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FOLIAN is the only fertilizer you'll ever need. It saves you time because there's no mixing or agitation required before using FOLIAN. And FOLIAN can be applied in more concentrated form than most other liquids. As a result, you can service more lawns per truckload with fewer wasted man-hours.

A clear solution of the highest quality, FOLIAN won't settle out in your tanks. It's compatible with most pesticides, too.

**Greens lawns fast**

Because of its patented formulation and foliar activity, FOLIAN greens up turf quickly — faster than dry fertilizers or suspensions. And at the recommended rates, FOLIAN supplies enough residual fertilizer in the soil to keep grass green and healthy for many weeks.

**Good for your business**

Your customers will love the results FOLIAN gives. And you'll appreciate FOLIAN's convenience.

Best of all, FOLIAN makes your lawn care service more valuable. It means repeat business from satisfied customers and greater confidence in you.

Give FOLIAN a try and discover how it can mean more green for both of you.

To find out more about how to get started using FOLIAN, call toll-free 800-228-2178 Omaha, Neb., 800-446-1841/800-446-1845 Hopewell, Va. or write Allied Chemical, PO. Box 1000R, Morristown, N.J. 07960.

FOLIAN complete liquid fertilizer.
Landscape business outlook good for 1981

Members of the National Landscape Association are predicting another good landscaping year—one that gradually improves, according to the annual economic survey.

Last year, when the annual survey was taken, 85 percent of the landscape firms responding predicted increased sales in 1980. This year's survey, while slightly less optimistic—75 percent are predicting increases—shows that expectations are still high among landscapers.

In 1980, after 10 percent of firms predicted sales increases, 12 percent reported increases at year's end. This year, 10 percent also predicted business increases.

For the second year in a row, landscapers have indicated that their best prospects for increased sales are in residential renovation landscaping. The second ranked growth potential in this year's survey was new commercial landscaping.

Here is a breakdown of predictions of increases over 1980 by region: Northeast—6%, Southeast—10%, Great Lakes—7%, Western Plains—11%, Other—20%. The national average is an increase of 10%.

Census shows growth in hort services

The 1978 Agricultural Services Census conducted by the U.S. Department of Commerce, Bureau of Census, indicates marked growth in landscape and horticultural services in 1978 over the previous census of 1974.

The number of firms involved primarily with landscape and horticulture services increased 39 percent from 1974 to 46,600. The gross receipts reported by these firms increased 97 percent for a total of $2.6 billion in 1978. The annual payroll reported by these firms was $947,000,000 or an increase of 94 percent from the previous census period.

The data is broken into three major categories: landscape counseling and planting; firms engaged in a variety of lawn and garden services—landscape planting and maintenance and, presumably, design services when sold in conjunction with the plants; and ornamental shrub and tree services, which were mostly arborist services.

The data prepared from the census indicates that the number of lawn and garden service firms increased at about the same rate as the other categories, while their gross receipts and annual payrolls increased at more than double the rate of the other two categories.

ASLA assumes lead role in design coalition

The American Society of Landscape Architects (ASLA) has become the leaders in 1981 for the major coalition of professional environmental design organizations in the U.S.

As secretariat of the Interprofessional Council on Environmental Design (ICED), ASLA has been charged with serving as the official communications center for this seven-member coalition. The council meets twice each year to address current issues of mutual concern, exchange information, and promote interprofessional collaboration in environmental design.

"ASLA is honored to serve as secretariat of ICED, since its purpose so completely parallels the attitude of landscape architects toward collaborative design," said ASLA President William Behnke.

The other six members of ICED include: the American Consulting Engineers Council, American Institute of Certified Planners, American Society of Civil Engineers, American Institute of Architects, American Society of Consulting Planners, and the National Society of Professional Engineers.

News from page 8

For more information, contact Barbara Kratchman, Society of American Florists, 901 North Washington Street, Alexandria, VA 22314, 703/836-8700.

NURSERY

Marketing council urges promotion despite drought

Citing an example of citrus losses from frost in Florida, Paul Dawson, director of marketing for the Nursery Marketing Council, is urging nurseries not to reduce advertising this spring due to drought conditions in much of the country.

"The wiser nursery leaders are saying this is a time to increase advertising budgets," Dawson said. "Now is the time to help consumers learn how to care for living plants with limited water resources, to sell those products which require less water, and to keep the public mindful of the important role their green environment plays in all aspects of their lives."

The Nursery Marketing Council represents bedding plant growers, sod producers, landscape architects and contractors, foliage growers, allied suppliers, and nursery retailers. A $270,000 national radio blitz is occurring on Saturdays in April and May.

CHEMICALS

Name given to new maker of Nitroform

FBC Chemicals, Inc. is the name of the new company formed to market and distribute products in the United States formerly marketed by Fisons, Inc., Bedford, MA, and the Boots Hercules Agrochemicals Co. in Wilmington, DE.

The new U.S. chemical company will have its corporate headquarters in Wilmington. FBC Chemicals, Inc. is the result of an announcement made last year by the two parent companies that they would merge their specialty chemical and agrochemical interests on a worldwide basis.

LAWN CARE

ChemLawn shareholders offer common stock

In an effort to generate working capital in the face of rising interest rates, ChemLawn Corp., Columbus, Ohio, is offering 750,000 shares of common stock. For more information contact Barbara H. Kratchman, Society of American Florists, 901 North Washington Street, Alexandria, VA 22314, 703/836-8700.
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Tests on pesticide toxicity have been judged invalid because of too few or incomplete microscopic examination, inaccurate recordkeeping, and poor sick animals used, tests were not done at the maximum tolerated dose, invasion (SPRD) of the EPA.

Specifically, data are missing on individual exposure to pesticides in monitoring, said Marcia Williams, director, Special Pesticide Review Division (SPRD) of the EPA.

She said that reliable data are also lacking with exposure information. Specifically, data are missing on individual exposure to pesticides in food, air, and water and on rates at which pesticides reach target organs. Another lack was a mechanism to factor in individual sensitivities or thresholds, she said. And it is difficult and expensive to design experiments encompassing variables such as wind, temperature, humidity, clothing, and type of application.

The expense, uncertainty, or unavailability of methods to detect chemicals or contaminants must be considered in economic/benefit information. Williams’ talk was directed to the Great Lakes Pesticide Council.

A national urban Integrated Pest Management program starting in FY 1982 with $50,000 for 50 pilot workshops and no specific staff could grow into a project with a staff of 101 and a budget of $4.3 million by 1990, projects the U.S. Department of Agriculture. The plans were issued in a report, “Urban Integrated Pest Management,” published by the Cooperative Extension Service, the University of Georgia-Athens.

The report listed seven urban IPM benefits: Offering clients alternative methods of pest control; saving on spiraling pesticide costs where other alternatives are available; public acceptance of commercial control programs that incorporate the concept of threshold pest levels; reduced exposure and environmental contamination; improved pest control; reduced pesticide storage and disposal problems; and delaying the development of pesticide resistance.

The State Cooperative Extension Services are in “a unique position to provide leadership in urban IPM,” according to the report, and can do the job given sufficient staff and funds. However, it said, “assigning responsibility for urban IPM to already busy extension specialists in entomology, plant pathology, or other pest control disciplines without additional support has not succeeded in the past. Nor has vesting this responsibility in an urban horticulturist been successful; for such a person is not equipped to deal with public health, household and wood-destroying pests. The employment of multi-discipline-oriented IPM urban leaders in the states is essential.”

A study of two groups of workers who applied 2,4-D to wheat fields in two areas of the country has concluded that less than 1 gram of this herbicide enters the body of an average 175-pound worker.

Since evidence suggests that the amount of 2,4-D excreted is equal to the amount absorbed, scientists measured the urine of workers involved in ground or aerial applications. Ralph Nash, a U.S. Department of Agriculture chemist who specializes in analyzing pesticide residues, cited studies that 2,4-D is not metabolized in the human body, but rather passes through unchanged after a large dose is ingested. Studies on a similar herbicide, 2,4,5-T, substantiate this finding, he said.

Results showed that absorption is directly related to the type of job, the amount of herbicide applied, and the length of time it is handled. Those who mixed and loaded 2,4-D had the highest total absorption—0.02 milligrams per kilogram of body weight (or 1.6 milligrams for a 175-pound person). The least exposed group, pilots, absorbed less than one-third that amount.

Information from this study and others will be evaluated by the USDA, EPA, and other federal agencies. Absorption data will be compared with toxicity data when 2,4-D is reevaluated.

A hydrologist with a Colorado coal company is using the seeds he collects on mining sites to revegetate the same land after mining is over.

Doug Bowman, environmental coordinator for Mid-Continent Resources, Inc., decided to develop his own source of shrubs and grasses when the state of Colorado began encouraging revegetation with natural materials. During the summer, he and a small crew pick seeds on land which will be disturbed from mining, and give them to a large nursery run by the U.S. Forest Service.

Half of the seeds the nursery nurtures it gives back to Bowman as seedlings for revegetation. The seedlings, already acclimatized to the high altitude, short growing season, and scanty rainfall, grow well when replanted.

Bowman faces another problem with a shallow, highly saline soil base. He is hoping to mix an abundant supply of wood chips with sewage sludge to make a topsoil. “About six inches of compost would help tremendously,” he says. “Some land is nonrecoverable and we could use it there.”
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Circle No. 117 on Reader Inquiry Card

JUNE 1981/WEEDS TREES & TURF 15
COOPERATION URGED TO SOLVE SUSPICIOUS SODDED LAWN PROBLEMS

As sod producers and lawn care businessmen are well aware, some antagonism has developed in the last four years due to Fusarium Blight infection in sodded lawns maintained by lawn care companies. No one has yet developed an accurate, objective opinion on this matter. There are at least a dozen theories as to why sodded lawns tend to become infected with Fusarium more readily than lawns established from seed and why lawn care is suspected by some to be part of the problem.

Having worked for both a major sod farm and a lawn care company, Professional Turf Corp./Hydro Lawn, I have experience in both sides of the issue. Several hundred of the more than 1,000 lawns installed under my direction in the early seventies became infected during the first year of establishment with diseases, a large percentage of which was Fusarium. Very few of these lawns receive professional lawn care although a large percentage receive adequate homeowner care.

If either sod producers or lawn care businessmen seek answers without the other, the non-active group is going to remain skeptical even in the face of facts.

This experience leads me to believe that the current circumstance is probably a natural phenomenon that possibly both the sod growers and lawn care industry enhance by way of unknown action.

The position I take, which represents the lawn care industry in general, is guilt can not be clearly laid to either the sod producer or the lawn care businessman, although both appear to have the problem in the marketplace. Furthermore, the concern is real and a scientific solution requires cooperation between sod producers and lawn care businessmen. If either party independently seeks the answers without participation from the other, the non-active group is going to remain skeptical even in the face of facts.

It is interesting to note that although Fusarium was first identified almost 14 years ago and has probably had more research interest than any other turf disease, it still remains the least understood of all the widespread diseases. This is true because it is very difficult to simulate field-like infections of Fusarium in the laboratory. Soil borne diseases, unlike foliar diseases, are difficult to study because of the very complex nature of the soil and multiple pathogen complexes found in the soil system.

There is a strong need for both industries to solve this problem. Professional lawn care is now a multi-billion dollar industry and continues to grow at an annual rate of 20 percent. Like the sod production industry, lawn care is here to stay.

It is fact in my market area that lawn care businessmen refer dozens of homeowners to sod installers for lawn replacement. Likewise,

<table>
<thead>
<tr>
<th>Lawn Care Industry view:</th>
<th>Sod grower view:</th>
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<tbody>
<tr>
<td>1. Fusarium susceptible monostands and polystands</td>
<td>1. Lawns cared for by lawn care companies are over fertilized</td>
</tr>
<tr>
<td>2. Muck grown sod does not readily transfer to mineral soil and vice versa</td>
<td>2. Improper sod bed preparation</td>
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<td>3. Sod is often fertilized prior to harvest to enhance visual quality</td>
<td>3. Too much post emergent herbicide</td>
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<tr>
<td>4. Sod bed is over fertilized prior to laying sod to stimulate rapid visual improvement of new lawn</td>
<td>4. Repeated annual use of same pre-emergent herbicide</td>
</tr>
<tr>
<td>5. Harvest, transport and installation can create stress and susceptibility</td>
<td>5. Sodded lawns are mature at time of installation compared with seeded lawns which enhances susceptibility to any disease</td>
</tr>
<tr>
<td>6. Disease pathogen brought from point of harvest</td>
<td>6. Mis-diagnosis — not Fusarium at all in some instances</td>
</tr>
<tr>
<td>7. Sod installed at time periods when grass wants to enter dormancy naturally but is stimulated by sod bed fertilizer and establishment irrigation</td>
<td>7. Liquid application technique enhances potential for over application</td>
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</table>

By Jerome Faulring, president of the Professional Lawn Care Association of America. Based upon speech to be presented during the summer meeting of the American Sod Producers Association.
installers and growers refer many homeowners to lawn care services after installations are completed. This inherent dependency on each other can be very harmonious and profitable for both groups.

Soil-borne diseases, unlike foliar diseases, are difficult to study because of the multiple pathogen complexes found in the soil system.

Several million homeowners receiving lawn care require re-establishment services. This number may increase due to drought damage being experienced in many parts of the country. Currently, a very high percentage of that work is done by overseeding, although many lawn care businessmen dislike this method. It is conceivably that sod producers could help relieve the lawn care industry of one of its headaches.

Interviews with more than a dozen sod growers, lawn care businessmen, and research specialists have revealed that the antagonism is created at the service level of staffing in the lawn care industry, often sales people misinformed or trying to skirt blame for a problem. The problem may be too complex for many to put into perspective. Answers to give these people are needed. The solution will be found more quickly if the lawn care industry and the sod industry work together.

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Brouwer Turf Equipment Limited, Woodbine Ave., Keswick, Ontario, Canada L4P 3E9 Tel: (416) 476-4311
RESPECT FOR MARKETING INCREASES AS SOD GROWERS FACE TOUGH TIMES

By John Kerr, Associate Editor

“Who said beauty is only skin deep! A sodded lawn is not only beautiful, it’s an investment with deep-down benefits that will save you time and money. Sod provides instant beauty and instant value. Within a few hours, sod will transform your yard from bare spots and weeds to a lush, living carpet of mature grass. Sod is an investment which will instantly increase the market value of your property from 5 to 10 percent. Sod gives you a soft clean surface for family fun. Your house stays cleaner inside and outside. Sodding saves you countless hours of your personal time; the time you would take from business or pleasure for seeding, watering, and constant attention. High quality sod produced by members of the American Sod Producers Association is grown from premium variety, disease-resistant seed which is best adaptable to your area. So for instant beauty and instant value, consider sod.

—ASPA radio tape, entitled “Deep-down benefits”

Marketing. The word sounds as foreign to some sod growers as topdressing would sound to Madison Avenue executives. Those who watch the sod industry say that up to 70 percent of growers do no marketing of their product. The realization that customers are no longer searching for truckloads of sod is changing that outlook for many sod producers.

Business had been growing steadily in the past two decades for those selling sod. Reliable customers such as landscapers and garden centers had consistently ordered and received a fine quality product. Pleased homeowners with freshly sodded lawns would pass their supplier’s name to neighbors and friends. These customers are still pleased with the quality of the sod. Unfortunately, many are discovering that they cannot afford it or do not have the water to keep it alive.

High interest rates and the accompanying sag in home building have seriously hurt the market for sod. Commercial building has not suffered as much, but does not use as much sod, especially when the site is the heart of a metropolis. Competition, in the form of hydroseeders, presents another force against the grower. Yet the force that has hurt more than anything else is one that the President, economists, and competition can do nothing about—the weather.

Water tables stand so low in some areas of the East that 50 gallons a day per person is the enforced limit. What choice do these homeowners have when it’s between washing themselves and watering their grass? In parts of New Jersey, officials have banned all watering and spraying. Water restrictions also occur in the Rocky Mountain states. Growers in Iowa and Nebraska, where few irrigate, are getting little rain. The parts of the Midwest that have received ample rain lie in competitive markets, such as Detroit, Chicago, and Minneapolis.

Continues on page 20
Union Carbide aquatic herbicides.

5 ways to make your lakes and streams look like the day they were created.

Weeds in lakes and streams are more than ugly. They can drive out fish, make streams unnavigable, choke vital irrigation and drainage waterways, ruin recreational areas, and even depress shorefront property values.

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For more information about our full line of aquatic herbicides, contact your local Union Carbide Agricultural Products Company representative or write direct.

Any herbicide can be harmful if improperly used. Always read the label carefully before using.

Circle No. 145 on Reader Inquiry Card
To counter this negative climate, the sod growers must initiate or boost promotion for his business and profession. The American Sod Producers Association (ASPA) has recognized this need with more presentations on marketing at annual meetings and with development of brochures, slide-cassettes, booklets, and the radio spot reel which consists of five 60-seconds tapes.

Aggressive growers use a full program to create identification for their product and a positive image in the public eye. Michelle Williams of Meredith Sod Farms spoke at the 1980 midwinter conference on the full-scale campaign her company uses to promote its sod. From the mass appeal tactics of billboards, radio messages, and newspaper ads to the personal touch of cups, handkerchiefs, and T-shirts, everything Meredith gives out highlights the company’s symbol of a frog and their motto, “It’s easy to be green.”

“Sod farmers need to establish consumer identification” says Williams. Although the size and funds don’t warrant large-scale marketing for every firm, the ones who have kept their image in front of the public are the ones who are grabbing business in these dry times.

Some growers have switched their land to vegetable crops. Others have lowered prices to regain some capital. This not only hurts the grower but also the other growers in his area who are subsequently forced to reduce their prices. In the long run, everybody suffers from this action.

WEEDS TREES & TURF talked to a sample of growers in various parts of the country about their marketing programs. Many people have purchased the ASPA spot reel tape, which they have adapted to their own local needs in many cases. All are doing more to promote business.

“I think it is the most important end of the business,” says Eicky Mund, president of Alboa Co. in Needville, Texas. Mund’s sod business, headquartered outside of Houston, serves a growing marketplace that extends 500 miles to San Antonio, Dallas-Fort Worth, and New Orleans. This expansive area enables shipping nearly all the time regardless of bad weather in some parts. Mund feels fortunate for this as he calls sod “the most perishable of all produce.”

Mund has been growing sod for 23 years and considers marketing more vital now than ever. “If you are not in the marketplace, you’re at the mercy of truckers or anyone else who buys sod,” he says. If a farmer does not market and can not sell his crop, he will take a much lower price from a trucker for his sod.

Although this southern section of the country is flourishing, competition in selling sod has grown fierce and lack of rainfall has created a rough climate for business. Mund estimates that in the last five years the number of sod growers in his area has doubled. High interest rates affect home building. And last year Texas experienced its worst drought in 20 years and the state was declared a disaster area.

Last year was the first time that Mund’s business decreased. When water was cut off to the homeowners, there was little he could do. He had increased his marketing budget about 15 percent from 1979. This year he is watching and going harder after the retailer. He has opened new locations to sell smaller quantities. “You can’t build a business if you have too many valleys and peaks,” Mund says.

Mund advertises twice a week in newspapers, starting in the middle of March. This, aimed mainly at the homeowner, will be cut if heavy rain falls. He also sends direct mail to new homeowners. By mid-April, he is advertising several times a day on radio with a tape his firm has produced.

The outlook for business in 1981 is fair, Mund says. With other members of the sod association, he shares ideas and finds an incredible amount of help. “We’re becoming an industry now,” he says. “It’s a large investment.”

Anthony Peca, Jr., assistant general manager of Batavia Turf Farms in Batavia, New York, and his father have made their company a solid business through strong promoting. They combine a style of personable public relations with cooperative advertising to achieve a close rapport with their wholesale and retail buyers.

Peca travels to Ohio, Vermont, and Philadelphia to talk to potential customers. If a landscaper wants to do something new, Peca will explain proper methods to do it. If a group, such as a Lion’s club, is working on an outdoor project, Peca helps them with the installation and returns the next year to see how it’s been maintained.

Batavia Turf uses some 25 dealers to sell its product. The company supplies the dealers with advertising material—newspaper and radio—which is customized for local usage. The dealers are reimbursed for advertising within a limit.

Another way the company helps its dealers is reimbursement for what Peca calls, “sod volume credit.” For example, if a dealer buys 10,000 yards of sod one year, the company may be reimbursed .01 cent a yard the following year; for