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Arkansas Turfgrass Report 2008

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No findings, conclusions, or reports regarding any product or any process that is contained in any article published in this report should imply endorsement or non-endorsement of any such product or process.
**Conversion Table**

**Conversions for commonly used units in papers:**

1 ft = 0.30 meters = 30 cm  
1 inch = 2.54 cm = 25.4 mm  
1 ounce = 28.3 g  
1 lb = 0.454 kg = 454 g  
1 PSI = 6.9 kPa  
1 ppm = 1 mg / kg  
1 gallon / acre = 9.35 L / ha  
1 lb / 1000 ft² = 4.9 g / m²  
1 lb / 1000 ft² = 48.8 kg / ha  
1 lb / 1000 ft² = 43.56 lb / acre  
1 lb / acre = 1.12 kg / ha  
1 bushel / 1000 ft² = 3.8 m³ / ha  
°F = (9/5°C) + 32  
°C = 5/9 * (°F-32)
Turfgrass Industry:

As the green industry continues to expand across Arkansas and the nation, the University of Arkansas, Division of Agriculture, has assembled an outstanding team of researchers, extension personnel, and educators that are working to solve some of the most pressing needs of that industry. One segment of that industry that continues to provide a significant impact on the state’s economy is the turfgrass industry, which includes lawn care, parks, sports turf, sod production, and golf course maintenance. In a recent survey, it was estimated that the turfgrass and lawn care industry in Arkansas provides over 8,600 jobs and contributes over 336 million dollars annually to the state’s economy.

The Arkansas Turfgrass Report is a Research Series that is published annually by the Arkansas Agricultural Experiment Station and features significant findings made by turfgrass scientists over the past year. Although this publication primarily summarizes findings from the research program, it also highlights advancements in teaching and extension programs, as well as significant issues that affect the industry as a whole. It is our desire that this publication will keep our stakeholders abreast of significant changes and advancements that affect our industry.

We are very proud of this second installment of the Arkansas Turfgrass Report, which includes 33 papers from faculty, staff, and graduate students. We hope these findings will enhance your ability to conduct business in an efficient and productive manner.

We would also like to recognize the many organizations, companies, and individuals who have given their time, money, and talents to make our program successful. We are forever indebted to the many people who contribute to this program.

We hope that this publication will be of value to all persons with an interest in the Arkansas green industry.

Mike Richardson
Professor
Doug Karcher
Associate Professor
Aaron Patton
Assistant Professor
The University of Arkansas turfgrass research team is grateful for assistance in the form of donated equipment and product, and research grants from the following associations and companies. Our productivity would be significantly limited without this support.

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Aquatrols, Inc.  
Arkansas Farm Bureau  
BASF  
Brandon Nichols, Fayetteville Country Club  
Cebeco International Seeds  
Crossover Liquor  
Double Springs Grass Farm  
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Emerald Isle  
Ewing Irrigation  
Georgia Pacific  
Golf Course Superintendents Association of Arkansas  
ISK Biotech  
Jerry Musick, Razorback Park Golf Course  
Lebanon Seaboard  
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Scotts Professional Turf  
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Arkansas Turfgrass Association  
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Jason Cuddy, Springdale Country Club  
DeWitt Company  
Dow AgroSciences  
Environmental Turf  
FMC Corporation  
Golf Course Superintendents Association of America  
Helena Chemical  
Jacobsen (Textron)  
Johnston Seed Co.  
Lee McBurnett, Stonebridge Meadows  
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NexGen Research  
North Carolina State University  
OJ Noer Foundation  
Patten Seed Co.  
Pennington Seed  
Precision Labs  
Profile Products Co.  
Quail Valley Sod  
Seed Research of Oregon  
Segway  
Spectrum Technologies  
Syngenta  
The Toro Company  
Todd Towery, Pinnacle Country Club  
Turfgrass Producers International  
University of Florida  
Winrock Grass Farm

We regret that some individuals or companies may have been inadvertently left off of this list. If your company has provided financial or material support for the program and is not mentioned above, please contact us so that your company’s name can be added in future reports.
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