

each man practice on an old reel or bedknife.

### Shop Improvements

A rainy day is an ideal time to build that new workbench, add a new electrical circuit, or put up shelves. This kind of work is often impossible to get done during the winter months when the shop is full of equipment.

### Small Construction Jobs

Tee markers can be made out of 4x4's. Cut long 4x4 lengths into 4 inch squares and put a 30 penny nail in one flattened corner. Saw off the head of the nail and paint the block of wood.

Cement benches with redwood slats are easily constructed when cement forms set up in the summer rather than in winter.

Other small construction jobs could include making a few purple martin bird houses, or possibly a new tennis tournament chair.

### Education Sessions

Have a blackboard permanently mounted in your shop. If only a short rain is anticipated, a constructive educational discussion should take place. List all jobs routinely done by your crew on the board and question everybody why and how each job is done. Encourage suggestions on ways of improving any particular job. As all the men learn the purpose of their work, they will become more valuable and versatile.

The possibilities of subjects for discussion are unlimited. If the rain continues you can discuss your irrigation system. Explain how the entire system functions, from the pump house to the jammed pop-up or bad solenoid.

Identification of turf diseases should be pointed out to all employees and what you do to control them. This is especially important to the man who changes cups.

Have your mechanic lead a discussion on what everybody can do to keep equipment running smoothly. You and your mechanic should discuss each piece of equipment with the whole crew available to ask questions. Show the men what the machine will do, necessary adjustments, daily maintenance, and where the machine should be stored.

### Show Slides

You probably accumulate 35mm slides of your golf course. Keep a projector on hand and run through the slides for your men. They will enjoy seeing the growth of the course and themselves at work: also "a picture is worth a thousand words" when instructing your crew to improve their work. With this in mind be sure to photograph your men during all of the jobs performed on the course. Most of us don't take enough pictures and what we do take is normally a before and after shot of some construction or renovation project.

### Visit Another Course

Most of us find it difficult to travel around our area and visit our neighboring superintendents. A rainy day is a perfect time. Take your assistant, mechanic or top men and go see someone else's operation. You probably will learn something from a tour of another golf course or shop. Your

top men rarely, if ever, see another shop or meet other men in their field of work. Be sure they get this opportunity on at least one rainy day.

If anyone has some unique ideas or jobs reserved for rainy days, please jot them down and send them in to the newsletter mailbag. We all will benefit.

Craig Spottswood

## **THE IMPORTANCE OF WATER MANAGEMENT PART II — Fred V. Grau**

Fertility levels greatly affect water requirements. Hungry turf needs five times as much water to produce a pound of dry matter as well-fed turf. There are records that show Marion bluegrass going 40 days between irrigation periods. I've seen bermuda grass turf (well fed) still green after 90 days without water.

We are recognizing the growing need for potash in turf-grass maintenance. The need is greater on irrigated turf because water washes the potash out of the plant. Studies in Michigan showed that 71% of the potash in grass plants is lost after 4 hours of irrigation. Many of us have come to believe that, on irrigated turf, we need to balance potash with nitrogen, about a 1:1 basis. After studying many soil test reports, I have formulated a fertilizer mixture that could be useful in many situations where potash has become critical. It is, simply, a mixture of granular ureaform (38-0-0) and granular sulfate of potash of equal particle size (0-0-50) in proportions of 1,200 pounds to 800 pounds respectively. This yields a material of approximately a 23-0-20. Phosphorus, where and when needed, can easily and inexpensively supplied in several ways.

We are in the International Hydrological Decade, 1965 — 1975, during which time the water resources of the world will be studied and mapped in infinite detail. Also, during this time, we will be re-doubling our efforts, to conserve the water we have and to learn how to get along with less water. We do not have any new sources of water - we must "make do" with what we have.

I'd like to share with you an experience I had in Texas while I was Director of the Green Section. The complaint was that, no matter how much water they put on the Seaside greens they would not hold a shot. At that time I was playing good golf so I went out 80 yards in the fairway and hit 8 iron shots. It didn't take long to realize that, with bermuda fairways cut at 1½ inches, every shot was a "floater" that would not hold no matter how soft the green. The obvious answer was to mow the fairways down to ½ inch so that the golfer could play a controlled shot by placing the ball between the club face and the turf. The greens were allowed to dry and, with less water, they held the shot better (and the grass recovered).

In another case, during a tournament, a putting green was wilting and it needed water very badly, the chairman instructed the superintendent NOT to put water on the green while the sun was shining because "it would burn the grass". The result was that the grass died because it did not get the water when it was needed!

No matter who you are or where you are you (and I) are committed to the concept of "Efficient Water Management". I recall vividly hitting golf shots with Horton Smith and Al Watrous in Detroit many years ago. After

testing nearly every type of golf shot we concluded that the best turf from which to hit a controlled golf shot was close-cut, inwatered fescue turf. Irrigated bent-forget it!

I believe that, practically, we must work toward developing more drought-tolerant grasses and learn to manage them with minium water. Dry grass is healthy grass. We must learn how to maintain healthy grass without the need for massive doses of lethal chemicals. Do we need to kill all the weeds? Let's let some wildflowers survive! Let's not spray pesticides fence to fence.

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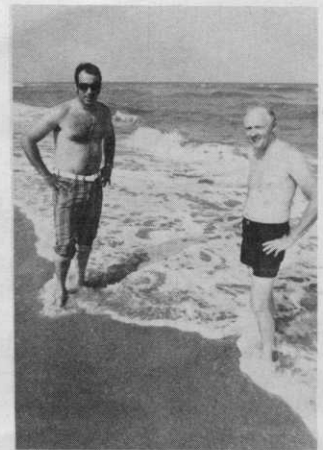
#### PICNIC PICTURES



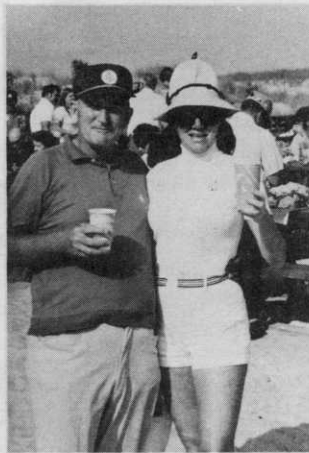
Lee Dieter



Sam Kessel - standing  
Jack McClenahan - sitting



Right - Carl Schoening  
Left - George Thompson



Bill Livingston and Kit



Russell Kerns