The Gator Growls

By CLINT SMALLRIDGE, C.G.C.S.
Everglades Chapter
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Preparing for winter on Southwest Florida golf courses is carried out in many different ways. In fact, as many different ways as there are superintendents. The difference is not as much in the superintendent, or in the technology that is available to him, but rather it is in the property which they manage.

Within a 20 square mile radius around Naples there are aproximately 30 golf courses and each has its own maintenance programs designed to solve its own particular problems. Many of these maintenance differences are created by Mother Nature herself. I will not try to list every one, but here are a few:

1) Location in respect to the Gulf of Mexico
2) Elevation
3) Predominate winds and weather patterns

Another set of obstacles that make maintenance practices vary from course to course are physical in nature, a few of them are:

1) The kind of soil used during construction
2) Adequate or inadequate drainage
3) A well maintained and efficient irrigation system
4) The type of grass being maintained.

Budgets are a very important factor. A superintendent must work within the financial limitations placed on him.

Within the three major groups that are listed, some sub-grouping does occur, and they deserve a closer look. Location: Here on the Gulf coast night-time temperatures vary as much as 10°, and in this sub-tropical climate 10° can make a world of difference. These differences can occur within the same 20 square mile area mentioned ealier. Example: 32° = freezing and frost, where 42° = no frost. When a superintendent is fortunate to have a course within a mile or so of the beach, his night-time termperatures are more moderate and ocean breezes help keep frost from forming. More inland courses can vary in night temperature also, but for a different reason. Elevation plays an important role as colder air tends to settle in lower swamplands, while the Pine and Palmetto ridges stay a few degrees warmer. Natural vegetation can contribute to cold pockets as trees tend to create a windbreak and let cooler air settle around green, tee and fairways carved out of heavy wooded areas.

Techniques used during construction and types of soil used account for difference in maintenance practices also. Two courses within this 20 sq. mi. area were built on solid rock, using the small amount of sand and soil found on-site to cover huge amounts or rock blasted out of lakes and canal systems needed for water storage. Courses built on and out of rock have a different set of problems to solve than their neighbor maybe just a mile or two away. Other courses constructed in a Cypress swamp or on Pine and Palmetto ridges have a different set of problems. Financial budgets account for major differences between maintenance programs and a superintendent should realize that a budget reflects the desires of the membership or managing entity involved. All too often good members with good budgets and a capable superintendent are saddled with bad property in a poor location, with inadequate irrigation, little or no drainage, and are expected to make a first class A#1 silk purse out of 18 or 36 sows ears.

Many courses differ in their winter programs because of the type of Bermuda grass now on the greens. Example: One older club in the Naples area still has Everglades #1 Bermuda for putting surface, while three of the newer clubs have used dwarf grass. However, most clubs elect to use 328 Bermuda. Each one of these varieties react differently to cold weather.

Here at Royal Poinciana we do not overseed for winter greens but we do make a lot of preparations for cold weather.

We start early in the fall taking soil samples for nematodes, PH and fertility levels. Based on these reports we make sure the stress factor is as low as possible going into cold weather by correcting any problem the samples might reveal.

We aerify at least twice using the Ryan greenair with 5/8 inch tines. We topdress heavy each time the greens are aerified, using sharp sand, and working the sand into the extra large holes. These sand filled holes punched through the thatch layer into the native soil encourage roots to grow into the warmer depth of the soil.

We order in wetting agents to be sprayed on greens and tees to prevent dew from forming when temperatures dip down to 40° or below. We spray greens with liquid fertilizer and mirco nutrients formulated to be absorbed through the plant leaves.

We change our fertilizer ratio to allow more potassium to stimulate root and stem growth. When everything has been done that can be done to lower the stress factor and make the turf as healthy as possible — we pray!!!■

Palm Beach Trade Winds

By MICHAEL BAILEY
Boca Greens Country Club

The turf industry will soon be finding a cold and dreary winter ahead, as old man winter will be sweeping through the south. It is not enough for golf course superintendents to endure rainfall shortages, irrigation cutbacks and an overall scrutinizing for the budget, but now we must prepare for winter hardiness in the most economically, feasible way possible.

Cold winter hardiness preparation is not simply a procedure that a superintendent begins to consider in the fall as the snowbird migration begins southward. Preparation actually begins in the spring, immediately following the end of the season, as the amount of play tapers off and good turf growth begins. Cultural practices of aerification, verticutting, topdressing and the application of pesticides during the summer are used to prepare the golf course for a healthier stand of turf to endure the combat of excessive play and cart traffic and compaction during the winter.

Certified golf course superintendent Scott Sincerbeau of Royal Palm Yacht and Country Club begins his winter hardiness preparation during the month of May. Sincerbeau believes, "Get the turf as healthy as possible as soon as you can for the winter. You have to have it there by November 1st. There is no way you can get the turf much stronger through the winter".

One of the major problems of winter is the decrease of light duration, decreasing the ability of the plant to overcome stress. Producing turf buildup of quality levels off to simply trying to combat the hardships from play during the season.

Sincerbeau's first cultural practice is to aerify wall-to-wall. That's right, aerify the rough, fairways, tees, green slopes, collars and greens. With aerifying finished by July, a nematicide is injected wall-to-wall at an approximate cost of $100/A over 100 acres of the course. Nemacure is then applied, accounting for 20 acres of either greens, collars or slopes. Within four weeks, scalping is performed on the fairways, tees and slopes, while a slightly less thinning is performed on the rough. Within three weeks, during the month of August, a 15-0-15 fertilizer at 375 lbs/A is applied, followed by a lesser application again in mid October. A fertigation system based on an analysis of a 12-0-6 is applied through the season. The greens receive supplemental fertilizing of Milorganite or a 15-0-15 blend until late November, whereupon the blend is changed to a 18-4-10 UF of 3 to 4 lbs of N/1000/month. His changing of fertilizer material reduces the possibility of burn or the invitation of host organisms during moist weather conditions.

Sincerbeau believes, "too much winter cultural practices can impede mother nature's natural process". This is why Sincerbeau's basic concept of summer preparation for a warm season turf is to prepare the plant to as durable as possible.

We like to think of south Florida as being within the subtropical region and dream of warm, frost-free mornings. Waking up to reality, the warm season grass optimal temperatures do not fall below 80°. This causes a difficult comparison to make for the northern golfer who ventures to the south. They often do not honestly consider the difference of the optimal growing temperature for their homeland cool season grasses of optimally withstanding 65°. In other words, they can boast of northern cool season color, but let's be fair in regard to climate and conditions.

Even though we work extra long and hard during the summer to ready ourselves for the winter battle, we still must use reserve powers to overcome the winter hardships.

Mowing pratices are generally the most acceptable means of cold temperature tolerance. Glen Klauk of Delray Dunes Country Club often finds his change of height "much like a yo-yo. Not to sound humorous, but you must mow to the conditions." His green height of cut can vary from 1/4" to 9/64", depending upon the turf grass species. An important consideration is to often skip a day's mowing. Klauk feels "there is no sense in abusing the machine and turf, if the yield is not there". The perimeter path can be eliminated or taken inward to reduce the wear and compaction.

At Boca Greens, it has so far been my personal choice not to own walk mowers, but rather make the operator adjustments for the triplex greenmowers. I train the greenmower operators never to turn around between the green and the green traps. The mowers are driven all the way off the collar and actually make a wide sweeping turn on the green slope banks which are maintained at rough height. This can account for as much as 25% more mowing time. I feel the labor time cost compared to the wear damage which would result from the tight turning, is more beneficial.

Other practices of wear adjustment can be through the directions of traffic flow by stakes, ropes, signs, and even lines painted to mark directions of travel. Cups can be changed more often while ball marks should always be repaired.

Of everything the golf course superintendent asks from the golfer, there are still practices the superintendent can regulate. A reduction in the amount of water applied to the course by the process of heavier applications less often can

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permit deeper perculation, thereby inducing a deeper root system. Bill Kreigel, C.G.C.S., of Delray Beach Country Club believes this practice can support a healthier plant for the cold winter stresses. Tests have concluded for him that he is producing deeper, heartier roots that are less dependent upon water while nutrient availability has improved. Another beneficial practice in relation to irrigation can be the use of wetting agent penetrants. Kreigel has found the alcohol base wetting agents more beneficial to irrigation efficiency. Kreigel has been using less fertilizer, less electrical needs for irrigation while producing a turf of better color and increased durability.

Another important aspect of the wetting agent's surface is during the threat of frosts. By reducing the quantity of leaf exudation and retaining moisture within the colloidal material, frost occurrance can be greatly reduced.

The agronomic situation becomes more specific when Kreigel applies his micronutrients. The concept is not so much retaining color and growth during the severest times, but to allow the turf to have greater recovery potential. Agronomically, this boils down to achieving an equally balanced nutrient available soil.

The whole general concept of cold winter hardiness preparation never ends, but is always beginning with more new concepts to contend with an unnatural situation. The next time one asks you why the greens are off color in the dead of winter, you can always be glad to remember that dead translates to totally no growth forever, and after all, you probably will only skip mowing for a day.■

Central Florida Crowfoots

By GARY MORGAN
Spruce Creek C.C.

Here at Spruce Creek Golf Club, Daytona Beach, I have overseeded all areas except my fairways. The preparation that went into this area is making sure that prior to the first frost my nutrient levels are at levels that are acceptable for our conditions. I applied a 31-0-0 Fairway Fertilizer approximately one month prior to the cold weather at 1/2 lbN/1000. During the cold months of December, January, February and March I will apply ammonium sulfate at a rate of 200 lbs/A and I will keep our fairways at 1/2" cut. Hopefully we will be able to hold our color longer with these practices.

For my ornamentals I will have to make sure that we use only "Cold" hardy plants in all our landscape plans. Even these will have to have their nutrient levels correctly planned so they are very healthy even throughout the coldest times.

At Sugar Mill Golf Course, New Smyrna Beach, Mike Beard has to make sure that the proper pH is holding in the soil. Since Mike has a normally high pH he applies sulfur to his turf to keep his nutrient levels where they should be. After a few frosts he will cut out his brownish leaf tissue (Dormant Bermuda) to let his fairways and roughs have a neater appearance.

Sugar Mills ornamentals are treated constantly with Elemental Sulfur. Again, his soil requires it. Also Mike is on a spray adjuvant program to build up the hardiness of his ornamentals. Last winter they went through six frosts before they had to cut off any damaged leaves. Mike attributes this to his adjuvant spray applications.

At Indigo Golf Club, Bob Williams, superintendent, Daytona Beach, will make sure that his nutrient levels in his soil are also where they should be. Bob applied a 13-2-5 granular fertilizer to his roughs and fairways at 450 lbs/A prior to the predicted cold weather. His Dolomite application of 1 ton/A prior to the cold weather should, according to Bob, help his release of nutrients to the plant tissue.

Indigo's only trouble with ornamentals is their potted crotons. The crotons will have to be taken in each time a frost or freeze is predicted for the area.

At Walt Disney World, Larry Kamphaus, superintendent, applied a liquid fertilizer (Fertigation) 10-0-10 ratio on the fairways and roughs at a total rate of 1½ lb/1000 since August. The fertigation practice will be continued throughout the winter months.

Walt Disney's ornamentals are of no concern. All of their plants are "Cold" hardy. Any damage they receive will be trimmed where possible.

At Rosemont Country Club, Orlando, Drew Costellio has raised his height of cut in his roughs to 1½" and will be keeping his fairways at 3/8". Drew fertilized his fairways and roughs with a 15-0-15 slow release fertilizer at 250 lbs/A.

Rosemont's ornamentals are of no concern since they are "Cold" hardy plants. Drew has planted countless numbers of petunias which should make for a showy, flowery appearance throughout the course.

In summary it seems that in our area your nutrient level was the one item that everyone made sure was were it should be. We need to make sure that the Bermudagrass is as healthy as can be going into the "cold" weather so when the "warm" weather hits it will come out with flying colors.

The ornamentals should be planned for the seasons. There should be no "tropical" plants that are not adapted to our cold winter freezes. If you have some, when a frost hits they become brownish and unsightly. It is a general opinion that you use only "Cold" hardy plants that can withstand temperatures as low as 15°F.■

FUNNY

1. Funny how ten dollars looks so big when you take it to church and so small when you take it to the store.

2. Funny how big an hour or so serving God and His church looks and how small sixty minutes are when twice that time is spent fishing, boating, watching TV, etc.

3. Funny how laborious it is to read a chapter in the Bible and how easy it is to read 2 or 3 hundred pages in a best selling novel.

4. Funny how we can't think of anything to say when we pray and don't have any difficulty thinking of things to talk about on the phone with a friend or over the back fence with a neighbor.

5. Funny how we seem to have difficulty learning to worship God and find it easy to learn so many other things.

6. Funny isn't it! Or maybe it merely reflects the way we are living these days with our priorities mixed up and a "shoulder shrug" for God and His church. Really it isn't funny, it is sad. We need to look up and listen to God more. No, it isn't funny . . . really . . . for in this changing world we find the one and only unchanging certainty, is God and His unchanging love.

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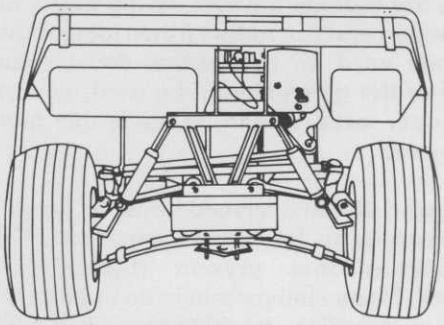

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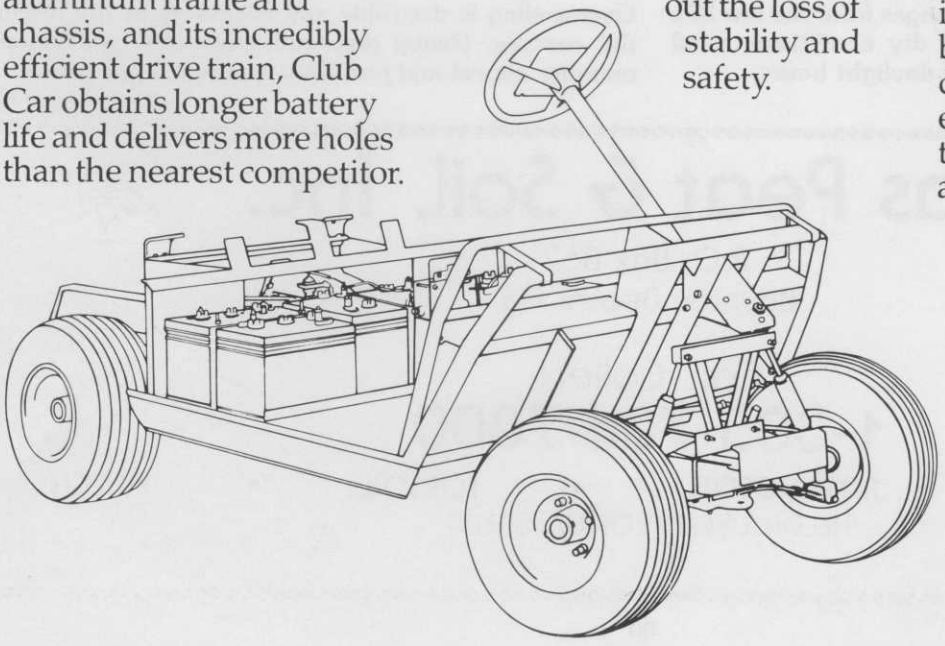

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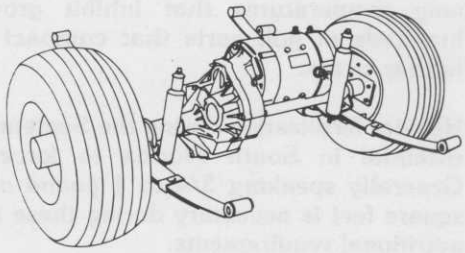

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South Florida Sunshine

By BRAD KOCHER
Inverrary Country Club

Bundling Up Turf For Cold Weather

It seems like every year we hear new and better methods of making our Bermudagrass turf more capable of handling the cold winter temperatures. The turf has to withstand not only temperatures that inhibit growth, it must face hundreds of golf carts that compact and put upon it a further stress.

Heavier fertilization during the September to May period is essential in South Florida to force bermuda growth. Generally speaking 3/4 to 1 pound of nitrogen per 1000 square feet is necessary during these months to meet the nutritional requirements.

Potash levels have been increased by many South Florida superintendents, as a result of soil tests and by recommendations of leading turf specialists. A greater emphasis is also being placed on a one to one nitrogen potash level to increase plant hardness without a great deal of lush growth. Potash created hardness will also increase root growth and hopefully enable the bermudagrass to withstand drought stress that will no doubt occur this winter.

Cold weather preparedness of greens is undoubtedly the main area of concern. By far the majority of golf courses overseed their greens. However the ones who do not overseed are faced with greater challenges.

Both Tifgreen 328 and Tifdwarf bermudagrass must be treated in a variety of ways to enable the grass to cope with the wide diversity of winter temperatures and climatic conditions. There are temperature ranges from the low 30's to 80 degrees. There are wet and dry conditions, wind conditions, and reduced amounts of daylight hours.

Earl Grey, at Indian Creek in Miami Beach, generally fertilizes at one pound of nitrogen every two weeks during the winter season, as compared to approximately one pound of nitrogen per month during the growing season. He is also a strong advocate of at least monthly topdressings. Mowing heights are generally raised in conjunction with temperature changes.

Many superintendents find it necessary to mow above 3/16" during cold weather conditions. Heights of 7/32" to 1/4" are frequently used when temperatures drop into the low 40's and 30's. The height is then brought back down to normal levels when temperatures increase.

On many mornings greens are not mowed and periods of four to six days without mowing are not uncommon. It is also beneficial to use walking mowers during winter months to reduce compaction and tire marks from riding mowers. If riding mowers are used an every-other-day cleanup lap around the edge of the green should be used, and at least one clean-up-lap per week should be made one foot from the edge of the green.

Superintendents who do not overseed, must be very flexible and weather conscious to be able to cope with the vast variety of conditons that present themselves from November to April. Many club members do not like the four to six weeks of overseeding establishment and feel they would rather cope with less than ideal conditions for a few weeks.

Overseeding is desirable and necessary at the majority of the courses. Heavy play considerations, soil conditions, member appeal and just plain aesthetic appearance of lush

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