(continued from page 50)

As a nation we have become dependent upon a large group of illegal aliens (estimated as high as 12-13 million by some, but no one knows for sure). These people make hotel beds; cook, serve and wash dishes in restaurants; sew clothing in garment factories and harvest fresh fruits industry, in fact, produces a much larger favorable impact on Florida's economy than might be realized.

The Immigration Reform and Control Act (IRCA) of 1983 currently passed by both Houses of Congress would place the employer as the principal enforcer of the nation's immigration reform policy. By making it unlawful to hire, recruit or refer for employment any illegal alien, and establishing heavy fines and jail terms for employers who do violate the act, it is felt that the economic attractiveness of jobs in the U.S. will be eliminated. The rationale is that if there are no jobs in the U.S. for illegal workers because employers are afraid to hire them, illegal workers would not come to the U.S.

Other provisions of the IRCA call for increased resources for the Immigration and Naturalization Service to provide for increased border enforcement; amnesty for illegal workers who "have resided continuously" in the U.S. since a specified date; worker identification which is nontransferable, difficult to counterfeit and applicable to all workers; substantial reform of the H-2 program which permits the importation of foregin workers to perform seasonal agricultural labor when American workers cannot be found; and finally a three year transition period to allow U.S. agricultural to convert to a legal workforce.

Dependence on an illegal workforce has negative consequences for farmers, for workers and for society. Farmers are vulnerable to crop losses as critical harvest workers disappear when Border Patrol raids scatter workers destroying crops in the ensuing chase. Illegal workers are particularly vulnerable to exploitation by unscrupulous employers or third parties trying to gain an advantage over employers who conform to legal labor standards. Furthermore, illegals are reluctant to report crimes against them and often pay exorbitant prices for credentials, transportation and housing.

Immigration reform is a reality. By the time this publication reaches you, it will probably be the law of the land. As employers of agricultural labor you need to be aware of how to assure that your work force is legal. Employers of seasonal and even full-time workers should begin now to prepare for the time when acceptable numbers of legal workers will be available only under conditions of strict labor standards and enlightened personnel management practices. Do you have your house in order.

Dr. Charles D. Covey is Professor of Food and Resource Economics and Extension Economist in the University of Florida, Institute of Food and Agricultural Sciences. Dr. Covey joined IFAS in 1963. He received his BS and MS degrees from the University of Florida, and a Ph.D. degree from Louisiana State University. Dr. Covey's areas of responsibility include Agricultural Policy and Labor Relations. ■

Do You Recognized These Folks?

NICE GUYS — This type of person is at his or her most difficult when procrastinating or vacillating. Wanting to a fault be helpful, he or she will withdraw to a state of passive aggressiveness when feeling frustrated. When confronting this person, acknowledge that things are not perfect. Then seek positive directions for this person to channel energies.

NEGATIVISTS — They tend to be cynical and discouraging, trying to tap feelings of despair in colleagues. Seek alternatives, but don't argue point by point.

WHINERS AND CRYERS — They will try to put you on the defensive, saying that any action on a given issue should come from somebody other than themselves. Somethimes, the complaints are accurate. When confronted by a compulsive griper, seek solutions. Never let a whiner go over the boss' head with a problem.

BULLDOZERS — They are impetuous, intimidating and probably insecure people, wanting to overwhelm with a position of power. A bulldozer will respond to assertiveness, but don't challenge his authority. Maintain eye contact when talking. Seek mutual understanding rather than revenge.

PUT-DOWN ARTISTS — They are sources of snide remarks, sarcasm, usually in public. Mumford's advice: Respond to comments immeidately. Bring the situation into the open by saying something like, "That sounds like a put-down. Is it?"

WALKING TIME BOMBS — They will blow up in unexpected circumstances. The timebomb is probably frustrated, feels powerless, perhaps threatened psychologically. When a person throws a tantrum, give him or her a chance to cool off. ■

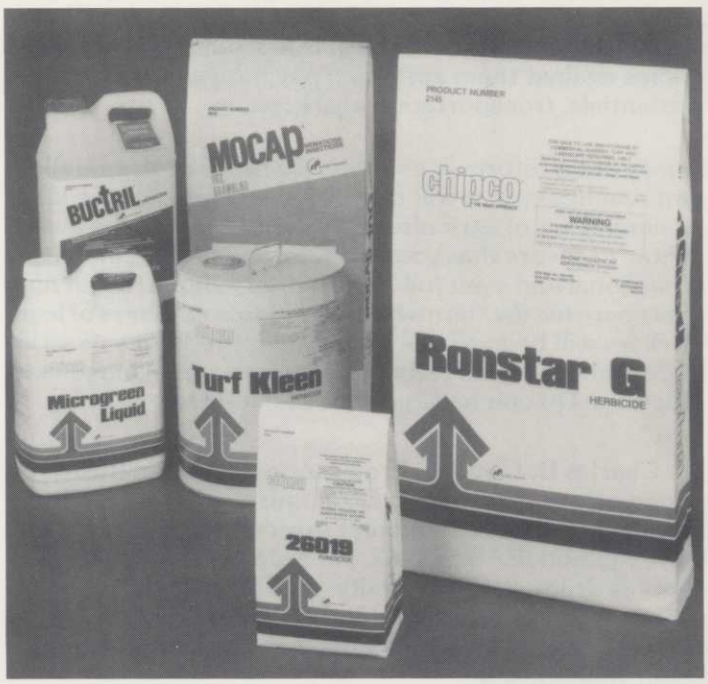
Chipco Packaging Redesigned

MONMOUTH JUNCTION, N.J. — Rhone-Poluenc Inc., Agricultural Division, announced today that some of the product packaging for the Chipco line of turf maintenance products has been redesigned for 1985. The products displaying the newly designed packaging are Chipco 26019 fungicide, Chipco Ronstar G (preemergent crabgrass and goosegrass) herbicide, Chipco Turf Kleen (postemergent) herbicide and Chipco Microgreen Liquid (micronutrients).

Dan Stahl, Chipco Product Manager, said, "that the Chipco product line in addition to being a leader in the golf course turf market has gained wide acceptance in the lawn care industry, landscaping and ornamental production. We felt that a new nonspecific turf package design was needed to reflect the expanded uses of the Chipco line."

Two additional products, Buctril herbicide and Mocap nematicide-insecticide are scheduled for package redesign in 1986. They will be available in the Company's agricultural package design for 1985.

For more information on Chipco turf maintenance products, write to Rhone-Poulenc Inc., Agrochemical Division, P.O. Box 125, Monomouth Junction, N.J. 08852. ■



Turtle Creek Club

Mr. Tom Burrows
Grounds Superintendent
Turtle Creek Club
Club Circle Drive
Tequesta, Florida 33458

Dear Tom:

In view of the questions surrounding the grass certification program in Florida, you asked for my comment about the importance of golf course quality. My guess is my thoughts might be somewhat different than yours or those of other superintendents.

I know you and your crew members work very hard to produce high quality playing surfaces for the golfing members of our club, because you want to meet your responsibility for doing a good job. And you are justifiably proud of the results of your labor and your expertise. Thus, to you, and I'm sure to the hundreds of other golf course superintendents in Florida, it is an end in itself to provide quality playing conditions and the consequent pleasure that gives to all golf club members.

But to me, as a golf course user, course quality is a necessity. If the quality is poor, I wouldn't be here, and I believe there may be tens of thousands of golf club members in Florida who feel the same way.

Also, I realize you are aware of the very large and very favorable effect the golf course maintenance industry has on the economy of Florida. With 815 golf courses, and 6,000 people employed in this industry in Florida, it is, as you indicated, a 200 million dollar industry. But you may not have taken into account the "multiplier" effect. Many studies have been made of this effect, the most conservative one being made by U.C.L.A. some years ago. That study indicated that for every such employee (plus their family members), 1.2 more employees are hired in other businesses to service them — in drug stores, gasoline stations, banks, automobile agencies and repair shops, grocery stores, etcetera. So the golf course maintenance industry, in fact, produces a much larger favorable impact on Florida's economy than might be relaized.

As impressive as these effects may be, the major economic impact comes from the people who use these courses, well over two hundred thousands of them. If the golf course maintenance business is a multi-hundred-million dollar industry, then the golf course users constitute a multi-hundred-billion dollar "industry."

Many, if not most, Florida golf courses are the centers of housing or resort developments designed to attact winter residents from the North, or year-round resident retirees, or tourists. There are some renters, but most buy homes. The multiplier effects of these purchases and residential statuses is enormous — on the home and other construction businesses; on service trades such as grocery and drug stores, gasoline stations and repair shops, lawn and building maintenance businesses, and banks; and, of course, on payment of millions of dollars in property taxes, gasoline, and sales taxes.

Although Florida's climate is very important in attracting these hundreds of thousands of residents and visitors, it is not the sole reason. For there are other places like California, Arizona, Nevada, and other southern states where the climate is as good or almost as good as it is in Florida. For tens of thousands of part-time or full-time residents, the other most compelling attraction is the existence of so many attractive, quality golf courses.

The existence of quality golf courses, as well as the construction of new ones, is dependent on many factors —such as proper use of chemicals, fertilizers, and pesticides, good equipment, and expertise in maintenance techniques. But like the old saying —"You can't make a silk purse from a cow's ear"— golf course quality is first

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dependent on the use of quality grasses. If the grasses are contaminated, or weak, or disease ridden, no amount of money or expert care can change such grasses into quality playing surfaces. Instead the surfaces will be weedy, thin, and not conducive to gaining pleasure from playing golf.

Most Northern part-time and retiree full-time residents who play golf are affluent; can afford the cost, and demand quality playing surfaces. If quality courses are not available, they will not move to Florida in the first place, or if the quality deteriorates, many of them will move to another agreeable climate state where quality courses are available.

In this respect, golfers are somewhat like boaters. Various governmental agencies have spent and are spending many millions of dollars to provide facilities (like drawbridges) and services to make boating safe, convenient, and pleasurable for the tens of thousands of boaters who visit or move to Florida from the North.

It is money well spent, for the boating industry, along with the users, provide an enormous favorable economic impact on the state of Florida, as well as huge tax incomes for various government entities. But the boating industry, too, like the golfing industry, is greatly dependent on quality facilities.

Of course, it cannot be claimed that all boaters and all golfers would leave or not come to Florida if the quality of facilities and services is allowed to deteriorate. But it is a certainty that any such deterioration would have devastating adverse economic and tax effects on Florida.

As stated earlier, in the case of golf courses, quality starts with quality grasses. Unlike boaters, golfers receive very little governmental help in the establishment and maintenance of their facilities. So it would seem to me that at least a sufficient amount of dollars should be spent by the state to help insure the availability of quality grasses through a certification program, and thus help to protect the economy of Florida and provide for the pleasure of many of its citizens and visitors.

Very truly yours,

Vernon A. Johnson
14 Turtle Creek Drive
Tequesta, FL 33458

Note: *Before retirement, the author of this letter was a Senior Vice President of the Lockheed Aircraft Corp., with offices in Washington, D.C. He spent 10 years on the Board of Congressional Country Club, including several years each as chairman of the golf and greens committees, and was in charge of building what is now the 2nd. nine of Congressional's championship course. He also served as President of the Burning Tree Club, after several years as a member of the greens committee and as chairman of the golf committee. At Turle Creek, he was chairman of both the greens and golf committees, and served two years as President of the club.* ■

INSTITUTE OF FOOD AND AGRICULTURAL SCIENCES
UNIVERSITY OF FLORIDA

FLORIDA COOPERATIVE EXTENSION SERVICE

GOLF TURF NEWS

BRUCE J. AUGUSTIN
Extension Turf & Water Specialist
AREC Ft. Lauderdale

Turf Research: The South

by
Dr. Charles H. Peacock
Extension Turf Specialist

The south provides some unique problems and challenges in growing and maintaining quality turfgrass for recreational areas. A long growing season and moderate climate bring increased demands on recreational area use. Turf research at land-grant institutions will continue to require strong support from the turf industry to provide management techniques needed to maintain adequate turf quality. Pest management will continue to play a key role in turf maintenance and evaluation of chemical and biological pest control, as well as pesticide fate in the environment, will be a major topic of research. This is a report of some of the current research at universities in the south.

ESTABLISHMENT

Florida has reported on a comparison of sod-soil type and fertilization during establishment. Mineral sand grown sod had superior rooting over organic (muck) grown sod of St. Augustinegrass. Fertilization on the sod surface was more effective than applying fertilizer to the sodbed surface before laying sod.

CULTIVAR EVALUATION AND RELEASE

Oklahoma has released a new seeded bermudagrass variety called 'Guymon'. It has a texture similar to common and will have uses primarly in low maintanance turf situations. A new centipedegrass has been approved for release by AL. Labeled as 'Centennial', it is a dwarf variety with high leaf density, short internodes and short seedheads. It also has a darker green color than common centipedegrass.

A new ST. Augustinegrass variety has been approved for release in FL called 'Floralawn'. It is resistant to chinch bugs and SAD virus, is tolerant to sod wedworms and can be identified from other St. Augustinegrass varieties by enzyme analysis and morphological characteristics. Increased need for salt tolerant turfgrasses is a topic of much research in FL. A new variety of Seashore Paspalum labeled FSP-1 is being evaluated for cultural requirements and pesticide tolerance. It has superior density to 'Adalayd' and 'Futurf' and excellent salt tolerance.

CULTURAL PRACTICES

CHARLES H. PEACOCK
Extension Turf Specialist
Gainesville

A thatch accumulation study in AL on bermudagrass found that four topdressings per year with sand reduced thatch accumulation more than a single topdressing. Neither monthly aerification nor biweekly vertical mowing provided more thatch control than twice yearly treatments of either one. Turf quality was not correlated with thatch depth. They found that activated sewage sludge produced superior turf quality, although more thatch was produced than when ammonium nitrate was applied. Thatch decomposition by white-rot fungi and topdressing treatment was studied in FL on four turfgrasses. Thr fungus Phebia gigantea reduced cellulose content of bermudagrass and centipedegrass thatch while Coriolus vericolor reduced the lignin content. Topdressings of sand and colloidal phosphate significantly reduced the cellulose and lignin contents of thatch although the addition of colloidal phosphate did not increase the decomposition rate.

Thatch accumulation was also studied in FL as influenced by acidity. Approximately twice as much thatch accumulated below pH 4.0 as above pH 5.0 except where addition Ca was applied. Supplemental Ca apparently aided thatch decomposition at a low pH.

The influence of growth regulators on common bermudagrass was studied in TX. A number of growth regulator including Embark Surflan, Dual and malic hydrazide were evaluated for residual effects, water use efficiency, and physiological and growth responses. There were no residual effects from growth regulator application the year before. They found that seedhead production between treatments was erratic and there was no trend due to treatment. Growth response was varied with Embark producing less wet and dry weight early in the season. Soil water content was unaffected by treatments. They concluded that future studies should include effects of multiple applications during the growing season.

Fertilization continues to be a major topic of study especially concerning evaluations of nitrogen sources. Texas reported on a study comparing a number of old and new nitrogen sources on turf quality and growth of 'Tifgreen' bermudagrass. Comparing ammonium sulfate, ammonium nitrate, urea, activated sewage sludge (Milorganite™), IBDU, ureaformaldehyde, and sulfur coated urea to the experimental material oxamide, they found a close association between shoot growth and turf quality for most of the materials. However, the granular form of oxamide produced favorable visual turf quality without

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promoting excessive vertical shoot growth. This response was sustained for 13 weeks.

Studies in FL found similar results for the oxamide materials. Additionally, nitrification inhibitors were found not to increase N availability to bermudagrass during the warm season. Another experimental material from Japan also maintained adequate turf quality without promoting excessive growth.

Irrigation studies in TX have focused on determining evapotranspiration rates, effects of irrigation frequency on turf water requirements, and an evaluation of home lawn sprinklers. They found significant variation among grass species for evapotranspiration rates. 'Tifgreen' bermudagrass and common centipedegrass had low rates while 'Texas Common' St. Augustinegrass, 'Argentine' bahiagrass and 'Adalayd' Seashore Paspalum had high rates. Few differences were noted in relative ratings as soil moisture became limiting. The exception was bahiagrass which had a low evapotranspiration rate under progressive water stress conditions, in contrast to a high rate under nonlimiting soil moisture conditions. All grass species exhibited higher evapotranspiration rates when maintained at optimum nitrogen fertility and cutting height than when at lower fertility. Water use varied by up to 50% between turf species maintained under equivalent cultural conditions. Sprinkler irrigation studies showed that the best time to irrigate lawns is between 12 midnight and 8 a.m. Water losses are 50% or less of those obtained during midday. This is the period during the day of lower wind speeds and evapotranspiration and decreased temperatures and higher humudity. In comparing types of sprinklers including oscillating, traveling, impact, rotating, stationary (buried head) and drip line, they found that many of the sprinkler applied water at a rate which exceeded the long term infiltration rate of many agricultural soil types except sands. Considerable runoff could occur with certain sprinkler types on heavy soils making it necessary to carefully match sprinkler type to soil type.

Salinity studies in FL have found cultivar differences in St. Augustinegrass. 'Seville' was found to be superior to 'Floratam', 'Floratine', and experimental line FA-108 (to be released as 'Floralawn') in growth responses to salinity in solution culture. Seashore paspalum studies have found an experimental variety FSP-1 to be more salt tolerant in solution culture than either 'Adalayd', 'Futurf', or another experimental line, FSP-2.

NEMATODES

Ethylene dibromide (EDB) has been banned for agricultural applications in the U.S. and is no longer available for nematode control. Organophosphate materials are available for use but at a higher cost per application unit. A study in AL looked at plant parasitic nematodes on bermudagrass as influenced by cultural practices. Topdressing, vertical mowing, or core aerification treatments had no consistent effects on nematode populations. Lower populations were noted where acti-

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Harbour Town Golf Links, Sea Pines Plantation, 18th hole
(458 yards — par 4)

The real star of this tournament was the turf.

It was overseeded with MARVELGREEN®!

The game was great. But the turf was sensational! Because Tom Rader, Golf Course Superintendent of Harbour Town Golf Links, Sea Pines Plantation, overseeded with a Marvelgreen blend.

Marvelgreen was chosen at this Hilton Head resort for several reasons: it germinates quickly to provide an early cover of fine-leafed, dense, fairway turf. And on the greens, Marvelgreen promises a smooth, grain-free putting surface. It looks great throughout the winter season, and provides an easy spring transition.

Marvelgreen blends contain just the right amount of the leading turf-type ryegrass varieties: Palmer, Prelude and Yorktown II. Marvelgreen is used at some of the most prestigious courses in the country. And it performs long after the game is over.

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vated sewage sludge was used as the N source compared to ammonium nitrate. However, differences were only noted for one sampling period.

INSECTS

Much of the insect research continues to focus on the biology and control of mole crickets. Southern mole crickets (Scapteriscus acletus) have been found to not be a major turfgrass pest like the tawny (S. vicinus) or short-winged (S. abbrevaiteas) species (FL). Studies on chemical control in FL have found Oftanol™ at 2 lb ai/acre to be an effective long term material if applied prior to egg hatching (mid-May) for north and central FL. Cibe-Geigy 12223 to be called Triumph™ as also effective for long term mole cricket control.

Southern chinch bug (Blissus insularis) biology and control by insecticides was studied in FL. Resistance has been shown by the southern chinch bug in south Florida to chlorpyrifos, diazinon, isofenphos, primiphos-ethyl, propyl thiopyrophosphate, and trichlorfonl). The only alternative insecticide registered for control is propoxur.

Studies in TX for control of white grubs includes application timing and insecticide efficacy. In the tests, only the isofenphos EC spray was consistent in performance. Further work related to formulations and application timing is needed to determine optimum benefit from other materials.

WEEDS

Continued emphasis on weed control included studies on turfgrass tolerance, herbicide efficacy, and application timing. Studies in GA found that combination treatments of 2,4-D, mecoprop, and dicamba applied to bermudagrass cultivars in August, September, or October injured the grass immediately after treatment. Normal rates (1.0 - 0.5 - 0.08 lb ai/acre) did not affect winter survival. A triple rate delayed growth of 'Tifgreen' and 'Tifdwarf' more the following April than 'Tifway' and 'Ormond'. An additional study found that putting greens were generally intolerant to twice yearly applications of oxadiazon and that napropamide and prosulfalin reduced root growth. Of the preemergent materials tested, bensulide delayed early spring growth less than the others and did not adversely affect turf quality during the growing season.

Crabgrass (Digitaria sp.) and goosegrass (Eleusine indica) control is a common problem. Johnson (GA) found napropamide equally as effective as bensulide throughout the summer. The single application granular application of napropamide was better than the wettable powder. Application in February or March followed in two months by a second application controlled goosegrass satisfactorily regardless of formulation. He also found that atrazine at 2 lb ai/a combined with bensulide at 10 lb ai/a applied in late February to dormant bermudagrass controlled crabgrass as effectively as separate applications in February and April.

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Work in AL has found that sulfometuron methy (Oust™) gives excellent control of bahiagrass in centipedegrass. They also tested a number of diphenyl ether materials for common bermudagrass eradication and none was better than glyphosate. Tank mixtures of herbicides were evaluated on common bermudagrass (GA). Glyphosphate at 0.25 lb ai/a mixed with DCPA at 10 lb ai/a was most effective for parsley-piert (Alchemilla microcorpa) control. Bensulide at 10 lb ai/a was more effective in controlling large crabgrass (Digitaria sanguinalis) when applied alone than if mixed with either paraquat, or 2,4-D plus mecoprop plus dicamba.

Annual bluegrass (Poa annua) control in overseeded bermudagrass putting greens continues to receive a lot of research attention. Fenarimol gave 90 percent preemergent control in February and at least 75 percent control in April in a TX study. This was based on six one-half ounce per 1,000 sq. ft. applications at 2-weeks intervals. Fenarimol is currently registered for use as fungicide and more studies are planned to evaluate herbicidal activity.

In a GA study ethofumesate satisfactorily controlled annual bluegrass when applied at 1.0 lb ai/a in October and again in November but not when applied in February and March. The October and November applications reduced the quality of the overseeded perennial ryegrass but the turf recovered fully. The transition from ryegrass back to bermugagrass turf was good in the spring regardeless of the ethofumesate treatment.

Johnson in GA evaluated postemergent herbicides for grassy weed control around the base of woody ornamentals. He found that of MSMA, MSMA - metribuzin, and acifluorfen materials at various application numbers and rates, only flowering dogwood was affected, and this was the only to MSMA. Andorra juniper, dwart burfordi holly, Japanese holly, Yaupon holly, red tip photinia, pyracantha and flowering cherry were unaffected by herbicide treatments when spray was kept from drifting onto the foilage.

DISEASES

Tests in FL on chemical control of Rhizoctonia brown patch is St. Augustinegrass found few differences among the fungicides in checking disease advance. The tests indicated that where microelements may be limiting, a turf response from a component of the fungicide may be noticed. A similar test in FL found that Pythium specific fungicides including propanocarb, methyl amino propanoate, ethazol, and metalaxyl will significantly reduce damage when applied at the time of ryegrass seeding. Broad spectrum fungicides including triadimefon, chlorthalonil, methyl thiophanate, iprodione and buffered formaldehyde (Form-A-Turf™) were not effective in reducing disease damage.

TURF AND VERDURE
July 1984

Editor's Note: This is reprinted from the July 1984 Parks Maintenance

Editorial

By: Dan Jones

"You Only Get What You Pay For"

There is an old saying that nothing in life is free. I don't know where it originated from but I do know that it applies right now to the current status of The FGCSA. GIVEME - GIVEME - GIVEME - BUT DON'T ASK ME FOR ANYTHING. LET THE NEXT GENERATION PAY. Does that sound familiar?

After reading Tom Burrow's Presidents Message in the Winter 1985 issue of The Florida Green I am struck with this reality: How can we get so much and accomplish so many things on dues of $10.00 a year? It is incredible what The FGCSA has started and completed over the past few years.

We have now reached the point where we are asking our elected officers to perform the impossible. The work load is too great for volunteers. Do we continue to move forward or do we reduce this organization to a state of apathy and stagnation. There is no way to continue on our current course.

The yearly dues for the PGA are $295.00. The dues for the CMA are $300.00. The dues for Golf Course Superintendents are $181.00. (The above dues include local, state and national). I would like to see our Board of Directors increase our state dues by $90.00 to $100.00. That's 27¢ a day. Less than the cost of a soft drink.

Many good things have been accomplished FOR THE GOLF COURSE SUPERINTENDENT over the past five years. We are at a critical crossroads. Which way do we turn? Progress and continue to upgrade the image of The Golf Course Superintendent or stagnation back to "the foreman, grass cutter image". The decision for the future of our association is yours. Do you really care? Talk to your External Vice President. Better yet, first go back and read Tom's Message again. It said it all.