



Charles Anfield, CGCS, *Heritage Bluffs Golf Course*

Putting Green Management

Dr. Thom Nikolai



Dr. Thom Nikolai enjoyed presenting to the group as much as the group enjoyed his presentation.

The January MAGCS Meeting was held at Seven Bridges Golf Club. Don Ferreri and Dave Gelino were the hosts for the day. Dr. Thomas A. Nickolai from Michigan State University made the first presentation of the day titled "Putting Green Management Update."

This presentation was a plethora of information Dr. Nickolai has accumulated over years of his research work at MSU.

Golf Cleat/Sole Study: There have been some recent complaints by golfers and superintendents of excessive damage with some of the new spikeless golf shoe designs. Some golf clubs have even banned certain shoes from their courses. MSU has been doing spikeless shoe wear studies for a while. There are a few companies that send shoes to be tested at the University prior to putting the shoes into production. Some conclusions: Wet conditions are worse for spikeless golf shoe turf wear. Dry conditions seem to be easier on the turf with spikeless golf shoes. Some shoes are less invasive than others.

Top 10 Management Changes in the Last 25 Years that Improved Facilities:

1. Plant breeding and new cultivars
2. Instant communications with smart phones and the internet
3. Increased use of wetting agents
4. Increased technology of green mowers
5. Green speed management techniques
6. Top dressing tools and techniques
7. Aerification tool improvements
8. Lightweight green rolling
9. Increased knowledge and use of PGR's
10. Irrigation technology and tool use

Green Speed: According the recent GCSAA surveys, green speed is the most important factor for golf course customer satisfaction. Customer satisfaction and service is critical to a golf

courses overall success. Dr. Nickolai recommends you always try to exceed customer expectations and don't expect players to lower their expectations. He had a great analogy for this. "If you are serving steaks at your restaurant, you really don't want your customers to leave the restaurant saying the steak was just O.K. You want them saying it was a great steak."

Green Speed Perception Studies: In this study, 50% of the testers said they could tell the difference between a ball roll difference of 6 Inches. Which according to Dr. Nicholai, statistically they could not tell the difference. Think coin flip. At a green speed difference of 12", 80% of the people could tell the difference.

Crystal Downs Green Speed Study: After extensive in-house testing and surveys, the Crystal Downs staff determined that a green speed of 9.5 to 10.5 was the optimum green speed for most players. Staff targeted green speeds of 11 feet in the morning to accommodate growth and a subsequent slow-down for afternoon players.

Nitrogen Carrier and Green Speed Studies: There was no discernable difference in green speed data using different nitrogen sources. Color and quality were rated. Analysis was conducted with different soil types. It was also concluded that plots using exclusive organic fertilizers had the most *Poa annua* invasion.

Mowing Height and Water Conservation Study: Research results indicate shorter mowing heights do not require more water. Shorter mowing heights do require more frequent



irrigation. Deep and infrequent irrigation strategies do lead to longer rooting. Currently, most people are using four methods to measure soil moisture.

1. Feel Method- using a cup cutter or probe and looking/feeling for moisture in the soil.
2. Guestimate- This works if the Superintendent is experienced with the site.
3. ET Monitoring – This must be measured daily and irrigation scheduled accordingly.
4. TDR Sensor – measures soil water content. Not all the water is available to plant.
- 5.

Brushing Greens Study: There has been little work done in brushing greens research. The trials were conducted on bent/Poa greens. The proposed benefits include: Increased stolon removal, increased seed head removal and increased green speed. The results actually indicate the brushing picked up more topdressing material which dulled bed knives, with no seed head removal and no increase in green speed. The study revealed that the results did not support the proposed benefits.


Frequency of Clip Study: Results indicate there was no difference in green speeds with any different frequency of clip rates.

Dollar Spot Study: Research reveals that the lowest mowing heights had the least amount of dollar spot and the highest height of cut had the most dollar spot incidence.

Rolling Studies: Rolling studies reveal there has been less dollar spot incidence with frequent rolling programs of at least 3 days per week. Dr. Nikolai believes this is because the bacteria populations increase in the canopy which inhibit the dollar spot pathogen and not as a result of the dew removal as has been previously proposed. There has also been a measurable decrease in moss populations which he believes is probably from the increased wear on the moss from the rolling procedures.

- Reasons why you should roll greens:
- Improved seed bed preparation
- Compacts frost heaving
- Decreased moss populations
- Decreased dry spots
- You can increase your HOC without loss of green speed
- Improves incorporation of topdressing material
- Decreases dollar spot incidence
- MOST IMPORTANT - Improves customer satisfaction

Dr. Nickolai or “Thom” as he asked me to call him was quite the entertaining and informative speaker, definitely not boring. He will have his own talk show including a band, at the GCSAA Conference in Orlando. Be sure to check it out. He will have some interesting guests. He provided a lot of information about a lot of preconceived notions in the field of turfgrass maintenance. Some of the data seemed to be quite obvious. That’s why they do the research and run the numbers, to prove or disprove theories and hypothesis. Numbers never lie. Another good reason to continue to support turfgrass research. @



Points for a Purpose

The Wee One Foundation is asking golf course superintendents nationwide to donate a portion of their Early Order Program points to the Wee One Foundation through participating turf care supply companies. All donated points will be matched as a cash donation from the participating organizations. Donations will help ease the financial burden associated with medical expenses for golf course management professionals and their dependents.

.....

For a complete list of participating companies, visit weeone.org

wee one
foundation

Wee One Foundation is a 501(c)3 non-profit organization. A tribute to Wayne Otto, CGCS.