

Tailored Water Effect on Bermudagrass and Buffalograss Establishment

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Objectives:

Which Makes Turfgrass Grow Faster?

Potable water with granular fertilizer [$\text{Ca}(\text{NO}_3)_2$] or
tailored water [treated effluent spiked with $\text{Ca}(\text{NO}_3)_2$]

**Is There A Difference in Growth
Between Seeded and Sodded Grass?**

Scope:

Measure Nitrate, Electrical Conductivity, and Sodium Adsorption Ratio weekly in leachate samples, collect biomass, use SigmaScan to determine percent coverage of each grass



Results:

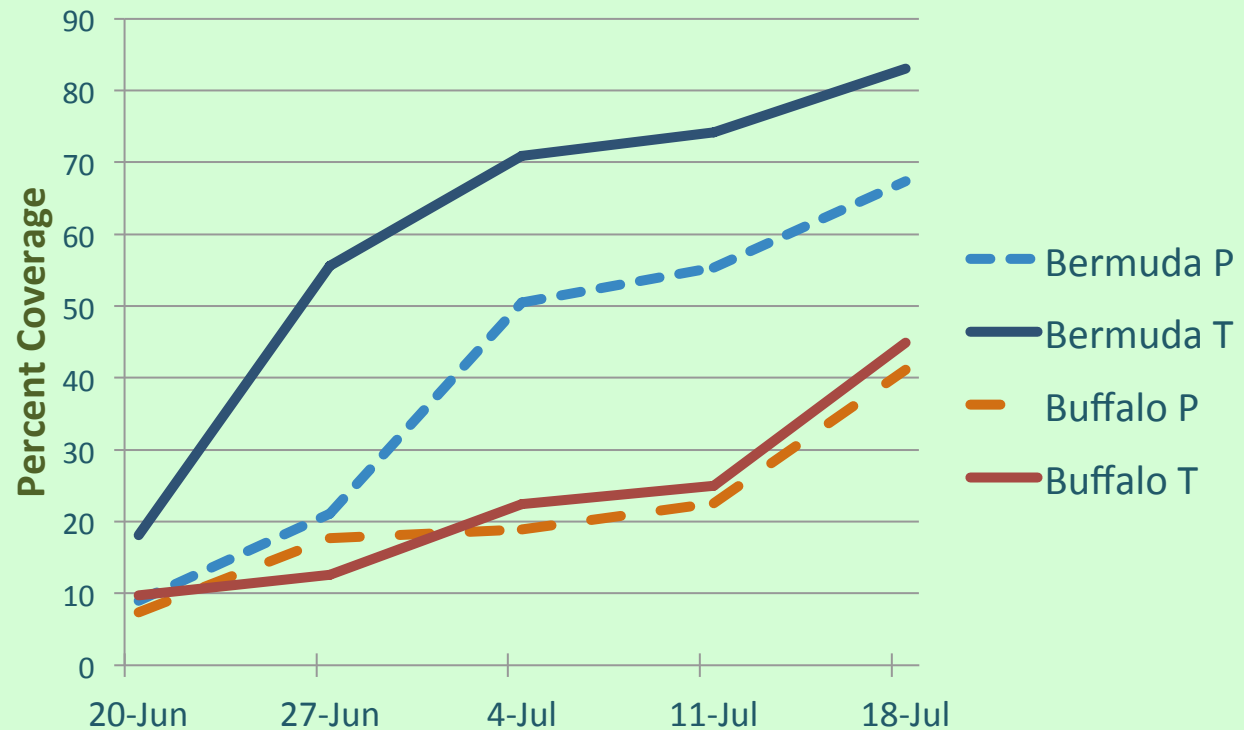
Grass vs. Irrigation Growth

- Growth

- No significant difference between potable and tailored water for buffalo
- Bermuda irrigated with tailored water grew significantly faster than irrigated with potable

- Nitrate

- Nitrate leaching was not significantly different between water types
- Nitrate leaching differed between seeded and sodded grasses at 10 cm, which can be attributed to their difference in metabolizing N



Conclusion:

- Bermudagrass irrigated with tailored water will establish faster than irrigated with potable water supplemented with granular fertilizer
- Tailored water poses no more risk to ground water (applying the EPA threshold of 10 ppm) than potable water and granular fertilizer

