

9. Treat galls with a chemotherapeutic agent.

I would like to elaborate on this last point. There is now commercially available a product called **Bacticin** which appears to have a high affinity for galled tissues and causes a selective degeneration of the tumors.

In a study conducted at the Shade Tree Laboratory in Delaware, aerial galls on six-month-old Sherrill hybrid poplar rooted cuttings were treated directly with undiluted **Bacticin**, which is a coordination product of two hydrocarbons, 2,4-xyleneol and metacresol. The trees were treated three times during the growing season and then placed in a lath house to overwinter and examined approximately one year following the last treatment. We treated comparable groups of galled plants with either streptomycin SO_4 or water. These served as our checks or controls.

One year following treatment 47% of the **Bacticin** treated trees were regarded as healthy — that is, the main leader was alive and there wasn't any visible evidence of renewed gall development. On the other hand, only 4-5% of the streptomycin SO_4 and water treated plants were categorized as healthy. Most trees were either killed outright or the main leader was dead and sprouts were developing below the gall. About 90% of the trees in the streptomycin SO_4 and water treated groups fell into these two categories.

Bacticin-treated trees show three types of responses:

1. inhibited and gall degeneration
2. inhibited gall, but tumor remaining essentially intact
3. inhibited gall from last year, but new gall formation

In summary, **Bacticin** gave approximately a 10-fold increase in the number of healthy plants over the streptomycin SO_4 and water treatments. Furthermore, **Bacticin** appears to have a high affinity for galled tissues and definitely possesses chemotherapeutic properties.

By utilizing materials which possess curative properties and by strictly observing the fundamental principles of preventative medicine, losses from crown gall can be greatly minimized. Is it worth the added effort and cost? I think it is. Just ask any nurseryman who has had to dispose of large quantities of nursery stock because of crown gall disease!

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in its class



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meeting dates

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

Western Chapter of the International Shade Tree Conference annual convention, Del Webb Townhouse, 9th & Market Sts., San Francisco. June 20-23.

American Association of Landscape Architects annual meeting, Portland, Ore. June 20-24.

Grassland '71 fourth annual field day, Eugene, Ore., Municipal Airport. June 23-27.

California Landscape Contractors Association at King's Castle, Lake Tahoe. June 23-27.

American Sod Producers Association, Annual Meeting, Michigan State University Muck Experiment Farm, East Lansing, Mich. June 29.

Shade Tree Meeting, Ohio Agricultural Research and Development Center, Wooster, Ohio. July 7.

Hyacinth Control Society, Annual Meeting, Manger Motor Inn, Tampa, Fla. July 11-14.

American Association of Nurserymen convention, Statler Hilton Hotel, Dallas, Tex. July 17-21.

1971 Midwest Nursery and Landscape Exposition at D. Hill Nursery, Dundee, Ill. July 25-27.

United States Department of Agriculture Turfgrass Field Day, Plant Industry Station, Beltsville, Md. Aug. 4.

47th International Shade Tree Conference at the Queen Elizabeth Hilton Hotel in Montreal, Quebec, Canada. Aug. 8-12.

American Society of Agronomy, Crop Science Society of America and Soil Science Society of America concurrent meetings in New York City. Aug. 15-20.

Penn State Turfgrass Field Day at the Joseph Valentine Turfgrass Research Center, University Park, Pa. Aug. 25-26.

National Association of Professional Gardeners, Annual Conference, Princeton Inn, Princeton, N.J. Aug. 28-30.

Michigan State Turfgrass Field Day at the Crop Science Field Laboratory in East Lansing. Sept. 9.

Alabama-Northwest Florida annual turfgrass short course in cooperation with Auburn University, Auburn, Ala. Sept. 9-10.

Florida Turf-Grass Management Conference, Pier 66, Ft. Lauderdale. Sept. 19-22.

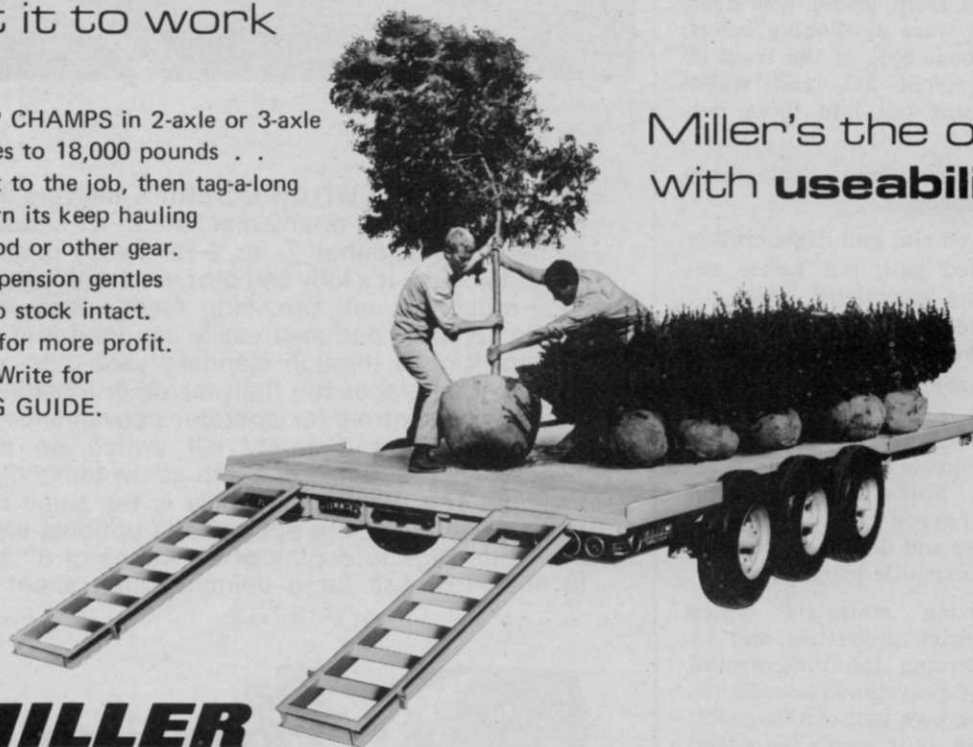
Midwest Regional Turf Foundation field day, Purdue University, Lafayette, Ind. Sept. 27.

30th Annual Short Course for Roadside Development, Columbus, Ohio. Oct. 4-8.

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Leadership for ASCA during the coming year, reading from the left: president-elect, Dr. L. C. Chadwick; immediate past-president, Ray Gustin, Jr.; president, George W. Goodall; executive director, Dr. Spencer H. Davis, Jr.; vice-president, George P. Morrow. The new secretary-treasurer, W. Roland Shannon was not present.



Dr. Donald A. Spencer, Ecologist for the National Agricultural Chemicals Association.

Consulting Arborists Plan For '72 Annual

Some bird and animal populations have increased 10- to 50-fold in recent years despite the use of pesticides. So reported Dr. Donald A. Spencer at the recent annual meet-

ing of the American Society of Consulting Arborists at Washington, D.C.

Dr. Spencer, who spent more than 30 years working as a staff member of the Fish and Wildlife Service for the United States Department of Agriculture is now an ecologist for the National Agricultural Chemicals Association.

Some birds and animals which were close to extinction earlier in the century are now at the point of nearly over-populating some areas, Spencer said. This picture is in sharp contrast to much of the current furor relating to ecology and its destruction.

Dr. Spencer presented data to support his claims that in one state the grouse harvest has climbed from 5,000 to 43,000 in the last 25 years. Quail harvest is up to 110,000 from 21,000 during the same period, and the pheasant harvest has doubled.

Members of the ASCA, held both educational and business meetings during the Washington, D.C. session, and made plans for their 1972 annual meeting. It will be held at Tampa, Fla., during February.

Dr. L. C. Chadwick, the new President-elect of ASCA, chaired a panel with Henry Vaughn-Eames, Walter Ritchie and Freeman Parr on use of the recently revised Shade Tree Evaluation Formula as developed by the International Shade Tree Conference. The panel pursued the theme that any formula is of value only when used in conjunction with years of experience with trees and an understanding of their past and present care. Members were urged to be extremely careful in preparing a disposition before the court that only facts are presented because later questioning by the opposition could turn an unqualified statement into a point against their own case.

To continue the theme of tree evaluation, Fred Micha, as Chairman of the Case Histories committee reviewed case histories on file with ASCA. Payment of claims, as re-



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lated to case histories, were discussed by participating members. Micha's committee is in the process of developing a more standardized form for reporting on tree surveys and appraisals.

At the final business session, new officers and directors were elected. Ray Gustin, Jr., handed over his gavel to incoming President George W. Goodall, Maine, and welcomed President-Elect Dr. L. C. Chadwick, Ohio; Vice-President Walter P. Morrow, Pennsylvania and Secretary-Treasurer W. Roland Shannon, Pennsylvania. The directors named for the coming year were O. J. Andersen, Texas; A. Murray Swanson, Arizona; F. L. Dinsmore, Missouri; F. Earle Martin, Toronto, Canada, and Ray Gustin, Jr., Maryland. Dr. Spencer H. Davis, Jr., New Jersey will continue as Executive Director.

ASCA members will meet next in conjunction with the International Shade Tree Conference in Montreal, Canada in mid-August.

Plans Underway for I.S.T.C. At Montreal, August 7-14

The 47th annual meeting of the International Shade Tree Conference is set for August 7-14 at Montreal, Quebec. Headquarters will be the Queen Elizabeth Hotel.

Executive Secretary E. C. "Cal" Bundy (P.O. Box 71, Urbana, Ill. 61801) is equipped to furnish details for members, exhibitors, and others interested in tree care who wish to attend.

Dr. E. B. Himelick, executive director of the I.S.T.C., is program committee chairman and Dr. Yves Desmarais, the Montreal local committee chairman. Four special events in addition to the regular educational program have been scheduled. These are: (1) A special "Exhibitors Nite" rather than field demonstrations. Purpose is to allow exhibitors to display their products in addition to entertaining via prizes, games, etc.; (2) An evening break-away event. This will include an afternoon trip to the site of the Montreal World's Fair, and an I.S.T.C. street dance in Old Montreal in the evening; (3) A second evening is set aside for two special presentations, one by Clarence Lewis of Michigan State University, and the other by Stauffer Chemical Company; and (4) Post-convention trips are planned for Europe (2 weeks), Quebec City (overnight), and for Ottawa (1 day).

Special programs are also on the agenda for wives and youngsters.

Both are steeped with French enchantment and the Montreal atmosphere.

National Attention Focused On Aquatic Weed Meeting

Featured speaker for the Hyacinth Control Society's '71 annual meeting will be the Environmental Protection Agency's regional coordinator for Region IV, Mr. John R. Thoman. Thoman will appear July 12 and will present EPA's procedure for determining pesticide use in the months ahead.

Every company producing equipment and chemicals for aquatic weed control will have representatives on hand for this conference at Tampa, Fla., this coming month. Besides company representatives, the membership consists of contract applicators, research scientists, and all types of supervisory personnel responsible for keeping waterways and surface reservoirs free of all types of noxious aquatic weeds.

The national session is set for July 11-14. Headquarters will be the Manger Motor Inn (details available from Stanley Abramson, president of the Society, P.O. Box 1096, Tampa or tel. (813) 626-2111).

Abramson reports the Society board is inviting anyone with an interest in aquatic weed control. Registration is well ahead of last year's session at Huntsville, Ala. Abramson says the current reservation list indicates that representatives from some 35 states and 6 foreign countries will be on hand.

Papers are submitted each year by the membership as well as field men and scientists outside the organization. Among those featured this year will be Dr. Alva P. Burkhalter, Director of Aquatic Weed Control for Florida. His paper is entitled, "Policy and Plans of the Department of Natural Resources Related to Aquatic Weed Control and Research." This is especially appropos in light of proposed legislation in Florida to ban all use of pesticides in that state's waters by 1973.

L. V. Guerra, project leader for statewide noxious weed control in Texas, will discuss "Reclamation of Lost Recreation Areas." These are only two of some 40 papers to be presented.

Besides the educational program and field demonstrations, a full program is planned for families. Special rates have been arranged at the headquarters hotel (\$12 single and \$17 double or twin).



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SOD INDUSTRY SECTION



James Beard, right, and John King check Michigan State University sod research. Dr. Beard and staff will show latest experimental work at combined Michigan State Sod Research Field Day and ASPA summer meeting, June 29.

American Sod Producers Assn. Plans Farm and Research Tour

Trustees for the American Sod Producers Association have announced two major events important to the sod industry.

First on the agenda will be the annual ASPA summer meeting. This will be held in conjunction with the Michigan State Sod Research Field Day at the Muck Experiment Farm on Tuesday, June 29 starting at 1:00 p.m. The Muck Experiment Farm is located on the outskirts of East Lansing.

Sod producers at this event can see and discuss first hand with researchers, the most concentrated and intensive sod research program in the United States. The tour of the research plots, organized and conducted by Dr. James Beard and his staff at Michigan State, will include vital areas of concern to sod producers.

Specific items to be shown and discussed include: (1) sod strength and transplant rooting evaluation of turfgrass varieties, Kentucky bluegrass brands, Kentucky bluegrass-red fescue mixtures as well as

various cutting heights and frequencies, (2) fertilization program for sod establishment, including rates, frequencies of application and types of carriers, (3) sod production subsidence studies as compared to normal cropping practices, (4) seeding rate and date studies, (5) sod disease problems, particularly Fusarium blight control, (6) sod weed control including control of annual bluegrass and control in young stands of Kentucky bluegrass, (7) sod clipping utilization studies, (8) sod heating and prevention studies, and (9) sod nematode studies.

Specific steps are as follows:

- Stop 1, Nitrogen Fertilization of Bluegrass-Red Fescue sod mixtures;
- Stop 2, Fusarium Blight Control in Kentucky Bluegrass sod with systemic fungicides.
- Stop 3, Organic soil subsidence and soil removal in sod production;
- Stop 4, Fertilizing for sod strength and rerooting;

- Stop 5, Factors influencing sod heating;
- Stop 6, Potential uses for pelletized clippings;
- Stop 7, Annual Bluegrass control studies with endothall;
- Stop 8, Weed control studies in new Kentucky Bluegrass seedings;
- Stop 9, A survey of nematode problems in sod production;
- Stop 10, Seeding rate and date studies for sod production;
- Stop 11, Comparative sod strength and transplant rooting capabilities of 30 Bluegrass varieties;
- Stop 12, Bluegrass blends and Bluegrass-Red Fescue mixtures for sod production;
- Stop 13, Effects of cutting heights and frequency on sod strength and transplant rooting capabilities and;
- Stop 14, Sod quality as affected by varying percentages of Canada Bluegrass in the seed source.

The data discussed for many of the studies will include actual measurements of sod strength and the transplant rooting capabilities which were developed at MSU.

Individuals wishing additional information concerning housing, etc. can write Robert Shearman, Department of Crop and Soil Sciences, Michigan State University, East Lansing, Michigan 48823.

Scheduled the evening of June 29, after the tour of the plots, will be the annual meeting and banquet of the Association. Included among the items of business at the meeting will be election of three members to the Board of Trustees.

Activities will continue on the following day (June 30) with a day-long tour of the Michigan sod industry. Host organization for the tour will be the Michigan Sod Growers Association. Don Juchartz, Wayne County Extension Director, and Bob Hozak, President of the Michigan Sod Growers Association, are planning the tour.

Looking ahead to the second major activity—Cal-Turf in California will be host to the national Educational Conference and Sod Equipment Field Day. This major event is scheduled for February 22 thru 24, 1972. Plans are being formulated. Specific details will be announced in forthcoming issues of Weeds Trees and Turf.

Jacklin Seed Company, Inc. Gives Fyiking Top Rating

Fyiking Kentucky bluegrass is one of the delightful, new "fine-textured" varieties suggested for well groomed lawns throughout the bluegrass zone, especially where the neat look of a closely-clipped turf is wanted. So reports Doyle Jacklin, Jacklin Seed Co., Dishman, Wash.

Fyiking Kentucky bluegrass was discovered and bred in Sweden, "polished up" in this country by Jacklin as the 0217 brand and adapted to American conditions. Two outstanding attributes make Fyiking one of the most heralded varieties of recent years, — low growth suited to inch-high mowing, and remarkable resistance to the usual lawn diseases.

In most areas Fyiking provides a luxurious turf, with modest care. Fyiking gets along with slightly less feeding than Merion bluegrass, and needs little else than regular mowing,—occasional thatch removal and sprucing up with a weed preventer, perhaps.

The 0217 Fyiking seed is grown as an agricultural crop on nearly weed-free soils of eastern Washington and northern Idaho. It is cleaned to perfection, and the purchaser of Fyiking seed or sod need have no fear that he will be introducing unwanted vegetation into his lawn, according to Jacklin. Fyiking blends well with other fine-textured grasses, including fine fescues and even colonial bentgrasses. The company recommends that in most cases at least one-third of a seed mixture should be Fyiking, in order to gain more quickly the velvety luxuriance this variety provides.

In warm weather a Fyiking seeding should show green sprouts in as little as two weeks. As the grass grows taller and roots more deeply watering can taper off. The foundation is now laid for years of lawn satisfaction. Jacklin recommends that mowing begin when the grass is about 2 inches tall. It should then be clipped regularly thereafter so that no more than half of the green leaf is removed at any one mowing. If a few weeds show up from seed in the soil, there is no cause for alarm. Most will disappear as mowing continues. The remainder can be eliminated later with easy-to-use lawn herbicides, if, indeed, they are not squeezed out by the Fyiking. Herbicides are best not applied until young grass is old enough to have had several mowings.



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New Bentgrass Announced By Northrup, King

A new variety of Colonial bentgrass reported to be as easily managed as bluegrasses is being introduced by Northrup, King & Co.

Called Holfior bentgrass, the new variety has been undergoing tests by Northrup King since 1956 and is said to produce a turf of uniform color, texture and leaf width.

Most importantly, Holfior does very well with only the moderate amounts of fertilization and irrigation required by bluegrass. Intensive disease control measures are needed infrequently; it is resistant to snow mold and only moderately susceptible to dollarspot.

According to Howard Kaerwer, chief turf agronomist at Northrup King, Holfior produces plants of leafy, dense and upright growth that do not segregate for color, texture, leaf width or growth characteristics.

Said to be the fastest-establishing bentgrass available, Holfior also mows clean without matting or tufting. It can be mowed at any height from ¼" to 1¾". The new bentgrass adapts well to varying conditions of soil and moisture, and is compatible with the new short-cut bluegrasses such as Prato, Fylking, Pennstar.

Baron Kentucky Bluegrass Now For Sale In Canada

Baron, a new variety of Kentucky bluegrass has been officially licensed for sale in Canada by the Canada Department of Agriculture.

Baron was developed in the Netherlands and has been extensively tested at the University of Guelph Turf Grass Trials, Canada Department of Agriculture Turf Research Trials, Agassiz, British Columbia as well as Michigan State University and the University of Rhode Island Turf Trials.

Baron is similar in many respects to merion. It is resistant to leaf spot as is merion but Baron in addition has more rapid germination, is low growing and has a darker green color than merion. It greens up early in the spring and forms a very dense low growing turf which crowds out weeds and other undesirable grasses. It is particularly suited to low clipping height.

The new variety is resistant to stripe smut, a serious turf disease which is ravaging merion and other varieties in some parts of North America.

Seed of Baron Kentucky bluegrass is being produced in Washington State. Fortunately, it is a relatively good seed producer and produces heavy seed of high quality. Limited seed supplies will be available from the 1971 crop in time for August-September 1971 plantings by sod growers, golf courses and other professional turf users.

Distribution in Canada will be by Ontario Seed Cleaners and Dealers Limited, Brampton, Ontario.

In the U.S. Baron is distributed exclusively by Lofts Pedigreed Seed, Inc., Bound Brook, N.J. Distributors for Lofts are: Lofts/New England, Arlington, Mass.; Chandler Seed Co., Bound Brook, N.J.; Great Western Seed Co., Albany, Oregon; and Stover Seed Co., Los Angeles, Calif.

Northern California GCSA Elects New 1971 Officers

The Golf Superintendents Association of Northern California elected their 1971 officer slate in a session April 14. Officers are as follows: C. W. Weatherston, Dublin, president; Roger A. Larson, Pebble Beach, vice-president; and Michael R. Clark, Santa Rosa, secretary-treasurer. Directors are: Howard E. Fisher, Jr., Calistoga; Jim Ross, Los Gatos; Ken Vorderbruggen, Incline Village, Nev.; Lawrence Feliciano, Lodi; and Y. Lee Huang, Walnut Creek. Honorary director is Clifford A. Wagoner, Modesto.

Sabre Saw Chain Expands Builds New Niagara Falls Plant

Sabre Saw Chain, Inc., has moved from their Lewiston location to Niagara Falls, N.Y. The move is to a new national headquarters. Warehouse space needed to keep pace after four years of rapidly increasing sales, is double that of the previous location. New mailing address is: P.O. Box 272, La Salle Station, Niagara Falls, N.Y. 14304.

Submatic Is Marketing New Concept In Irrigation

A new approach for new tree irrigation has been developed by Submatic Inc. of Lubbock, Texas, designed for both existing and new nurseries. This system consists of a one half inch diameter plastic pipeline placed near a row of new trees, with from one to three nylon in-

serts at each tree. The pipe is installed with a chisel or vibrating plow as illustrated. Since each insert orifice provides approximately three gallons of water per hour at 10 PSI — enough moisture is provided for several years' growth, or until the ornamental reaches market size. At this stage, the roots extend beyond the area irrigated by the system, and more lines can be added. In existing nurseries, pipe may be placed on top of the ground to serve as trickle irrigation. One of the many advantages of the Submatic system is that it can be fully automated. The cost of the subirrigation system installed ranges from \$100 to \$200 per acre. For more information on the new Submatic irrigation system, write Submatic Inc., P.O. Box 246 in Lubbock, or call (806) 747-0902.

Thompson-Hayward To Market New Chemical Weed Control

Bromo-Kil-D, a new weed control product is now being sold by Thompson-Hayward Chemical Company of Kansas City. According to the company, Bromo-Kil-D provides fast, broad spectrum control of weeds and grasses on non-cropland areas.

Bromo-Kil-D is a non-selective soluble bromacil formulation containing Dedrift, an anti-mist additive which provides concentrated coverage and eliminates drift.

The new product is in a uniform solution and requires no mixing or dilution prior to application. The recommended rate of application is 1 to 4 gallons per 1,000 square feet and it can be applied with standard spray equipment. One application is claimed to give season control.

Because the new agent is a non-selective herbicide it can control a variety of weeds and grasses on non-cropland areas including industrial plant sites, parking lots, around storage facilities, terminal and loading ramps, fence rows, and others.

Japanese Government Has Banned DDT

All sales of DDT have been banned in Japan. The action was effective May 1. The agriculture and forestry ministry of the Japanese government took the step after previously banning manufacture of DDT, in 1969. Retail sales of endrin, deldrin, aldrin, and BHC have also been banned to unauthorized persons.



Kessen pipe-puller laying pipe. Puller works from a starter slit trench and pulls pipe through soil without trenching. On some jobs, puller can cut pipe placement time in half when compared to trenching.

Landscape Industry Has Changed In Last Generation

Allen Kessen, grandson of Anthony Kessen who founded the A. Kessen & Sons landscaping firm at Denver, Colo., and now a principal in the firm, points up the great changes in the industry during the past generation.

When the Kessen business was started in the '30s, Kessen says, "there were no large developers in home building. There were no industrial parks, few golf courses, sprinkler systems were practically

unheard of, municipal work was done by government agencies. When the industry grew, we had to grow. Today, big builders require a landscape contractor who can provide the complete line of services; they require someone large enough and established enough to handle the whole job."

The Kessen firm, now doing \$2 million in business yearly, has just completed two athletic fields for the U.S. Air Force Academy. Work included cuts and fill, irrigation systems, top soil and 1.3 million square feet of sodding.



Nationwide alumni of the winter course in turfgrass management at Penn State University have presented a second annual turfgrass research grant of \$1,500 to the department of agronomy. Dr. James L. Starling, left, department head at Penn State, receives the check from Frank Dobie of Sharon Center, Ohio, alumni chairman.

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New Concept **TREE INJECTION**

A NEW COMPANY called CLM National with headquarters at San Jose, Calif., is offering a new concept in insect control and the feeding of problem (nutrient deficient) trees.

Using Mauget Tree Injection products, dealers and distributors are being set up nationwide. Spearheading the new company is Del Kennedy, upper right, and M. A. Bennett, lower right. Tools used are shown in the illustrations. Chemical line includes both insecticides and nutrients.

