



1998-99 Overseeding Season

BY JOEL D. JACKSON, CGCS

Superintendents have developed a comfort zone with the overseeding ritual based on their local course conditions and member expectations; geographic location and average weather patterns; past performance of seed varieties and management routines; and timing of special events. Last year El Niño turned the winter season into a nightmare for many superintendents and golfers alike.

Superintendents can't always select the best time to overseed based on current weather data or predictions. They are forced to select seeding dates based more on club activities and tournaments.

The Disney Golf Classic in October and the Bryant Gumbel Celebrity Tournament in November come to mind. We were often seeding courses the first of December after all the major events were over.

Last year, we got caught by El Niño's rains and application after application of seed was followed by heavy rains. The courses that were able to seed early last year generally were more successful.

As if it weren't enough of a challenge all winter to get the greens in acceptable shape, the second half of the season turned into a record-setting drought and heat wave.

All that seed applied again and again to produce a marketable playable surface choked out the bermudagrass and then shriveled up under the wilting heat, leaving big bare patches on the greens. If superintendents tried (or were forced) to maintain tight greens instead of reacting to the conditions, they generally had a rough transition.

What's in store for us this year? El Niño shouldn't make a repeat appearance. That phenomenon is usually on a two to three year cycle. Tad Altman,

Stonebridge CC, Naples; Scott Bell, Bent Pine GC, Vero Beach; and Joe Ondo, CGCS, Winter Pines GC, Winter Park wrote articles on their plans and we have four more superintendents from around the state participating in a *Florida Green* overseeding questionnaire to share their plans and tips for 1998. Good luck!

Overseeding Procedures for Greens and Tees

We overseed around the second week of November.

On the greens we will put down 10 pounds of poa trivialis per 1000 sq. ft.: 4 pounds in two directions using a drop spreader and 2 pounds with a rotary spreader over the top. In about a month we put down another 2 pounds with a rotary spreader. The tees will be seeded with a drop spreader at 15 pounds per 1000 square feet of a seed mix which is 85% perennial rye grass and 15% poa trivialis. No other areas will be overseeded.

After seed is spread, we drag it in with a mat that has carpet attached to it. The greens and tees will not have any seed bed prep except for a topdressing around a week prior to seeding.

After seeding is complete, the mowing height will not be changed. Greens will be mowed at .156 (5/32) inch, and tees will be at 3/8 inch. The only change in mowing practice will be raising the turf groomers to keep from pulling out the seedlings.

Two weeks after germination we lightly topdress the greens and apply fertilizer at 3/4 pound per 1000 sq. ft. Four weeks after germination we put the groomers down to bedknife height.

Six weeks after germination with proper weather conditions, we mow the greens at .140 (9/64) inch. At this height we do regularly scheduled fertility programs. Some of the fertilizer applications are granular and some are foliar. Fertigation supplements are applied most of the winter at low rates.

When all is right with the weather, it is usually smooth sailing until spring. Unfortunately we have not had many "right with the weather" times lately.

To get through these difficult times we raise the cutting height to acceptable levels and increase foliar applications of plant health products (like medicines you take when you have a cold or flu). All situations are evaluated at time of need.

A light topdressing is applied every two weeks during cooler months. We put a microbe solution on our greens and tees monthly all year.

After implementing this program we have decreased our fungicide use to a very low level. Last year with the heavy rains we had good turf quality with little fungus. The biggest difficulty was lack of sunlight that required us to apply more plant nutrients directly to the leaf tissue more often.

Another thing we found out last winter was that our pre-emergent chemicals did not last as long as they should because of rain flushing. Our second pre-emergent application will be applied earlier this time to keep the volunteer rye from becoming a problem.

After 14 years of overseeding under my belt, I have come to the conclusion that if you keep it simple and stay on top of the program you can get a great final product and still sleep at night.

Tad Altman, GCS
Stonebridge Country Club

Managing Overseeding Through the Season

After many years of overseeding, we have established a strong-enough stand of bentgrass so that we do not have to overseed any more. As the years progressed, certain greens got stronger bentgrass cover and over the past 10 years we have converted a couple of greens per year to where we are now.

Bent Pine now has all of the greens predominately in bentgrass. During the summer, some greens will show some bermudagrass trying to reestablish, but we try to keep it from spreading too much.

The decision to overseed is only the beginning. Decisions need to be based on geographic location, rates, type of seed and time of desired transition.

The decision needs to be made to de-



termine if you want to “interseed” (mainly for color) or if you want a full-blown overseeding where you establish a solid bentgrass or poa trivialis putting surface. We always overseeded to establish a solid bentgrass surface. Years ago we seeded with a bent/poa trivialis mix but we found in late April and May, the poa would discolor as the temperatures rose. We then used only bentgrass. We targeted June as our transition month.

We always overseeded during the first week of October. For bentgrass to be fully established and growing laterally via rhizomes, you need 12 weeks. Usually by Christmas the seed was mature. We cut back on the fertility before Labor Day in order to slow the bermudagrass growth rate. Two to three weeks prior to overseeding we applied a starter fertilizer, liquid organic phosphorus. We have had the luxury of the club closing down during the first two weeks of October for seasonal preparations, including overseeding.

The Sunday evening before closing we verticut, spiked, mowed and sprayed the greens so that on Monday morning we could seed the greens in the dew and see our spreader tracks. We verticut with verticut reels mounted on our Toro Greensmaster 3000Ds. As our Tifdwarf greens got older, we verticut as many as six or seven times per green.

This is a critical call based on the green’s health, age and fertility. You need to get good seed-to-soil contact to help the seedlings root and establish quickly. After verticutting, we mowed to clean up and then spiked with our trap-rake-mounted spikers. At this point we applied Subdue fungicide to protect the seeds and seedlings from Pythium and then went home for the night.

The next morning we seeded into the dew, watered it in and, once the greens were dry, topdressed fairly heavily with a 90/10 coarse mix. After dragging in the mix, we fertilized with an organic greens fertilizer. Finally we sprayed the greens with a broad-spectrum fungicide and insecticide. For the next five or six days we kept the greens wet through a combination of irrigation and hand watering. Usually after four or five days, the seed began to germinate.

As we all know at seasonal clubs, we are judged by our greens from November to May. They are often the topic of choice on the cocktail circuit. Generally the decisions that you make and the actions that you take in September, October and November determine the success or failure of your whole season.

Being closed is extremely valuable to establishing an excellent putting surface. We would wait for seven to ten days until we finally walk-mowed the greens at 1/4 inch. For the next month we scouted for pests and mowed as little as possible. We tried to skip mowing on any weekday morning without dew. We waited a month before we began to lower the cut.

At this point we switched to a liquid-only fertilizer program, which included a program of liquid micronutrients and organics. This benefited us because, as the height of cut was lowered, the exposed dry, granular fertilizer affected ball roll and we would have to mow without buckets.

As we all know at seasonal clubs, we are judged by our greens from November to May. They are often the topic of choice on the cocktail circuit. Generally the decisions that you make and the actions that you take in September, October and November determine the success or failure of your whole season.

Remember that good seed-to-soil contact needs to be made, but you still must have some bermuda around to protect and hold the new seedlings. Finally, watch your mowing heights. Mowing too low, too early can stress a good stand of grass. Don’t forget about your greens during the weekends and hopefully you’ll have a great stand of grass all season.

*Scott Bell, CGCS
Bent Pine Golf Club*

Winter Pines Overseeding

The past three years we have been overseeding the Monday after Thanksgiving because November is still a very

busy month while December and early January are slow. Also the greens were so nice in November we hated to start seeding into them. After last year, we have decided to seed around the first of November just in case. We have been using a mix of ryegrass and poa trivialis, but this year we will go with a blend of Sabre II and Winterplay poa trivialis on the greens.

We will start with 5 lbs./1000 sq. ft. of the poa triv blend and continue dusting the greens every week until we get the coverage we want, which is 12 to 15 lbs./1000 sq. ft.. This way we feel we can give our players a better putting surface with minimal disruption in shorter time frame. Some of our weak greens may get a little ryegrass to help them out. Collars and approaches will be seeded with 15 lbs./1000 sq.ft. of Brightstar perennial ryegrass. Tees will be overseeded with 15 lbs./1000 of Cutter Lowgrow perennial ryegrass. Three of our par-three fairways and the clubhouse area will be seeded with Brightstar ryegrass at 10 lbs./1000 sq. ft.. The rest of the fairways and roughs will not be seeded.

Primo has not been used yet on our bermuda for overseeding establishment. The shorter days, cutting back on nitrogen, and regular verticutting still seem to be working so far. The greens will be verticut in two directions and then lightly topdressed about a week before overseeding to establish a good seed bed. Tees, collars and approaches will be verticut one day earlier and mowed down to 3/8 inch. After seeding, these areas will be topdressed with an 80/20 soil blend and matted in with a rug. No topdressing will be used on the greens after seeding.

Mowing on greens will begin at about

1/4 inch and gradually be lowered to 5/32 after good establishment. All other areas will start at 1/2 inch and lowered to 7/16 inch until transition begins.

No pre-emergent herbicides will be used on greens, tees, approaches or any other seeded area. Poa annua has not been a big problem and any area that gets infested will be dealt with on an individual basis. Around the second week of November, one pass of XL granular will be applied with a drop spreader around all seeded areas. One pass of Barricade will be sprayed on slopes and outside the XL granular-treated areas. During the third week of November a 10-0-20 fairway fertilizer blend with Barricade will be spread on fairways and roughs with hand work in the tight areas.

A preplant greens fertilizer of 12-24-12 is usually applied at seeding and a liquid preplant is used as the seed begins to pop. Milorganite is used at half rates every other week depending on weather for the first two months. A second pre-

El Niño caused us some weak turf and forced us to speed up our plans of rebuilding four greens this year sooner than we wanted.

plant application may be made in a month, depending on how much more seed needs to be added.

Usually on greens, IBDU at 0.5 lb./1000 sq. ft. along with liquid Ferromec and potash is used every other week during the season. All other areas receive similar treatments. Par-three tees might get a little extra.

The greens are spiked weekly with a Cushman pull-behind spiker. No other cultural practices are done until later in the season, when we verticut and double mow.

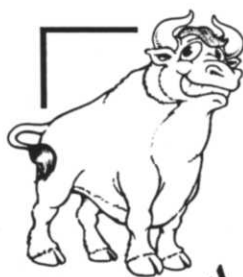
Spraying is done with Banol or Subdue as preventive Pythium control after the seedlings emerge. Preventive sprays are done every other week using Daconil

2787, Dithane or Cleary's 3336. Dithane or Fore are used after the seed is established for any necessary algae control.

El Niño caused us some weak turf and forced us to speed up our plans of rebuilding four greens this year sooner than we wanted. The new Heritage fungicide was a big help to our turf and we will not hesitate to use it sooner if poor conditions exist.

As most of you know, soil testing will tell you what other nutrients you might need for good turf. I will give some of the new wetting agents a try if needed. Let's hope El Niño doesn't rear its ugly head this year!

*Joe Ondo, CGCS
Winter Pines Golf Club*



**El Toro,
Zoymia**

We got it!

- **Easy to mow**
- **Cold Tolerant**
- **Dark green color**
- **Shade or Sun (great for shady golf tee's)**
- **No. 1 in Drought Tolerance**
- **Disease Resistant**

1-800-273-8608

Tel: (770) 832-8608

Member of:
GGCSA
ASPA
GA Sod
Producers Assoc.



"El Toro" Licensed by University of California.

South Florida Turf Products
INC

1-800-432-2214

1-561-746-0667

**Distributors for
Howard Fertilizers**
**QUALITY FERTILIZERS & CHEMICALS
FOR THE TURF INDUSTRY**

**1800 Central Blvd.
Jupiter, FL 33458**



1998 Overseeding Questionnaire

Participants: John Kopak, Alaqua CC, Longwood; Jim Martello, Halifax Plantation, Ormond Beach; Mike Mongoven, CGCS, Fort Myers CC, Fort Myers; and Steve Pearson, CGCS, The Falls CC, West Palm Beach (Pearson no longer overseeds, but these were the programs he found successful).

1. Timing

a. When will you put down your seed this year?

Kopak: I've selected the first week of November. We don't have any special events scheduled. I feel early November is in the window of opportunity for good germination temperatures in case October is too warm or December is too cold. But we all know Mother Nature will determine the overall weather conditions.

Martello: Around Thanksgiving. I want the bermuda as inactive as possible.

Mongoven: Our dates are based on economics rather than agronomics. We will overseed greens the first week of December.

Pearson: I used bentgrass in our greens mix so I started in October and hoped for cool weather since bent takes longer to establish.

b. Will you put out the seed in split applications?

Kopak: Yes. I will start with 6 lbs./1000 sq. ft. and follow up with two 2-lb. applications for a total of 10 lbs./1000 sq. ft..

The timing of the second and third applications is based on weather conditions and how establishment is coming along.

Martello: No. We will put out all the seed in one application making four different passes across the greens. We will monitor thin areas and touch up as needed four to six weeks later.

Mongoven: Yes. We will apply the seed in multiple light applications, maybe until March 1. Last year we even applied later than that.

Pearson: No. As long as the rain forecast for the next five days didn't show any significant rainfall.

I felt the stand of turf would become denser faster and it was important to get the greens right as soon as possible before the members came back.

2. Seed Varieties

Kopak: On the greens I've been happy using Cypress poa trivialis for the past four years. I feel the costs are in line and the performance over a wide variety of conditions has been to my liking. On tees and collars we put down 21 lbs./1000 sq. ft. of Evening Shade perennial ryegrass in 7-lb. increments going three different directions.

The par-three and driving-range tees get an additional 7 lbs./1000 sq. ft. Fairways are seeded at 250 lbs./acre with the same ryegrass.

Martello: We use a total of 7.5 lbs. of poa trivialis. No more, no less. I'm growing bermudagrass and I want to protect my host plant. Collars are done with a ryegrass and poa trivialis blend at 200 lbs./acre. Tees: ryegrass at 400 lbs./acre. Fairways: ryegrass at 300 lbs./acre. We follow up on tees weekly and hand-topdress with seed/soil mix through January.

Mongoven: Greens: 85% perennial ryegrass/15% poa trivialis blend. Tees and around some bunkers: ryegrass.

Pearson: We overseeded greens only: 6 lbs. poa trivialis and 2 lbs. bentgrass per 1000 sq. ft. The varieties depended on what worked well in each particular area and what was available.

3. Establishment procedures

Including seed bed preparation. This includes use of Primo, verticutting, mowing, top dressing, pre-emergent herbicides, and fertility programs.

Kopak: Primo — I may use Primo on fairways if they're growing fast. I may experiment on a couple of greens this year to compare establishment success. I haven't used it on greens before. You should never try a new procedure on all your greens without testing it first.

We all know what works at one course doesn't always work the same somewhere else.

Verticutting — Two directions on greens and one way on tees two weeks before overseeding. Topdressing — One light straight sand application on greens and one medium straight sand application on tees prior to seeding. Pre-emergents — A band of XL granular is applied with a drop spreader around the outside of tees, collars and approaches. Then we make rotary spreader passes outside of that. We outline fairways with Barricade using only the center boom section.

Then we fill in the rest of the area with the total boom operation. Fertility — Pre-plant and establishment: 3-9-9 granular on greens and a liquid 10-34-0 at the rate of 1.0 lb. of phosphorus/1000 sq. ft. During the season: less phosphorus and more nitrogen spoon fed, alternating granular and foliar feedings. If fungicides are needed they can be added to the foliar mix along with sugar. I like to apply 0.75 lb./1000 sq. ft. of ammonium sulfate to the fairways every six weeks.

Martello: Primo — Since I go out later, I don't feel I need to use it. Verticutting — Ongoing normal routine. Not just for overseeding. Mowing — prior to seeding 5/32 inch. Raise height to 3/16 inch. Seed out on Monday. First mowing the following Saturday. Topdressing — Biweekly and the day we overseed. Pre-emergents — four to six weeks prior to seeding we use Pre-M to frame-in all non-seeded areas, two booms wide. We use XL close in and around bunkers. Fertility — No special preplant mix. During establishment a typical 1:1 N:K fertilizer with maybe a little Milorganite. Use our regular granular program the rest of the season. If it gets wet, we will apply foliar sprays to feed bermuda year round.

Mongoven: Primo — just beginning to use it on greens before seeding. Verticut — two directions the morning of seeding. Mowing — Double cut at .180 inch morning of seeding.

Five to seven days later depending on germination, mow in the afternoon at .225 inch. Continue mowing in afternoons for the next three or four days. Topdressing — right after seeding, using a sand/charcoal mix. Pre-emergents —

First of October apply Regalcalde and fill in with Barricade in hard-to-spread areas. Fertility — Granular 5-10-10 after seeding. Spray 9-27-0 after germination. Soluble fertilizers sprayed on 7-14 day intervals combined with granular program every two to three weeks, depending on analysis.

Pearson: Primo — Used to apply right after verticutting at 6 oz./acre. Verticut four directions, enough to leave slits showing. Mowing — Prior to verticutting 5/32; after overseeding raise height to 7/32. Continue for 10 days after germination. Used walk mowers with solid rollers.

Then in five-day increments, drop height 1/32 until turf is dense; then lower 1/64 at a time until .125 is reached or lower if desired. Topdressing — After overseeding heavy enough to “bed” the seed.

Very light applications weekly until reaching ultimate density. Pre-emergents — Been too long to recommend products or timing. Fertility — One-time pre-plant after verticutting and before overseeding.

A weekly foliar program would follow with a fungicide included. During the season twice per week a soluble slow-release fertilizer would be applied at .05 lbs. N per week.

4. What are some of your management programs after establishment.

Kopak: Volunteer ryegrass is treated with TFC (Tall Fescue Control). I like to slice the greens every two weeks with a

deep slicer. This really saved our greens last year with all the rain we had. We topdress monthly. We roll the greens only for special events. Spray programs — I like to stay on a preventive fungicide program. Heritage is used during establishment. Mancozeb products used for algae as needed.

Martello: We mow daily with walk mowers, dropping in height from 3/16 to 5/32 with establishment. In the spring we start double cutting three to four times per week to encourage transition.

We slice biweekly during the season. In March we start a biweekly program of vertigrooming and topdressing.

No rolling. Spray programs are as needed only.

Mongoven: We mow with triplex mowers set from .200 to .175 inch. (Possibly lower if the stars are aligned properly!) No groomers. Roll twice a week. Verticut lightly starting in April every two weeks. Spray program — Normally don't use a preventive program. Last year was an exception.

Spray greens weekly with either a complete soluble fertilizer, micronutrients or a wetting agent.

Pearson: We would incorporate whatever it took to produce a good, true putting surface including topdressing, Primo and rolling (maximum twice a week). All was dependent on the health and vigor of the turf.

5. What are your plans for turf stress management in case of adverse condi-


tions like El Niño?

Kopak: Raise the height of cut and do more frequent slicing. I would rather hear complaints of slow greens than hear complaints of no grass to putt on!

Martello: Slice greens biweekly. If it gets real wet, increase to weekly slicing even daily if necessary. You have to keep them opened up when it gets dark and wet.

This practice alone has literally been our saving grace in bad winter weather conditions. Manage your irrigation watering very carefully.

Mongoven: Jog to relieve stress. Pray. On the turf, be quicker to apply fungicides.

Pearson: The height of cut has more to do with survivability than anything else. Continuously monitor soil temperatures, days of no sunlight, and water (rain) problems. Adjust height accordingly. 

TURF MARK

Now distributing *StarTines*

- ◆ Unique aeration tines recommended by the experts
- ◆ Tines/holders fit most aerators
- ◆ Durable, long wearing tines
- ◆ Ideal for inter/over seeding

Please call 800-229-8873 to order

Special
GOLF
COURSE
MIXES



Since 1948
**Florida Silica
Sand Co., Inc.**

Dade County
949-3521

Broward County
923-8323

1-800-330-3521

Complete Line Of
LANDSCAPE
Materials

Red Ball
Diamond Clay



Tips Weed Popper

DARREN J. DAVIS

*Golf Course Superintendent
Olde Florida Golf Club*

IPM, Integrated Pest Management, or Integrated Plant Management is a buzzword in the industry that lately golf course superintendents have been bombarded with almost daily. Golf course superintendents know that IPM has been employed on golf courses for years.

Although the definitions for IPM vary, one key component in a well-accepted IPM program is the reduction of pesticide use. Hand-removal of weeds is one method to decrease the use of herbicides. Some may feel this practice is too time-consuming and the benefit is not worthwhile.

If you run the numbers, the result may surprise you. For example, let's assume you have a 20-person staff. If 20 people take the time to hand-pull 10 weeds a day, five days a week (take the weekends off!), these 20 people would remove 52,000 weeds annually without one ounce of herbicide.

You be the judge: is it practical? In addition to the obvious benefit of fewer weeds and less herbicide, would your golfers rather see employees removing weeds while waiting for the golfers to play out of the way? Or would they rather see the employees sitting on their rear ends?

Golf course superintendents are well aware that hiring and keeping quality staff members can be a challenge. Too often, employees would prefer to perform duties that afford them the ability to sit on their butts all day.

Well, that topic is a different, complicated issue that each superintendent has to overcome. One way to motivate staff members to pull weeds by hand is to install "weed poppers" on the equipment.

From our experience, employees are much more likely to accomplish the goal of 10 weeds a day if they do not have to get their hands dirty.

To assist in this challenge we purchased a supply of "weed poppers" from a local vendor and our head equipment technician installed clips on the equip-



Mounting the weed tool on vehicles (above) keeps them handy and eliminates forgetfulness. Former assistant superintendent Russ Mollberg (right) is shown popping one of his quota of 10 weeds a day. A crew of 20 can harvest 52,000 in a year. Photos by Darren Davis.

ment to secure the tool in place. With the tool provided in a location that does not allow the employee to "forget it at the shop," we feel the goal of 52,000 weeds a year is obtainable.

Can this help your operation? That is for you to analyze. Has it reduced the amount of herbicides that we have used? Absolutely! In fact not one ounce of post-emergent herbicide for goosegrass or crabgrass has been applied to our greens, tees or fairways in over four years.

Tree/Boom Guard

As the assistant superintendent at Boca Grove, I like to do a lot of the spraying—especially the herbicides—so I know how and where the applications are done.

We have more than 1800 orange trees remaining from the original grove on the property. When I have to spray near the trees, even though we have break-away



booms on our Hahn sprayer, the fittings on the booms can nick the trees and leave small and unattractive scars on the bark.

I had an idea to create a tree (or boom) guard to create a neutral, flat surface that wouldn't cut the bark. From our mechanic, I got a couple of used Toro bedknives that were being discarded. I secured the bedknives to the ends of the outrigger booms with a couple of hose clamps. Now these flat surfaces recoil harmlessly off the trees without leaving any scars whatsoever.

*Jeffrey Roth, AGCS
Boca Grove Golf & Tennis Club*



The installation of a used bedknife on the leading edge of the breakaway boom on the spray rig protects the trunks of trees from nicks and cuts by the bolts and fittings on the boom. Photo by Jeffrey Roth.