"I stake my reputation on the dependability of Country Club Fertilizer — and so can you. We've proven our products work more efficiently. Here's how.

Before any new Country Club product is introduced, it must go through extensive research and testing. It is tested on field plots under varying conditions. It is tested through plant analysis and researched under controlled conditions in greenhouses.

In its final form, nothing is sacrificed. Every element and process necessary for turf growth is utilized, enabling Country Club to give you more feeding power for your money.

The top of our line products have more WIN, higher organic content, more sulphate, magnesium, sulphur, iron and manganese. Sizing is either small for greens or regular which we call fairway sizing. These and all other Country Club products contain the applicable balance of WIN and water soluble nitrogen to allow immediate green-up and provide long-term greening — with a minimum number of applications. Based on your specific course requirements, two or more of these products will work efficiently to complete your fertilizer needs."

Good Names To Grow By

THE BISHOP COMPANY
DIVISION OF LEBANON CHEMICAL CORPORATION
P.O. BOX 317 LEBANON, PENNSYLVANIA 17042
PHONE 717-273-8103

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Mr. Sod Grower!
Business off? Sales Down?
Building slump causing you to slump too?

HERE IS SOMETHING TO CONSIDER!

There are hundreds of thousands of old homes in communities with sparse thin lawns because of shade too dense for most grasses. There are also hundreds of thousands of old lawns that have become so badly infested with smut and other grass diseases, they are hopeless, or at best difficult to cure or control. Most of these old lawns are in well established communities where people want the best and have the means to purchase the best.

Why not go after this lucrative market which is not affected by a building slump, high interest rates or inflation? You can do so by becoming a franchised grower of Warren's A-20 and A-34 Kentucky Bluegrasses and other Warren grasses to be released as patents are issued.

Warren's A-20 is rated high for over all performance and disease resistance by research organizations doing turfgrass research.

Warren's A-34 is rated highest for shade tolerance by the same research people.

When you become a Warren Franchise or Associate Grower, you place yourself ahead of competition with better products, not available to your competition . . . and here is something else to consider . . . in 1974, when our competitors were reporting sales off as much as 50%, Warren's Turf Nursery's sales were running ahead of 1973. The reason . . . golf courses and athletic institutions all over the northern half of the U.S.A. were installing A-20 on tees, and athletic fields. Architects were writing specs for Warren grasses and owners of old homes were ripping out old lawns and installing A-20 or A-34. All because these people wanted the finest lawn areas available. You too can enjoy this Business when you become a Warren Associate Grower.

Warren proprietary grasses are now produced in 15 states and in England, Scotland and France. There are a few territories still available.

Write today for particulars about a Warren Franchise. Should there be no Warren Nursery or Associate Grower in your area we will be pleased to consider you for an exclusive Warren Franchise.

WARREN’S TURF NURSERY, INC.
8400 West 111th Street
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sion to employees but encourages their ideas, suggestions and recommendations. The final decision must always be the responsibility of one person, the manager.

Participative management provides employees the opportunity to satisfy creative and ego need satisfactions and if the participation is performed in a meeting or conference type of discussion process it will provide social need satisfaction. Participative management is merely the utilization of the democratic process in the work environment. Many work environments tend to be dictatorial or monarchial in nature and, consequently, discourage a free flow of ideas from those who may be creatively inclined but managerially demotivated.

Employee Training

Regardless of the type or size of the organization, training programs can be utilized to provide opportunity for employees. If opportunity is not provided in an organization, creative employees may not remain with the company. Many small organizations tend to shut the door on this aspect of employee motivation by assuming there is nothing to be learned on the job once a few simple procedural work activities have been mastered. Actually, on-the-job training opportunity can be provided employees in any work situation no matter how proceduralized and simple the activities. Through the use of well devised and well written job classifications, a progression of promotional possibilities can be established. The employee can move from job class to job class entailing a pre-planned and orderly promotional path in the organization.

In many company operations, work activities have been broken down into a series of simplified, procedural steps over a period of time (construction cycle, growing period, etc.) and each step requires some time to learn and perform efficiently. In instances like this, if employees can be trained to understand and perform all the operations in the entire sequence of activities, responsibilities have been enlarged and the job takes a greater meaning to the employee. In fact, by training employees to perform all the activities in the entire operation, they can see the end result of their efforts over the entire production cycle. This is a problem in many large organizations in which the individual efforts of employees often cannot be identified with the final product. By systematically and chronologically establishing a well designed over-all training program, you have not only provided an environment conducive to opportunity but the employee may acquire a professional knowledge of the entire operation in which their services are enhanced and their personal worth increased. This process is referred to as job enlargement or job enrichment and results in an increase of responsibilities performed by the employee. Job enlargement through training enhances the ego need and provides the employee with potential to be more creative. From this point on, employee training can be directed toward other functional and management areas.

One of the points the author is making above is that management in industries in which many of the production jobs seem very menial and demotivational can establish training programs that will provide employees with greater opportunity for personal professional development.

(continued on page 67)

New Orleans Turfgrass Meeting

GCSAA Show Attendance: 4,899

ATTENDANCE at last month's International Turfgrass Conference and Show in New Orleans slipped somewhat lower than the 1974 sessions in Anaheim. This year's meeting (the annual big conference and show held by the Golf Course Superintendents Association of American) attracted 1,384 superintendents — up 134 from last year. Exhibitor attendance, though, was down 445 from last year. Attendance by the ladies was 107 better than in 1974. And overall total attendance including members, ladies, non-members, guests, one-day admissions and exhibitors reached, 4,899.

Despite the obvious pressures of inflation and budget squeezing back home, superintendents arrived in New Orleans with a bright outlook for a successful spring and summer season. The program worked heavily on the area of management — fast rising as the number one growth area for conferences and meetings.

Dr. Charles A. Lewis saw serious challenges in management which arise from a need to use human and financial resources effectively. He told conference delegates that superintendents need to keep updating skills and sensitivities in the area of people relations.

Lewis, who is chairman of the Recreation Education Department at Cortland State College, Cortland, New York, recounted the phrases "golf is a downright unhealthy game. Emotions can eat you alive. You're not supposed to yell, cuss, or throw clubs."

Indeed, for the players emotions do run high, Lewis said, and in many cases, the superintendent, in his unique and all-encompassing role, frequently becomes the scapegoat for everything from turf conditions to missed putts, etc.

Trends indicate that changes are occurring in golfer habits, in relationships between local and state associations, in ownership from private to public operations, and in small business practices and personnel management.

People relations, as Lewis said, are important in supervisory relationships between superintendents and the people who employ him, the people who work for and with him, and the golf-oriented public which uses the facilities under his care.

Dr. John Hall of the Univer-
Maintaining an effective turf-care program often becomes a contest between you, nature and the budget. And professional turf-care managers know the value of having top quality, precision-built equipment in their line-up.

That's why we build Ryan turf equipment with performance, dependability, and economy. Because, after all, good turf-care isn't a game. It's a profession.

For more information write for your free catalog today.

1. **Greensaie II**: Second generation of the Ryan coring aerator. Removes cores on 2' centers down to 3' depth.
2. **Core Processor**: Attaches to Greensaie II. Processes cores, picks up plant material and returns soil to green.
3. **Spikaiaie**: Disc spiker for aeration.
4. **Mataway**: Heavy-duty deep slicer and disc spiker.
5. **Ren-O-Thin**: Removes thatch, grooves for seed, pulverizes aeration cores.
6. **Turf Minute-Miser**: Personnel transportation and towing ball carrier.
7. **Greensaie**: Picks up cores, thatch, debris from greens, turf and pavement.
8. **Spread-rite**: Top dresser, fertilizer spreader. Handles sand, too.
9. **Renovaire**: Turf aerator for large, contoured areas. Interchangeable tines for coring, slicing, open spoon aerating.
10. **Tracaire**: Three-point hitch aerator.
11. **Pro-Edge**: Professional edger.
12. **Rollaire**: All-purpose roller.
13. **Sod Cutters**: Self-propelled heavy-duty and junior models.
14. **Lawnaire**: Home lawn aerator. Self-powered and/or propelled.

**The turf-care line-up.**

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University of Maryland's agronomy department, placed the stress of his management talk on the management program for turfgrass.

The spiderweb of turfgrass management, he said, means the intricacies of turfgrass management are tied together much as the strands of a spiderweb are inexorably tied to one another. Each management practice influences the others and the goal of all students of turf is to completely understand the impact of any management practice upon all others. Hardin's law emphatically states: "There is no single effect." As our management programs are developed involving mowing, fertilization, irrigation, cultivation and pest control we must constantly strive to increase our understanding of how turfgrass reacts to our management program.

No management factor can be used in the program without influencing other management factors, Hall said. The nitrogen level which is selected influences proper mowing height and frequency, irrigation requirements and insect and disease populations. The turfgrass plant's reactions to the management program is critical because the management response influences all other management factors.

Nearly 150 exhibitors set up their wares in the 100,000 sq. ft. Rivergate exhibit hall.
The grass is always greener...and with good reason

Well-groomed grass and turf demand the best in continuing maintenance programs. Especially vital in the proper application of pesticides and fertilizers, is good spray equipment. FMC sprayers have proven their capabilities over 84 years of dependable service. The FMC Rotomist®, for example, is a family of mist-type sprayers with virtually limitless applications. Shade tree spraying, mosquito and other pest control and leaf windrowing, are only a few of the uses. Controlled air delivery is a trademark of all Bean® air sprayers. And, our boom sprayers are designed specifically for turf maintenance and are available in many models and tank sizes.

When you add it all up — efficiency, versatility, dependability, and total performance — Bean sprayers are the best insurance you can have to keep your side of the fence greener this year. Call your FMC representative for a demonstration today, or contact FMC Corporation, Agricultural Machinery Division, Jonesboro, Arkansas 72401.
AERIAL WAR (from page 17)

In the meantime, action was urgently needed to head off the disaster in the West and to at least buy more time in the East where the gypsy population explosions were far outpacing the collapses. It was obvious that 1974 would be crucial on both coasts. Tussock blights were affecting up to a million acres in huge blocks of prime timber. In an era of rising timber economics, one of the large private landowners was reporting timber destroyed or damaged in stands worth over $10 million. This was all the more frustrating because it was generally known that just one application of DDT could probably halt losses until natural solutions could be established.

Tussock Control Solution

to trim HARDWOOD

Steco, manufacturers and distributors of tree trimming and lineman's equipment, serves your multi-purpose needs. Tough . . . rugged . . . tools that cut fast, and reduce worker fatigue. Equipment to get you in the tree, get the job done in minimum time, then safely on the ground. Steco products are proven under real working conditions.

In order to determine exact chemical concentrations in the wildlife biologists did, however, kill 500 specimens before and after the project. For the large, widespread plots of the tussock application, the larger helicopter used by Evergreen was not only more effective but also economically competitive with small ships with much lower per-hour operating costs. Able to reach production rates of between 1000 to 1400 acres per hour depending on conditions, the Bell 205 could handle the work of five smaller helicopters, and at the same time permit a drastic reduction in the cost of chase ships required; there were simply fewer application aircraft to chase.

Helicopter Fleet

Teamed with the DDT emergency weapon, a fleet of larger, faster helicopters than had previously been conventional in aerial application was chosen by the Forest Service. Charter aircraft operator Evergreen Helicopters, Inc. headquartered in McMinnville, Oregon had been refining the use of spray equipment on its Bell 205 turbine ships, carrying a 400-gallon internal spray tank, and capable of speeds above 90 mph.

Five of these Evergreen 205's, working in concert with three light helicopters were programmed and re-programmed by the company's application specialists according to the hatching periods in each stand.

Elaborate control systems governed the project throughout, and following its completion on July 21, the more than 150 monitors were unable to find one fish, fowl, rodent or other wildlife casualty. In order to determine exact chemical concentrations in the wildlife biologists did, however, kill 500 specimens before and after the project.

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(continued)
Put a "gas blanket" between you and weed breakthrough.

CASORON*—for years leader in orchard, nursery, landscaping and industrial weed control—is now approved for use under asphalt. Use it where weeds and roots do the most damage: recreational courts, bicycle and golf cart paths, paved sidings, airport runways, parking lots, etc.

Works like nothing you've ever used before. Applied as a granular or wettable powder over the subgrade, CASORON soon begins to emit a weed-killing gas. Once the asphalt is applied, it traps the gas creating a long time blanket and protection against weed growth and weed breakthrough.

Why CASORON instead of sterilants:
Simply because you can effectively kill weeds and stop root growth without risking damage to adjacent ornamentals. CASORON is a root inhibitor, ornamental roots will stop growing as they contact the gas blanket. They won't systematically translocate the herbicide. And they won't erupt through the blanket into the asphalt. Also, CASORON's blanket of protection stops weeds from germinating—but won't sterilize areas for future planting. Other uses: CASORON is highly effective around right-of-ways, curbs, landscaped areas and fences. Over 60 perennial and annual weeds and grasses can be controlled.

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Richway
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Never overlap or miss spraying areas again. Foam balls show you exactly where you've sprayed or fertilized. Here's the ONLY WAY to mark on turf or other types of ground. Richway Foam Turf Marker drops a hard, dense white foam ball every 2 to 5 seconds. That trail of balls shows you precisely where and what you've covered. Balls may be formulated to last almost as short or as long a time as you desire.

Costs just pennies an acre to use. Unit is self-contained and attaches quickly to all types of boom sprayers and turf equipment. Write today for FREE brochure and prices.

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The Eastern Front

“Limited warfare” is the proper analogy to describe the gypsy moth application in Pennsylvania as carried out by the Department of Environmental Resources. In that area where the hopes and the needs for ultimate biological control are higher, a non-DDT application confined to populated and high-use recreational areas seemed the only answer again in 1974. Unlike the tussock, gypsy moths came to this country from abroad, so their primary natural enemies were not present to keep it under some control. To develop and establish these enemies in the U. S. is now government's number one objective.

Ruled out even temporarily was the treatment of massive areas with the chemical sprays legally registered for use in this eastern sector. They would provide only a 90 percent or less kill with one application, and when large, contiguous land areas are treated, the surviving gypsies will re-populate to destructive levels in two to three years. With plenty of food to eat, the gypsy population wouldn't collapse, and today's one "natural" control — that collapse cycle — might be lost.

Experience showed, however, that if smaller areas were sprayed with an organic phosphate (Dylox), residents and trees of each block would get relief from the moth without collapse interference.

Spraying highly populated small blocks, often widely dispersed throughout Pennsylvania, required a multi-talented team of county, state and federal experts working with a list of realistic controls and a plan of responsiveness to varying public interests.

And, as in the western tussock program, it favored a fleet of big, fast spray helicopters. Helicopters this large had never operated as applicators in the East, but their advantages were evident as the State contemplated doubling 1973's treatment area. Although the blocks to be sprayed varied from large to small, the distance between them was often extensive. Thus ferry speed and the Evergreen 205's 400-gallon tank capacity were important, while its maneuverability and precision for the carefully delineated blocks were essential.

Two Evergreen 205's, and one of the company's small Hiller 12E's for flexibility made the team. These ships treated with Dylox some 71,000 acres in Pennsylvania. Evergreen also provided two fixed wing airplanes for application of the bacteriological spray Bt (Bacillus thuringiensis), which was used around infested reservoir sites in the sections of the State. The Bt was carried by two Grumman TBM's and a Piper Pawnee, and was applied in two treatments for each of 48,000 acres.

Although the Dylox was proven harmless to every form of wildlife except the gypsy moth and a few other insect species, care was taken by the Department of Environmental Resources to both inform the public and to restrict spraying to closely specified and approved boundaries. The Dylox used was a special Chemagro formulation to assure a perfect balance between kill and avoidance of damage to such surfaces as car paint, etc. To monitor this balance result, company representatives were stationed there most of the time.

Before activating the large 205 helicopter program, Evergreen engineers and application specialists who had developed the up-size spray gear had conducted extensive tests of its accuracy and effectiveness in Corvallis, Oregon. Established in that pre-Pennsylvania test program were the optimum number of nozzles needed, the flow rate of each, and the size of droplet for minimum effect from drift, thermal and evaporation. Refined also were the right combination of pump pressures, angle of the nozzles into the flight direction to obtain proper "shear," and optimum airspeed. The criteria were to be compatible with an application of two-thirds of a gallon per acre.

The success of the DER's helicopter operation was seen after 21 flight days in late May and early June. The average kill in the single Dylox application achieved or exceeded expectations. Unlike the western tussock suppression, where control was complete and widespread enough to preclude major spray programs in the foreseeable future, the gypsy battle will continue this year and until the ultimate biological weapon is established. In the meantime, it's evident that an interim control strategy has been updated and refined which can be depended upon for temporary relief of local congestion.