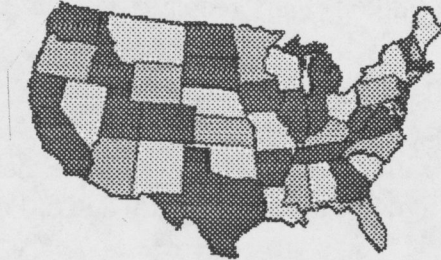


TurfComms

V. 12, I.8



July 15, 2000

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

OKLAHOMA TURFGRASS FIELD DAY (June 7, 2000) A year or so ago I wrote a long review of the literature on **Drive™** or **Quinclorac**. Three plots here of a combination of Dimension and Quinclorac applied postemerge (April 6) to crabgrass infested common bermudagrass looked very nice. Almost as nice as the plots of Surflan & MSMA, Barricade & MSMA, or Pendulum & MSMA. However, had I been here one to two weeks after treatment the bermudagrass showed more phytotoxicity from the Dimension & Drive combination than the three old standbys.

Princess is very susceptible to Spring Dead Spot (SDS) said Dr. Martin, also **GN-1** has questionable winter hardiness and poor SDS resistance. Dr. Taliaferro noted the old but sound rule that states: generally the more cold tolerant the cultivar the more SDS resistance.

Taliaferro, et al reported in a handout on a Bermudagrass Freeze Tolerance study. They lost a replication to insect damage so results are not statistically evaluated. But they felt that "it appears that GN-1 and Baby were the least hardy with Tmids around -6°C." While Quickstand and Midlawn showed the greatest cold tolerance. Other vegetative cultivars looked at were Tifway and Tifton 94 (TifSport), which were intermediate.

TURFCOMMS is published at unpredictable intervals by the editor and publisher:

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Of the seeded genotypes looked at Guymon and OKS 91-11 looked superior to AZ common, Mirage and Jackpot. Seed of OKS 91-11 will not be available until at least 2001 but most likely 2002. Of the putting green types; "Tifdwarf and Tifgreen were significantly hardier than all of the other putting green bermudas tested except for Tifeagle." Others looked at were Champions, Floradwarf, MS Supreme, and Miniverde.

In a 1999 study of Primo™ on OKS 91-11 bermudagrass at two heights of cut the differences in color and phytotoxicity were quite clear a week after treatment. Clipping weight and clipping volume differences were measurable for five weeks. However, at neither height of cut or several different rates of Primo were there differences in shoot density due to Primo.

There is now at least one fruitless sweetgum cultivar available in OK. It doesn't have quite the Fall color of the common sweetgum.

Of the newer **tall fescue** cultivars **Bonsai** and **Twilight** stood out because of their high susceptibility to Brownpatch in OK trials.

Dr. Greg Bell had been claiming that his research showed that iron and magnesium sprays were helpful in increasing bentgrass in *Poa annua* and bentgrass combination putting greens. However, the same rates of these materials that benefited the bentgrass in full sun when used in a shady location resulted in an increase of *Poa annua*. They obtained some reduction of *Poa annua* in the shade by using Dimension.

FIELD DAY by Pennington and Seeds West - Phoenix/Yuma: After spending two days at Taos, NM it sure was hard to head down to this area where the high was 110° in the shade. Good luck finding shade while viewing turf plots, although Seeds West and Pennington did have two canvases set up for just that purpose. This two day field day rotated around the new **seeded bermudagrass cultivars**. Seeded bermudagrass cultivars are slowly becoming big business. 14 million pounds of bermudagrass seed was sold in 1999. The first day was spent looking at plots at the Univ. of AZ's Maricopa Experiment Station. Day 2 was to the seed growing fields and processing plant down near Yuma (Roll, AZ).

There are two types of seeded cultivars of *Cynodon dactylon* available in the current market. The F1 seed of Princess, a cross between two self sterile clonal parents, and synthetic cultivars. Examples of the latter are Mohawk, Sultan, and NuMex Sahara. One of the most genetically stable of the new cultivars is Mohawk, a moderately cold tolerant cultivar from VPI's Dr. Lincoln Taylor, now retired. This is a reasonably cold tolerant cultivar with some turf characteristics. It makes a good common type turf for fairways and the like, and should be suitable for use just south of the transition zone, or in the transition zone if you were going to gamble with Arizona common, try Mohawk, and in a couple of years Oklahoma's 91-11 will be available.

One breeding problem noted for seeded cold tolerant cultivars was that many of the most cold tolerant selections were very poor seed producers, probably putting all their energy into rhizome production. Forage type bermudagrasses are also known to generally be poor seed producers. In this case all the energy goes into leaf and stem production. Poor production is about 150 to 300

lb./A/harvest and good production for turf cultivars is 4 to 900 lb./A. While looking at the production fields on the second day we saw land that was worth \$5000/A laser leveled and with Colorado River water available adjacent to somewhat level undeveloped land with only salty well water available for \$20/A.

In the afternoon of the first day we heard from several speakers outside of the Pennington and Seeds West personnel. Dave Minner, now at Iowa, talked on overseeding athletic fields in the North with bermudagrass. For those of you who have tried this on driving range tees where perennial ryegrass dominants you probably know that he found it hard to get bermudagrass established where the ryegrass was. It would establish nicely in the bare areas and produce an acceptable turf in two months. His main concern was the establishment of turf cover on fields where because of the lateness of the season and gray leafspot seeding perennial ryegrass was not productive. If you would like more on this practice I have copies of two articles filed under Athletic Fields.

David Nickson, an Australian/former golf course superintendent, and now employed by Ecogrow of Australia; there he will be researching and developing technology for the suppression of insect pests using entomopathogenic nematodes. David spoke on bermudagrass use in Australia where it has become naturalized. They were exporting seed to the US in the early 1900s. They have been selecting for winter color and winter disease resistance. Winter kill is not a problem but, cool cloudy winter conditions make leafspot and other cool season diseases of bermudagrass a problem.

He gave the quality ratings of some bermudagrass cultivars in Australia. The top three from top to bottom of the seeded cultivars was SWI-11, Princess, and Sidney. Kevin Morris, Director of the National Turfgrass Evaluation Program and Dr. Kimberly Erusha, Director of Education for the USGA Greens Section discussed their organizations role in the turf world. Then Dr. Bill Meyer, now at Rutgers Univ. but formerly a well know commercial turfgrass breeder, discussed new developments and areas of interest in the breeding of cool season grasses.

He felt that endophytes needed a lot more development. That in Europe and Asia there was a lot of untapped diversity in the cool season grasses. Most of the cool season grass breeding in the US has been improvement of the strains brought over by the early pioneers as hay, bedding and pasture seed. Currently in N.J. the denser the tall fescue cultivars the quicker they wipe out with Brown Patch he claimed. He hasn't been able to find any salt tolerance in Colonial and Velvet bentgrass.

At the end of the afternoon session Dr. Jim Watson and Bill Bengeyfield were recognized for there support of research into improvement of bermudagrass seeded cultivars.

TRAVEL - - - - EXPENSIVE: Motel and food charges have been in my experience going up at a moderate rate over the last 7 years. Then all of a sudden gas prices soared; I came close to spending \$2.00/gal. in northern New Mexico on the above trip. Found one economical motel location there however, and I can imagine that whole region is hurting ----- upper Arizona/New Mexico. Too many forest fires and many of the state and federal forests are closed.

Then it was off to Detroit to assist the woman who hopefully will be my new partner in life drive her mobile home up to Michigan where she visits family and friends for the summer. I flew back.

Short time latter it was off to North Carolina to assist daughter Lori and family get settled in their new home. Drove through 20 states in the above five weeks. I'm getting too old for all those miles though, but did enjoy the company along the way.

COMPUTER LITERACY: Does having an email address mean you are computer literate? If so 49 out of the 95 Class A members of the North Texas Golf Course Superintendents Association are just that according to the latest directory. That is just a little better than 50%. Do you use computers to survey such a group? See my comments in the last issue on GCSAA Survey.

COMPUTING: The 1999 Annual Report of the Federal Reserve Bank of Dallas has an interesting article covering the advances over my working career, well, only the last 30 years of it. The article starts with 1970 and compares data for ten year intervals with the exception being 1999 as the last year. Some examples of where we have come in 30 years are: microprocessor speed (MHz) 0.11 to 800; cost of 1 megabit storage \$5,257 to \$0.17; U.S. households with computers 0 to 53%; Worldwide internet hosts 13 to 56,000,000. In the 70's I was punching holes in IBM cards so as to feed my research data into the big main frame on campus. I doubt it had the power of my current computer and no where near the speed.

We now have microchips in all sorts of things. The new cars now have 10 or more and most of your new four wheel equipment has at least one, does your pet have one for id. under his skin?, and they are starting to slap them on shipping cartons to aid in delivery tracking. The biggest plus to the U.S. economy is the fact that the computer has lowered the cost of doing business. How else can you explain why a computer specialist is now worth as much as a good salesman.

PARADISE FOR SALE: This is a title of a new book by Carl N. McDaniel and John Gowdy, Univ. of Calif. Press, 2000. I'm not sure where I saw a review of this book that prompted me to read it, but I did. The authors take the exploitation and essentially the environmental destruction of a tropical island, Nauru, for phosphate mining as an example of the unsustainable pattern of habitation humans are carrying out on the whole globe. They point to numerous other examples where populations have ignored their environment - plundered it, and then the population crashed or the population became very dependent upon others for survival. Large portions of the world can no longer grow enough food to feed themselves

I agree with the general assumption that we cannot continue the current level of world wide environmental abuse. I also understand their contention that the market place philosophy does not provide much capacity toward preserving the world environment and a high level of biodiversity. Although as a Libertarian I would like to think that it did. But, how do we or anyone else convince the world that: population levels must go down, cultures must change for the future is at stake. The authors point out we can't keep believing in the old myths - they have been proven wrong.

- END -