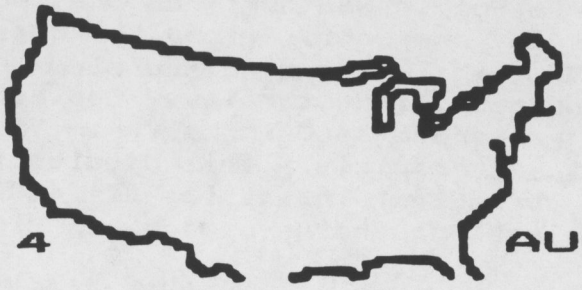
TIC VERT.

TURFCOMMS



V. 5, I. 4 AUG. 20, '89

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

HAWAII

Almost couldn't get my wife, Jane, on board the airplane when leaving Dallas. We took off from Dallas the first time and within minutes the pilot came on over the address system and told us they had engine trouble. We went back to Dallas and the stewardesses prepared us for a possible crash landing, shoes off, etc. Landing was perfect. Four hours latter they asked us to get back on the SAME PLANE, that's when I had my problem. The plane was a DC-10.

Returning from Hawaii almost turned out worse. That was the day after the DC-10 crashed in Iowa en route to Chicago. Managed to keep that bit of information from Jane until our DC-10 safely landed in San Francisco. I can't get her to swear off cigarettes but she has sworn off DC-10s.

Hawaii was very nice. My first experience in an area that tropical. It takes some adjusting to get use to the fact that the house plants you nurture with difficulty grow like and some times are weeds in other areas. Stayed off golf courses the two weeks and took only a very few pictures of turf. The one that stands out in my mind was a church lawn. It was cut like a checker board. With all the black squares at a two inch height while the white squares were at one inch. The white squares were actually larger than the black and connected.

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

Douglas T. Hawes, Ph D
Certified Professional Agronomist
Specializing in Golf Course
Maintenance Consulting

2408 Roundrock Trail
Plano, Texas 75075
(214) 867-0176

Subscription cost is $15. Send Checks to Doug Hawes at the above address.

Very little daily temperature change on the Islands and a nice breeze blowing almost all the time, cooler than Dallas or Washington, D.C. More variation in weather from one spot on the Islands to another than for any one spot. Along the coast it was almost always sunny and 80°F+, while the windward side up in the mountains was cool and damp, if not rainy. One side of Mt. Kawaikini gets the world record of 460 inches/yr. You can get from rain forest to desert very rapidly. This results in a wide range in vegetation from broadleaf plantain at 4000 feet to cactus or tropicals at sea level depending upon which side of the island you are on.

The highlights of the trip for us were the volcanoes and lava flow on the island of Hawaii; Waimea Falls (horticulture gardens), the climb up Diamond Head, looking at saltwater fish while snorkeling at Hanauma Bay on Oahu; and Waimea Canyon on the island of Kawaii.

REQUESTS - I would like to find a better text for the Irrigation and Drainage course that I teach. We are using "The ABC'S of Lawn Sprinkler Systems" by Sarsfield. It is a good beginning but not sufficient. I have a copy of the "Turf Irrigation Manual" by Watkins. That is a definite step above Sarsfield. What else is there???????? Neither of these texts covers drainage.

USGA GREENS NOT ALL GOOD: No sooner did one client receive TURFCOMMS with this article in it then I had a phone call - THAT'S EXACTLY WHAT WE'RE SEEING HERE !

This golf course is in North Texas. It only has one USGA type green. It does not met USGA specification because it lacks the choker sand layer. That green was partially sodded last summer. The sod had soil attached. There was a demarcation between sodded and non-sodded. The sodded section was alive as were all the soil base greens at the golf course. The section not sodded last summer had no live bermudagrass.

The soil brought in with the sod had improved winter survival. Very high sand greens mixes decrease the ability of bermudagrass greens to overwinter when compared to soil base greens.

<u>CADILLAC DESERT</u> by Marc Reisner - Read it for a good book on "the American West and its disappearing water". Newsday called it "A savagely witty history of America's reckless depletion of its water resources." I agree, but it does drag toward the end. There's a statement in it that reads, the Corps of Engineers has "ruined more wetlands than anyone in history." You can thus guess its slant.

NEBRASKA TURFGRASS FIELD DAY, JUNE, '89 - High potassium levels continue to look good. Kentucky bluegrass at fairway height holds a ball up better and has much more drought stress resistance at high potassium levels. How high?

Eight and 12 lbs. K/1000 ft.^{2} was better than zero or four lbs. K/1000 ft.^{2}. An eight lb./1000 rate on bentgrass over the season gave the most resistance to wear.

PENNLINKS reported there to have a low evapotranspiration rate and deep roots compared to other standard and new cultivars of creeping bentgrass.

They reported more Brown Patch at higher than at lower heights of cut in tall fescue. The cultivar Repel is particularly susceptible to brown patch at high nitrogen levels.

BUFFALOGRASS, just when every one was excited about the prospects of the new turf types along comes a new turf pest. Nebraska researchers had begun to notice a gradual decline in the overall vigor of many of the cultivars in the last few years during mid to late summer. The presence of a large number of predatory big-eyed bugs made an entomologist realize there must be some small insects about. Close examination revealed mealy bugs, two different species. One of which was an unknown species.

These mealy bugs, Trionymus spp., are small - 0.35 to 2.0 mm. "They are pale burgundy to almost pink in color, and covered with a white, waxy secretion." "Adult males are characterized by a single pair of wings on the mesothorax and three pairs of eyes." Good luck counting six eyes on a bug 2 mm in size.

AMERICAN SOCIETY for HORTICULTURE SCIENCE meeting, TULSA - Black plastic mulch out, organic mulches in, soil physical properties much better under the natural mulch. I've never liked black plastic anyway but it was nice to see some data showing just how bad it was.

The U.S. is importing five billion dollars worth of fruits and vegetables. Some tropicals like bananas and a lot of seasonal produce such as - fresh grapes in spring from Chile, etc.

Xeriscape - water conservation through creative landscaping is the definition. To hear the speakers and read the material coming out it most often sounds like water conservation by substituting trees, shrubs, ground covers and mulch for turf. Do we really save water this way? Yes, but.

XERISCAPE - [Editor's comments as to where are.]
The evapotranspiration (ET) losses of turfgrasses are almost twice as great in the blues, bents, ryes and tall fescue when compared to buffalograss under the same conditions. The bermudas, zoysias and centipede have almost as low a water loss as the buffalo. Researchers are finding up to a 20% difference between cultivars of any one species which suggest considerable improvements can be expected from the numerous turfgrass breeding projects across the country.

With trees, shrubs and ground covers little work has been done. One off the cuff remark by a horticultural researcher at the ASHS meeting in Tulsa was that regardless of the shrub species the water loss was found to be the same for each shrub of the same size in one piece of recent research. As with turfgrasses, we know that many trees and shrubs can grow in non-irrigated areas quite successfully while others can not. Which of the three methods of drought resistance (avoidance, tolerance or escape) they use is not well documented.

If a plant avoids drought stress by having a large and very deep root system the ET rate may continue to be high. Cottonwoods for example are often found in very dry areas. Under natural conditions they are found growing in a stream bed or on the edge of some other water source. This we might call a type of drought avoidance. I doubt horticulture researchers will find cottonwoods to be trees with a low ET rate. A cottonwood in a lawn is probably using more water than the turf.

The real advantage of many trees, shrubs and some perennial ornamentals over turf in Xeriscape is that they can go longer before they need to be irrigated. Whether this is due to a lower ET rate or deeper root systems or a combination of both is not yet clear in most cases. But, the ability to go longer before needing to be irrigated means we thus can save municipal water supplies by irrigating less frequently or not at all. Drought tolerant trees, shrubs and ground covers can wait till the next rain.

Our turf does not do as well that way regardless of the species we grow. Thru research we are learning management techniques and finding new species and cultivars that will help us get by with less of what is now becoming more precious - CLEAN WATER.

MY OFFICE PHONE - Starting September 5th you will best be able to get me days at (214) 786-2393. Leave a message on the answering device or try calling at noon for best results. Evenings and weekends - (214) 867-0176.

END