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(continued from page 70)

in the state will be released by the federal agency, he adds. Examples of endangered species in Florida include the woodstork, red-cockaded woodpecker, grasshopper sparrow, everglades snail kite and the eastern indigo snake.

Enforcement would be by EPA itself or by a state agency under contract to the federal agency. In Florida, the Department of Agriculture and Consumer Services will handle enforcement. Violations will range from a first-time warning to harsh fines.

Violators could be identified by state or federal enforcement agencies or by private individuals or groups interested in protecting endangered species.

“One of the provisions of the Endangered Species Act is ‘the right of private action’ whereby individuals can bring suit against other individuals who are violating the act. This means someone could sue a neighbor down the road who is using a pesticide that might be harming an organism identified as an endangered species,” Nesheim concludes. ■

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## **EPA'S ENDANGERED SPECIES LABELING DRAWS PROTESTS**

EPA's endangered species labeling program will either start over in a rule marking mode or be taken to court because it was not. The American Farm Bureau Federation (AFBF) has asked EPA Administrator Thomas to begin rule making for the program. The California Department of Food and Agriculture has also asked the Agency to reevaluate the program before its 1988 effective date. It is also understood that USDA has provided EPA with negative comments on the labeling program.

According to concerns expressed by John C. Datt, Executive Director, Washington Office, AFBF:

— The lack of a formal rulemaking for the program violates FIFRA the Administrative Procedures Act and the Endangered Species Act (ESA).

— “FIFRA Section 6(b) also requires that EPA consider mitigation measures short of cancellation or use prohibitions that will permit continued use while at the same time adequately protect environmental interest. By imposing a blanket non-selective prohibition against pesticide use in areas that EPA determines might affect listed species, EPA has ignored this statutory requirement.”

— “Notwithstanding a rulemaking requirement, the program must at the very least be postponed until the requested mapping (by the USDI's Fish and Wildlife Service) has been completed, evaluated and published as required.”

— “Nearly one-third of the nation's counties will be affected. The use of one or more pesticides — many of them essential to agricultural production — will be discontinued in more than 900 counties or portions of counties. In many cases, satisfactory substitutes for these products have not been determined or do not exist.”

— “The proposal could result in an unfair disadvantage for individual agricultural producers. It is conceivable, for instance, that one farmer would not be allowed to use atrazine on his corn while his neighbor across the road would have no such restriction.”

— “If strictly enforced, the endangered species labeling program would disrupt important agricultural programs such as weed, grasshopper and boll weevil eradication programs within USDA.”

Rex Magee of the California Department of Food and Agriculture stated “Indiscriminate prohibition or restriction of the 90 odd pesticides currently listed for revised labeling could have catastrophic effects on California Agriculture.” Magee stated the available bulletin range maps have serious errors and that they do not agree with other range information from EPA and the Fish and Wildlife Service (FWS). He stressed applying error-ridden maps and bulletins to five counties in the state in which agricultural production accounts for over \$3 billion a year could remove large areas from agricultural production. (P&TCN, V. 15, No. 37).

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## **SOME PRODUCTS ALREADY HAVE ENDANGERED SPECIES LABELING**

While EPA's Endangered Species Labeling is scheduled to take effect in 1988, some pesticide products already bear instructions for users in counties that are listed on the labeling to get a certain EPA bulletin from their County Agricultural Extension Agent, the State Fish and Game Office or their pesticide dealer to learn the use restrictions required for the protection of endangered species.

There is one problem! The bulletins don't exist. EPA is responsible for preparing the bulletins and the agency did not see that these bulletins were prepared and distributed to Extension Offices and other sources before allowing products with such labeling to appear on the market. Before using one of these products, users should call:

Linda Walker  
U.S. Fish & Wildlife Service  
Jacksonville, FL  
904/791-2580

The caller should be prepared to provide the following information:

- Complete trade name of product
- Common or chemical name of active ingredient
- Geographical information about the proposed use site such as distance from streams, wetlands and identifiable landmarks such as county roads. ■

*from Chemically Speaking, August 1987*



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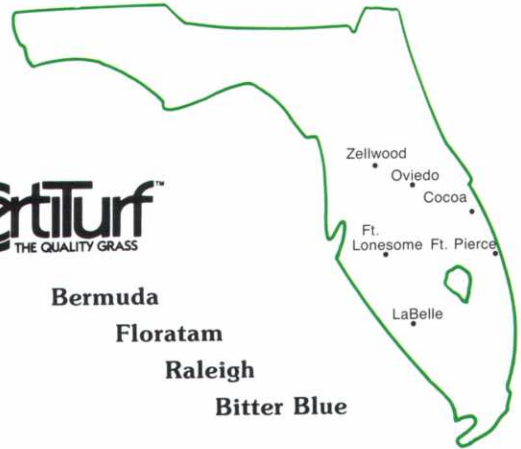
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- 5) Accept all invitations to meetings, banquets, committees, etc.
- 6) All forms of recreation are a waste of time.
- 7) Never delegate responsibility to others; carry the entire load yourself.
- 8) If your work calls for traveling, work all day and travel at night to keep that appointment you made for eight the next morning.
- 9) No matter how many jobs you already are doing, remember you can always take on one more.

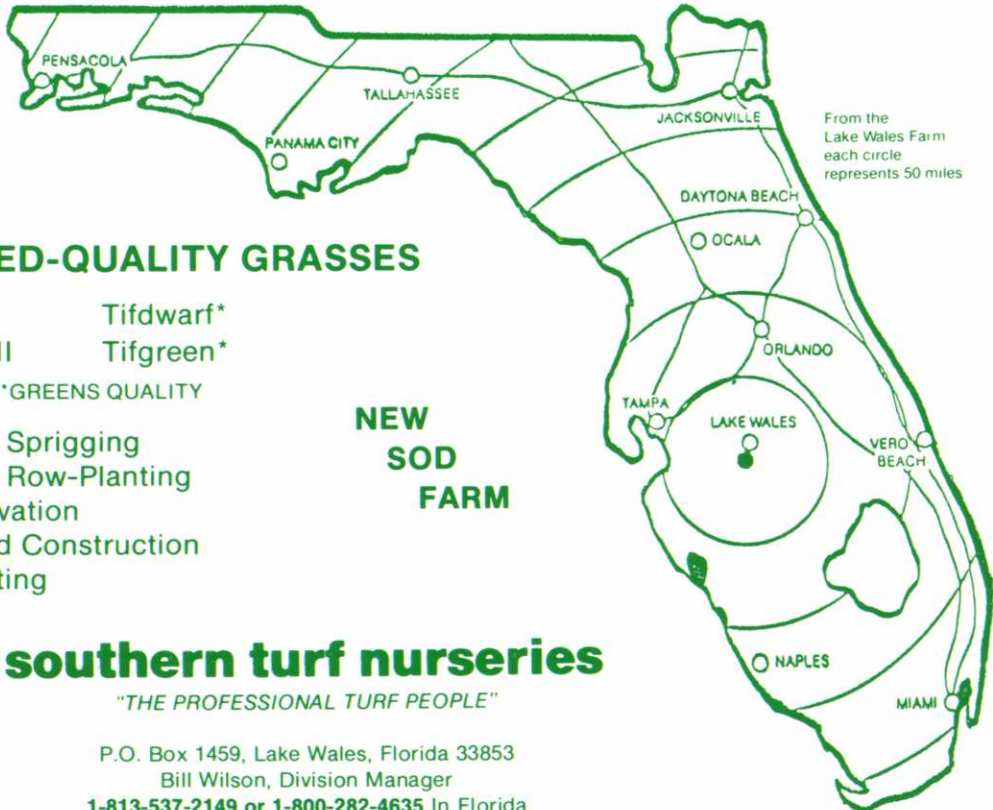
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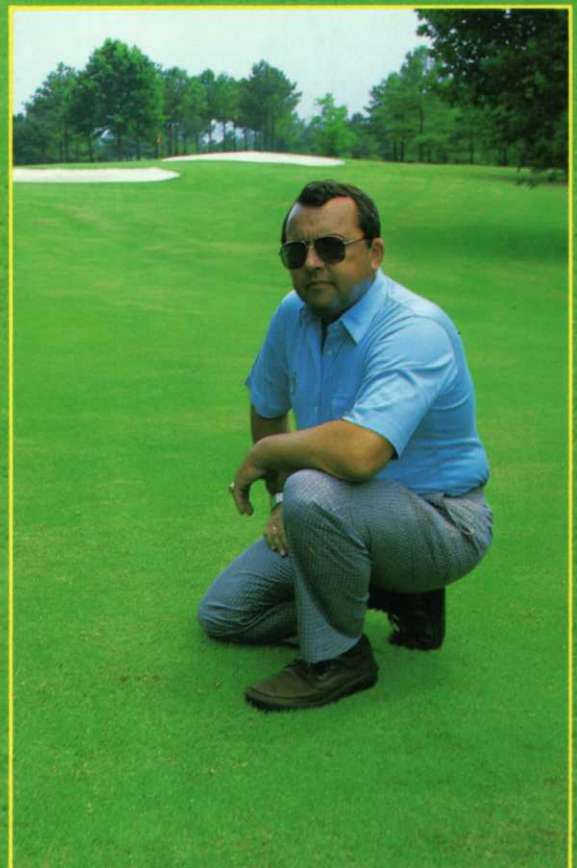
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## FLORIDA TURF GRASS ASSOCIATION FILLS FOUNDATION POSITION

Dr. Max Brown, President of the Florida Turfgrass Association announces the appointment of Robert J. Yount as Vice President of Development for The Florida Turfgrass Research Foundation, Headquarters in Orlando, Florida.

A newly created program formulated by the Florida Turfgrass Research Foundation will begin to establish a \$5,000,000 Endowment Fund. Plans are to channel all funding received from the Endowment into research and development of top-quality turfgrasses as well as biological control of pests and environmental enhancement, under the direction of Mr. Yount.

Mr. Larry Pauley, Fund Raising Consultant for the Florida Turfgrass Research Foundation made the following comments:

"The Florida Turfgrass Research Foundation has become a national forerunner in the development of technologies that protect and enhance our environment. Our quality of life is dependent on research and education that will insure strong, resistant grasses; safe effective water and erosion control. Mole crickets cost Floridians \$37 million a year. Dedicated teams of researchers, funded by the Florida Turfgrass Research Foundation, have undertaken the project to develop biological control of this pest. After years of research, testing and scanning the world for answers, they ended up in South America where a major breakthrough in the biological control of this expensive pest was uncovered. Dramatic results have occurred, but more research is needed before their goal is completely reached."

Mr. Yount confirms that he is formulating plans and programs to be taken out to the public so that, "our needed research in the areas of professional turf and homeowners turf can be explained more completely."

The beauty and subsequent value of Florida's environment is dependent on the continuing development of resistant, low maintenance grasses. Lawn care by homeowners is a \$4.25 billion per year industry with another \$2.5 billion spent for professional lawn care services, which points out that the studies of Florida turfgrass carry a significant financial impact. The research done by the Florida Turfgrass Research Foundation is also a major influence on the millions of dollars spent annually on golf course maintenance. Their findings directly control the quality and care of the fairways and greens on which our game is so dependent.

We are encouraging that contributions be made to the Florida Turfgrass Research Foundation which will enable us to find the many answers necessary to maintain and improve the quality of life for us all."

For more information on how you can directly benefit as a contributor into the Endowment Fund, personally and financially, please write to Robert J. Yount, Florida Turfgrass Research Foundation, 302 S. Graham Avenue, Orlando, Florida 32803-9990. ■

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# SOIL FOR TURF FACILITIES

Dr. Gene C. Nutter, Agronomist

In the operation of modern turf-grass facilities, more problems are caused by improper physical condition of soil than probably any other single factor. While other symptoms may be more readily recognized and treated (such as disease, compaction, poor aeration, weeds or fertility problems), the real and underlying cause is usually poor soil physical conditions. It is time that we recognize this basic fact so that we can begin to cure the real problem and stop the neverending, expensive job of just treating the symptoms.

True, most superintendents and managers of turf facilities inherit their soil problems. How sad it is, however, to see the great number of new facilities (including expensive and complicated golf course greens) that still ignore the importance of proper soil conditions, including surface and internal drainage, soil preparation, and use of amendments and soil conditioning. Certainly there is enough information available to guide the planners and contractors of these jobs in this age of technology.

Why, then, does our industry continue to make these inexcusable and expensive mistakes? As long as we continue to follow this course of extravagant ignorance, we will be burying our heads further in the sand instead of advancing our individual courses, our profession and our industry image.

What are the basic aspects of soil management that seem to be so often overlooked or ignored? First, let us consider the origin of soil.

## SOIL ORIGIN

In its natural condition, soil is a complex mixture of mineral fragments, decayed plant residues and microscopic organisms. Each of these classes of ingredients have their influence on the nature of the soil. As a natural body, soil developed through a constantly changing pattern which was greatly dependent upon environmental conditions such as temperature, rainfall, plant life and location.

For the majority of cases, the native soil is most influenced by the mineral fraction (called parent material). These soils are called mineral soils. Parent material may have developed from underlying rock formation, or been transported by ice (glacial soils) or water. Thus, soils which developed from rocks through the age-long process of weathering will have properties akin to those kinds of rock. Examples are the heavier, more complex

mineral soils such as clays. Usually these soils are more difficult to manage physically (poor internal drainage and aeration) but are richer in fertility potential (will hold more nutrients).

On the other hand, soils which were laid down from water deposits — such as sands, would reflect a lighter, simpler structure. These soils (such as our various Florida sands) are easier to manage physically (better drainage and aeration) but have much lower fertility capacity.

Then there are organic soils, derived from decayed plant residues. These are the muck soils of the rich Everglades region, and the peat deposits scattered around the state.

## NATIVE VS. ARTIFICIAL SOILS

If we were farmers, we would be growing crops on one of the types of native soils mentioned above. We would gather information about the nature of our particular soil from state and federal soil scientists who had surveyed, studied, classified and mapped the major soil formations in every county in Florida (and likewise most other states). This information would provide guidelines as to the physical condition and fertility status of our particular soil, and this information would guide our crop production practices.

However, turf managers are not farmers — and, with few exceptions (sod producers, perhaps), they are not growing turf on natural or native soils. Instead, they are managing turf facilities which were built by a mass mixing of soil, through excavation, fill, grading and leveling processes. For example, housing projects, apartment complexes, golf courses, athletic fields and highway sites have gone through mass movements of “dirt”. When finally completed, there usually is no resemblance between the resultant “dirt pile” and the original native soil profile that occurred on that same site.

What does this mean to us practically? It means simply that you have to throw the “book out the window” and start over. None of the previously compiled information of soil scientists applies. It could be that the original soil was improved (richer soil hauled in), but usually it works the other way. Often, damaging foreign material is mixed in (debris, chemical deposits, etc.).

Another serious problem is that the mixing process was not uniform and therefore there is much greater variability in the final soil material. This is why we find “spotty” conditions in our turf from area to area. The grass is

*(continued on page 82)*