

TURF COMMS



V. 3, I. 5

APRIL 15, '87

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

"ELEMENTS OF PRUNING" This a review of a videotape with that name sold by The Idea Bank. I was much impressed with the professional quality of this tape. I suggest you purchase it and consider making it available on the weekends to members, or for use at the club by local or club organizations. It is a good basic training tool that would be of use to amateur gardeners and new crew members. It is also available in a Spanish edition.

The "elements" covered in the 30 minute tape are:

- a) Definitions and Reasons for Pruning
- b) Basics of Plant Growth
- c) Pruning Tools
- d) Types of Pruning Cuts
- e) Specific Plants

The reasonably well trained or experienced horticulturist will probably not add much to his knowledge by watching this tape. But, it is crafted to educate the beginner not the experienced. I added to my knowledge - that a pruning saw cuts on the pull stroke.

TEXAS TURFGRASS FIELD DAY

MAY 13 - COLLEGE STATION

REGISTRATION 8 A.M.

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**Caution
Pesticide Application
Keep Off**

According to a newsclipping sent to me from the Dartmouth, Massachusetts Chronicle the above sign must be posted by the applicator of any pesticides made to lawns, athletic fields and golf courses in that state. The customer must also receive an information packet after each pesticide application. This went into effect April 1st.

PARAQUAT BEING USED FOR POA CONTROL IN BENTGRASS GREENS
? ? ? ? ?

I heard where they are using 1 oz. of Paraquat/acre on bentgrass greens to take out Poa annua. This is applied in the "early" spring and followed with another ounce 2 weeks later. In Georgia and North Carolina "early" spring is the 1st and 20th of April.

Apparently 3/4 oz./A removes Poa from perennial ryegrass overseeded bermudagrass greens when used with the same timing. This is not quite as well documented.

I have three or four comments on this approach. First, Paraquat does not have a label for turf use. Secondly, creeping bentgrass in the very early spring before growth has begun to any extent is very tolerant of all sorts of abuse. The reason for some of the tolerance is a waxy cuticle that repels water. Another reason is a large supply of stored carbohydrates assuming normal sunshine and a lack of snow or shade.

I assume they are not using a wetting agent with the Paraquat. I have seen two cases where bentgrass survived early spring Roundup applications. Both cases were at the higher collar height of cut. So why not very low rates of Paraquat.

The news of the above Paraquat use comes to me from some very reliable sources. It is based on successful use by numerous superintendents across the Southeast. Two words of caution creeping bentgrass weakened by other conditions might well succumb; beware of overlaps these might prove injurious. One ounce of paraquat/A however is about 1/8 to 1/32 of the rates that have been used reasonably safely for winter annual weed control in dormant bermudagrass and zoysia fairways.

A second caution: do you really know what percent of your stand you are going to lose when all the Poa dies?

TERRY BUCHEN has done it again. Terry is now in the state of Washington at the Everett Golf & C. C. Good Luck in the new position Terry. You are the only guy we know who has worked on golf courses in PA, CA, CO, FL and WA as well as having spent some time touring the country for the PGA.

COMPUTERS - Most of you have read about the "Nuclear Winter" predicted if there was to be a nuclear war. Well another scientist just published predictions of a "Nuclear Summer" if there was to be a nuclear war.

Both scientist used computers to arrive at their predictions. Both were doing what is called computer modeling. Computer modeling takes advantage of the computers ability to handle large figures, lots of data in quick and numerous interlocking calculations. Computer modeling is a very valuable tool.

However, "Garbage in - Garbage out" is an old computer slogan. It explains one problem with modeling. The data and calculations feed into the computer must truly represent the actual event to happen. Values for all possible factors must be feed in. It is obvious here that the two scientist do not agree that each feed in the correct information for the computer to digest.

Hopefully we will not ever find out which one is correct.

WINTER KILL RELATED TO -

Received the Proceedings of the 24th Annual North Carolina Turfgrass Conference. This portion of an article from it caught my attention as being worthwhile material for all my readers.

N rate/month June and August	% Winter Kill	
	Height of cut	
	3/4"	2"
0 lb./1000sq. ft.	5	20
1/2	9	28
1	15	45
2	32	85

You will note in the above table that the amount of winter kill increases both as the height of cut goes up and as the nitrogen rate goes up. Why? The author, Dr. William B. Gilbert, gives one reason - THATCH !

The higher height of cut combined with high nitrogen resulted in a rapid thatch build up. The grass involved was stoloniferous. Thus where the greatest thatch level was allowed to accumulate (2" cut and high N) the stolons set up above the soil upon (not under) an insulating "blanket" of thatch. When winter temperatures dropped the stolons were fully exposed to its cold. The warmer soil below could not give the stolons warmth the way it did for those stolons lying directly in contact with soil where there was no thatch.

Yes, the soil is usually warmer than the air temperature in the winter time. Soil temperature is almost always warmer than the daily low temperature in the winter. Even in the Dakotas, soil with moisture in it seldom gets much below 25°F. Here in Dallas the soil seldom freezes even if the low for the night is briefly in the teens. Even from Nebraska north when the soil is frozen to a 3 foot depth the surface 3 inches is about 25°F.

Thatch as a cause of winter kill has been reported for Zoysia and bermudagrass. It will also contribute to winter damage in the cool season grasses. The grass in the above table was centipede. This sub tropical grass is a slow grower that persists much better at low nitrogen levels and on poor, acid soils than it does when receiving high nitrogen and more favorable soils.

CEC: A DISCUSSION

CEC - WHAT IS IT? Cation Exchange Capacity. To you it is an important soil property. An understanding of it will make your job easier. CEC can be visualized as being like a pantry set up for plant nutrition. The size of the "pantry" depends upon the soil's colloids. What is in the pantry depends in part upon you, the one who keeps the pantry stocked, and the plant and ecosystem that take cations from the pantry.

The colloidal matter of the soil is clay and organic. Colloidal matter has special properties. The most important are due to surface area. Colloidal matter is known for the fact that it has a very, very large amount of surface area in comparison to its weight.

Some clays are more "blessed" than others with useable surface area. Under humid East Coast conditions a clay called kaolinite has been the principle clay formed in the soils. It is great for making bricks, but is not ranked high for its ability to hold onto nutrients. Therefore, Eastern soils often depend more on their organic matter for CEC than their clay. In the more western states several clays with a vastly different structure predominate, montmorillonite is a common one that is the extreme in structure from kaolinite.

TO BE CONTINUED NEXT ISSUE