

# TURFCOMMS



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

GCSAA (continued): A couple of **spray boom covers** from Canada looked reasonably economical. I hear too many excuses about not being able to spray for weeds because of the wind. Time to invest in a good spray boom cover, they are out there.

I bought tapes for some of the GCSAA educational sessions that I missed and was listening to them on my first drive to visit customers this spring. One thing that I remembered quite clearly was hearing Tom Mascaro say he had 100,000 slides in his collection. Now I have a few slides in my collection that I've accumulated over the years and up to that point was perhaps a little too proud of them. I estimate I have less than one twentieth the number he has. If you ever have to give a talk and need a slide or two I do loan them out so give a call. I probably have one of your course.

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**FUNGICIDE CLASSES:** My second call on this issue was a superintendent asking what class do I put Kromad in? He bought this combination product at bargain prices in 1991 and '92 after Mallinckrodt got out of the pesticide business.

The old label I grew up with reminded one of the witches' brews many superintendents often sprayed with. Kromad back then (70's) was a combination of cadmium sebacate, potassium chromate, malachite green, auramine and thiram. His product was a newer version without the malachite green and auramine (two dyes) but with iron sulfate added. Thus you can put it with the Dithiocarbamates because of the thiram, and the heavy metals because of the cadmium sebacate and potassium chromate.

As an aside, some of the first fungicides and antibacterial materials were dyes or very closely related to them chemically. Kromad was a decent broad spectrum contact combination fungicide in the good old days.

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**A FEW CORRECTIONS** from Dr. Elliot on my notes from her Texas presentation: "the Banner limitation for temperatures is 90 F and applies only for bermudagrass." I had quoted her as saying should not use over 93 F with no particular grass mentioned. "Second, it is only the Subdue granular formulation that must be irrigated after application as indicate on its label."

Then the local CIBA rep. wrote with more on Banner as well as the above. He claimed good success when it is used "at 1.0 ounces per 1000 ... in the fall after overseeding as a biostimulant for the cool season turf." He reports that they "do not see any phyto problems on bermudagrass greens under these conditions."

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## **HAVE YOU BEEN FEELING JUST A TOUCH FEMININE?**

**DO YOU HAVE A LOW SPERM COUNT?** What fungicides have you been using lately? A July 2, 1994, pg. 15, Science News report on a scientific article published in Toxicology and Applied Pharmacology points to long term use of **vinclozolin** as a possible cause. Vinclozolin is the common chemical name for the active ingredient in Curalan, Vorlan, or Touche' fungicides. It is a close relative of iprodione (26019). The breakdown products of vinclozolin are 10 to 100 times more effective at blocking androgen receptors in reproductive tissue than the fungicide itself.

The researchers exposed pregnant rats to 200 milligrams of vinclozolin per kilogram of body weight. The effect on male offspring was a frightening feminization. They are not sure what lower rates will do but there is reason to believe the results won't be what you want, so be careful make your workers wear that protective clothing.

**TURFCOMMS READERS** - Who are They? As of the last issue: 67 golf course superintendents, 48 other professionals in closely related fields or positions, 10 magazine or newsletter editors, 9 turf researchers, and four scattered family. Where from? 29 different states and one outside of U.S. Leading states are Texas, Colorado, Nebraska, South Dakota, Maryland, Arizona, Florida, Kansas, Virginia and California in descending order. The remaining states have four or less. I try to do this summary once a year to satisfy my own curiosity as much as anything, hope it gives you some idea of who your fellow readers are.

**ACC CONFERENCE - TUCSON, AZ:** The Air Combat Command branch of the Air Force that I have a contract with held a Conference in March. Tough duty having to go to AZ in March. While there I got to hear Dr. Jerald Wheeler give a talk on nutrient needs. Listening to him explain how to calculate out exactly the correct amount of 16-20-0 on your USGA greens to get the phosphorus level from 15 ppm to 25 ppm made me realize how little phosphorus this was. He first noted that the top six inches of top soil weighs two million pounds therefore one ppm would equal two pounds and 10 ppm = 20 pounds. Secondly that fertilizer phosphorus is expressed as  $P_2O_5$ , therefore only 44% of the phosphate labeled as present in the fertilizer bag is pure P. His calculation showed that 46 lb. of  $P_2O_5$  is needed for that desired increase to 25 ppm (or a little more than 1 lb./M).

But, most of us don't attempt to change the top six inches. We have no practical way to mix the nutrients within that two million pounds of soil. Therefore we place it on the surface and hope it works its way in. For nitrogen and potassium that usually happens but, not phosphorus; it doesn't move. Therefore when we take our next three inch soil sample we may suddenly find the phosphorus has

jumped up to 35 ppm instead of the 25 we tried to achieve. And if we only take a two inch sample we find it went up to 45 ppm. Now our visiting agronomist will tell us our phosphorus levels are high.

Moral of this discussion - it doesn't take much phosphorus to cure a low level in our greens.

But, as you might guess it is not quite that simple. If your soil is high in dissolved calcium (most all Western US soils are) or your irrigation water is - than that calcium may very quickly tie up the phosphorus and the next soil test may show hardly any increase at all.

Moral - keep soil testing.

Art Snyder, former supt. of Tucson C.C. and now a contractor, noted the fact that the new Hunter 600 series irrigation head has 10 nozzles available making it very versatile. As one who has been putting in a lot of irrigation systems he favors the electromechanical controllers because they tolerate breaks in the delivery of electricity better than the solid state systems do.

Here is a contractor that suggests you have two guys watch the irrigation construction crew constantly to make sure it gets the contract done correctly. His audience appreciated his comment and felt it was too bad that the base engineers that are suppose to monitor those contractors weren't there to hear it. Kubly, another contractor, speaking at the USGA Reg. Conf. in Dallas this Spring also recommended you have a full time inspector watching the contractor.

**HOW'S THE PARKING LOT LOOK TODAY:** Larry Beem, manager of White Sands Golf Course, N.M. made an important point at the ACC Conf. that reminded me of an article Tom Mascaro wrote a while back. Larry pointed out that the appearance of the parking lot is the number one thing that keeps daily fee golfers coming back and the entrance to the club is number two.

Tom Mascaro's article if I remember correctly was entitled The View from the Clubhouse Window and it emphasized the fact that many private club members were not necessarily golfers and their feelings of whether the superintendent was doing a good job often was based upon what they saw looking out the clubhouse windows when eating a meal.

Moral - don't neglect the clubhouse grounds!

**USGA REGIONAL CONFERENCE - DALLAS:** Can't seem to go anywhere without hearing about the Alliette and Fore's successful control of **Summer Decline of Bentgrass**. George Manual brought it up here and then I heard it the next week at the No. TX Supt. Mt. Hard to believe all you superintendents are going to use it as George recommended it be used. "Do not use with wetting agents, or fertilizer or iron products" and the Fore must be the W.P. formulation.

Dr. Lehman floored me at the USGA Regional Conf. when she said there currently was 28 possible choices when selecting a creeping bentgrass for your golf course.

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**WHY USGA GREENS FAIL:** If you were at the GCSAA Conference and heard the talk by Dr. Leon T. Lucas, the North Carolina pathologist who did the original research on Alliette and Fore for the control of Summer Decline of Bentgrass, you would have heard him explain one failure of the USGA

Specifications (they now call them recommendation) on building a putting green. He points out that as soon as you build a layer or mat of grass roots, stems and leaves on top of that sand you are going to have another perched water table just where you don't want it. He speaks of numerous visits to such greens where he can squeeze water out of the this mat. He feels this is one of the primary reasons for disease (decline) in bentgrass greens in the South and I agree.

I had begun to reach the same conclusion myself. One of the big successes of the sand topdressing band wagon in the '70s and 80's was less summer disease and or decline in bentgrass greens. I find many golf courses need to seriously consider going back to those regular, light, frequent topdressings. Many successful superintendents never gave them up. Don't count on Alliette and Fore for control of bentgrass diseases --- use good management.

Is this a failure of the USGA Specifications? YES, because the USGA does not point out to you that the only way their method of building greens really works is if you continue with a very regular sand topdressing program. This is the important bit of knowledge Dr. Lucas conveys not the Alliette and Fore combination. Don't let that layer of organic matter build up on top of that sand. But, you all are quick to say I need that as a cushion so golf shots will hold. Then go back to soil base greens. The fine pores of a soil base will pull the excess water from the mat and your summer disease problems will go away. Well, not really, other problems associated with compaction will take their place - a little Catch 22!

If you read Specifications for a Method of Putting Green Construction published in 1989 by the USGA you will find on page 22 the line "In subsequent years, great care must be taken to adjust topdressing practices to maintain the original soil profile." I was unable to find such a recommendation for future maintenance in the 1993, Recommendations for a Method of Putting Green Construction, USGA Record March/April issue. I then went to the USGA text, Turf Management for Golf Courses, edited by Dr. James Beard and published in 1982. This text pg. 146, suggests that a mat accumulation if it does not exceed 0.3 inch is beneficial but that a mat greater in thickness than that is not desirable.

How does one first allow a mat to accumulate to a 1/4 inch depth and then keep it there? Any fertilization at all increases the thickness of the mat. Topdressing buries it. A buried mat (thatch layer) definitely produces a perched water table and often **black layer**.

For those that were at the Bentgrass - South session and didn't see me there - you're correct I was in the Golf Course Management Techniques: Part II session running concurrently. But, I bought the tapes for the Bentgrass - South session and listened to them on my recent trip around the Southeastern US.

**BOOK RECOMMENDATIONS:** RISING SUN by Michael Crichton, this is suggested reading for all. I enjoyed his Congo, Jurassic Park, and The Andromedia Strain ; thought Sphere however, was only so, so.

Wastewater Reuse for Golf Course Irrigation sponsored by the United States Golf Association should be in your library if your a superintendent in the Western U.S. or using effluent in the Eastern U.S. It is a complication of all the material out there on wastewater use and also poor quality water use on turf. This I felt was much better done then their Landscape Restoration Handbook which I would recommend for golf course architect's libraries but not superintendents. Of course there are always a few superintendents that might find themselves in need of this latter book, like Terry Buchen or Gary Grigg.