

EDUCATION RECAP

Charles Anfield, CGCS, *Heritage Bluffs Public Golf Club*



The March meeting for the MAGCS was held (luckily) indoors at the CDGA Golf House.

Despite continuous snow showers throughout the day, the show went on. Those of you who have been to this facility know how nice it is for educational presentations. For those of you that have not been there, you need to check it out. We are very fortunate to have such a venue at our disposal.

The day started out with a presentation by Jack Fry from Kansas State on, appropriately enough, Freezing Stress. Some of his key points were:

- All turfgrasses can tolerate some exposure to freezing temperatures. The extent of whether freezing causes injury depends on:
- Physiological condition of the plant
- Freezing and thawing rate
- Minimum temperature
- Duration of exposure

During freezing weather (unless you grow grass in a dome) many factors are out of our control. What we can control is how we prepare our plants going into a freezing period.

To minimize freezing injury:

- Avoid compacted or soggy soils in fall – install drainage
- Avoid excessive fall applications of nitrogen
- Avoid K deficiency
- Use Mulching or sand topdressing to protect the crown
- Use Higher mowing heights

Next, Ty McClellan from the USGA Green Section took the stage to discuss an age old problem: Ball Mark Repair.

To summarize his presentation: "It's not the arrow, t's the Indian".

There is no "best" ball repair tool. The key is in the technique of pushing in the sides and or pushing and twisting toward the center. The real damage to the roots is caused by popping up the center of the ball mark and disrupting the root system. Interestingly enough, research has shown improper ball mark repair will heal faster than no repair at all. Other factors involved in turf recovery are both the turf variety and the overall health of the plants.

Jack Fry came back on stage to make a presentation on Shade Stress.

Light quality and quantity can be measured. Both are factors in the anatomical, morphological and physiological growth and development of the plant.

Typically, low light conditions create a plant that has a thinner, narrower leaf with fewer chloroplasts with less overall density and a more upright growth pattern. In addition, the plant tends to have a lower respiration rate, lower transpiration rate, greater succulence and lower carbohydrate reserves. In summary a "weaker" plant than one grown in full sun that is less capable of handling traffic, disease, drought, insect pressure, and other stresses placed upon it.

Most shaded sites or microclimates have other factors that contribute to plant failure.

These are:

- Less air movement
- Higher humidity
- Longer periods of dew
- Moderated temperature extremes
- Higher CO₂ levels

Solutions to the problem other than the obvious and necessary chain saw job are:

- Document the problem
- Choose varieties that are shade tolerant
- Mow higher
- Lower N fertility, higher K and Fe
- Irrigation – less quantity and frequency
- Aerification – improve drainage and compaction
- Fungicides – more frequent or as needed
- Use of growth regulators to control canopy vertical growth and improving quality

Derek Settle's presentation was on his research with Moss Control.

He recommends investigating why you have a chronic problem. Do you have adequate fertility? Are your mowing heights too low?

- Multiple strategies can be used to control moss
- No strategy was capable of eliminating moss
- Moss strategies should be timed when moss is actively growing spring and fall, and may not be necessary mid summer
- Baking soda, spot applied, twice in the spring can effectively suppress moss all season
- Chlorothalonil alone or in combination with other contact fungicides can suppress moss, but requires at least three sequential applications every 14 days
- Spring and fall applications of Quicksilver at 6 oz/A (four total) can effectively suppress moss without adverse effects to bentgrass health.

Randy Kane of the CDGA took the stage after lunch to discuss Velocity® for *poa* control.

He has conducted some trials at Peoria Country Club. Some key points of his presentation include:

- READ THE LABEL
- It is toxic to all *poa* species
- It is taken in by the plant via foliar uptake
- No pre-emergence control, no prolonged soil activity
- The new formulation is easier to work with
- 10-30 grams Ai/A per application, multiple applications required
- Can seed ten days after last application
- Apply four weeks after bent germination
- Works best on fairways with lost infestation
- Late spring, early autumn is the best time
- Not labeled for greens

Jack Fry came back out for the last presentation of the day, on the topic of Turf Water Use and Drought Resistance.


His key points included:

- For water movement to occur, a water potential gradient is needed
- Water absorption is governed by extent of rooting
- Water loss from a turf canopy occurs primarily by:
 - Evaporation
 - Transpiration
 - Respiration

What can be done to save water for golf course use?

- Monitor ET
- Use moisture measuring tools to monitor soil moisture
- Improve efficiency of irrigation delivery
- Reduce the amount of irrigated turf
- Irrigate deeply and infrequently
 - Irrigating deeply and infrequently promotes:
 - Deeper rooting
 - Greater total root production and development of longer root hairs
 - Reduces soil compaction
 - A reduction in the incidence of some diseases such as dollar spot and summer patch
 - Better turf quality during dry down if turf was previously watered infrequently
 - During mid summer, bentgrass and annual bluegrass may require more frequent irrigation due to limited rooting

The presentations covered a lot of ground on different stresses to turf. It was a good review to help shake the winter cobwebs and help get our heads right. The golf season is here, and the seminar was a great way to start thinking about growing grass for another season in the Midwest area. Our thanks go out to all of our speakers and the people behind the scenes who made it happen. Despite the weather, it was a good day. -OC



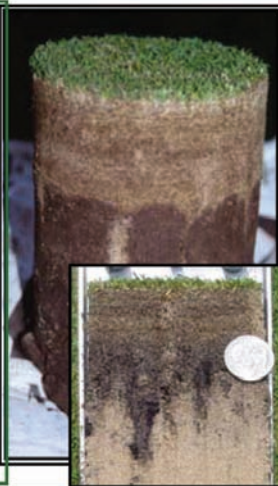
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