray color before the rest of the lawn.

When this happens apply 1/2 inch for your irrigation cycle.