Overseeding and Transition for Year Round Turfgrass

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Year Round Desert Turfgrass

- Summer Bermudagrass
- Overseed
- Transition
- Winter Turf
Year Round Desert Turfgrass

- **Summer bermudagrass**
  - June to September (October)

- **Winter rye grass**
  - October to May
  - (September to June)

- **Overseed**
  - September to November

- **Transition**
  - May to July
## Year Round Desert Turfgrass

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Summer Bermudagrass

- Foundation turfgrass
- “Green up” at 55°F @ 4 inch depth
- Active growing at 65°F
  - ≥60°F (lows) for 7 consecutive nights
- “100 days” of growth during summer
  - Before overseeding in fall
  - Establish and grow vigorous rhizomes
Summer Bermudagrass

- **Fertilize**
  - Begin in May
    - Monthly applications
  - N applied at 0.5 lb/1000 ft²

- **Mow**
  - Frequency is directly related to mowing height
    - Lower heights require mowing more often
  - Do not remove more than one-third (1/3) of the height of the lawn at any mowing event

- **Water**
  - Once every three days during the summer
  - AZMET (AZ Meteorological Network)
    - [http://cals.arizona.edu/azmet/phxturf.html](http://cals.arizona.edu/azmet/phxturf.html)
Summer Bermudagrass

- Aerify and verticut
  - Core aerify
    - Topdress with sand
  - Light and repeated verticut (vertical mowing)
    - Cuts stolons to stimulate rooting
    - Thins out ryegrass during transition
- Regular verticut
  - Cuts through thatch
Overseeding

- Ideal timing for overseeding
  - Night temperatures 55°F
  - Daytime temperatures 80-85°F
- Ideal – early October
  - Window – September 1 to November 1
    - Late summer competition with bermudagrass
    - Late fall contend with frost (November 15)
Overseeding

- Goals for successful overseeding
  - Acceptable establishment
  - Good density
  - Uniform surface
  - Good performance
  - Mow evenly in the spring
  - Uniformly transition in spring
Overseeding

- Winter turfgrass
  - Perennial ryegrass
  - Annual ryegrass
  - Intermediate ryegrass (a.k.a. hybrid rye)
  - Roughstall bluegrass (*Poa trivialis*)
  - Creeping bentgrass

- Mixtures and blends
  - Ryegrass – *Poa trivialis* mixture
  - Perennial ryegrass blends
Overseeding Preparation

- **Fertilize**
  - Stop N fertilization 20-30 days before overseeding

- **Mow**
  - DO NOT scalp or “summer” verticut before overseeding
  - Raise mowing height 30 to 40% at 2 weeks before overseeding
  - Mow at “old” height 1 to 3 days before overseeding
  - Lower mowing height 25 to 30% for last mowing before overseeding
    - Last mowing clippings can be mulch for overseeded seed
    - Shallow repeated verticut on Tifway and other dense varieties
Overseeding Preparation

- Water
  - Reduce by 30% at 1 to 2 weeks before overseeding
  - Stop watering 2 to 3 days before overseeding
Overseeding Preparation

- **Chemical application**
  - **Preemergence weed control**
    - *Poa* control
    - “yellow herbicides” (Barricade*), Dimension*, Rubigan*
      - will inhibit ryegrass emergence
  - **Regulate bermudagrass growth (PGR’s)**
    - Turflon* ester
    - Primo*
Overseeding Preparation

- Preemergence weed control
  - *Poa* control
    - “yellow herbicides” (Barricade*), Dimension*, Rubigan*
  - Apply 6 to 8 weeks before overseeding
    - Repeat 4 to 6 weeks after overseeding
  - Barricade*, Dimension* will injure ryegrass
Overseeding Preparation

- Regulate bermudagrass growth (PGR’s)
  - Turflon* ester
    - 1 week before overseeding
    - Apply at 4 week intervals after overseeding
  - Primo*
    - 1 week before overseeding
Overseeding

- **Winter turfgrass**
  - Seeding rates
    - 12 to 15 lb/1000 ft²
    - (600 to 650 lb/A optimum)
    - Golf greens require higher rate
  - Achieving full cover
    - Overseed in 2 directions
      - Drag seed into turf to ensure seed-soil contact
      - Mow seed into turf
  - Irrigate
    - 3 to 4 times per day until seedling emergence
Winter Turf

- **Fertilize**
  - Apply N as NO$_3^-$ (nitrate form)
    - 0.25 to 0.5 lb/1000 ft$^2$
  - Iron (Fe)

- **Mow**

- **Cultivation**
  - None

- **Water**
Spring Transition

- Temperatures in April
  - Green-up
  - Growth
  - \( \geq 60^\circ F \) (lows) for 7 consecutive nights

- Temperatures in May
  - 70°F
  - Encourage bermudagrass growth
Spring Transition

- Encouraging bermudagrass growth
  - Mow
    - Lower mowing heights 35% and increase frequency
      - Decreases the leaf area of the winter grass and reduces canopy
      - Exhausats food reserves
  - Water
    - Do not cut water for extended periods
Spring Transition

- Encouraging bermudagrass growth
  - Fertilizer
    - Increase fertility with light and frequent N applications
      - 0.25 lb/1000 ft² every 10 days
  - Cultivation
    - Light verticutting to stress ryegrass
    - Aerification
Spring Transition

- **Chemicals**
  - Sulfonylurea herbicides
    - Tools only

- **Complementary cultural practices**
  - Lower mowing heights to reduce canopy over bermudagrass
  - Lightly verticut to remove ryegrass
    - 80% bermudagrass
  - 0.25 to 0.38 lb N as NO$_3$
  - Decrease watering 20% for 1 week
    - Repeat fertilizer application and water cycle to stress ryegrass
Spring Transition

- **Chemicals**
  - **Sulfonylurea herbicides**
    - Manor*
    - Corsair*
    - TranXit*
    - Revolver*
    - Monument*
  - Kerb*
Spring Transition

- **Chemicals**
  - **As a tool**
    - Force early spring transition to identify areas of weak bermudagrass
    - Remove straggling ryegrass in late spring
      - Especially in shade
    - Remove ryegrass in roughs
  - **Use to remove ryegrass by July**
  - **Dual purpose as herbicide**
    - *Poa* control
    - Nutsedge control
Spring Transition

- **Chemicals**
  - Dual purpose as herbicide
    - *Poa* control
      - TranXit*
      - Revolver*
      - Monument*
      - Kerb*
    - Nutsedge control
      - Monument*
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Summer Bermudagrass

Overseed

Transition

Winter Turf
http://cals.arizona.edu/turf

University of Arizona Cooperative Extension
Turfgrass Research, Education, and Extension