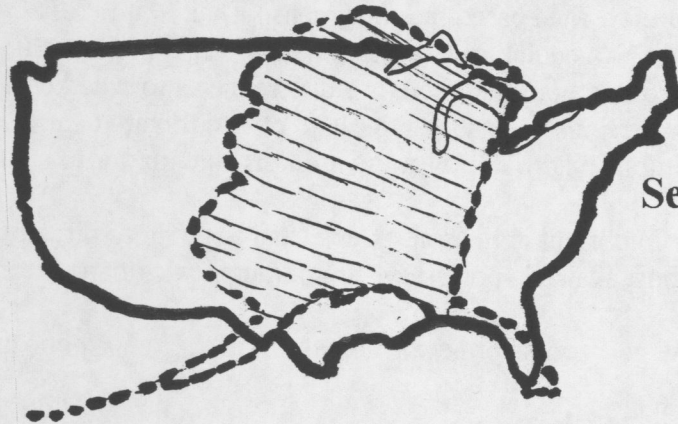


# TurfComms

V. 14, I.2



Sept. 2, 2002

**PURPOSE:** To pass on what we learn willingly and happily to others in the profession so as to improve turf conditions around the country.

**TALES FROM THE UNDERGROUND: a natural history of subterranean life** by David W. Wolfe: Read this book the week I was in Lansing. Had purchased it earlier and brought it with me. I've always had an interest in things below the soil surface. Its Introduction was for me a review. The first chapter, Origins, made me realize I had not been keeping up with current ideas on how early life was formed. The second chapter, The Habitable Zone, added more information to my knowledge of life down deep in the soil and rock. While chapter three, Shaking the Tree of Life, made me realize how far behind I was on the recent findings on evolution at the primitive levels. The work of Carl Woese, et al, I had not been very aware of.

After the first three chapters the book went down hill for me. It did not provide much new knowledge but explained/reviewed things I had learned in the past. The book, 221 pages, is written for laymen. It should easily be understandable for a high school graduate with a little interest in science. Probably a good present for someone thinking of studying in the biological sciences. All of us that have been out of college for a while would be wise to read the first three chapters.

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**SOIL ORGANIC MATTER reaches equilibrium:** This is the title of some research by Yaling Quian and Tony Koski, Colorado State Univ. reported in TurfGrass Trends June issue of Golfdom This points out one important lesson for the superintendent with the new golf course, or new sand based tees or greens. That is, it takes 20 to 24 years for organic matter to build up to equilibrium levels in native soil, and 25 to 30 years in sandy mixes. The authors also point out that there is a difference as to whether the land turned into a golf course was previously in native grassland or in cultivated agricultural soils. The cultivated agricultural soils will be a lot lower in organic matter to start with.

Why is organic matter important in the soil? Because it is going to directly affect the amount of CEC and thus; available potassium, ammonium, calcium and iron.

Therefore, on that new golf course or new sand based tee or greens pour the organic fertilizer to the turf.

**TEERING SURFACES:** Why not Green Tech ITM teeing surface replacement for those too small and too shaded tees? John Patton of that company emailed me after the last issue and wrote, "We anticipate installing about 6 modular tees this fall..."

Well, I saw the turf at Michigan State Univ. stadium this summer and I liked it. But? Tees? Maybe.

**FIRST FRUIT:** This is the true story of how a bioengineered (genetically engineered) food plant, Flavr Savr tomato, was prepared for the market. The story is written by one of Calgene's scientists, Blenda Martineau, Ph.D. She tells of the genetic engineering involved, Calgene's interactions with FDA, and provides a look at corporate decision making as the Company approaches release of this new biotech food. Also the internal working decisions as Calgene went from a scientific work place, to a for-profit business company with a product to sell to the world.

What motivated me to read this was the rumblings I had been hearing and reading over Monsanto's release of Roundup-ready-canola and the future release of Roundup-ready-bentgrass. I wanted to know more about the genetic engineering of plants. I found the book, a 2001 release of McGraw-Hill, an interesting and educational read. However, I feel some genetics background is necessary. I got by with my one undergraduate course plus a graduate course in agricultural statistics. The latter, although helpful, wasn't needed. The genetics course, although 40 years old, was very helpful.

I encourage anyone with some background in genetics and an interest in the future to read this book. The "Frankenfoods" are here to stay. This book by describing how the first such food got to the marketplace prepares you for the world ahead. By-the-way I learned as I read that Calgene was bought out by Monsanto in 1996-97.

**\$10,000 TO FUND TURF LIBRARY:** Looking for a good source of reliable income for some of your retirement money in these troubling times? I showed my support of the

Turfgrass Information Center by giving MSU Foundation \$10,000. This amount is in the form of an annuity in which the giver gets a yearly income from the money until his death then the money becomes the sole property of the Foundation and thus helps TIC . For more information on how you can do the same call, write, or email Cliff Haka, Michigan State Univ., 100 Library, East Lansing, MI 48824-1048. Ph. 517/355-2341, or email hakac@msu.edu.

**MICHIGAN TURFGRASS FIELD DAY, Aug. 13, 2002:** Well this one wasn't rained out like last year's but rain was threatening. I was surprised the Field Day got started 15 minutes late when storms were predicted before the days end. But, everything went well in the morning and we left for Sioux Falls, S.D. after lunch. I liked the way they ran the morning session with 16 stops, each manned by a researcher repeating their spiel every 15 minutes. The thousand plus visitors thus divided up, first between a golf tour and a sports/commercial tour, then to one of the 16 stops. I had picked 5 stops I definitely wanted to visit. Three were on the golf tour and I thus hit those first then went over to the two I wanted to visit on the other tour. I was then able to visit two other stops and make a quick swing through the exhibitors before lunch.

Stop 3 **Moss Control on Greens** by Dr. Vargas's student Nancy M. Dykema. This study was started in May of 2002 and no great results as yet. Dykema emphasized raising height of cut, increasing fertility, and lowering moisture levels as first cultural steps in moss control. Secondly, as no chemical appears to offer one shot control, you will need persistence. They are looking at TD 2390 at 4 and 8 oz/M; TerraCyte at 8 lb./M; Dawn Detergent at 4 fl oz/M; Moss Master at 1 lb/M in 35 gallons drench; Kocide at 1 lb in 5 gal.; Spotrete 3.75 fl. oz/M; Ionized copper at 10 ppm and 100 ppm; Scott's Moss Control Granules at 3.66 lb/M; Garden Safe Moss + Algae Killer at 80 fl. oz in 25 gal.; and Schweizer M. Royal at 140 g in 2 gal. Applications intervals ranged from 7 to 28 days depending on product. You might want to check next year for results but at this point neither turf damage or moss control appears to be overly significant.

Stop 6 **Post emergence Annual Bluegrass Management** by Ronald Calhoun. This was primarily a fairway height study begun in 2000 which shows much promise of *Poa annua* control. But, also reported on was a small *Poa annua* control study at green height. The fairway height plots started out as 80 to 90% *Poa annua* into which three bentgrass plugs were placed so as to better measure possible damage to bentgrass, and to measure spread of creeping bentgrass into the *Poa* if the materials used did reduce *Poa*.

"After three years, several plots are showing a dramatic increase in bentgrass. The most effective treatments have been the Scott's TGR on Fertilizer and two experimental herbicides HM9930 and V-10029. These plots now contain 80-95% bentgrass." However, the TGR and V-10029 plots went to ugly dead or dying turf the very first year, then came back slowly as the bentgrass filled in. The HM9930 plots made a much more gradual transition to creeping bentgrass.

Also tried were Agogee, Prograss, Primo Maxx, Beacon, and Proxy. The Proxy

applications resulted in improved *Poa annua* stands. All treatments were applied three times per year. Beacon (primisulfuron) caused damage to the bentgrass but has showed some good increases in bentgrass the third year.

A small trial of Trimmit and V10029 (actually the RCV11061080 formulation) as weekly and monthly treatments was started on a Providence putting green turf. The V10029 applied weekly in very small amounts shows great promise. Trimmit plots did not.

**Stop 7 Got Water? A Discussion of Water Use, New Legislation and Potential Impacts on the Turf Industry** by Gregory T. Lyman. There is in the Field Day hand out a three and ½ page printout on what the Great Lake states and Canada are doing to protect their water from interstate trade.

**Stop 8 Water Management on a Sloped Putting Green** by Brian E. Leach a masters degree candidate. This is the work comparing the USGA greens construction technique with a new proposed Rieke Construction Method. The latter has only 8 inches of sand mix on the high spots and 16 inches on the low areas. Again, like last year, the research shows that the Rieke Method is the way to go. This method results in more uniform moisture in the top four inches than does the USGA method, where high areas dry out too quickly and low areas tend to stay too wet.

**Stop 10 Evaluating Mowing and Fertilizer Practices for Re-establishment of Sports Fields in a 60 Day Growing Window** by J.T. Vanini, Dr. Rogers Ph.D. student. These two and ½ month old plots showed poor turf under the low budget treatments and I did not stay around to hear the results. Did see nearby a plot of **Combgrass (Crested Dogtail)** which caught my eye. It looked like ryegrass only less dense at a two inch height. But a useable turf was being produced by this new selection for the turf world.

**Stop 15 Athletic Field Systems Study** by Jason J. Henderson a graduate student. This is a study started in the Spring of 2000 to look at some of the sand root zone stabilizing materials (Turfgrids, Ventway Stabilizers, ZeoPro, Profile, ReFlex Mesh Elements, GrassMaster, Hummer Supertiles, Sportgrass, and Motz Grass) all trade named products now on the market. Results should be available soon.

**Stop 16 Nitrogen Fate in a 10-year Old Kentucky Bluegrass Stand** by Kevin O'Reilly a graduate student. 2 lb.N/M vs. 5 lb. N/M/year showed clearly that 5 lb. would result in nitrate pollution of the ground water if leaching occurred.

One new product to comment on and that is **Ezflow**. This is a styrofoam surrounded drain line. Used with a barrier over the top and laid with a uniform fall, it should work well. But, is this the way to go? I'm not sold. **Your comments are welcome**. It sure would save a lot of pea gravel hauling and shoveling.

END

## Our Long Summer Vacation:

Just be thankful I'm not bringing by all my photo albums for you to view.

We left for the summer with our big goal to be Alaska, the only state I had not visited. Our trip in the motorhome took us through Texas, the panhandle of Oklahoma, Eastern Colorado, Wyoming, Utah, Oregon, Washington, and to Vancouver Int. Airport. This portion of the trip was reasonably uneventful. We drove through a nasty thunderstorm front near Wichita Falls. This was the only hard rain we encountered on the way to and in Alaska. For those who have seen some of these green skied storms that foretell of tornadoes, you can appreciate how glad we were to get through it in one piece. We went through Eastern Colorado and Wyoming to avoid all the forest fires in central and western Colorado. Even swinging north around Denver and headed for Fort Collins we could smell wood smoke.

We stopped in Boise, ID and visited for a day and a half with Cynthia's brother, Peter. Of course in Washington we saw Mt. Rainier and Baker. We would have a better view of both after the Alaska cruise. We parked the motorhome at Park N Fly outside the Vancouver Int. Airport with the refrigerator running. It obviously didn't stay that way long, we found out 2 weeks later. The flight to Anchorage started out beautifully with snow covered peaks to our right along British Columbia's Western Shore. It ended almost as well in Alaska.

We spent one day in Anchorage watching seaplanes land and takeoff. Then took a small bus to Talkeetna and then Denali (Mt. McKinley). Mt. McKinley was best observed on the first evening at Talkeetna where only a haze and a few clouds graced its sides.

While visiting the Denali area I was constantly comparing it to the Western half of Colorado, an equally or perhaps more mountainous region, where in the past I had spent a fair amount of time. The vegetation is similar, often the same but; the tree line in Denali is below 3000 ft. of elevation. In Western CO you are seldom below 5000 ft., and the tree line is way up there. In the Denali area while touring for 4 days we only once got above 3000 ft.

Glaciers are another difference that gives the Denali area in this case a less attractive appearance. The difference is not just the recently glaciated environment but the glacier streams. These streams in the summer are almost mud flows. They are grey to black and devoid of fish and other wildlife at least during the summer months. They apparently clear up once the glacier melt stops in early fall. All that silt and fine sand which had been rock before being crushed by all that ice makes one well aware of the power of glaciers.

One of our trips in the area was a bus excursion into the Park where we saw one moose, many caribou, Dall sheep, a Silver Marmot, one golden eagle, but, no bears. One Dall ram posed nicely for us skylighted on the top of a nearby hill showing off his good form

as well as an almost full circle of horns. The silver marmot watched us from the edge of the road while we took his picture, the moose and caribou were less cooperative. A jet boat ride showed us how the old trappers lived and a couple of bald eagles. A raft trip showed us a canyon through rocks and glacial till. The forest soil was real thin. For clothes, a polo shirt, under a sweat shirt, under a wind breaker was all I needed. A raincoat to replace the wind breaker is strongly recommended. You often started and ended the day outside with all three layers on but most days you spent part of the time with the wind breaker and then sweat shirt shed.

We ended the Denali experience with an Alaska Railroad observation car trip back to Anchorage. I probably enjoyed the observation car more than others in our party. Even so the rail trip was long and slow. As we came back into Greater Anchorage I began to realize another difference from Colorado; people. There are a lot less of them in Alaska (pop. = 0.6 million or 1.1/sq. mi.) than there are in CO (pop. = 4.1 million or 39.1/sq. mi.) and it shows. If you want to enjoy the mountains and woods without people go to Alaska, but it will cost you. Most everything is much more expensive there (\$2 for USA Today).

And now after a bus trip to Seward, AK; during which we saw more glaciers and bald eagles we began the cruise experience. The ship was the Carnival Line 'Spirit'. This was a one year old cruise ship in the large class size. The overall length was 959 feet, gross registered tonnage 88,500, cruising speed 22 knots. The latter made walking on deck from aft to bow a bit of a chore. Up on deck 10 it took me a full five minutes to walk a full circuit at a roughly 4 mile/hr. clip. There were over 2600 passengers. The crew was from all over the world. Their command of the English language appeared to be greatest when they were in positions where there would normally be the most contact with passengers. These, too, were from all over the world, although the vast majority appeared to be U.S. citizens. This was my first cruise experience; we had wanted to go on one of the smaller ships where education not fun was the main theme. But, this was the only cruise that fit Cynthia's two children's schedules.

There were parts of the experience that reminded me of my military transport ship trips to Korea and back, but thank goodness not much. Our cabin was on deck five, aft, starboard, and had a small balcony. The latter I spent a fair amount of time on, although it was often chilly. The food was excellent but you felt they were going to charge you for anything other than normal meals. Or perhaps what was annoying was the constant advertising of things, and chargeable services available. A Carnival cruise ship should be thought of as a resort packed in a steel hull. I did enjoy free-of-charge the use of a very fully equipped workout or exercise room. Use of the internet to catch up on email cost me \$55 for 100 minutes; we did not partake of other activities except for off ship tours.

The first day got off to a bad start. I was not impressed that it was a Panamanian registered vessel. Secondly, crawled into bed at ten but that didn't last long as Cynthia when coming to her bed found she was walking in water. An hour and a half later, the problem had been solved, (an air condition condenser pan had lost a pipe connection) and

the floor had been vacuumed. The rug remained wet/then damp for another 2 days.

The first part of the trip was glacier oriented with stops at Valdez, Yakutat Bay, Juneau, and Skagway. Also saw lots of bald eagles and other critters were spotted. In fact saw more bald eagles on this trip that I have or probably ever will see, all sightings combined.

One of the more impressive things I saw was watching our ship come into Juneau early in the morning, spin 180 degrees, and slide to the dock all on its own power. While there we went on a whale watch trip. Saw some whales and sea lions. Most interesting was a young humpback whale with its mother. This youngster of 5 to 10 tons was feeling frisky. He did numerous full breeches for us. I happened to be in just the perfect position to watch that although was not so well positioned for other sightings.

The next to last stop on the cruise was Ketchikan, AK where we learned all about totem poles at the Saxman Native Village. We got off in Vancouver and spent two days there before starting back. I liked Vancouver. It was a large modern city with lots of horticultural plantings. The vegetation often reminded me of the southern coastal Massachusetts town I grew up in. However, Vancouver, although further north, has a warmer winter climate and therefore zone 7 plants common to Washington, D.C., were present.

**THE REST OF THE SUMMER:** After dropping off one of Cynthia's children and family at the Seattle Airport we camped at a KOA just south of Seattle. The next day we took scenic Route 2 from just north of Seattle to Leavenworth, WA. Here on the banks of the Wenatchee River we rested for two nights, and I wrote up our Alaska experiences. We then drove on to St. Regis, Montana and stayed at a KOA we really loved. The owners had domesticated rabbits all over the property and had worked hard to attract birds. Among others we saw tree swallows, cedar waxwings, and an indigo bunting.

Before going to Alaska we had talked about visiting Glacial Nat. Park on the way to Michigan but, after all the glaciers on the Alaskan Trip I voted for Yellowstone and Cynthia allowed me my wish. So our next stop was Livingston, MT KOA a short journey north of the north entrance to the Park.

Yellowstone – Day 1: Before starting we decided to make it a two day visit to the Park; Cynthia doesn't do much walking and at 7000 ft. of elev. I'm not into a lot of walking either. A 26 foot motor home is not the best vehicle to see the Park in but we ruled out renting a car when we found out what was available, combined with having to come back to Livingston.

We visited Mammoth Hot Springs, Ranger Museum, Old Faithful, and Kepler Cascades. I also walked the Mammoth Hot Springs area and went to a dozen or so hot springs and geysers in the Old Faithful area. We spent the night at Grant Village in the south end of the park.

Day 2: I enjoyed the hot springs and geysers so much we went back there after a brief second stop at Kepler Cascades. I took a longer walk out from Old Faithful while Cynthia sat and read the paper waiting the eruption. I saw and took pictures of at least another dozen hot springs and geysers and was almost back to Old Faithful when it erupted 10 minutes early. We then went back to West Thumb of Yellowstone Lake and then up the east side of the Park stopping at Canyon Falls. We exited out the Northeast Entrance and continued north to Red Lodge, MT KOA.

We encountered, **no bears**, but, elk, moose, and many Buffalo; along with ground squirrels, chipmunks, white pelicans, and also a forest fire in the Park. The latter had contributed a lot of smoke to the Park the day and night before our arrival but a shift in the wind during our day-one soon cleared most of that up. The fire was in the far eastern sector and did not affect our trip out although it was visible.

The second most spectacular portion of this two days was the 69 mile portion from the NE entrance of the Park to Red Lodge. Charles Kuralt is quoted as describing it as: "the most beautiful drive in America" It was a white knuckle drive for Cynthia, and I managed to sweat a little. In all my driving I'm not sure I remember anything so spectacular. Getting to the 10,940 ft. Bear Tooth Pass was pretty impressive and a bit scary. The trip down from there to Red Lodge, MT was just incredible. You could not appreciate it fully driving a motor home and you sure couldn't enjoy it if being on the side of a mountain road with 100 to 5000 foot drop-offs scared the bee-gee-baas out of you. If you are not in the latter two categories by all means take this route. It is breathtaking! But three hours is a bit long to hold your breath.

One night and two days is not enough time for this 3472 sq. miles National Park (R.I. is 1,045 sq. mi.) whose center is an old 30 to 45-mile wide volcano caldera. Both of us had been there twice. My trips were drive-throughs only; going to and from Cody, WY and the Idaho Snake River country when with the USGA Green Section. Cynthia's trips involved slightly longer time in the Park than mine but no longer than this one. The Park was full during our Thursday-Friday, July 10<sup>th</sup> and 11<sup>th</sup> visit. Parking the motor home was often a problem and sometimes impossible.

From Red Lodge, MT we headed to Michigan. The most eventful portion of that trip was the ferry ride across Lake Michigan. We left on the 12:30 A.M. trip, watching the stars and trying to sleep during the four hour cross over in lounge chairs. The sky was beautifully clear, saw three satellites and one shooting star. We arrived tired and drove to Detroit. The ferry ride from Manitowoc, WI to Ludington, MI certainly beats driving through Chicago but is a bit expensive in a motorhome even at senior discount rate.

We hopped around Michigan visiting Cynthia's children and friends. We spent 3 & ½ days in Lansing while I again worked at the Turfgrass Library there. Got to examine about 2/1000s of Noer's slide collection. I attempted to help with the labeling that would make it more valuable when it gets on line.