AGENDA

Central Texas Chapter GCSAA Meeting
Kyle, TX – Tuesday, November 7, 2016

Plum Creek Golf Course
750 Kohlers Crossing, Kyle TX 78640

WINFIELD ACADEMY

Time	Golf Track
Credits	GCSAA – 0.5 credits CEU – up to 5 credits (see each class below) Structural Course #TBD Agricultural Course # TBD
8:00 - 9:00 a.m.	Registration & Sign In
9:00 – 10:00 a.m.	Welcome: CTGCSA Staff Session: Improving Pesticide Performance Aaron Johnsen, WinField 1 CEU credit (Structural Course = Pest or Agricultural Course= Drift Minimization)
10:00 – 10:05 a.m.	Break
10:05 – 11:00 a.m.	The History of Pesticides and Turfgrass Research Update 2016: Part 1 Dr. Thom Nikolai, Michigan State University 1 CEU credit TBD
11:00 – 11:05 a.m.	Break
11:05 – 12:00 p.m.	The History of Pesticides and Turfgrass Research Update 2016: Part 2 Dr. Thom Nikolai, Michigan State University 1 CEU credit TBD
12:00 – 1:00 p.m.	Lunch
1:00 p.m. – 2:00 p.m.	Texas Laws & Regulations for 2016 Dr. Randy Rivera, Texas A&M 1 CEU credit (Laws & Regs)
2:00 – 2:05 p.m.	Break
2:05 – 3:00 p.m.	Optimizing Turfgrass Performance and Health Using Technology Carmen Magro, Agronomy Management Solutions 1 CEU credit (Structural = General – Other or Agricultural = General)
	Dismiss

This is a tentative agenda. Please see following pages for course descriptions. For more information or to register, visit the CTGCSA website at http://ctgcsa.com/

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Course Descriptions

In Alphabetical Order

The History of Pesticides and Turfgrass Research Update 2016: Part 1 and 2 - Dr. Thom Nikolai, Michigan State University (2 hours)

The entire history of pesticides documenting how the laws and regulations over pesticide use has evolved within the USA. In this seminar we will also consider where the turfgrass pesticide industry is currently and where it may be heading. The second half of this seminar will focus upon cultural and mechanical practices that minimize pesticide and fertilizer movement on golf courses and methods to enhance the enjoyment of the game of golf.

Improving Pesticide Performance – Aaron Johnsen, WinField

There is an increasing need to stretch every dollar. Are you making the most of the active ingredients you apply? Adjuvants can make active ingredients more efficacious or at least prevent the degradation of an active ingredient, especially with herbicides and insecticides in turf grass and the greenhouse. This talk will focus on what adjuvants are, where they work, and how they work. Considerable time will be spent discussing pesticide drift and how to reduce it. Additionally, discussion will revolve around how adjuvants are best used with herbicides insecticides. While herbicides have been the dominant category to utilize adjuvants there is a fantastic opportunity for applicators to improve their insecticide performance with the additions of the right adjuvant.

Adjuvants

1. Where can pesticide performance be influenced
    a. Spray tank – pH is important with both insecticides and herbicides. Certain herbicides have to be acidified.
    b. Equipment to target – reduced drift and avoid 3 way herbicide drift to the adjacent lawn.
    c. On Target
        i. Increased spread – better opportunity for contact with the insect. How this benefits the applicator in perimeter lawn applications.
2. What is an adjuvant
3. In the Spray Tank- how do adjuvants effect herbicides and insecticides
    a. pH and cation effects
    b. Acidifiers and buffering agents
    c. Water conditioners
4. Between the equipment and the target
    a. Wind, humidity and temperature effects
    b. Drift and deposition adjuvants – how products can optimize droplet size and push deeper into vegetation around structures and reduce the small products that drift off target.
5. On the target- what happens with the herbicide/insecticide
    a. Effects of plant characteristics on coverage
    b. Non-ionic and organosillicone surfactants
    c. Crop oil concentrates and methylated seed oils – what types of turf to use on when not to.
    d. Effects of different structural surfaces indoors and outdoors
    e. Adding a buffer to the misting system drum for mosquito systems
    f. The effect of adjuvants and back pack misting for perimeter mosquito control or other Lawn pests.
6. How to select the right adjuvant for your lawn and ornamental applications

Optimizing Turfgrass Performance and Health Using Technology – Carmen Magro, CGCS

A. Introduction

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a. Speaker information, research, experience, goals and objectives

B. Turfgrass performance defined
- a. Poll: What do you think defines Turfgrass performance and health
  - i. Are they the same?
- b. Key 'measureable' variables that most influence turfgrass surface performance

C. Key Turf Processes and Influences
- a. Photosynthesis, Respiration, Transpiration, Translocation
  - i. Why are these important when considering technology?
  - ii. How can turf health affect pesticide need/use?
- b. Soil / Surface relationships
  - i. Soil water relationships
    1. Layers, thatch and other ailments of turf/soil systems
       - i. Thatch reduction can reduce pest harborage and in turn reduce pesticide application
       - ii. Turf health is improved which reduces opportunistic weeds which reduces herbicide use
    2. The importance of gas exchange
- c. Nutritional Importance and Exchange
  - i. What defines a beneficial or essential element for turf performance
  - ii. Fate of elements to the turf (4 outcomes)
    1. Reciprocal benefits of nutrients?
    2. How nutrients rich turf attracts pests and how overuse can require pesticide applications
  - iii. What is Electrical Conductivity (EC)
    1. Impact of nutrients on (EC)
- d. How does disease affect the physiological processes in turf
  - i. How disease contributes to secondary pest issues and increased need for insecticide intervention

D. Monitoring Variables to Make the Most Important Decisions for Turf Performance
- a. What elements are most important
  - i. Moisture, EC and Temperature
    1. Impacts of each and effect on others
    2. How each influences insect and weed competition and the need or reduction in pesticides
- b. How to best monitor the key variables
  - i. Daily measurement processes, technology available
- c. How to communicate information for shared decision making
- d. Limitations of technology
  - i. Using your head, eyes and good judgment
- e. Practical demos and uses

E. Unique Technology for Advanced Turfgrass Monitoring and Management
- a. Utilizing the power of apps, smartphones and tablets
- b. The power of the cloud
- c. Using a system for practical and confident decision-making
  - i. Mapping correlations
  - ii. Weather integration

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1. Degree Days and Stress Indexes

iii. Disease causation versus tolerance

1. Using technology to practically improve tolerance and conditioning

F. Conclusion / Questions

a. Wrap up summarizing turfgrass performance, measurement processes and decision making to optimize it

b. Questions and Answers

Texas Laws & Regulations for 2016 – Dr. Randy Rivera, Texas A&M

Dr. Rivera will give an update on current pesticide laws and regulations in Texas and how they affect you.