

Wednesday, November 29

7:30 am	Registration & Exhibitor Set-up			
	General Session - Flint Hills (<i>Jack Fry, Moderator</i>)			
8:15 - 8:30 am	Welcome, Orientation and Announcements			
8:30 - 9:20 am	The Impact of Spray Tank Water on Pesticide Performance - <i>Aaron Patton (3A/3B-1hr)</i>			
9:20 - 9:30 am	BREAK			
	Basic Turf McDowell/Tuttle	Nursery & Landscape Kaw Nation/Big Basin <i>Keith Westervelt, Moderator</i>	Disease, Insects & Weeds Flint Hills <i>Ryan Varns, Moderator</i>	Advanced Turf Konza Prairie BC <i>Matt Miller, Moderator</i>
9:30 - 10:00 am	Turfgrasses for KS - <i>Jack Fry</i>	Native Plants for Kansas Landscapes and Lawns – <i>Sharon Ashworth</i>	How Insecticides and Miticides Kill Bugs - <i>Raymond Cloyd (3A/3B - 1 hr)</i>	Turf Traffic Management During Suboptimal Growing Conditions - <i>Ross Braun</i>
10:00- 10:30 am	Soils - <i>Wes Howe</i>			
10:30 - 11:00 am	Turfgrass Weeds - <i>Dani McFadden (3B - .5 hr)</i>	Fire-Resistant Landscaping - <i>Dennis Carlson</i>	Identifying and Controlling Tough Broadleaf Weeds - <i>Aaron Patton (3A/3B - 1 hr)</i>	Thatch - Its Progression and Its Impact - <i>Jack Fry</i>
11:00 --11:30 pm	Turfgrass Diseases - <i>Megan Kennelly (3B - .5 hr)</i>			
11:30 - 1:00 pm	LUNCH (On Your Own)			
	Basic Turf McDowell/Tuttle	Nursery & Landscape Kaw Nation/Big Basin <i>Bill Harbstreet, Moderator</i>	Disease, Insects & Weeds Flint Hills <i>Ryan Varns, Moderator</i>	Advanced Turf Konza Prairie BC <i>Matt Miller, Moderator</i>
1:00 - 1:30 pm	Turfgrass Insects - <i>Raymond Cloyd (3B - .5 hr)</i>	Emerging Pest Issues in Kansas – <i>Rachel Wilkins (3A - 1 hr)</i>	Core Hour: Laws, Safety & Environmental Concerns - <i>Josh Gillespie</i>	Growing Turf in Low Light, Shaded Environments - <i>Aaron Patton</i>
1:30 - 2:00 pm	Fertilization - <i>Steve Keeley</i>			
2:00 - 2:30 pm	Mowing Basics - <i>Ross Braun</i>	Watershed Management Techniques for Aquatic Weed Control – <i>Joe Gerken</i>	Understanding Mode of Action for Turf & Landscape Herbicides - <i>Mithila Juglam (3A/3B - 1 hr)</i>	How to Handle Excessive Shade on the Golf Course - <i>Panel Discussion: Bill Irving, Jeff White, Aaron Patton</i>
2:30 - 3:00 pm	Cultivation - <i>Ross Braun</i>			
3:00 - 3:30 pm	Irrigation - <i>Jack Fry</i>	WPS for Agricultural Establishments – <i>Cal Jamerson (3A - .5 hr)</i>	Tree Disease Look-Alikes - <i>Judy O'Mara (3A - .5 hr)</i>	Be Precise! Reducing Water in Fairways with Precision Irrigation - <i>Chase Straw</i>
3:30 - 5:30 pm	TRADE SHOW - Meet with vendors, network, and chat with speakers in an informal setting (<i>Free refreshments</i>) Insect & Mite Educational Display. Come to the trade show to see an educational exhibit of turf & landscape pests.			

Thursday, November 30

7:30 am	Registration
General Session - Flint Hills (Jack Fry, Moderator)	
7:45 - 8:00 am	Welcome, Announcements, Awards - John Bruntzel, KTF President Each participant will be given a raffle ticket at the beginning of the General Session. Two lucky winners will each receive 2 tickets to the K-State vs. Wichita State Men's Basketball game at the T-Mobile Center in Kansas City on Dec. 21.
8:00 - 9:00 am	Work is Hard. Why Not Have Some Fun? - Matt Cavanaugh
9:00 - 10:00 am	Spray Application Technologies in Turf and Landscapes - Chase Straw (3A/3B - 1 hr)
10:00 - 10:10 am	BREAK

	Advanced Turf Konza Prairie BC <i>Chris Ryan, Moderator</i>	Nursery & Landscape Flint Hills <i>Trent Dunlap, Moderator</i>	Sports Turf McDowell/Tuttle <i>Mark Lytle, Moderator</i>
10:10 - 11:10 am	No-Mow Fine Fescue Areas: What Works and What Doesn't - Matt Cavanaugh	Management of Mite Pests of Trees and Shrubs - Raymond Cloyd (3A - 1 hr)	Field Variability and Its Impact on Athletic Surface Interactions - Chase Straw
11:10 - 12:10 pm	Customized Agronomic Programs for Better Turf Results - Ross Braun	Nursery & Landscape Disease Update - Judy O'Mara (3A - 1 hr)	Dealing with Natural and Synthetic Turf - Panel Discussion: Caleb Clements, Jody Gill, David Stuhlsatz, Chase Straw
12:10 - 1:30 pm	Trade Show (Lunch served in Big Basin/Kaw Nation Room)		
	Advanced Turf Konza Prairie BC <i>Chris Ryan, Moderator</i>	Nursery & Landscape Flint Hills <i>Cheryl Boyer, Moderator</i>	Dealing with Pests McDowell/Tuttle <i>Mark Lytle, Moderator</i>
1:30 - 2:30 pm	Robotic Mowers - Panel Discussion: Kolby Burcham, Ken Liberty, Steve Wilson	Keeping Caregivers in the Workforce - Bradford Wiles and Cheryl Boyer	What's Wrong with this Plant? - Megan Kennelly (3A/3B - 1 hr)
2:30 - 3:00 pm	You're Doing What? - Matt Cavanaugh (3B - 1 hr)	Eyes On You! - Frannie Miller (3A - 1 hr)	Impact of Cultural Practices on Brown Patch Disease - Jack Fry (3B - .5 hr)
3:00 - 3:30 pm			Suppressing Bermuda in Zoysia - Dani McFadden (3B - .5 hr)
3:30 pm	Conference Adjourned		
3:30 pm	Commercial Pesticide Exam - Konza A room		

SPEAKERS

Sharon Ashworth, Douglas Co. Extension, Lawrence, KS

Cheryl Boyer, Horticulture, K-State

Ross Braun, Horticulture, K-State

Kolby Burcham, Autmow, Wichita

Dennis Carlson, Kansas Forest Service, Leon, KS

Matt Cavanaugh, Rush Creek GC, Maple Grove, MN

Caleb Clements, Blue Valley Schools, Overland Park, KS

Raymond Cloyd, Entomology, K-State

Jack Fry, Horticulture, K-State

Joe Gerken, Wildlife & Outdoor

Management, K-State

Jody Gill, Creekside Baseball, Parkville, MO

Josh Gillespie, Kansas Dept. of Agriculture, Manhattan, KS

Wes Howe, Horticulture, K-State

Bill Irving, Wolf Creek Golf Links, Olathe, KS

Cal Jamerson, Worker Protection Standard, K-State

Mithila Juglam, Agronomy, K-State

Steve Keeley, Horticulture, K-State

Megan Kennelly, Plant Pathology, K-State

Ken Liberty, Echo Robotics, Lake Zurich, IL

Dani McFadden, Horticulture, K-State

Frannie Miller, Pesticide Safety, K-State

Judy O'Mara, Plant Pathology, K-State

Aaron Patton, Horticulture, Purdue Univ., West Lafayette, IN

Chase Straw, Dept. of Soil & Crop Sciences, Texas A&M Univ., College Station, TX

David Stuhlsatz, KSU Athletics

Jeff White, CGCS, Indian Hills GC, Mission Hills, KS

Bradford Wiles, Dept. of Applied Human Sciences, K-State

Rachel Wilkins, KDA, Manhattan, KS

Steve Wilson, CGCS, Milburn CC, Overland Park, KS

PRESENTATION DESCRIPTIONS

Wednesday, November 29

General Session - Flint Hills

Welcome, Orientation and Announcements - *Jack Fry*

The Impact of Spray Tank Water on Pesticide Performance - *Aaron Patton*

Turf & landscape managers routinely use water to mix and apply pesticides, but rarely do we consider pH, hardness, alkalinity and other qualities of water that can affect pesticide efficacy. Do pesticides remain intact in your tank longer than 30 minutes after mixing? Can hard water reduce your herbicide efficacy? Learn the answers to these questions and more about what happens within the tank and what the latest research says about the influence of water quality on pesticide efficacy. (3A/3B - 1 hr)

Basic Turf - McDowell/Tuttle

A series of presentations that cover the basic knowledge needed to manage turf in the Midwest. A great starting point for new employees.

Nursery & Landscape

Kaw Nation/Big Basin

Native Plants for Kansas Landscapes & Lawns - *Sharon Ashworth*

Consumers are increasingly requesting native plants for their landscapes and lawns. Learn about native plant ecology,

integrating natives into ornamental landscapes, and native species for lawns. Sourcing beautiful, low-maintenance, pollinator-friendly, and climate-tolerant plants from local and regional suppliers is a win for everyone.

Fire-Resistant Landscaping - *Dennis Carlson*

Protecting homes from wildfire through hardscapes and plant selection can be marketed as an added benefit of landscape design and contracting services. Learn about fire in Kansas and key elements of fire-resistant landscaping practices that can help save structures.

Emerging Pest Issues in Kansas - *Rachel Wilkins*

Navigating disruptions caused by introduced pests requires long-term thinking. The Kansas Department of Agriculture actively considers approaches to invasive pest management, including statewide responses to the spotted lanternfly, box tree moth, and other significant insects. Learn more about these pests and our approach to managing each challenge. (3A - 1 hr)

Watershed Management Techniques for Aquatic Weed Control - *Joe Gerken*

This session will focus on best management practices to limit nutrient loads, which can cause an overgrowth of plants in aquatic environments. It will focus on approaches that can help manage the load and transport of nutrients and how these practices affect aquatic plant control measures.

Worker Protection Standards for Agricultural Establishments - *Cal Jamerson*

Understanding expectations and regulations related to keeping workers safe in agricultural environments is critical. Among many topics, workers in nurseries and greenhouses must receive information about personal protection equipment, pesticides, and emergency planning. Learn the basics required to comply with the WPS federal law and get connected with learning opportunities and support. (3A - .5 hr)

Diseases, Insects & Weeds - Flint Hills

How Insecticides and Miticides Kill Bugs - *Raymond Cloyd*

Learn the type of insecticides and miticides used to manage insect and mite pest problems and how they kill insect and mite pests based on the mode of action. (3A/3B - 1 hr)

Identifying and Controlling Tough Broadleaf Weeds - *Aaron Patton*

Why are some weeds so hard to kill? With well over 200 different weeds, a "one size fits all" approach to weed control is unsuccessful. Just like specific home improvement projects often require specific tools and knowledge to complete, difficult to control weeds also require specific knowledge to control. Learn more about the biology of these hard to control weeds and the researched solutions to their control. (3A/3B - 1 hr)

Core Hour: Laws, Safety & Environmental Concerns - *KDA*

Regulatory information required for certified applicators.

Understanding Mode of Action for Turf & Landscape Herbicides - *Mithila Juglam*

Both pre- and post-emergence herbicides are typically applied to achieve season long weed control. Both nonselective and selective herbicides are also used depending on the type of turf (cool-season vs. warm-season) or the time of application. The mode of action of herbicide groups used in turf and landscapes will be discussed. (3A/3B - 1 hr)

Tree Disease Look-Alikes - *Judy O'Mara*

A quick look at some non-disease stress factors that were confused with common Kansas tree diseases during the recent growing season. (3A - .5 hr)

Advanced Turf - Konza Prairie BC

Turf Traffic Management During Suboptimal Growing Conditions - *Ross Braun*

Foot and vehicular (cart, mower, maintenance equipment) traffic stress can impact the turf in several ways. Traffic stress management strategies will be discussed to prevent and alleviate damage.

Thatch - Its Progression and Its Impact - *Jack Fry*

Several grasses grown in Kansas can be thatch accumulators. See how cultural management impacts thatch, and once thatch accumulates how that can have an impact on turf quality. In addition, hear an overview about how thatch can be effectively reduced.

Growing Turf in Low Light, Shaded Environments - *Aaron Patton*

Plants capture the sun's energy and build carbohydrates which are necessary for plant growth and development. Learn how you can measure the light plants use to make turf establishment and management decisions. The latest information on shade tolerant cultivars, management practices to enhance shaded turf quality, and new technologies to diagnose shade issues will be covered.

How to Handle Excessive Shade on the Golf Course - *Panel Discussion: Bill Irving, Jeff White, Aaron Patton*

As trees grow and mature they eventually can have a significant impact on turf quality. Hear from several golf course superintendents on how they have dealt with shade issues.

Be Precise! Reducing Water in Fairways with Precision Irrigation - *Chase Straw*

Learn about soil moisture sensors and mapping technologies that can be used to implement precision irrigation on golf courses. Ongoing precision irrigation research at Texas A&M will be discussed, including water use compared to conventional irrigation scheduling methods and barriers to the adoption of newer technologies.

Thursday - November 30

General Session - Flint Hills

Welcome and Announcements - *John Bruntzel*

Each participant will be given a raffle ticket at the beginning of the General Session. Two lucky winners will each receive 2 tickets for the K-State vs. Wichita State Men's Basketball game at the T-Mobile Center in Kansas City on December 21.

Work is Hard. Why Not Have Some Fun? - *Matt Cavanaugh*

We are all aware that turfgrass management is not the easiest profession to be a part of. We may not be aware that we are not very good at overcoming the hardships of the job with a little fun. This talk will focus on some of the goofy, fun and different things Matt has done at Rush Creek to make it a more enjoyable work experience that keeps seasonal employees coming back each year.

Spray Technologies in Turf & Landscapes - *Chase Straw*

Sprayer technology in turf and landscapes is rapidly advancing with GPS and autosteer innovations. They enable more precise management input application, reducing time, costs, and environmental impact. This presentation will provide a comprehensive overview of these technologies and their practical applications. Additionally, it will explore the exciting potential of future applications, like drone spraying, which promises to revolutionize turf & landscape management with even more targeted inputs. (3A/3B - 1 hr)

Advanced Turf - Konza Prairie BC

No-Mow Fine Fescue Areas: What Works and What Doesn't - *Matt Cavanaugh*

Fine fescue areas are a giant pain in the butt. The pictures we see in trade magazines and the footage we see on television often do not reflect what we have at our own course. This talk will focus on Matt's fine fescue graduate research work at the University of Minnesota and the subsequent 17 years of managing no-mow, fine fescue areas in the hopes of helping you avoid some of the pitfalls of these areas.

Customized Agronomic Programs for Better Turf Results - *Ross Braun*

Each site is unique with its own advantages and disadvantages. Hear about multiple case studies and potential solutions to manage the site properly.

Robotic Mowers - *Panel Discussion: Kolby Burcham, Ken Liberty, Steve Wilson*

Those who market robotic mowers, and turf specialists who use them on their site, will give an overview of what's available and how effective they can be.

You're Doing What? - *Matt Cavanaugh*

I have always been someone who bucks the trend and this has been especially true with my fertilizer and pesticide programs. This talk will focus on how Matt's fertilizer and pesticide programs have evolved over the years to what is now a fairly minimalistic approach. Matt will discuss years of trial and error and observational research at Rush Creek to share the story of how managing 40 plus acres of bentgrass can be done with less fertilizer and pesticides. All kinds of fertilizer and pesticides will be discussed in cringingworthy fashion as you look at Matt and say "You're doing what?" (3B - 1 hr)

Nursery & Landscape - Flint Hills

Management of Mite Pests of Trees and Shrubs - *Raymond Cloyd*

Learn about the types of mites that feed on trees and shrubs, their biology, behavior, and damage. You will also learn how these management strategies should be implemented to manage mite pests in landscape and nurseries. (3A - 1 hr)

Nursery & Landscape Disease Update - *Judy O'Mara*

This session will take a look at introduction and movement of emerging diseases within nursery and landscape settings. (3A - 1 hr)

Keeping Caregivers in the Workforce - *Bradford Wiles and Cheryl Boyer*

Caring for others, whether children, adults, or elders, poses challenges for people who want to join or remain in the

workforce. Offering flexibility and support while continuing to invest in recruiting and retaining caregiving employees will result in surprising loyalty, productivity, and attendance as their seasons of caregiving change over time. Learn about the business bottom line, tax incentives, and other methods and benefits available to support working caregivers and help your business thrive.

Eyes on You! - *Frannie Miller*

Running a business that requires pesticide applicator licenses necessitates risk management practices, acknowledging the varied nuances with which clients view our work. People are watching what we do and how we respond with our hiring practices, workplace environment, and customer education. Learn best practices for business management, pesticide record-keeping, and professional development. (3A - 1 hr)

Sports Turf - McDowell/Tuttle

Field Variability and Its Impact on Athletic Surface Interactions - *Chase Straw*

Natural turfgrass sports field surface characteristics are not uniform due to field construction, use, and management. This inevitable variability can impact athlete injuries, biomechanics, performance, and perceptions of a field. Learn ways to quantify variability and hear examples of studies illustrating how it influences athletes. It will conclude by suggesting strategies to minimize the variability of surface characteristics through effective management.

Dealing with Natural and Synthetic Turf - *Panel Discussion: Caleb Clements, Jody, Gill, David Stuhlsaz, Chase Straw*

Natural vs. synthetic turf. Learn from a researcher and sports turf managers about how they differ in management required and the impact each can have on athletes.

Dealing with Pests - McDowell/Tuttle

What's Wrong with this Plant? - *Megan Kennelly*

We'll look at some interesting turf and landscape photographic case studies and put our puzzle-solving skills to the test. We'll talk about asking the right questions to get to the root of the problem. (3A/3B - 1 hr)

Impact of Cultural Practices on Brown Patch Disease - *Jack Fry*

An overview of all cultural practices that impact brown patch disease. See research done at K-State in summer '23 on how nitrogen sources and rates impacted brown patch on tall fescue. (3B - .5 hr)

Suppressing Bermuda in Zoysia - *Dani McFadden*

Starting in 2023, a new herbicide was released that has a unique ability to protect zoysia and significantly suppress bermuda when combined with another herbicide. Hear results of research done in Olathe over the past 18 months. (3B - .5 hr)

Conference Location

The Kansas Turf & Landscape Conference will be held at the Hilton Garden Inn, 410 S. 3rd St., Manhattan, KS

Hotel

Hilton Garden Inn (410 S. 3rd St., Manhattan.). Room rate: \$105
Reservations can be made online by November 3 at <https://www.hilton.com/en/attend-my-event/mangigi-turf23-37c146fb-753e-4742-ae5a-042e55448374> OR, call the hotel directly at (785) 532-9116 (please mention you are part of KS Turfgrass Assn. Group code TURF23)

Registration

To register online and pay by credit card go to <https://2023turfandlandscapeconference.eventbrite.com>
OR fill out the registration form and send in by November 22.



Special Assistance

A conference participant who needs accommodations due to a disability or special dietary requirement, should indicate services needed on the registration form. Early notification is requested to ensure that accommodations can be provided in a timely manner.

Cancellation/Refund Policy

If cancellation is necessary, substitutions with another person from the same company is allowed. A written request for a refund must be received before Nov. 20, 2023. The amount refunded will be less a \$25.00 processing fee. No refunds will be made after this date. Email your request to cdipman@ksu.edu

If inclement weather should prevent your attendance, no refunds are provided. Significant expenses occur on behalf of the KTF in its commitment to hold this conference.

Pesticide Recertification Credit Hours



The Kansas Turf & Landscape Conference has been approved for state pesticide applicator recertification credit:

1 Core Hour 3A - 7 hrs 3B - 7 hrs

Presentations qualifying for 3A or 3B credit are noted *after* the title. Pick up a form at the registration table to record pesticide recertification credits. A monitor must sign each form before you leave the session. At the end of the conference, give your form to the moderator in the last session you are attending.

If your license expires this year, go to <https://agriculture.ks.gov/divisions-programs/pesticide-fertilizer> renewals to pay the fees and renew before December 31.



GCSAA Education Points

November 29 - 0.60 ed points

November 30 - 0.60 ed points



Int'l. Society of Arboriculture

CEUs available for Certified Arborists

Kansas Turf & Landscape Conference
November 29 & 30, 2023 Pre-Registration Form
Register online at: <https://2023turfandlandscapeconference.eventbrite.com>

FULL Registration (2 days) (\$275.00 at conference) \$250.00 x _____
Includes 2-day conference, lunch on Thursday, complementary KTF membership dues, and trade show.

Additional persons from same firm (\$140.00 at conference) \$115.00 x _____
No dues included.

WEDNESDAY only-Nov. 29 (\$150 at conf.) *Includes trade show; no dues.* \$125.00 x _____

THURSDAY only-Nov. 30 (\$150.00 at conference) \$125.00 x _____
Includes lunch, trade show; no dues.

2024 Kansas Turfgrass Foundation Membership Dues \$ 75.00 x _____
A 2024 Kansas Turfgrass Foundation Directory will be sent to each member
Name of individual(s) joining association: _____

2024 KNLA Membership Dues can be paid at <http://ksnla.org/join-ksnla/>

Yes, I need to take the Pesticide Exam on Nov. 30 at 3:30 p.m.

TOTAL: \$ _____

Dietary or special assistance needed: _____

Company/business name _____

Individual _____

Mailing address _____

City _____ State _____ Zip _____ Phone () _____

Email: _____

Payment:

- Check payable to Kansas Turfgrass Foundation enclosed Please invoice (*payable upon receipt*)
- Credit card No. _____ Exp. _____ 3-4 digit CID _____
- Name on card** (printed) _____

Please return registration form by November 22 to:
Turf Conference Registration, 1712 Claflin, 2021 Throckmorton PSC, Manhattan, KS 66506-5507
Fax: (785) 532-6949 cdipman@ksu.edu

K-STATE

Research and Extension

Horticulture and Natural Resources

1712 Claflin, 2021 Throckmorton Plant Science Cntr.

Manhattan, KS 66506-5507

Kansas Turf & Landscape Conference November 29 & 30 Manhattan, KS

Featured Speakers



Matt Cavanaugh is the golf course superintendent at Rush Creek GC in Maple Grove, MN. He graduated from K-State in Turfgrass Management, was an Asst. at Rush Creek GC, Heads Grounds Manager at Stillwater School Dist., Sales Rep for PBI-Gordon, and Research Scientist at the University of Minnesota.



Dr. Chase Straw is an Assistant Professor, Dept. of Soil & Crop Science at Texas A&M. His research focuses on precision turfgrass management, which involves interdisciplinary approaches aimed at understanding the spatial and temporal variability of turfgrass systems in order to develop practical strategies for reducing management inputs and improving the overall experience.



Dr. Aaron Patton is Professor of Turf & and Weed Science and Extension Specialist at Purdue University. His research includes implementing and leading projects devoted to managing quality lawn, sod, golf, and sports turf while reducing management inputs. He focuses on weed ecology and control, warm-season grasses, and agronomic practices in turfgrass systems.