

Drought Impacts on Parks and Recreation Districts

Issues and concerns related to turf
and landscapes

Liability is a Headline

- **“No Drought of Injuries as Hard Fields Jar Joints”**
Morning Bulletin
- **“Drought Turns Practice Fields Into Injury Risks”** NewsWest9
- **“Councils warn of sports injury risk on dry fields”**
The Sydney Morning Herald 2004
- **“Watering fields done for safety”** Baltimore Sun 1999

Turf

- Restricted use
 - **“Denver parks shuts down sports fields through April 1 due to drought”** Denver Post 2013
 - **“Comanche Golf Course Closes Due to Drought”** KSWO 7 News
- Weed encroachment
 - Seeds of broadleaf weeds occur naturally in all soils, and can persist for 30 or more years.
 - They will germinate when turf is thin and not healthy
 - Costs associate with controlling weeds
- Maintain vs Renovate
 - Evaluate cost of water compared to renovation after drought loss
 - \$10,000 per acre is a conservative number

Landscapes

- Drought affects more than just turf
- Decreased resistance to pests
 - According to the Texas Forest Service, approximately 5.6 million trees died in urban areas throughout Texas because of their drought
 - Drought effects can last over several years
 - Reduced photosynthetic activity results in reduced energy storage
 - Die back of annual roots
 - Reduced growth

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- Increased costs associated with drought
 - Water
 - Price usually rises during restrictions
 - Development of alternative sources
 - Chemicals
 - Weed control
 - Wetting agents
 - Public Relations- Which message are you sending?
 - Why is the park green and my lawn brown?
 - How can I sell my house when the park in my neighborhood is dead?

Natural or Synthetic

- It is a myth that synthetic fields require less maintenance than natural turfgrass fields or to say that artificial turf fields are maintenance free.
- Synthetic fields require
 - 1) additional infill
 - 2) irrigation because of unacceptably high temperatures on warm-sunny days
 - 3) chemical disinfectants
 - 4) sprays to reduce static cling and odors
 - 5) drainage repair and maintenance
 - 6) erasing and repainting temporary lines
 - 7) removing organic matter accumulation

Natural or Synthetic

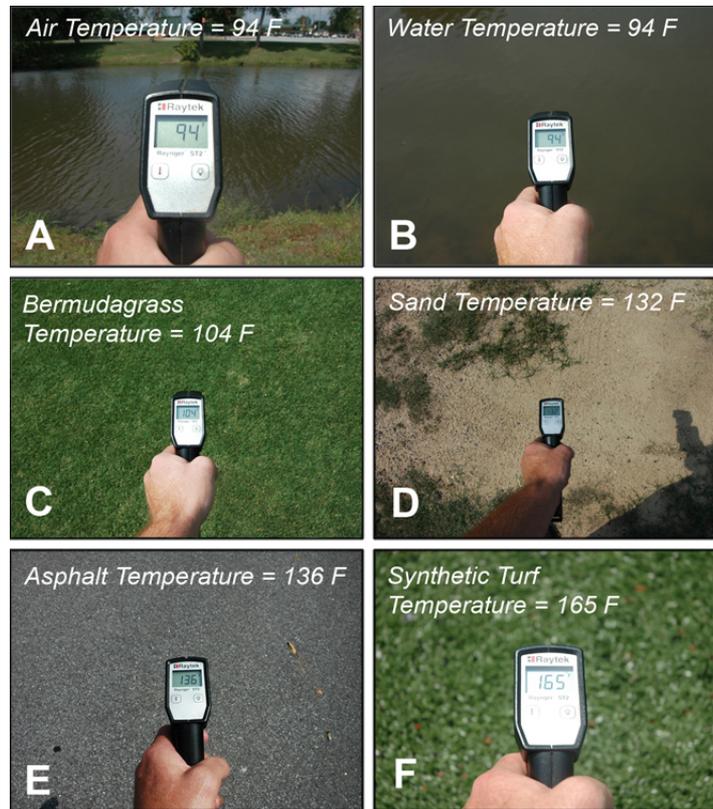
- 16-year scenario for annual average cost of each field type as follows:
 - the natural soil-based field, \$33,522
 - the sand-cap grass field, \$49,318
 - the basic synthetic field, \$65,846
 - the premium synthetic field, \$109,013

Adamson, C. 2008. Synthetic Turfgrass Costs Far Exceed Natural Grass Playing Fields. Available at:<http://cafnr.missouri.edu/research/turfgrass-costs.php/>

Natural or Synthetic

- In a recent presentation by the Michigan State University, Certified Sports Turf Manager, she cited that the typical annual maintenance costs of her artificial turf fields ranged from \$13,720-\$39,220, while the typical annual maintenance costs of her natural turf fields had a similar range of \$8,133-\$48,960
- Fouty, Amy. "A Sport Field Manager's Perspective: Synthetic Turf Considerations, Maintenance Costs and Concerns" May 11, 2005 presentation at the Synthetic Turf Infill Seminar, Detroit, Michigan. Reviewed by Lynn Brakeman in "Experts Spell Out True Cost of Synthetic Turf Maintenance." Athletic Turf News, May 24, 2005.

Natural or Synthetic



Photos courtesy L.B. McCarty, Clemson University

Resources

- www.turfgrassod.org
- www.TurfResourceCenter.org
- sportsbuilders.org/fields/buyersguide.cfm