Figure 1. A. Various coverage on water sensitive paper when applied with different nozzles, at different speeds and in different water volumes. Notice the coverage when applying at 6 mph at 1 gal/1000ft². B. The graph depicts the effect of water volume on the control of dollar spot with chlorothalonil.

When conditions are quite conducive, it can be difficult to manage diseases even with the best fungicides. As disease pressure increases so to must the fungicide rate and interval in order to successfully manage turf diseases. For example, the past two summers have been perfect for Pythium blight especially in creeping bentgrass fairways. When conditions are ripe for Pythium, this is not the time to use low rates. Also it seems like the tendency is to assume fungicide resistance when fungicides fail to perform during the summer. While this can be a real and difficult problem to manage, it is imperative to have this tested before assuming that you have an insensitive population. I think many
failures can be attributed to lack of protection because the fungicide has been degraded. I find it suspicious that fungicide resistance is typically alleged when extreme disease pressure occurs and when it is hot. I think we forget that our fungicides do not last very long in the environment or at least that’s what our research shows. Before applying a fungicide this summer, I hope you consider these factors in order to maximize performance!

**Figure 2.** The effect of temperature on the degradation of iprodione in 2011. Iprodione was applied once and plugs were brought to the lab 0, 7, 14, 21, 28, and 35 days after application to incubate at 50, 68 or 86°F. Fungicide concentration was measure using a commercially available ELISA kit.
I Wear My Sunglasses at Night

By Kendall Klaus, Owner of Klaus Nurseries

*I Wear My Sunglasses at Night* is a great song recorded by Canadian singer Corey Heart. In August of 1984, the song rose to number 7 on the Billboard Hot 100. The song is considered by many to be a classic ‘80’s pop rock song. You may wonder why I bring this up – continue reading – it will all come together shortly.

I was lucky enough to grow up alongside a small lake in the Twin Cities area. Like many of you who grew up in the 1960’s and 1970’s, when I wasn’t in school, I was outside. Much of my youth was spent on the water, winter and summer, fishing, swimming, water skiing, playing hockey, etc. I can still remember being outside on a sunny winter’s day, having fun.

Upon returning to the indoors, you wouldn’t be able to see anything for 10 minutes, after having been
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**Features & Benefits**

- **MONITOR MOISTURE LEVELS AND ADJUST IRRIGATION**
  Reduce water usage and improve playability without risking turf quality. Promote root growth by avoiding over watering. Detect dry areas before it impacts the turf’s health.

- **TRACK SALT BUILD-UP AND SCHEDULE FLUSHING**
  Take the guesswork out of monitoring and managing salinity levels. Get positive confirmation that your flushing reduced soil salts. Know when and how much water to flush with.

- **MONITOR DAILY SOIL TEMPERATURES**
  Predict peak soil temperatures early in the day to start remediation activities before an emergency. Schedule fungicide applications and pesticides for optimal effectiveness. Understand evaporation rates and syringing needs.

- **WIRELESS NETWORK**
  No wires between the repeaters and the sensors, or the sensor and the probes means that sensors can be installed anywhere on the course without disrupting play. Install sensors in greens, fairways, tees and other areas without having to trench or pull wires.
outside with the sun reflecting off all of that snow. I’m sure sunglasses had been invented, but I don’t remember ever wearing any as a kid. I don’t think I had my first pair of sunglasses until I could drive a car.

Last June, after returning from a fishing trip, I noticed a white growth on my right eye. It had been a particularly windy week up north and I assumed my eye irritation was a result of being out in all that wind. After a week of Visine use, it still felt like I had sand in my eye, so I made an appointment with my optometrist. Much to my surprise, he informed me that I had something called Pterygium! Not only had I never heard of it, I couldn’t even pronounce it! Definition: Pterygium (noun, pronounced te-‘ri-jē-um) “a fleshy mass of thickened conjunctiva that grows over part of the cornea usually from the inner side of the eyeball and causes a disturbance of vision.” Sounds lovely, huh?! In severe cases, Pterygium can block your vision completely. After a visit with a surgeon of Ophthalmology it was confirmed – not only did I have it in my right eye, but also my left.

It became clear that relief would come only through surgery, which I did have this past January. He only operated on my right eye, since the growth on my left eye is not yet big enough for surgery. My surgeon used the “no-stitch, amniotic graft method” and it went beautifully. For anyone interested in seeing this type of procedure, there is a You-Tube video; however, it is graphic and not for the squeamish!

The primary cause of this condition is ultraviolet radiation from sunlight. Other causes include exposure to dusty, dry environments; spending significant time on or in the water may double your exposure to ultraviolet rays. My surgeon believes that 90% of my exposure occurred before I was 16 years old!

Although I don’t ‘wear my sunglasses at night,’ I do wear them from sunrise to sunset, sunshine or clouds. Please have all of your employees put those sunglasses on when they’re outside, and by all means, if you have kids or grandkids get some good sunglasses on them whenever they are outdoors. Just remember the song,

“And I wear my sunglasses at night, so I can, so I can
Keep track of the visions in my eyes.”

Protect your vision – wear those sunglasses whenever you are outdoors!
The worst thing that happened to me occurred when I was young in my career. I was employed as an Assistant Superintendent and it was the summer between my first and second year of Turf School. I was instructed to load up the fertilize spreader and fertilizer. I was to fertilize greens heavy especially the 3 worst greens that were surrounded by trees. I fertilized all the greens and those three bad ones I fertilized in two directions so I knew that I got
it “Heavy”. After a light watering I went about my day and didn’t think another thing about it. The day had very little wind and temperatures reached 90 degrees. I am sure everyone knows where this is going but I didn’t until a day or two later when I noticed through my sunglasses that there looks to be checkerboard lines on those three greens. I told the Superintendent what I saw and he told me to immediately water the greens. As you can imagine the turf completely died in a distinctive checkerboard pattern on the three greens. The Superintendent took the most of the heat from the owner but I will not forget the ride out to view my destruction. I was devastated and I couldn’t sleep for weeks. I did get to spend plenty of time with those greens that summer spiking, seeding and watering those greens. This was a lesson I will never forget.

My best experience was at my prior position at Ferndale Country Club in Rushford, MN. Even though it was ten years ago I can remember it like it was yesterday.

Ferndale is located at the base of a bluff and above the Root River Valley. In the morning I would grab a fresh cup of coffee and head out on the greens mower. With so few employees I mounted a rack on the greens mower to carry the cup cutter and bucket with supplies. Hole 6 is a sharp dogleg that rises into a coulee of the bluff and overlooks the valley. My favorite spot to park and breathe in the view was behind this green. One of these spectacular mornings the sun was rising above the thick blanket of fog that covered the Root River Valley. Just as if I were in the peaks of a mountain. Deer meandered across the fairway, turkeys were clucking from a nearby field and birds were soaring above. To me it was a spiritual experience of God’s great creation.

“The Championship”

New Richmond Golf Club
August 27th

See YOU there!!!
Remember the old adage “haste makes waste?” Well, back in 1997, in my second year at Keller GC, haste almost cost me my life. It was a late afternoon in late October and the sun was dipping below the barren trees. I had been spraying snow mold chemical all day and was racing the sun in the hopes of finishing my last tank and the job.

The spray rig at the time was a platform-mounted unit that rode in the bed of a three-wheel Cushman. The tank was half full and I could see the
end in sight. Rather than take the cart path from the tee I had just finished spraying, I opted on a short cut down the hill to a nearby green. What an idiot! Needless to say, as I started down the hill one of the rear tires hit a depression in the ground and the load shifted. In the blink of an eye the unit rolled and flipped over upside down.

The first thing I remember as I gathered my hazy thoughts was the unmistakable smell of gasoline as it dripped on my back. The vehicle continued to run for a while but eventually died. As I tried to orient myself I realized I was pinned under the utility vehicle in the space between the bench seat and the steering wheel. The amazing thing was how close I came to a broken neck. The metal handle on the edge of the bench seat was just inches from my neck.

I remained under the vehicle for five or ten minutes while I cleared my head. Light was fading fast and the temperature was inching downward. I was eventually able to extricate myself with a lot of wriggling back and forth. Considering I had a broken collar bone and multiple cracked ribs, that was quite a feat in itself. I ended up in the emergency room and spent several weeks recuperating.

We purchased a dedicated, low-profile sprayer the following year. That was a tough way to get a new sprayer! To this day I still think about the day I almost died on a golf course. My accident helped me to realize that most things in life can wait until tomorrow. Haste does truly make waste!