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Compiled by David Brandenburg, *Editor, The Grass Roots*

This month we are going back to January of 1990 and the beginning of the Rod Johnson WGCSA Presidency. In many ways 1990 seems like it was only a few years ago not 20 years. Gas was $1.34 per gallon and the Simpsons made their TV debut on the Fox Network. Windows 3.0 hit the shelves and the Hubble Space Telescope was put into orbit.

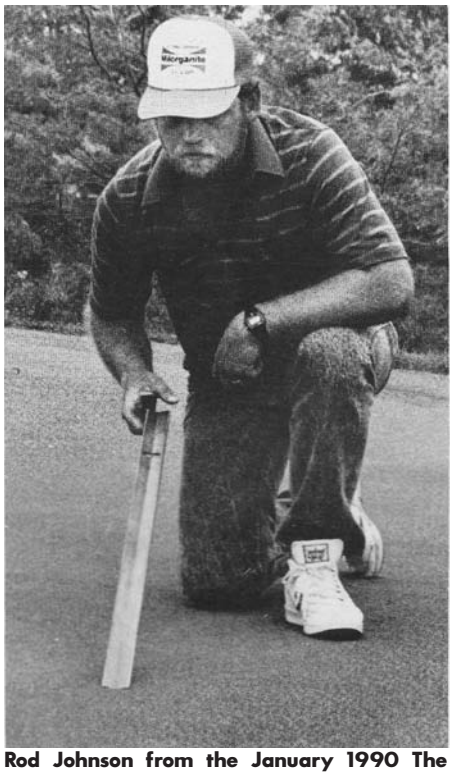
The cover story of this issue penned by editor, Monroe S Miller covered the new WGCSA President, Rodney Johnson. Rodney took the helm of the association at age 35 as Superintendent of Pine Hills Country Club in Sheboygan where he still resides today.

After obtaining an associates degree in Horticultural Production from Gateway Technical College in Kenosha, Rod's career took him to North Hills as an assistant superintendent and Clifton Highlands Golf Club and Thunder Mountain as superintendent.

Johnson grew up in Osseo where he met and married his high school sweetheart Janell. The couple has two boys - Brent and Joey. Rod became interested in golf course management at the age of 14 when his father was president of the Osseo Golf Club. It was at that time the course was being renovated and switched from oil-sand greens to new bentgrass greens. The course also put in a new irrigation system and several tees for the bargain price of $50,000 along with donated member labor. Rod was volunteered to learn how to fill trenches!

When asked about his role as president Rod expressed he felt he was a spokesman for the membership and in turn the board of directors. His items of importance included:

- Completion of the OJ Noer Center for Turfgrass Research
- Continue the WGCSA relationship with the WTA while solidifying the WGCSA identity.
- Improving member understanding of AG 29 and the effect it will have on golf operations.
- Continue the successful publication *The Grass Roots* and our relationship with Milorganite and the Wisconsin Golf Turf Symposium.



Rod Johnson from the January 1990 The Grass Roots

The Campus Connection penned by Mario Tiziani was titled natural Variation in Putting Green Speed. At the time Mario was a sophomore at the University of Wisconsin-Madison and a member of the UW Golf Team. He preformed his research under the guidance of Dr. Wayne Kussow, UW-Madison and Michael Semler Superintendent at Cherokee County Club. Tiziani used stimpmeter reading on 4 greens at Cherokee Country Club over a 4 week period to track how uncontrollable factors influenced green speed.

Factors that are uncontrollable to the maintenance department include rain, humidity levels, temperatures, and time of day. The greens were single cut a consistent height, and received no fertilizer during the test period.

In summary Tiziani found that non cultural changes in putting green speed were found and anticipating those changes puts a golfer at an advantage over his competition. When averaged over the four

greens, speed rarely changed a significant amount but individual greens did have significant measurable change. The maximum green to green variation was 2.5 feet, while day to day variation on a given green ranged from 0 to 1.25 feet.

When air temperatures exceeded 80 degrees for several days in succession speeds originally were varied green to green but then leveled off to a variation of less than 9 inches. Tiziani stated that a variation of 9" or less is not to be concerned over for the golfer's sake.

Daytime drying of the turf increased green speed only if the bentgrass was not growing rapidly. Normally the grass growth during the day slowed the green to match the speed increase from drying conditions.

Grain had a much greater effect on green speed than did direction of mowing. Grain could reduce speed 20% while mowing direction only had a 6% impact.

In The Wisconsin Golf Course Survey titled Drinking Water on The Golf Course compiled by Monroe Miller and Rod Johnson. They chose the topic based on an increase in golfer demand for ice cold fresh drinking water on multiple holes.

Some course staffs are spending 20 man hours per week to keep up with the demand for water with washing and replenishing 10 gallon Igloo coolers and cup supplies. Monroe noted that the 4oz cone cups supplied for the golfers is often not enough and the players are bringing 16 oz. cups with them.

Monroe went on to say "More than one superintendent has wondered how a 10 gallon Igloo cooler could be empty at 2 pm when it was full at 9 am and yet there are only a dozen cups in the waste container. Wondered, until he saw a player on the next tee soaking a both towel with water from the cooler."

"The complaining from players is aggravating, but no nearly as much as having to send an employee back to the golf course on Saturday and Sunday afternoons - to fill coolers. That's aggravating because there are employees on the property already - clubhouse and pro shop employees. But for us at least, filling coolers isn't their job. So we send someone in, at overtime pay and usually for a three hour minimum, to fill the _____ coolers."

With twenty superintendents interviewed the average number of cooler locations on the course away from the clubhouse were 5. Often two or more holes were served from the same cooler station. Coolers were the most common source of water while a few had a combination of coolers and bubblers. Blue Mound had all piped water.

17 of the golf course superintendents were responsible for maintaining the coolers while two had clubhouse staff to do the work and one had the golf shop staff responsible for cooler maintenance.

In the Wisconsin Pathology Report Dr. Gayle L Worf titled his article Should Mercury Containing Fungicide Use Be Continued. At the time Dr. Worf wrote the article mercury products were under special review to determine if they would be allowed on golf turf.

He started with a review of the cadmium and chromium containing products that came under fire in the 1960's and were later banned. Dr. Worf stated although plants growing in soils high in cadmium would take up the compound the product when applied to turfgrass was not a threat to citizens unless they smoked tobacco grown in high cadmium fields.

He continued to say despite the direct link from turf to people there are two other tests to consider. 1) Are there safer alternatives available? and 2) What is going to be the perception with its continued use among both golfers and the general public? In other words, on a risk-benefit use, can it be defended?

Gayle did not think its use at the time could be defended. By that time there were new organic fungicides available to replace the cadmium products

Now on to the mercuries. Mercury is a heavy metal, cumulative in the soil where applied and in certain circumstances recognized as hazardous to human health. Methylmercury formulation exposure from fish was the most dangerous form of exposure to humans.

The phenyl and inorganic mercuries used in turf maintenance were considered less toxic. Not to say they were not hazardous as mercuries can be absorbed by the skin or inhaled however, they had much less toxic effects in comparison to other heavy metals and would be eliminated by the body over a 60 to 90 day period.

Testing of golf course waterways after use of mercury products for over 40 years did not show any mercury in the waterways. This was attributed to mercury being

tied up in the thatch layer of the soil, and not taken up in high quantities in the plants.

That brought us back to the same test used for the cadmiums, are there safer alternatives available. Combinations of PCNB, chloroneb, Daconil, thiram or other chemicals would work where snow mold pressures were not high. However where pressure was high snow mold breakthrough was common.

Dr, Worf finished with this. "Of course, if society decides that a lower level of control is acceptable, then we do have alternatives. Our judgment has been based upon the present demand, which is a green coming out of the winter in sound condition without holes that prevent its early springtime enjoyment."

"It will be interesting to see how the mercuries are judged by the new generation.

The Wisconsin Soils Report by Dr. Wayne Kussow was titled Questions From the Floor. Wayne answered questions on the difference in silica and calcareous ands in root zone mixes, ferrous sulfate and chelated iron products for fine turf, fine and normal sized Milorganite products and the benefits of homogenous and blended fertilizers. He also covered the formation of black layer and the question; "is freeze thaw aerification from the expansion of sand, silt, clay or water."

"The correct answer is water, but how much of this natural aerification occurs during a given winter is very much dependent on how many freeze thaw cycles occur. Water expands when it freezes and forces apart soil particles. During the thaw cycle water enters the new spaces created. Freezing then causes further expansion, and so the cycle goes."

Sandy soils, because of their inherently lower water contents, generally undergo less freeze thaw action than do silt of clay soils. Sands are also the least subject to compaction. Hence, in the final analysis, the importance of natural freeze thaw aerification does not differ greatly among the three soils.

As a reminder to WGCSA members this and all past issues of The Grass Roots can be found online at the Michigan State Turfgrass Information Foundation. (TGIF) Members can get access through the WGCSA website.