Dacthal is number one in its field. Not only because it is so effective, but because it controls more than 20 unwanted weeds and grasses. Applied properly, it lays down a barrier that stops early and late germinating annual weeds without affecting healthy, growing turf grasses. Tough weeds like crabgrass and Poa annua can't stand up to Dacthal.

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**Daconate®** is the post-emergence herbicide that knocks out nutsedge, chickweed, wood sorrel, sandbur and other grassy weeds. It's a ready-to-use liquid herbicide with a built-in surfactant for uniform wetting.

**Daconil 2787®** is the broad-spectrum fungicide that stops nine fungus diseases on turf. Use it from spring to fall to prevent dollar spot, leaf spot, red thread, stem rust of blue grass, large brown patch. It's effective even in hot weather. Provides disease control on a number of ornamentals.

Count on the big four from Diamond Shamrock to make your job easier.

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MODEL TD-32. Weight—1,070 lbs. Digs a 420 lb. ball; a true 32” wide and 28” deep; trees up to 3” diameter. Complete with hydraulics and adapter for skid loader or tractor mounting. As shown.

MODEL TD-40. Weight—1,600 lbs. Digs a 950 lb. ball. Ball is a true 40” wide; 38” deep. Handles trees up to 4” in diameter. Furnished complete with hydraulics, adapter and lift attachment, if required.

MODEL TD-54. Weight will vary depending on choice of type of truck or heavy loader mounting. Digs a 2,100 lb. ball that is a true 54” wide and 46” deep. Designed to handle trees up to 6” in diameter.

- Rokor Diggers are light in weight to extend your mounting options but are designed stronger and tougher by Rokor Engineers to withstand the most rugged operating conditions.
- Curved stems require less operating space and can work the more heavily planted areas. The TD-32, for example is only 71 1/2” wide when open and can plant or dig within 36” of a wall or fence.
- Spoon-shaped blades produce a true nurseryman’s ball and opposite-side blade sharpening means tighter cones and clean root shear. Computer programmed to insure uniformity. Choice of sand or clay blades with quick blade change in the field.

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There are a number of soluble N-P-K formulations on the market including Prolawn, Sta-Green and Rapid-Gro. Most of the soluble fertilizers are formulated from the same nutrient sources and, therefore, give similar results when applied at the same rate. You should price the fertilizers and compare the cost per nutrient pound.

Micronutrients are available in the chelated form as Sequestrene and as soluble salts such as ferric nitrate and magnesium sulfate.

Q: What is the composition of Wilt-Pruf? Can this product serve as winter guard?
A: Wilt-Pruf NCF is a low molecular weight, Lewis acid catalyzed polymer of beta-pinene. It is chemically di-l-p-Methene.
Wilt-Pruf reduces tissue desiccation and is labeled for winter protection.

Q: I need the name and vendor of a product that will help to eliminate Christmas tree poaching. I understand that such a spray is available that will not harm trees but will give off an offensive odor when the tree is placed indoors.
A: You are probably referring to the deer repellent which gives off an offensive odor at room temperature. Such a product was used by the Somerset County Parks Commission in New Jersey this past winter. Contact Jack Moody, secretary-director of the commission, for evaluation of the product. WTT

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9800 Detroit Ave.
Cleveland, Ohio 44102

Davey announces a two-week seminar for urban forestry foremen.

The Davey Horticultural Institute in Kent, Ohio, will conduct a series of special two-week courses in tree-care maintenance operations beginning May, 1979. Any federal, state, municipal or institutional employee can enroll. Since 1904, Davey has been conducting formal training programs on tree-care maintenance.

You will be able to expand your knowledge in all phases of tree maintenance through lectures, demonstrations and concentrated work in the field. You're assured of ample individual attention because the student/instructor ratio will be 8 to 1, or less.

Subjects covered will include:  • Pruning • Climbing • Transplanting • Cabling • Tree insects • Fertilizing • Bark tracing • Girdling roots • Spray equipment • And much, much more

Your $575 tuition covers all reference books, study pamphlets, supplies, equipment rental fees, materials for field operations and insurance.

Low-cost accommodations are available at Kent State University's Korb Guest House. The Kent area has a number of inexpensive restaurants. Regular limousine service links Cleveland-Hopkins Airport with the Institute.

Classes are limited to just 24 students on a first-come, first-served basis, so we urge you to act today. For complete information, please contact:

Richard E. Abbott
Vice President, Davey Environmental Services
117 S. Water Street, Kent, Ohio 44240

Tel: (216) 673-9511

Circle 159 on free information card

MARCH 1979/WEEDS TREES & TURF 83
NOTE: In the January 1979 issue of WTT, I advised you on a late fall fertilization to be applied in late November and early December. Although I have seen good results with fertilizer applications during this period, I believe that you will have better results with a mid-October application instead. This change in thinking is basically a product of many discussions with turf managers and researchers this fall and winter.

Q. I have heard and read many viewpoints on thatch and mat in turf and in almost every instance the definition of the two has been reversed. Please give an example and illustration of each (thatch and mat). Also, has any information on the use of Posan to retard seeding of Poa annua on greens been compiled, or is Posan strictly for fairways? Oxnard, CA

A. The difference between mat and thatch is only in degree. The term mat is meant to connote about 1/4” or less of undecomposed stems, leaves, stolons or rhizomes, that accumulate between the soil surface or rootzone and the living plant. In most instances mat is a desired condition because it provides resiliency to the turf and thus lessens mechanical damage to the plants, resists compaction of underlying soils, and reduces rapid evaporative moisture loss from the soil. In short it is a thin manageable, thatch layer. On the other hand, thatch is the excess accumulation of the same dead plant parts which results in all the commonly associated, and too well known problems.

The use of Posan should be confined strictly to fairways and a Bensulide based product used on greens. Check the September 1978 Proscape column for elaboration.

Q. Is there a school in the U.S. where you can take a landscape architect course by corresponding? B.H., Accomac, Va.

A. Not that I know of and if there was such a course I would advise you not to waste much money or time with it. The reason for such a strong negative reaction is that to learn landscape architecture skills by correspondence is analogous to learning medicine by mail. To do landscape architecture (not to be confused with landscape design) requires using: Detailed problem and situation analysis; applying a suitable design process; formulating and presenting the design in standard architecture language; selling the design intention from a basis of history, economics and limitations using many graphic skills; and then being able to technically advise and inspect the work during construction phases. The really proficient landscape architect also has the ability to advise on long term maintenance of the design features to ensure it remains as he planned it. To acquire these basic skills requires 4-5 years of total immersion in a classroom/studio situation where you learn most from your fellow classmates, much from the professors and critics, and some things from your own efforts. This program is very intense and requires extreme discipline of mind and body to endure the rigors of a program that sets high standards in such diverse subjects as:

1) History
2) Basic design
3) Graphic and design language
4) Architecture appreciation
5) Problem analysis and construction methods
6) Communicative skills
7) Plants, plant materials, and construction materials
8) Advanced math or computer science.

To dramatize the dedication that such a program requires, it is not unusual for many large universities to start with 200 L.A. students as sophomores and only graduate 40 or 50 of that group. The benefit to the general public is that this harsh selection process insures only qualified practitioners.

In addition, most states require that a landscape architect be registered within that state and often this requires extensive testing. To pass these rigorous tests nearly mandates a formal college program. Check Proscape in the January issue of WTT for more information on available schools.
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ARBOTECT 20-S fungicide helps make it possible to save many elm trees that otherwise would be lost.

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Used along with sanitation, insect control, and root graft elimination, ARBOTECT can significantly improve the effectiveness of a Dutch elm disease control program.

ARBOTECT differs from other elm fungicides in several important ways:

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- Even though it is more effective and convenient, ARBOTECT costs about the same to use as other elm fungicides.

This year, put ARBOTECT to work in your disease control program. It's the strongest protection you can give an elm against Dutch elm disease.
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CUT AND PRUNE

PUMP AND SAW

DRILL AND TAMP

NEWS Continued from page 14

Nurserymen’s Association and the Columbus Landscape Association. Dr. Chadwick has organized a steering committee representatives from the Kiwanis Club, The Ohio State University Horticulture Department, Secrest and Dawes Arboretums, and the Metropolitan Park District of Columbus, Ohio.

A master plan is being proposed that will incorporate the best in new varieties of ornamental plants within the natural beauty of Inniswood Gardens. Some plantings are scheduled during 1979, with the greatest emphasis during the 1980 and 1981 planting seasons.

NURSERY

HRI approves funds for fifteen projects


Any organization conducting nursery research is eligible to apply including state and federal research laboratories, land grant universities, forest research stations, and arboretums.

Recipients are selected on the basis of their responses on a one-page questionnaire. The only restrictions are grant recipients must agree to use the money to purchase supplies or equipment to continue or complete a project and they must report the progress and/or results of their research to HRI for distribution to the nursery industry.

Grant applications are available from HRI, 230 Southern Building, Washington, D.C. 20005, and must be returned by May 1.

In related news, an expanded edition of the HRI publication New Horizons is now available. The booklet has been expanded in 1979 to include reports from HRI contract researchers and Richard P. White grant recipients.

Cost of the 40-page publication is $2.50 per copy for educators and $4 per copy for others from HRI, 230 Southern Building, Washington, D.C. 20005.

RESEARCH

Degassed water shows growth advantage

Two Russian scientists have discovered that “degassed” water promotes increased growth in plants. Igor and Vadim Zelepuhkin, of the Institute of Fruit-Growing and Vine-Growing of Kazakhstan, Kazakh, U.S.S.R., accidentally discovered that water which is boiled and cooled rapidly is several times more biologically active than meltwater.

Test showed that seeds soaked in the “degassed” water produced increased yields and some crops watered with it produced 10 to 12 percent higher yields.

The researchers said higher yields result because “degassing restructures” the water molecules so they are in the proper pattern to pass more readily through cell walls and be utilized immediately in vital cell functions.

The “degassing” process involves boiling the water, thereby removing dissolved gasses, and quickly cooling it, under airless conditions, so no gasses can re-dissolve into the water.

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Century City

accessible places are treated bi-monthly with a quick release fertilizer. The slow release is applied once a year and then we have intermediate fertilizers for areas scheduled for treatment three or four times a year." Zessau's fertilizer decisions are not made by guesswork, though. His soil amendments are scientifically formulated from soil samples and lab analysis done by O. A. Matkin, Soil and Plant Lab, Los Angeles. Zessau credits Matkin with a major role in the overall up-keep of plant nutrition at Century City.

Decisions concerning fertilizer breakdown and concentration are only one aspect of Zessau's soil amendment program. Fertilizer applications are common at Century City. Fertilizers are applied when needed and Zessau has learned that when spraying any chemical in an urban area people are inevitably going to be concerned. "I don’t care if you’re spraying water — somebody is going to get uptight about it," he said. Zessau has found that a little psychology goes a long way; instead of applying liquid fertilizers, he's switched to granular mixes. “Oddly enough, people don’t look twice if you’re applying a granular,” he observed. “The only time we ever apply a liquid fertilizer is in extremely hard-to-get-to places where we sometimes inject the fertilizer into the sprinklers. This can also be a tremendous labor saver when you consider the fact that we don’t have to send a man carrying a 100 pound bag of granular fertilizer climbing up into some awkward bed.”

Sprinkler systems, both overhead and drip, are all hooked up to automatic timing devices which saves Zessau's maintenance crew countless hours. Taken a step further, Zessau explained that some of the development's sprinklers are even more sophisticated — triggered automatically when tensiometer readings in a given bed fall below a certain moisture level.

Landscape technology obviously has come a long way from the days of peat moss and a hoe. For John Zessau, it's taken what would have been a horticultural pipe dream twenty-years ago and made trees grow over six story underground parking lots, made roses flourish in steel and concrete; and helped ivy thrive for miles over a thin layer of sand and backfill mix.
WE CONTROL CRABGRASS, FOR A VERY LONG TIME WITH

MARCH

APRIL

MAY

JUNE

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Chipco Ronstar G. A welcome addition to the broad Chipco line. For more information, see your distributor or Rhône-Poulenc representative.

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Golf professionals, golf superintendents and weekend players alike sing the praises of Dixie Green® overseeding mixture. Their reasons are the same: Dixie Green® produces a smooth, true and beautiful putting surface that will last the winter through. Here’s what some of the professionals have said about it:

“I mowed 15 days after sowing Dixie Green® and was on my way to the prettiest putting surface I have ever seen.” Bob Martin, Superintendent Clarksdale Country Club, Clarksdale, Mississippi.

“Dixie Green® has given me a uniform, dense putting surface that has putted consistently true. The color has been outstanding... even though the temperature in January dropped to 11 degrees F. Bent greens went off color... but Dixie Green® came through like a champ.” Ed O’Donnell, Superintendent Brook Valley Golf & Country Club, Greenville, North Carolina.

Dixie Green® overseeding mixture is a premier mix of Highlight Chewings-type red fescue which was judged World Champion at the 45th Annual Royal Agricultural Show in Toronto, and Derby turf-type perennial ryegrass. This fine mix has proven a winner for winterseeding of greens, tees and aprons all over the South. Dixie Green®—a great mixture for you and your members.