



BLUEGRASS ALTERNATIVES

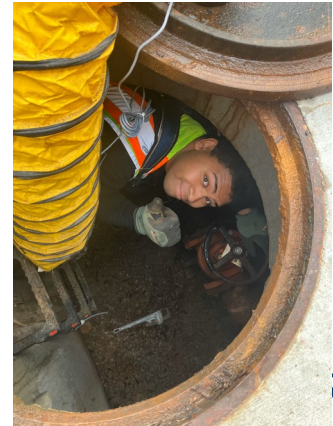
NIKKI WYMAN
WATER EDUCATION & PUBLIC ENGAGEMENT COORDINATOR
SANDY CITY PUBLIC UTILITIES
NWYMAN@SANDY.UTAH.GOV

About Public Utilities



- Water Distribution, metering, compliance
- Water infrastructure construction & repair
- Storm water management
- Streetlights

Operations | Engineering |
Business Services



About Me

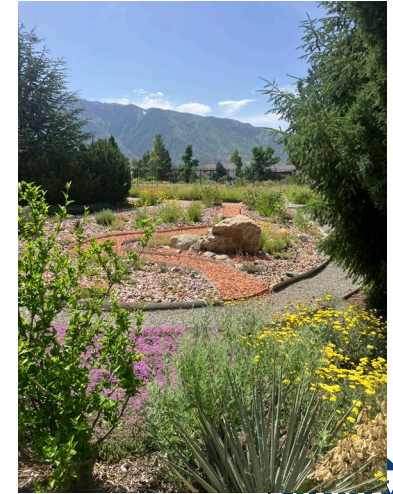
- Science Educator & Lifelong Learner
Science teacher, tutor, aide etc.
Sandy City



Water classes, events, Sego Lily Gardens

Master Gardener, QWEL certified, working on D4 test

- Outdoor enthusiast
- Tree Hugger
- Localscape Lover



Sandy
HEART OF THE WASATCH

What We'll Learn In Class

- History of Kentucky Bluegrass (KBG) in Landscapes
- Needs of KBG in the Landscape
- Utah's Climate and KBG
- Sego Lily Gardens & Lawn Alternatives
- Results & Opinions
- Best Practices
- Resources



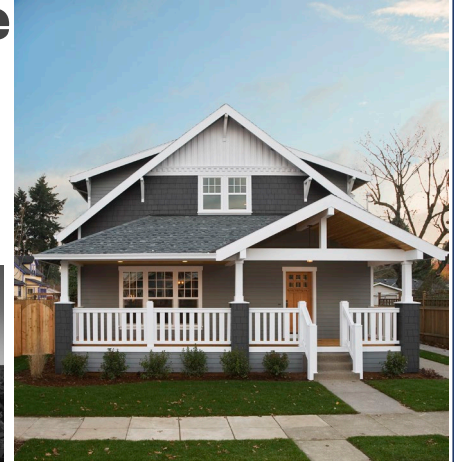
History of Bluegrass in Landscapes

- 17th, 18th century European manor houses
 - Grazed by animals...then maintained by humans
 - Symbol of wealth and social standing
- Colonial Americans felt need to bring European lawn to America
 - Largely believed not to be native to US
- Late 1800s, open lawns, shared spaces speak about our interest in community well-being, like-mindedness, transparency



History of Bluegrass in Landscape

- Post WWII suburban boom
- American dream includes a nice green lawn
 - Status symbol
 - Civic duty
- 40+ million acres
- Largest crop
- Multibillion dollar industry



History of Bluegrass in Landscapes

- Desire for perfection-well manicured lawn
 - Pest free: insects, worms, gophers
 - Weed free: a weed is a relative term
 - Removal of leaf litter and organic debris
 - Increased used of chemical fertilizer
 - Pressurized irrigation
 - Excessive use of water
- Sterile monoculture
- Hard on ecosystems, native organisms



KBG Benefits

- Tolerant of traffic
- Good play surface
- Relatively consistent care*
- Traps heat, carbon
- Dependable



Utah's Climate

- 13" rainfall a year (average, statewide)
- Arid, semi-desert, cold steppe
- Alkaline soil, salty, low organic content



KBG Needs

Cool season grass

Thrives in cooler weather, dormant in hot summer



KBG Needs

- Full sun to partial shade
- Poor drought tolerance (thirsty!)
 - ~24-30" water/season
- Well drained loams, clay loams
- Neutral pH
- Spread through rhizomes



Image from
progardentips.com

KBG Needs

[Turfgrass Cultivars for Utah | USU](#)

- Med.-High Input Cultivars (4 lb N/1000 sq ft, mowed at 0.5-2.5", irrigated)
 - Midnight, Midnight II, Everest, Bluestone, Impact, Perfection
- Low Input Cultivars (2 lb N/1000 sq ft, mowed at 3.0-3.5", minimal to no irrigation)
 - Baron, EverGlade, Award, Bedazzled, Total Eclipse



Total Eclipse, TwinCity seed



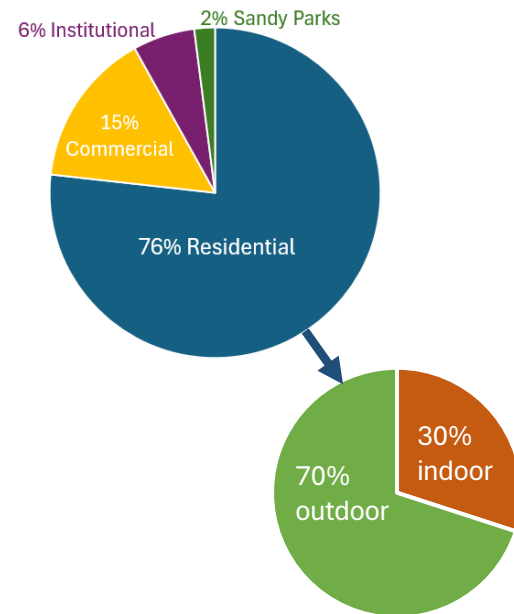
Desert Sage, Chanshare Farms



Kentucky Blue Grass, U of Missouri

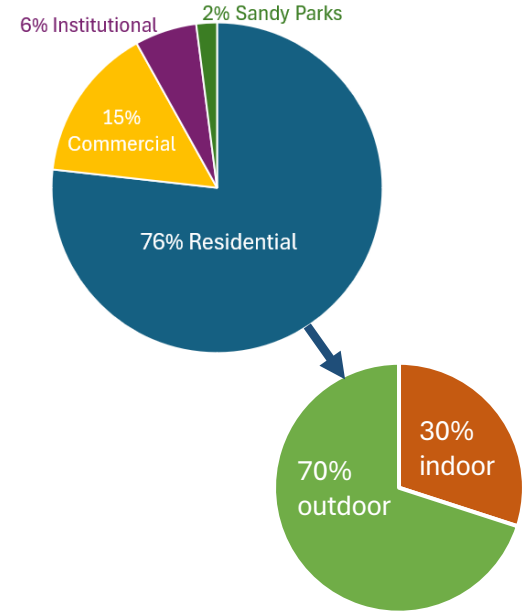
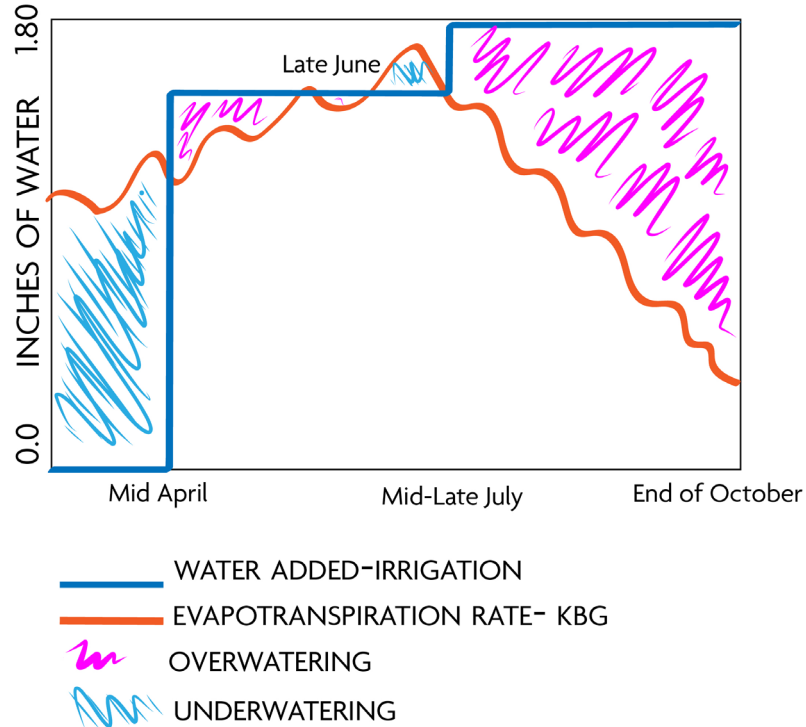
KBG in Utah

Cool season grasses turn yellow when dormant...



If people don't like that, or think it's because of underwatering, they add water!

Evapotranspiration



Sego Lily Gardens

Water Conservation Education Project, 1999



Sego Lily Gardens

- Open seasonally, Late April-Sept
- Seasonal staff, volunteers
- 20+ unique demonstration areas
- Two annual events
- Spring and summer in person classes and activities





Our Demonstration Grasses



Early 2000s



2024

Alternative Lawn Project Flow

- Research

 - Site conditions

 - Site analysis

 - Types of grass

 - Blends

 - Availability



HEART OF THE WASATCH



Warm Season Grasses

Dormant until weather is consistently 80 degrees

More waterwise

Very green in hot summer, with long days

Bermudagrass

Buffalograss

Gramagrasses

Cool Season Grasses

Dormant in hot summer months

Need more water

More likely to be shade tolerant

Blue grasses

Tall Fescue, Fine Fescue

Rye grasses

Wheatgrasses

Warm Season Grasses in Winter



Cool Season Grasses in Winter



Warm Season Grasses in Summer



Cool Season Grasses in Summer





Relative Drought Tolerance of Different Grasses

Warm Season Grasses



Blue grama
Bermudagrass
Buffalograss
Zoysiagrass
Centipedegrass

Warm Season Grasses



Wheatgrasses
Tall fescue
Finefescue
Bluegrasses
Ryegrasses

Alternative Lawn Project Flow

- Removal
 - Sod cutter, shovel
- Sprinkler Repair/Retrofits
 - Fix broken, misdirected heads
 - Change to PRC heads
 - Ensure head-to-head coverage
- Soil Prep
 - Loosened soil, added some compost-topsoil blend

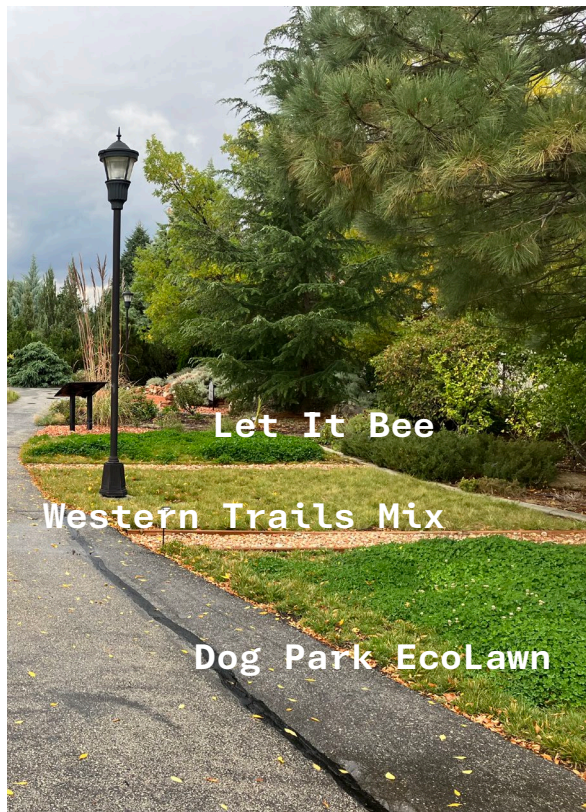


Alternative Lawn Projects

- Seeding
- Watering & Germination
- Maintenance



Alternative Lawns Used



Clover Lawn Blends



Let it Bee
Fescue Mix,
White Clover

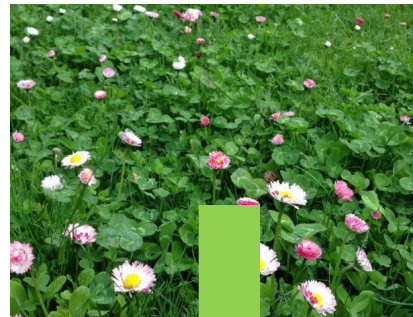
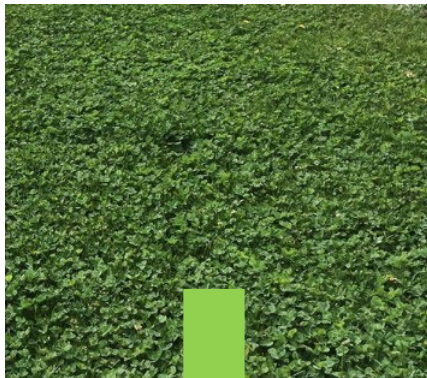
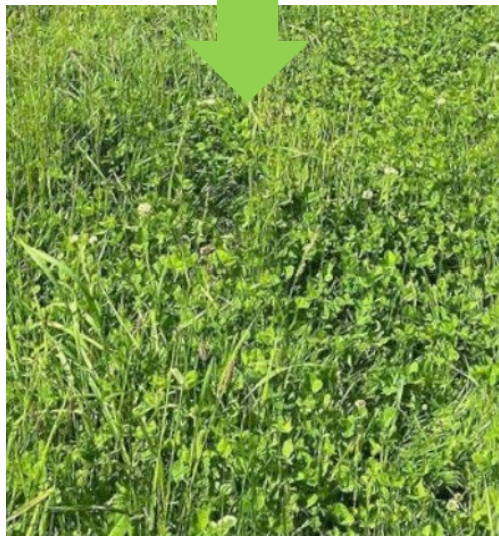
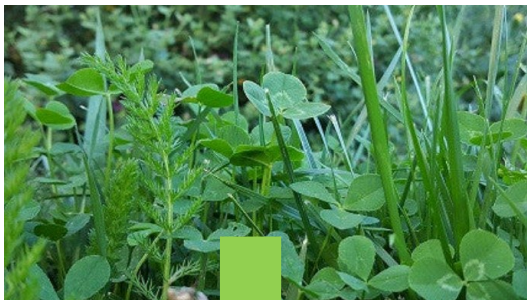
Dog Park
Fescue mix &
micro clover

Waterless
Fescue Mix,
Yarrow, White
Clover



Fleur de Lawn
Karma Perennial Ryegrass
Eureka II Hard Fescue
Quatro Tetraploid Sheep Fescue
Assorted flowers and herbaceous plants
White Yarrow, White Clover, English
Daisy, Sweet Alyssum, Baby Blue
Strawberry Clover





Western Trails Mix



This blend of 12 native, warm season grasses is sure to add interest to your yard without added maintenance. These tough and colorful grasses can survive on natural rainfall alone, in the sunshine, and on a slope!



Western Trails Native Seed Mix (percentages unavailable)

Blue grama, Hachita (*Bouteloua gracilis*)
Little bluestem, (*Schizachyrium scoparium*)
Indian Ricegrass, (*Achnatherum hymenoides*)
Sideoats grama, El Reno (*Bouteloua curtipendula*)
Galleta, Viva (*Pleuraphis jamesii*)
Alkali sacaton, VNS (*Sporobolus airoides*)
Western wheatgrass, Arriba (*Pascopyrum smithii*)
Sand dropseed, VNS (*Sporobolus cryptandrus*)
Buffalo grass, Texoka (*Buchloe dactyloides*)
Sheep fescue, Covar (*Festuca ovina*)
Green needlegrass, Lodorm (*Nassella viridula*)
Perennial ryegrass, Linn (*Lolium perenne*) Nurse crop

Hachita Blue Grama

Hachita Blue Grama (*Bouteloua gracilis*), is a native, drought tolerant grass that grows 4"-12", you can mow it or not! It will produce "eyelash" like seed heads adding interest to your lawn. This plant is great for erosion control and grows well in sandy or clay soils. Sow in direct sun.



Hachita Blue Grama



Results, opinions based on results

- All plots have done well!
- We've learned a lot
 - And continue to learn!
- Benefits of blends
- Ecosystem benefits
- Maintenance & use
- Mowing makes a difference





Best Practices

- Waterwise lawns
 - Not less than 8ft in any direction
 - No acute angles
 - No obstructions
 - Not on slopes steeper than 25%



Best Practices

- Research
 - Site conditions & site analysis
 - Available products
 - Soil test
- Switching out grasses
 - Like & like
 - Overseeding, seeding patches,
 - Unlike
 - Kill existing grass



Best Practices

- Check your irrigation & make adjustments
 - Before- big changes
 - After- fine tune
- Establishing
 - Prepare to take care!
 - April, May, Late August
- Overseeding
- Fertilizing
- Aerating
- Mature watering



Image from science photo library

General Watering Guide for Central/Northern Utah

Lawns					
How Often?	Clay Soil	Sandy Soil	How Long?	Clay Soil	Sandy Soil
Mother's Day (start watering)	Once every 5 days	Once every 3 days	Rotating 	45 min. total	25 min. total
Father's Day	Once every 3 days	Once every 2 days	Fixed 	25 min. total	15 min. total
Labor Day	Once every 5 days	Once every 3 days			
Columbus Day	Stop Watering (winterize)		Use the "cycle and soak" method for lawn. Set each zone for half the time needed, run all zones, then run each station a second time. This minimizes water runoff.		

Planting Beds					
How Often?	Clay Soil	Sandy Soil	How Long?	Clay Soil	Sandy Soil
Mother's Day (start watering)	Once every 7 days	Once every 5 days	Drip (Recommended) 	60 minutes	30 minutes
Father's Day	Once every 4 days	Once every 3 days	Spray 	25 minutes	15 minutes
Labor Day	Once every 7 days	Once every 5 days			
Columbus Day	Stop Watering (winterize)		Drip irrigation in planting beds dramatically reduces weeds while saving water.		

Water before 8 am OR after 8 pm for both lawn and planting beds.
 Weather Conditions may impact your watering needs.
www.ConservationGardenPark.org 

Resources

- Center for Water Efficient Landscaping
- USU Extension
- Conservewater.Utah.gov
- Waterwise lawn sources
 - High Country Gardens
 - Chanshare Sod Farms
 - Biograss Sod Farms
 - Granite Seed
 - True Leaf Market
 - Protime Lawn Seed
 - American Meadows



Lawn Adjacent



Meadow at Sego Lily Gardens

Little blue stem, Indian Rice Grass, Prairie Clover, Baby's breath...

Lawn Look Alikes

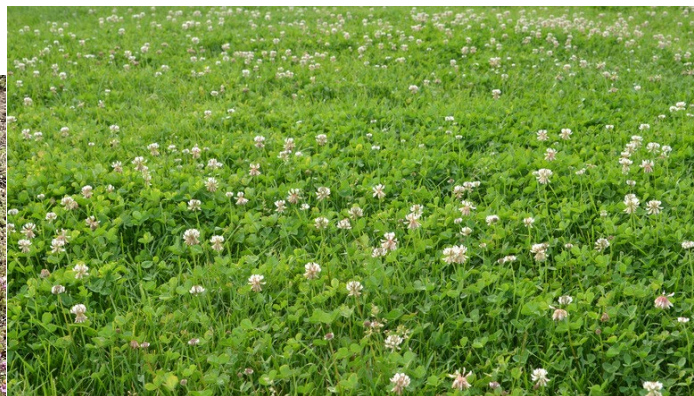


Turkish Veronica

Photo from Conservation Garden Park



Creeping Thyme



White Clover Lawn

Photo from Housedigest.com



Sedge Photo from
Conservation Garden Park

Lawn Look Alikes-Evergreen



Blue Chip Juniper



Kinnikinnik

Lawn Look Alikes/alternatives



Lanceleaf Stonecrop

Black Medic

Related to clover, but not clover



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Thank you! Questions?

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Turfgrass Species Characteristics

Species	Water Requirements*	Fertility Requirements**	Drought Tolerance	Shade Tolerance	Mowing Quality	Wear Tolerance
Blue Grama	Low	Moderate/Low	High	Low	Moderate	Moderate
Buffalograss	Low	Moderate	High	Low	Moderate	Moderate
C. Wheatgrass	Very Low	Low	Very High	Low	Poor	Low
Fineleaf fescue	Moderate/Low	Low	High	High	Moderate	Moderate
Kentucky bluegrass	High	Moderate/High	Low	Low	Good	High
<i>Koleria</i> spp.	Moderate	Low	Moderate	Low	Poor	Low
Perennial Ryegrass	High	High	Low	Low	Moderate	High
Tall Fescue	Moderate	Low	Moderate	Moderate	Moderate	High

Image from CWEL