

Super showman, Al Hirt, entertained guests of Rhone-Poulenc Inc. at his Bourbon Street night club. The Rhone-Poulenc "Chipco 26019 New Orleans Jam" event took place during the GCSAA's 53rd International Turfgrass Conference and Show, held in New Orleans recently.

"New Generation" Ryegrass Becomes Available

ALBANY, OREGON, March 1982 — Prelude a "new generation" turf type perennial ryegrass has recently been released. The announcement came from Steve Tubbs, general manager of Great Western Seed Company, a division of Lofts Seed, Inc. Bound Brook, N.J.

Developed by Lofts from breeding material obtained from Dr. C. R. Funk of Rutgers Uniersity, Prelude is part of the "new generation" in improved ryegrasses. These new varieties are a significant improvement over the topperforming varieties heretofore.

Among the improvements being shown in this "new generation" are: better shade performance, superior heat tolerance and winter hardiness, and good disease resistance to crown rust and brown patch.

One of Prelude's advantages is its superior mowing performance, particularly during hot months when other common perennial ryegrasses mow poorly. This feature makes it particularly appealing to golf course superintendents and groundskeepers. Prelude is expected to serve the overseeding market well as a low-growing, fine-textured ryegrass with a dark green color.

Prelude will be available in ample supply this fall through Great Western (503) 926-3892 or any Lofts branch or distributor.■

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Golf Industry Focuses On New Orleans During GCSAA Conference, Show

A near-record number of golf course superintendents, club officials, educators, industry representatives and other turfgrass professionals participated in the 53rd International Turfgrass Conference and Show sponsored by the Golf Course Superintendents Association of America here Jan. 30-Feb. 5.

Registrations for the week-long conference totaled 7,467, just slightly less than last year's record-setting conference in Anaheim, Calif. More than 19,000 visitors passed through the turnstiles of the turfgrass trade show, the world's largest display of golf course maintenance equipment, products and services, during its three-day run in New Orleans' Rivergate Exhibition Center. The 1982 Show featured more than 3-1/2 acres of displays by 212 golf - and turf-related firms.

The large turnout was especially gratifying to GCSAA officials, who noted that in a recessionary year when most national conventions and trade shows are averaging a 12 percent decline in attendance, GCSAA's activities continue to be well-attended.

The conference keynote address by golf commentator Jim McKay attracted a near-capacity audience of more than 2,000, and two innovative water educational sessions drew as many as 1,000 listeners at a time. The United States Golf Association's annual Green Section educational conference Feb. 3 also attracted more than 700 registrants.

GCSAA members elected James A. Wyllie, CGCS, superintendent of Bayview Country Club, Thornhill, Ont., to serve as 1982 GCSAA President. Robert W. Osterman, CGCS, The Connecticut Golf Club, Easton, was elected Vice President; Paul Boizelle, CGCS, The Onwentsia Club, Lake Forest, Ill., was reelected to a two-year term on the Association's Board of Directors, and John P. Hayden, CGCS, San Jose Country Club, Jacksonville, Fla., was elected to a three-year term as a Director. Wyllie named James W. Timmerman, CGCS, Orchard Lake (Mich.) Country Club, to serve as 1982 Secretary-Treasurer, and Richard V. Slivinski, CGCS, superintendent of golf courses for the city of Phoenix, Ariz. to fill the remaining year of Osterman's term on the board.

Among the Conference highlights was the Thursday night banquet and Show. At the time, the President's gavel was formally passed to Wyllie from outgoing President Michael R. Bavier, CGCS, Inverness Golf Club, Palatine, Ill. Also honored at the banquet were outgoing Director Edward Dembnicki, CGCS, Arcadian Shores Golf Club, Myrtle Beach, S.C. and Past President Melvin B. Lucas, CGCS, Piping Rock Club, Long Island, N.Y., whose term on the board has ended.

Alexander M. Radko, who recently retired as national director after almost 30 years with the USGA Green Section, was honored during the banquet for his service to superintendents and the game of golf. Radko was presented with an engraved platter and a tam-like cap traditionally worn by Scottish greenkeepers.

Conference and Show activities concluded Friday morning with a management tour of the 95,500-seat Louisiana Superdome. The Superdome, which has housed two Superbowls, the Sugar Bowl and the Duran-Leonard World Boxing Championship under its 9.7 acre roof, was toured by more than 200 conference participants.

As GCSAA's 1982 Conference and Show passes into history, the golf and turf industries begin to focus on Atlanta, site of the 1983 Conference. The Georgia World Congress Center there will house the 1983 Show and eduction sessions. The Association's annual preconference golf championships will be played at Arcadian Shores Golf Club and Myrtle Beach National Golf Club, both in Myrtle Beach, S.C.■



IN PRAISE OF ZOYSIA

By FRED V. GRAU

Zoysiagrass was little more than a botanical curiosity fifty years ago. Twenty years later it was featured in the August 1953 National Geographic magazine and in LIFE magazine. Public interest was phenominal. It offered the homeowner a natural easy way to fight crabgrass in sunny lawns in the "crabgrass belt" which divides North from South turf systems.

The "perfect grass" either does not exist or has not yet been found or developed. Quite likely it will never be found. In the meantime zoysiagrass comes close to the ideal for many people and for many situations. From the nation's capital to St. Louis and Kansas City the popular Meyer (Z-52) zoysia is increasingly in use on home lawns and golf course fairways. Its ability to tolerate close mowing is in evidence at the Naval Ordnance Lab on New Hampshire Ave. (suburban Maryland) where the original putting greens that were planted to Meyer zoysia in 1950 are still in play. At one-quarter inch height of cut they provide satisfactory putting surfaces all year. In the winter the golfers putt on "browns." There are similar putting surfaces in play in the Philadelphia area. When I was asked to recommend the grass for the putting surfaces at N.O.L. in 1949 I asked, "What are your criteria?" "Low-cost maintenance. minimum water, minimum labor requirements, minimum fertilizer and growth," was the answer. When I specified zoysia many of my contemporaries scoffed. "Bent is the only grass," they railed. As a result we now have had 30 years of low-cost maintenance on satisfactory putting greens/browns. They might not pass a stimpmeter test for a major championship but people like them. They meet current specs for economy in labor, water use, pesticides and weed control. Color changes with the seasons.

Zoysia lawns in Washington, St. Louis, Kansas City and other "transition-zone cities" are conspicuous in winter. The golden brown hue is refreshing. In summer these lawns are at their best when heat and humidity take their toll and diseases and stresses render bluegrass and fescue limp and weed-infested. Zoysia is not the perfect lawngrass but it is way ahead of whatever is in second place.

Many of my golf course superintendent friends are quietly proud of their success with Meyer zoysia that provide almost perfect fairway turf for their members. The first full fairway to be planted to zoysia was done in 1950 by the Mid-Atlantic superintendents and our crew from The Green Section. Fairfax C.C. was the site. Planting methods ran the gamut from sprigs to plugs to seedlings to sod strips. It was a pioneer learning effort. Much has been learned since then. Mel Anderson at Laurence, Kansas, is pleased because he can mow it closely without fear of injury. It requires hardly any irrigation and very little fertilizer. Weeds are minimal. Golfers love it. The color changes with the seasons and turf quality is at its best when the most golf is played. The grass meets current specs for ECONOMY.

There will be other zoysia cultivars, most better in some respects than Meyer. Like Merion Ky. bluegrass, Meyer is a

pioneer. Merion is being supplanted by better bluegrass cultivars but its place in turfgrass history is secure. Thus it is with Meyer only it will take longer.

There will be zoysia turf established from seed. We grew zoysia seed at Beltsville and sent it all over the U.S. Seedlings also were shared with golf clubs and with experiment stations. Mechanical and chemical treatment will help zoysia seed produce turf faster.

Zoysia is a grass with infinite variability and tremendous potential. Japan has used zoysia for years on lawns and golf courses. We've been slow to accept it because it changes color with the seasons. As "BROWN" becomes more acceptable so will zoysia gain in acceptance. Don't sell this grass short. It has a bright future even though it isn't for everyone and every situation. It does meet ECONOMY guidelines.

The name Meyer was given to the Z-52 selection to honor Frank H. Meyer, U.S.D.A. plant explorer, who searched for grasses in the Orient and sent zoysia seeds to the U.S. His body was found in a canoe floating down the Yellow River in China.



Fire Ants Get Taste Of Amdro

For the first time since 1977 the Animal and Plant Health Inspection Service branch of USDA participated with affected states last fall in an important fire ant aerial control program. There were no control programs in the intervening years because in 1978 EPA canceled registration of the only area-wide fire ant control product available — mirex and did not register a new product — Amdro — until August 19, 1980.

"USDA was involved in extensive field testing of Amdro and the results have exceeded all expectations," says Bobby Smith, assistant secretary for marketing and transportation services. "We are very pleased with the 98% effectiveness of this chemical under most conditions," he says.

Seven states originally planned to participate in the cooperative control program on a 50-50 cost-sharing basis: Alabama (135,000 acres), Georgia (376,000 acres), Louisiana (37,500 acres), South Carolina (25,000 acres), and Texas (400,000 acres). Texas and Louisiana backed out of the program because they couldn't get geared up in time or had money problems, thus keeping the gate open for the fire ant's westward move.

Ground Applications

Two other affected states, North Carolina and Mississippi, elected to conduct ground or hand application programs. North Carolina treated 2500 acres with ground equipment and Mississippi distributed 1-pound bags of the new bait to the public. Treatments were made the last week of September through the second week of November with efficacy readings scheduled to be made eight weeks after treatment.

Smith says USDA participation in fire ant control is limited to providing relief to farmers, landowners and other residents in the infested areas. USDA matches state funds put up for fire ant control and also provides technical assistance in bait application.

The Amdro registration is, so far, conditional. It is used with soybean oil and corn grits in a bait that worker ants pick up and feed to the queen. When the queen dies, other ants in the mound soon die too.

The red imported fire ant (Solenopsis invicta) was introduced into the United States from Brazil between 1933 and 1945 near Mobile, Alabama. It rapidly infested other states. In 1950 the ant was primarily in Alabama and Mississippi. By 1962 it had spread into Texas and into Georgia. By 1976 the infestation included 190 million acres from North Carolina to Texas. Today, some 230 million acres are infested. The fire ant has the potential to spread into areas of the United States where the temperature does not fall below $10^{\circ}F$.

Vicious Sting

The explosive spread of the fire ant was greeted with much alarm. Although it looks like an ordinary red ant, the fire ant is aggressive and has a vicious sting when distrubed. Human health reactions to ant stings range from discomfort to infection to death.

Colonies of ants build large dirt mounds in yards, playgrounds, cemeteries and pastures, making use of the land hazardous. Smith says the ants can injure livestock, their mounds damage farm equipment and farm workers often refuse to enter fire-infested fields.

In 1957 Congress enacted legislation creating provision for a joint federal-state fire ant control program.

The discovery of Amdro goes back to 1975 when American Cyanamid chemists developed a new series of compounds that were found to be slow acting stomach insecticides, according to Calvin Alvarez, marketing manager, technical chemicals, American Cyanamid Company. After evaluating more than 500 different compounds, the most promising of them were sent to USDA testing labs in Gainesville, Florida and Gulfport, Mississippi where they were tested against the imported fire ant. One compound, designated AC 217,300, was determined to be the most promising candidate, Alvarez says. It was later named Amdro.

Complex Chemical

Amdro belongs to a totally new class of compounds known as amidinohydrazones, according to Alvarez. They're not like chlorinated hydrocarbons such as mirex and DDT. They're not like the organophosphates or carbamates either. The chemical structure is much more complex than mirex and consequently more expensive to manufacture, he says. The company's performance data show that a 4-gram-per-acre application rate (formulated on corn grit) gave an average of 92% reduction in the number of ant mounds.

Amdro is environmentally acceptable, according to Alvarez, and its rapid breakdown, insolubility in water and failure to build up in the environment are extremely important and very encouraging, he says.

(Continued from Page 24)

A combined environmental assessment and final impact statement concerning 1980 Amdro treatments in the six treated states is now available. According to B. Glen Lee, staff officer for USDA-APHIS, "An environmental assessment was completed at the time the conditionally registered material, Amdro, was being tested and we found that the material would not have a significant effect on the quality of the human environment." He continues, "Analysis of the environmental components collected from areas treated with Amdro during two years of field testing as reported in the environmental assessment indicates no residue in soil or vegetation because of the application of Amdro."

According to Lee, plans for another program this year are yet to be determined.

Fire Ant Pheromone Found

Identification of the pheromone that red imported fire ants lay down for trail identification may enable scientists to devise more practical controls for this pest. Scientists at Texas A&M University first identified the pheromone, called allofarnesene, and then succeeded in duplicating it in the laboratory.

"Use of a species-specific attractant with a bait has been shown to increase the effectiveness of the bait in controlling a target species," says entomologist S. Bradleigh Vinson, Texas Agricultural Experiment Station. "We are studying control methods for *Solenopsis invicta* using this pheromone as the attractant so only this particular ant will take the bait," Vinson says. "Non-species-specific baits using chlorinated hydrocarbons have proven ineffective in controlling the spread of this species," he says, adding that "there is some evidence that such baits have even hastened the spread of this species of ant by eliminating competing species."

It was in Vinson's experiment station laboratory that Howard J. Williams, research chemist, succeeded in identifying and duplicating the pheromone. Vinson says previous research has shown that fire ants are so sensitive to the chemical scent of their pheromone that they can follow it even when it intersects other fire ant trails.

The secret to this ability is that each trail is laid down in a different concentration. While most of these fall in at about a 500 picogram (a picogram is one trillionth of a gram) per centimeter level, Vinson says that the ants can detect the chemical at even lower levels.

"This sensitivity to the trail pheromone should enable us to devise a bait that will attract this species of ant, and only this species," Vinson says.

The researchers have also identified the brood pheromone (triolein) of the fire and and hope to devise a control that will attract the ants to the bait, which they will carry back to the nest. It will kill the ants there as well as those bringing the bait in.

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Palm Beach Trade Winds

By MICHAEL BAILEY Boca Greens Country Club

Which came first, the seed or the egg? If it was the egg, one can sure bet the evolution was a lot easier compared to the seed. The evolution of quality overseed in the turf industry has been complex and tedious. If one only thinks of buying some grass seed and throwing it over the lawn to make it green, then it is quite simple. However, when one thinks of minimal mowing height, density, texture, disease resistance, drought and wear tolerances, color, and -oh yes - putt-ability, the seed becomes a little more complex.

Have you ever wondered where in the world do all those finute (fine and minute) seeds come from? There are few geographic locations in the United States that are climatically favorable year round for such seed research and production. An area of the country with the most consistant weather is in the northwest, generally Oregon. Their weather can best be described as a humid mesothermal climate of the marine west coast, meaning the region is blessed with cool winters and mild summers. Remembering an automobile bumper sticker that once said "cars never fade here, they just rust way", it is common for yearly rainfall to average 38 inches. This cool, moist climate with nutritious soil can readily be a heaven for such overseed demands.

Phil Gardner and Keith Longshore of Lakeshore Equipment and Supply Co. recently had the opportunity of flying over the valleys of various seed production. The most favorable of all is the Willamette Valley of approximately 80 miles wide and 120 miles long that is protected from the east and west by mountain ranges. Longshore states "I was most impressed with the breathtaking beauty of the valley tucked between the mountains with such vastness of fields upon fields of beautiful green turfgrass".

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From the air the production seems so simple. However, settling down to the roots, one finds many people devoting decades to research and development. A theoretical seed of an established name and label actually has years of development tucked under its cotyledon.

The seeds of crosses are taken from parent plants of ideal characteristics. Test plots are grown on $2^{1/2}$ foot centers with as many as 2000 repetitions. After evaluating an entire season of growth, as little as 20 plots are then selected for continuing research. After four or five years of continually growing out the desirable plots, an evaluation is made for a possible product. Cultural evaluations consist of two primary factors. Plots are either clipped at turf heights to simulate a golf course's need, or let grow to a natural height to evaluate seed yield. A plot must not only be desirable from a turfgrass manager's point of view, but the seed yield must be great enough to economically support the cost of production. The seed yields can play an important factor relating to cost and supply of the demand. The average seed yield is approximately 400 lbs/A, however Dr. William Meyers of Turf Seed Inc. has noted the best ever yields that have almost reached 3,000 lbs/A.

The time of seed harvesting is perhaps the key to all the work of a season. In the early morning the seed is harvested much like the skill of any vegetable grower. The seed can shatter later in the day when the plant is drying from the sun. If the seed falls, all is lost. However, premature harvest of the seed will also result in less volitale seeds.

The quantity of seed yield is not as important as the quality. Yield trials are conducted of desirable plants to evaluate the product. This consists of as many as 350 "miniature fields" of a repetition. A yield trial is a row of four, with the outer two rows being the barrier or protector to the middle two rows. The inner two rows consist of more evenly dispensed sunlight and more equal amounts of fertilizer. After the plots have grown out, the stalks are cut and the seeds are then counted for quantity and quality. A germination test is conducted to test for the amount of annual flourescence within the stand. This procedure involves allowing the seedlings to germinate and initiate roots. The young seedlings are then placed under an ultraviolet light. Annual ryegrass roots will cast a pale white glow, whereas the perrenials do not cast a glow, which can prove to be an important test for the quality of your seed.

Once a yield trial has been grown and harvested, the crop is burned off to eradicate the amount of stems and accumulated thatch material. The plots are then regrown for (Continued on Page 27)



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several seasons until the most desirable product is finally found. If a seed is believed to merit production, planting on a large scale is performed. The seeds are planted in the fall within lots which average 40 acres, but can range as high as 100 acres. The seeds are applied with a drill type machine that drops the seed into the ground. Immediately following, in the same process, a narrow strip of charcoal is sprayed over the row of soil to purify the seed from a proceeding massive application of Karmex at a rate of 3 lbs/A to eradicate all other undesirable weeds.

During the period of germination until harvest, much work is involved with hoeing of the rows and applications of herbicides. Longshore states, "I was most impressed with the cleanliness of the fields and the manner of professionalism within the crews." Round-up is applied from a large spray tank pulled by a tractor, with individual hand guns of five to six rows at a time. Employees walk through the fields to spray out any undesirables. Fertilizer applications average a total of 4 lbs of N/1,000/yr. Relatively few pesticides are applied. Mother Nature seems to be very kind to this region of the country as the weather generally provides for an ideal harvest.

The growing season comes to a climax around mid-summer as harvest usually occurs in July. The process begins with the swathing of the seed which is the cutting of the seed stalks. Timing is critical as moisture from the dew must be present in order to keep the seeds intact. This is usually done from 8 p.m. to midnight and then restarts from 6 a.m. until 9 a.m. or when the dew begins to dry just past sunrise. The combining of the seed or the picking up of the material is then performed during the dry period of the day which occurs approximately from 11 a.m. until 7 or 8 p.m.

The seed material, once harvested, begins the final process of being cleaned. This involves four (4) major processes, whereupon the final results produce bags upon bags of pure seed material. Stage one of the cleaning process involves sizing sieves or large types of screens which remove most all foreign matter. Approximately 80% of the material left is of pure seeds. An air stream process is then used for removal of dust and fragments of plant matter resulting with just only seeds to be processed. A series of indents then picks the seeds into regions of desirable and undesirable seeds. A gravity table is the final process. This consists of tables that shake the seeds of heavier and larger particle

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A&L SOUTHERN AGRICULTURAL LABORATORY (FORMERLY DR. WOLF'S AGRIC. LABORATORY) 6861 S.W. 45th ST. • FT. LAUDERDALE • (305) 583-6447 sizes from those of lighter and smaller sizes. The final result produces the desirable material which stays in the middle.

From here, the ultimate step is the certification of the seed. Dr. William Meyers can best describe the certification as "the added insurance to the customer that he is getting the genetic quality of what the breeder developed." The certification program of the State of Oregon is one of the foremost, thorough and most respected in the country. Under the program, an average of 120,000 acres per year are monitored. Oregon produces 75% of all grass seed nationwide.

Theoretically, the seed is the beginning of all. However, if you're beginning is to start on the right track, one must employ the best research and development. We, as turfgrass professionals, must be aware of the best products available and produce the ultimate product within our means.

LOGO BORROWED

We want to thank the Miami Valley Golf Course Superintendents Association for the use of their mast head. It is being used for the North Florida Chapter. "Divots" is the monthly newsletter of the Miami Valley G.C.S.A. Special thanks goes to Richard Boehm, C.G.C.S. and all the other fine folks in Ohio.



The Gator Growls

> By DAN L. HALL JR. Imperial Golf Club



Port Charlotte C.C., Port Charlotte, FL Bob Sanderson, C.G.C.S., Superintendent Bob Yates, Assistant

November 16, 1981:

Tifgreen greens — Triplex mowed at 3/16'' daily.

Seed - 60% CBS - 40% Pennfine Koban treated at 20 lb./MSF.

Method — Pre-seeding mechanics are completed at least 60 days prior to overseeding due to extremely heavy play. Bob feels he needs some Bermuda cushion to enable his rye to survive more than 350 players per day on relatively small putting surfaces. Broad spectrum plus pythium fungicides are applied three to four days prior to seeding.

Seeds are applied with cyclone spreaders and top dressed with pure medium sand and matted in once by regular dragmat. Greens are syringed at 6 a.m. - Noon - 7 p.m. daily and not mowed until the seventh day. Height is raised to 5/16'' for two weeks and lowered to 1/4'' until Jan. 1, then down to 3/16'' for the season.

No specific pythium controls except treated seed are used at seeding but weekly applications of broad spectrum fungicides plus 3 ozs. of Aqua-Gro are applied using Daconil 2787-Fore-Thiuram 75 alternately applied.

A custom fertilize mix, 8-1-7, is applied by-weekly to put down 2 lbs. N₂ per month. Once monthly, chelated iron is mixed with a fungicide application at 4 oz. FE/MSF. The custom mix is also high in minors and trace elements.

Bob says the addition to his seeding of the CBS has given him a better surface with much more durability than the Pennfine alone used in the past; there has also been less fungi problems, but this could have been due to weather conditions this year. He plans to continue this program next year as his putting surfaces have been more consistant than past years under his heavy rate of play.

The rye is scheduled for removal about March 15 by greensairing and heavy verti-cutting plus topdressing; mixing the medium sand with cores and then matting in well. Water will be reduced accordingly and regular verti-thinning on a weekly basis begun. This program has been highly successful in the past on Pennfine, and Bob is anxious to see if the same results hold true for the CBS addition.

Cypress Lake C. C. - Ft. Meyers, FL David Moote, Superintendent Will Gordon, Assistant

November 16, 1981:

Tifgreen greens mowed with triplex at 1/4'' daily.

Method — Usual pre-seeding procedures were used prior to seeding. The green height was raised to 5/16'' the week preceding and double verti-thinned and mowed at time of seeding. The seed was put down with cyclones and top-dressed with a 70/30 mix matted in together twice over with a regular steel mat.

The greens were fertilized with 2# N₂ from fine IBDU and syringing done three times daily at 5 a.m. - Noon - 5 p.m. for three weeks. The greens were cut daily at 5/16'' during this period with walking Series V mowers. The greens were fertilized with 17-1-10 and fertigation 11-0-6 to apply $2^{1/2}$ N₂ per month, bi-weekly.

Fungicide applications are made bi-weekly using broad spectrum fungicides and no specific Pythium controls have been used to date. After 30 days, about Dec. 15, the mowers were lowered to 1/4'' and on Jan. 25 to 3/16''.

Due to proposed green re-building the Bent mixture will be cultivated as long as possible with the work hopefully underway by May 15.

Triplex verti-thinning will begin April 1 to maintain a desirable putting surface and David plans to reduce the usual cutting height as the Bermuda becomes the dominant greens turf.

Imperial Golf Course - East Course - Naples, FL Dan L. Hall Jr., Superintendent Mark Black, Assistant

December 2 & 3 - December 28:

Tifdwarf greens - Triplex mowed daily at 5/32". Seed — Sabre Variety - Poa Trivialis - 5 lbs / MSF - 2 split seedings.

Method — Due to severe rootrot problem, Rhiz Solani, these greens were under frequent cultivation and were being grown in as if newly sprigged. The last major aerification (Continued on Page 34)

(Continued from Page 18)

At Riverbend C. C., Joe Snook commented on poor and spotty coverage with Medalist 7. He said that he heard of similar reports and would not use it again since he has received far superior results in the past with other mixtures.

Tom Burrows, superintendent of Turtle Creek Club in Tequesta, was another one of the few superintendents contacted who overseeded with straight bentgrass. Although he had excellent coverage through January, the competition from the bermuda the following month crowded out his Penneagle "drastically".

At John's Island, the south course was overseeded with 5 lbs. Sabre and 4 lbs. Emerald / 1,000 ft.² and the north course substituted Penncross for Emerald at the same rate. The team of Adam Yurigan, Lee Van Valkenburg and Chuck Calhoun reported that the bentgrasses never reached maturity and its decline is being investigated by a local research laboratory. They also commented that in order to aid germination, a heavy application of Milorganite and topdressing containing charcoal are utilized to darken greens resulting in better heat absorption on sunny days.

Most Treasure Coast superintendents agree that overseeding is here to stay as an intergral part of their maintainance programs. And they have accepted the fact that a little bit of luck in timing and cooperation from mother nature are needed for successful overseedings.



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NORTH FLORIDA

By EDDIE SNIPES San Jose Country Club

Early October through November brings a common denominator to North Florida Superintendents. This is overseeding time, when greens and tees are made ready for winter conditions. One might say that this is the most critical time of the year for a superintendent and his crew.

In order to gain an accurate insight into overseeding in North Florida, a survey was compiled and sent to 23 superintendents throughout the North Florida Chapter area. Of the 23 surveys sent, there were 17 responses. Gentlemen, I thank you sincerely for your time and effort.

The information from the survey has been put into a chart. This will enable us to compare responses and draw some conclusions that promote good overseeding programs. Responses will be listed 1-17 and questions I-VII. Here is a list of the seven survey questions:

I. When do you usually purchase your seed for

RESPONSE

overseeding?

- II. What type of seed did you purchase for your: Greens? Tees? Fairways?
- III. What were some reasons for buying the seed you did? (price, seed characteristic, color, putting ability, etc.)
- IV. On what dates do you generally overseed and why?
- V. Was your seed tested by the state and what were the results?
- VI. Do you use any special mechanical technique during overseeding?
- VII. Any comments about your 1981 overseeding program?

	I.	II.	III.	IV.	ν.	VI.	VII.
1.	Early Summer	Perennial; Common Rye; None	Price; Seed Characteristics	Nov. 1st; 1-2 weeks before Invitational	No	No	Should overseed last of October
2.	June 15	Marvel green sabre; common; none	Test	Oct. 5; beat cold weather; post pre emergence	Yes; good	No	Overseeded early; helped program; very good this year
3.	June-July	Marvel green 3+1; Premier; none	Putting quality; promptness of delivery	Nov. 1-7; Tournament dates later October	No	Verticut two ways; topdress seed; do not mow for two days	Experienced washdown of seed from bad weather. Next year overseed last Oct

