What the superintendent does this fall will greatly determine what condition the course will be in next season

Start Thinking Winter

By William Smart

A few years ago, superintendents in the snow belt area were often asked, "What do you do in the winter?" Today, the question is more likely to be, "Where do you go in the winter," implying that superintendents go south for the winter. Although many do for a few weeks, the average superintendent is more likely to be inspecting the back nine to see how the drainage is or checking on possible snow mold or perhaps seeing what the snowmobiles have been up to. The turfman who properly prepares his course can make this tour with peace of mind. He can even stop to enjoy the landscape. It is ironic that the end product brings enjoyment to many, but the man responsible seldom has the time or inclination to stop and take in the scenery.

The post seasonal work on the nation's golf courses is done to prepare for the next season. This period in the northern section of the country would be roughly from Labor Day to hard freeze or snow fall.

Priority should be given to turf culture: promoting or continuing the healthy growth of the present turf. In most cases this is best done while the fall growth is still active. The basic tools are the soil cultivators, the vertical mowers, fertilizer and top dressing. The tools are basic, but the methods are varied and depend on past or present problems. But after renovation, especially on greens, turf culture is carried out without any true idea of what is actually needed. For example, I have seen year-old Penncross greens aerated and vertically mowed when the problem was a thin but uniform turf that felt "hard" underfoot and ball marked badly. The proper approach should have been to encourage more top growth and top dressing to form "body" and stimulate the growth of thatch, which in this case is desirable. Old greens tend to have too much, new greens too little. Maintaining level thatch at one-half to three-fourths inch is essential for healthy greens.

The same program on old grainy, thatchy greens with poor root structure (the Penncross mentioned had excellent roots in a high sand mix) would only aggravate the condition. One approach would to be aerate to encourage root growth and use the vertical mower on a very light setting several times throughout the fall, using only enough nitrogen for good health until the thatch problem is under control.

Another common practice which seems to be misunderstood is the disposal of the cores brought up by one of the more common turf tools. Unless the soil in the greens or tees is so deficient that it is actually toxic to turf, it is far better to shatter the cores with a vertical mower and return the restructured soil to the green. It is estimated that this coring brings up from two to three yards of soil on an average green. This is two to three yards of top soil at no cost and less labor than if the cores were picked up by hand.

The point of all this is that superintendents should focus on an actual problem and take only the necessary steps to correct it. The modern turf tools as well as their uses are well known. Unfortunately the way they are used is not as efficient as the machines.

One final point on turf culture is timing. Turf that is in poor health or is semi-dormant from heat or cold, for example, will not respond well to cultivating tools. For best results the operation should be done when growth is

good. Fertilize a week or more ahead of planned work. Timing is equally important where there is a *Poa annua* problem. Open the soil in any manner at time of optimum *Poa* germination and the population will increase. Aerate when the *Poa* is seeding and it will find a ready-made seed bed on the greens, tees or fairways. Sometimes a delay of a week or 10 days will make a difference. Or use one of the herbicides that inhibits the seed.

Usually, part of the fall is given over to construction on the course, and this is as it should be. This is the only time it should be considered. Spring is short and usually wet. Summer, for obvious reasons, is worse. Construction should always eliminate or control a problem and make maintenance more efficient. This is the quickest and best way to give golfers a better course. Too often, however, money and time are expended on course features that are merely window dressing. Car paths, tree plantings, shelter houses or new traps are all very desirable, but cannot be considered in the same light as draining fairways or an inadequate watering system or supply or outmoded construction.

The actual preparation for winter in the Mid Hudson Valley area takes place around Halloween. All course furniture, such as benches, markers, ball washers and flagsticks are brought inside for protection from vandalism. Necessary items are put out the following day. Many courses have an old but serviceable "second set" that is used from that point until permanent snow. Markers are moved off tees where possible or kept in the front position for spot repair in the spring. I have never felt that cups in the fairway in front of the greens (or winter greens) were necessary on a private course that gets very light play in the fall. Others may not have that fortunate situation. I know of at least one course that has cups in permanent positions in the fairway in front of the greens. They are used any time wear or damage to the greens is possible. They are also in use when the green is being mowed or renovated; the players at this private club seem to accept it with good grace.

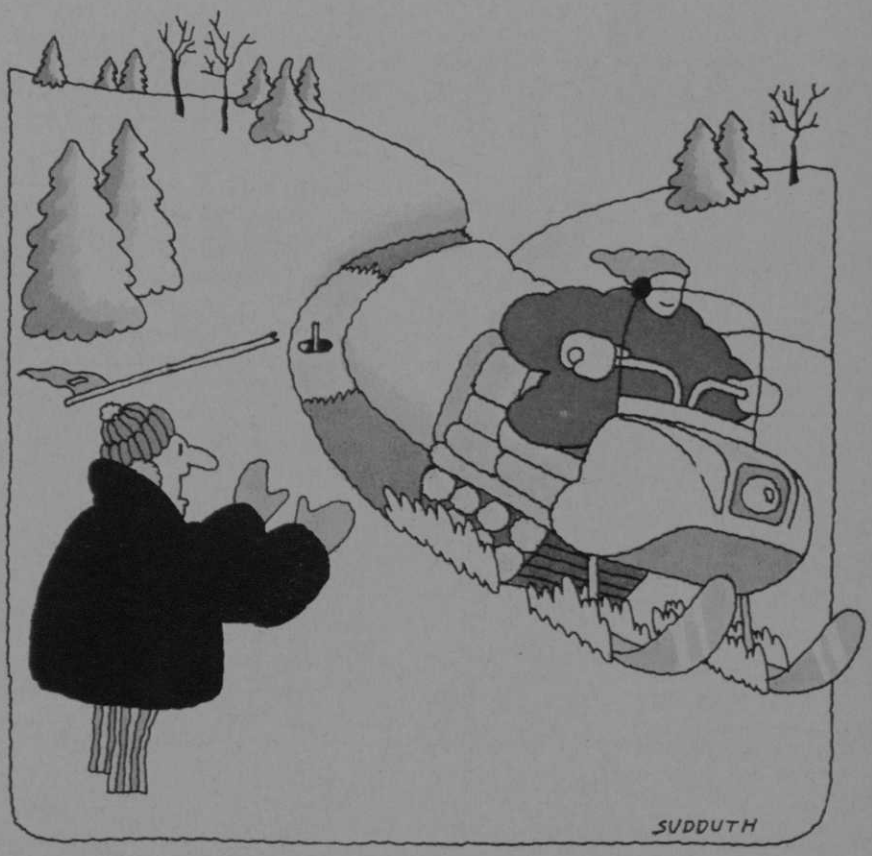
October often has bright dry weather; the water system should not be drained until danger from freeze is imminent. It actually takes quite low temperatures to damage underground piping. Pumps can be drained and primed as needed or a heat lamp can be hung in the pumphouse. It is very important to go into the winter with good moisture in the ground to insure the health of the new fall roots. It's also good insurance against dessication. One last watering before shutdown will have the golfers wondering about your mental health, but it may save some turf and can do no harm.

It has been the custom to forego spraying fungicides until after Labor Day. Now more and more turfmen merely lengthen the interval on both tees, greens and fairways. To inhibit late dollar spot and perhaps nip snow mold in the bud, the last one or two sprays can be made at the recommended winter rate. The turf colorants can be added to these sprays to add eye appeal for the late fall golfer.

Specific material for snow mold is usually put on frozen ground before the first permanent snow. This can be tricky. For example, last fall in this area the unexpected snow came early on barely frozen ground and stayed until spring. The granular material can be applied for lasting protection a bit earlier than sprays. The extra expense is minor compared to spring renovation should the disease get started. I spray every time the ground is clear after snow has lain for a few weeks—as much as four to six times a winter.

Dormant fertilizer application seems to be coming into its own for many and good reasons. The timing here is between Thanksgiving and Christmas. There is no chance of promoting growth with

(Continued on page 70)



Thinking Winter

(Continued from page 69)

this application. I have noted that top dressing applied late in the fall on greens and tees will give healthy, not lush, growth for a week or two longer due to the dark material absorbing the rays of the weak sunlight. This same operation can boost growth in early spring, and for the same reason. This latter is somewhat impractical because of the difficulty of thawing and wet ground and the usual lack of winter course help. The later top dressing is recommended by Al Radko of the United States Golf Assn. as an insurance against dessication. Rates should be heavy to moderate. It provides an insulation against deep cold and wind.

Late fall is the best time to use a root pruner or converted sub-soiler to break or cut roots that intrude into greens or tees. I had excellent results by using a modified sub-soiler on a three-point hitch. The tractor's pulling power was increased by simply hitching a four-wheel drive vehicle to the front of the tractor—a small amount of hand work is necessary to repair the gash. It is hardly noticeable by opening day the next season.

Those courses with a history of poor drainage should make every effort to correct the situation permanently, but in any case all drains should be clear and working. A simple but somewhat laborious expedient is to walk the course after every fall rain and cut temporary slots through the turf to aid run-off. These walks can make the difference of a week or two in spring opening day.

Vandals and trespassers can be a problem in winter. Although turf damage is rare on frozen ground, property damage is greater in the absence of golfers and workmen. Posting signs will deter some. Out buildings can be secured with half-inch plywood sheets over windows and doors. These can be fastened with king size wood screws or lag-bolts. All unused roads should be blocked with a chain or obstruction put in by a front end loader.

Another practice that is changing is the custom of applying lime on frozen ground. Most spreader contractors now give the option of truck or tractor application. Most courses prefer tractor drawn spreaders. If by chance the large heavy trucks are used, mark all surface water-line fittings with a wooden plasterer's lath. It only takes a small effort, and some applicators insist on it. I think that everyone knows by now that spreading costs nothing. One only pays for the lime. If the fall is exceptionally long and pleasant, it would pay to get a head start on spring by painting out buildings, shelters, bridges and the like.

Another small effort that pays dividends is to drive in a pipe or heavy stake beside each drain (surface run-off) so it can be found easily during flood conditions or mushy melting snow.

As with all human endeavor, the superintendent who plans ahead will find that he is actually working less and enjoying it more. □

Winter protection for turf

Dr. James Beard, Michigan State University crop scientist and GOLFDOM columnist, has recently conducted extensive research to find a way to provide protection for turf areas during the winter. Beard used a cold chamber and wind tunnel to create winter conditions testing 16 different types of coverings.

Three of the coverings that performed best were a vicose-rayon fiber cover, a vicose-rayon-polyester cover and an excelsior blanket. Other coverings which protected against water loss and provided good spring green-up included a cloth-like plastic material, a fluffy fiberglass mat and polyethylene sheets. However, these failed to adequately protect the turf from low temperatures.

Beard also studied a plastic sprayed on shrubbery to prevent water loss during transplanting. However, it was inadequate.

According to Beard the coverings studied could save considerable money for people in the turf industry by eliminating spring rehabilitation expenses without sacrificing high quality turf.