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WEEDS TREES and TURF

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December 1964
Volume 3, No. 12

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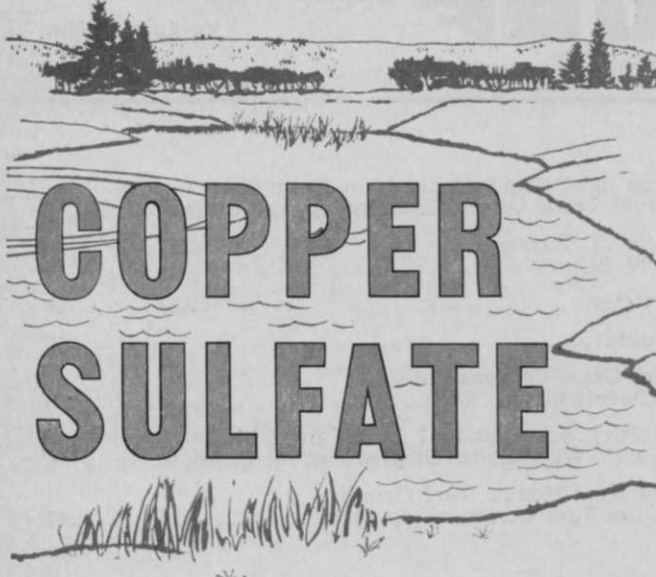
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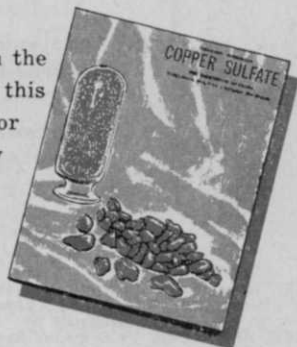


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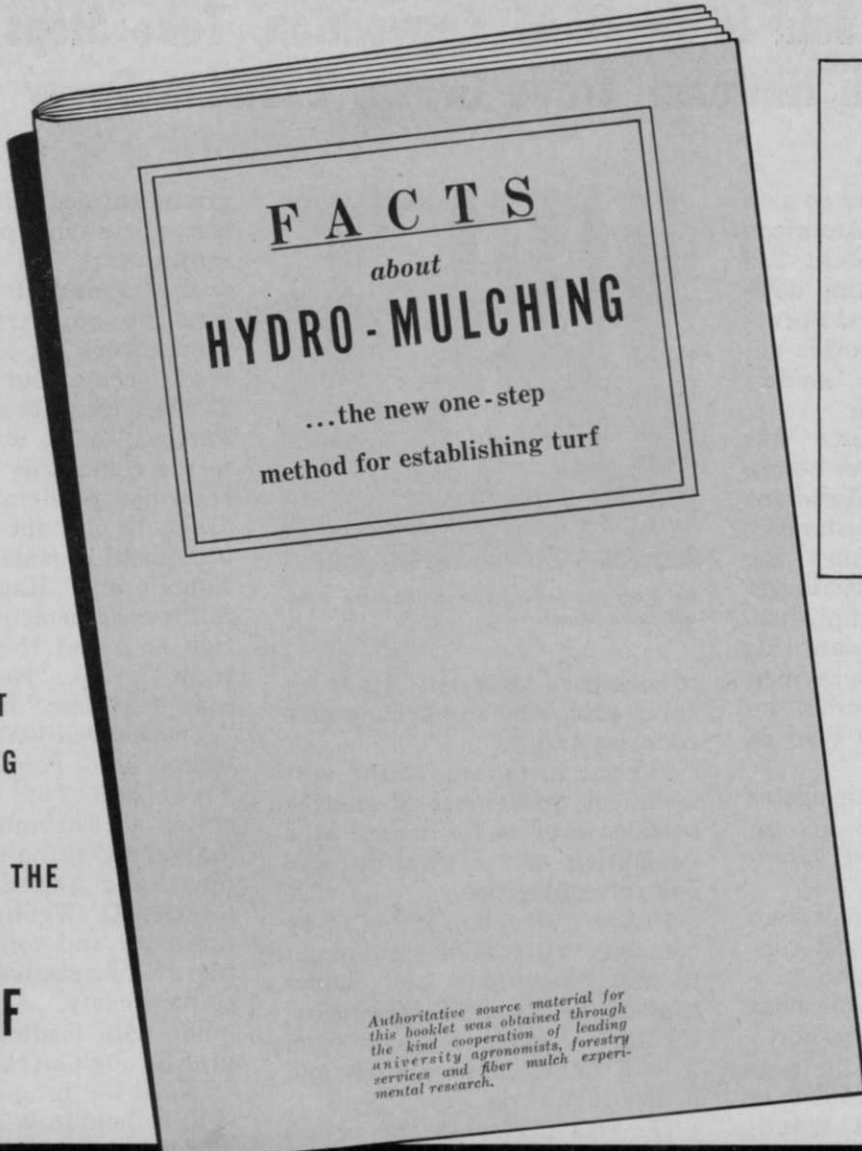
Last summer this magazine conducted an extensive survey to determine exactly what kinds of services our readers perform. We were not surprised to learn that hardly any contract applicator offers only one kind of service (viz. only tree care, or only lawn spraying). The pattern seems to be that well-rounded businesses offer lawn maintenance in conjunction with tree work, or weed control in conjunction with tree pruning, etc. Our circulation figures show that arborists, lawn sprayers, landscape nurserymen, and similar operators, make up the bulk of our readership, with golf course superintendents, highway and railway rights-of-way supervisors, park supervisors, etc., making up the remainder.

Because of this total coverage of what has become a single, definitive market (vegetation maintenance and control, as it is now called), we have decided to call this publication *Weeds Trees and Turf*, so that the name more accurately reflects what the magazine is all about.

During the past year, our staff has prepared articles on tree pruning, on chemical brush control, on aquatic weed control, and on various kinds of turf problems; in short, on each of the fields of activity which our readers engage in. These same staff members have traveled to trade meetings and educational seminars where they talk with horticultural sprayers, weed control firms, tree specialists, etc. We have tried, over the past 12 months, to keep rounding out our editorial content so that it reflects the three major phases of the industry as it exists in America today.

We shall continue to do so. In the coming months, *Weeds Trees and Turf* intends to present each month a well-rounded group of articles. There'll be studies of the latest chemicals for weed control in ornamentals, for example. There'll be another in Dr. Richard Campana's series on non-infectious tree diseases, and more on pruning as well. There'll be more staff-written turf features, plus those written by such experts as Dr. Robert Schery, whose "Turf Portrait" series has been so widely hailed. Many of these articles are already in the schedule, and others will be added as we go along. Each issue of *WTT* in 1965 will be considerably larger than the average one was this year. So we hope the new name will please all of you, and we hope you'll let us know how we can continue to communicate effectively all the latest helpful data in the weed and brush control, turf management, and tree maintenance industry!

WEEDS TREES AND TURF is the national monthly magazine of urban/industrial vegetation maintenance, including turf management, weed and brush control, and tree care. Readers include "contract applicators," arborists, nurserymen, and supervisory personnel with highway departments, railways, utilities, golf courses, and similar areas where vegetation must be enhanced or controlled. While the editors welcome contributions by qualified freelance writers, unsolicited manuscripts, unaccompanied by stamped, self-addressed envelopes, cannot be returned.



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Out-of-staters Join in At HSAF Convention, Take Steps to Establish National Trade Group, Examine Spray Contracts

"We as sprayers have to gain our rightful place in American industry," HSAF president Ted Kaplan told conventioning delegates at the Horticultural Sprayers' Association of Florida annual convocation in Ft. Lauderdale last month.

Out-of-state attendance was more noticeable than ever before this year, although Floridians didn't turn out in the customary numbers. But sometimes the small groups are the ones to get the big things accomplished. This was certainly the case this year when the Florida sprayers and their guests from across the land met at the posh Pier 66 Motel, November 5-7.

About 120 registered delegates got 4 crucial things accomplished. The assembled sprayers:

(1) met with representatives of Florida's structural pest control industry to agree on proposed legislation favorable both to pest control people and horticultural sprayers;

(2) took steps to establish a national association of weed, tree, and turf sprayers, steps which now can only result in the formation of such a trade group in the near future;

(3) summoned to the podium outstanding spray company executives from the Sunshine State



Dr. Kerr waited for questions from the eager turf professionals.

to compare different kinds of spray programs and pricing procedures; and

(4) sat in on one of the best technical question-and-answer sessions ever to be offered at a vegetation maintenance and control conference.

President Kaplan, whose spray company is in Miami, pointed out in the convention's early hours that in the United States today, the turf industry takes in from 3 to 6 billion dollars each and every year.

He was prefacing the actual discussion about forming a national trade group set up to serve specifically the companies which contract for weed and brush control, turf management, and tree maintenance. Later in the convention's history, the

group enthusiastically endorsed the appointment of HSAF representatives to go forth to meet with other industry men throughout the country to lay the groundwork for establishing the trade group. Out-of-stater Dick Evans, a contract applicator from Pampa, Texas, was also named to the committee and appointed chairman pro-tem.

"Up to now the movement for a national organization has been floundering," Kaplan continued in his endorsement of the resolution to form the nationwide trade group, "Now it's just a matter of time," he mused.

The convention's official resolution also requested *Weeds Trees and Turf* magazine to act as a clearinghouse of information about the national movement, and asked WTT editor Charles D. Webb to act as coordinator and contact man during the formative days of the trade society. After contact is made with leading industry figures throughout the nation interested in the program, a meeting is to be held in WTT's Cleveland offices to further hash out the preliminaries before the group is born. Readers who are interested in the association-to-be are requested to write to this magazine.

"The reasons for this action are multifold," Larry Nipp, member of the national committee, and horticultural operator (American Power Spraying) in Ft. Lauderdale, said. "It will define the industry and present a public image of the horticultural sprayer; it will offer a means to exchange information on business practices, pricing, advertising, public relations, insurance, pertinent technical matters, and other problems peculiar to the custom spray industry; and it will offer a chance for industry men to get together in a single national convention to discuss mutual problems and perhaps have a trade show for custom

A convivial atmosphere prevailed at the HSAF convention as usual. Enjoying a speaker's point here are (left to right) sprayers Lou Streich and Ted Kaplan, and Bob Wiseman of W. R. Grace's Davison Division. Kaplan was reelected to his second term as HSAF president, and Pierre Nobs (not pictured) remains as secretary-treasurer.



spraymen and custom spraymen alone.

"Eventually," Nipp added, "the association will probably have a full-time staff which will be a source of technical information and assistance, and which can effectively lobby and otherwise affect legislation and public opinion favorably for the custom spray business as a whole. Truly this is a momentous idea," Nipp concluded as he laid the resolution on the convention floor for discussion. It passed immediately, by voice vote.

Spray Monthly? Semimonthly? Or When Need Is Determined?

What type of lawn spray program is best suited to Florida conditions and to the systems of individual company philosophies was a key part of this year's convention. Spray operator Nipp was first of a quartet to explain his business concepts. Nipp sprays his customer's lawns for chinch bugs every 60 days. He said he finds this more profitable, and just as effective, as the monthly spraying pattern some other companies utilize.

Nipp said trucks and drivers are the major cost factors in lawn spraying, although today, with new and expensive chemicals in common use, material costs sometimes exceed even the cost of labor.

Nipp said when parathion began to fail as a chinch bug control and he had to switch to more expensive chemicals, his charges naturally had to go up. But this taught him a lesson and now his contracts include the phrase "based on the use and ability of (name of chemical) to kill chinch bugs." He advised his audience to include this or a similar phrase in each of their lawn spraying agreements.

Nipp also reminded the assembly that in pricing a job, regardless of the size of a lawn, it's crucial to remember the cost of getting the truck and the driver to the premises. Obviously, this is the same whether one is treating an estate or a bungalow-sized lot.

In the discussion following Nipp's talk, Dave Fleming, a



Equipment demonstration permitted delegates to wander at will and inspect spray rigs from this portable device to some heavy-duty, complex truck-mounted systems.

lawn spray operator from Philadelphia, said relative to prices: "When you establish a minimum price, all too often it becomes a maximum."

"Yes," Nipp replied, "The price you start with is usually the one you're stuck with."

A second type of service was explained by Jack Cuthrell who runs Mr. Spray Company in Ft. Lauderdale. Cuthrell inspects his customers' lawns twice monthly but sprays them only if the need is determined by this inspection. He contrasted this philosophy with Nipp's, which he described as "preventive maintenance."

Cuthrell has a card on which he lists the results of each inspection. Whatever he finds wrong he reports to the homeowner who can then correct it. Cuthrell guarantees each lawn against chinch bug damage, and theorized he was offering his customers a kind of insurance. He conceded that sometimes his patrons become irritated because he hasn't actually sprayed anything while his monthly bill keeps right on coming in. But, he cautions those who stray from his flock, it's results for which he charges, and it's results he guarantees.

In conclusion Cuthrell had a profitable bit of advice for his colleagues who operate on contracts: "Once," he said, "I used to have all my contracts run out at the end of each year, after which I'd have to renew them one by one. What a simple thing it was to write them up so that they continue uninterrupted

until a customer specifically terminates them."

Multiple Choice

Then a more elaborate concept was explained by Sydney Kirkpatrick who runs Kirk's lawn maintenance firm in Ft. Lauderdale. His customers may choose from a spraying schedule which is monthly, every other month, once every four months, or various combinations of these schedules. They may also elect to have Kirkpatrick add a fertilizer program to his chinch bug services. Of course, the large Florida company which he operates offers a complete line of services including renovation and other techniques.

Kirkpatrick said he used to spray liquid fertilizer from his truck, but now he uses a dry formulation applied with a spreader.

A type of business becoming increasingly rare was detailed by Ft. Lauderdale horticultural operator Ollie Benson, who has the small, custom, personalized lawn service which was so familiar in bygone times. Benson said he is a one-man operation and he in-

Benson: Traditional "personalized" lawn service.





Veteran sprayman Charlie Johnson had technical questions for the panel of experts.

tends to stay that way. He knows each customer personally, and gives individual care and attention to every lawn, proceeding with a spray program, if needed, singularly contracted as the need arises.

He counsels his patrons to employ good cultural practices, including proper mowing and watering, vertical mowing, etc.

A rousing finale to Friday's sessions was the question-and-answer period which has become an earmark of HSAF conventions. Perennial favorite lawn expert and well-known figure in the turf world Ralph White moderated. He's general manager of Ousley Sod Company in Pompano Beach, one of the largest companies of its type in the world.

On White's panel were: Dr. Stratton H. Kerr, Associate Entomologist, Florida Agricultural Experiment Station, Gainesville; Dr. E. O. Burt, Assistant Turf Technologist, Plantation Field Laboratory; Lewis Watson, Associate County Agent, Broward County; Dr. John F. Cabler, Assistant Ornamental Horticulturist, Agricultural Extension Serv-

ice, Gainesville; and Dr. Thomas E. Freeman, Assistant Plant Pathologist, University of Florida, Gainesville.

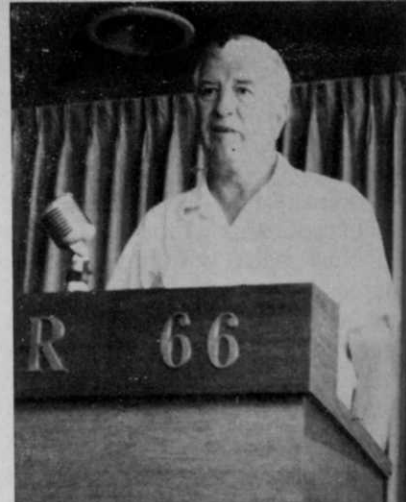
This was a time for the gathering to pose its most perplexing problems and benefit from the five-starred panel of turf specialists, and the carefully phrased advice of chairman White, who's responsible for as much fine turf as any other man in the country. Questions came thick and fast:

—"What's best, a granular or liquid nematocide," queried Mrs. Larry (Mae) Nipp. Dr. Burt told her there's no appreciable difference, in his opinion; then he added that a granular product in general doesn't last any longer than a liquid, though some may be inclined to think otherwise.

—Prexy Kaplan wanted to know what to do about millipedes. He said frequently Florida spraymen are called upon to control these slithering nuisances in customer's lawns. Dr. Kerr said to give them a good, stiff dose of Sevin, the carbamate from Union Carbide, or perhaps Baygon, which he praised. The latter is also a carbamate, this one from the vats of Chemagro Corp. in Kansas City, Mo.

—A round of questions from inquisitive delegates touched on several aspects of fungicide usage; the following points were collectively put across by the panel: Fungicides are primarily preventive. They can be more effective if applied with a spreader-sticker. Sometimes, a fungus disease will "cure itself." That is, if not treated, a fortunate cooling period or a dry spell will sometimes heal the fungus-induced wounds. But turf pros can't wait for this "let-nature-do-it" routine because of its very fortuitousness.

—"Anything we can do to control scale?" a sprayman asked. "If



Kirkpatrick: "Multiple choice" for his customers.

you're a professional with professional know-how, I'd say use parathion," Dr. Kerr advised. "Even better," he continued, "is parathion with a summer oil emulsion added (about 2 qts. per hundred gallons)." "Or," he went on, "you can always use malathion. This too will act better with the oil additive."

—What's the broadest scale fungicide? The organic mercurials. What trade names do they go under? Memmi, Panogen Turf Fungicide, among others.

—If the pH of the soil is higher than 7 (on alkaline side), would sulfur be beneficial? "It certainly would help," Dr. Cabler said. "Use one or two pounds per thousand square feet."

—Do you think high fertilization rate causes brown patch? "I doubt it," said Dr. Freeman. Do you get damage from brown patch other than the usual brown circle? "You can," Dr. Freeman said, "especially in shaded areas where the grass may thin out."


—Has anybody noticed a decrease in fungus after a lawn is sprayed with the nematocide Nemagon? Several said yes. Nipp said the use of a nematocide invariably improves the lawns he works on, and he thinks operators should do more nematode work. "We use Nemagon," he said, adding that he tries to get 10 or 12 inches of water on it to increase effectiveness. He uses about eight dollars' worth of the product on the average lawn, he said.

—Several questions pertained to mechanical renovation, and

(Continued on page 47)



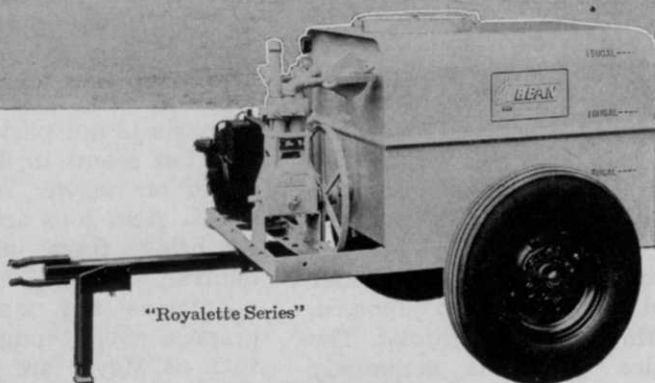
A question from the floor engrossed Dr. E. O. Burt (left) and panel moderator Ralph White.

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Turfgrass Portraits VI:

Zoysia

By DR. ROBERT W. SCHERY

Director, The Lawn Institute
Marysville, Ohio

This is the sixth in a series of nine articles on the basic traits and maintenance procedures for common turfgrasses. Next month author Schery discusses bahiagrass.

ZOYSIA, glamour name among turfgrasses second only to bluegrass, is native to eastern Asia and its outlying islands. Zoysia, named for Karl von Zois, an Austrian botanist of the 18th century, is conserved over Osterdamia. Species boundaries within the genus are obscure. Forbes lumped all turfgrass types as *Z. matrella*. Yet most literature still calls forms wider leaved than matrella *Z. japonica*, very fine ones *Z. tenuifolia*. The japonica group is commonly known as Korean or Japanese lawngrass, reflecting collections from that portion of the globe by USDA plant explorer Frank N. Meyer in 1906. The matrellas are designated manilagrass, because of Piper's introduction of this type from the Philippines in 1911. Tenuifolias are called mascarene, Korean velvet, patio or flagstone grass.

Forbes, at the Tifton (Georgia) Experiment Station, has hybridized different forms, and the well-known "Emerald" is a selection from crossing japonica with tenuifolia. Unfortunately, Emerald sometimes grows

"puffy" like tenuifolia, and then mows poorly. The Meyer variety is a dense, hardy selection from japonica seedlings at Beltsville, Maryland, named for the explorer. Flawn was an early matrella selection, hardy along the East Coast nearly to New England, and also much planted in the Southwest. Recently Purdue has released Midwestern zoysia, and yet unnamed selections are today under test far and wide.

Thus zoysias, like most prominent turfgrasses, occur in tremendous variety, from very fine-leaved and low-growing tenuifolia sorts (ground covers of the deep South, so low as to scarcely need mowing), to coarser japonicas in many "sizes and shapes." Seed, mainly imported from the Far East, but occasionally harvested on sod farms in this country, exhibits genetic reassortment typical of sexual crossing, and must be considered "japonica." All named varieties are propagated vegetatively, to assure trueness to type. Through the years there have been many local selections across the South, chiefly matrellas, as good as any for their areas.

Adaptation and Preferences

Zoysia is not particular about soil, but seems to do somewhat better on heavier soils than on sands. Acid soils are best limed to bring them more nearly neutral.

Zoysias are warm-season grasses, even though selections such as Meyer are quite hardy even into Canada. But like bermuda and annual weeds, zoysia is discolored by cold weather, remains brown the winter through. In middle latitudes it is typically dormant from October until April, not much of a recommendation for climates where cool-season grasses such as Kentucky bluegrass, fine fescues and bentgrasses give ten months of greenness. As such, zoysia remains primarily a southern beauty, even though its growing season may be a little more prolonged than other southern grasses.

Zoysia has received heady ac-

colades, alternating with spells of disappointment because it did not always live up to extravagant claims made for it. In the early 1950's zoysia was to become the lawn savior in the crabgrass belt, in combination with the then new Merion Kentucky bluegrass. Apparently it didn't worry authorities urging this upon the American homeowner that brown zoysia was just as ugly as brown crabgrass in the winter lawn! Nor that two grasses of such divergent habits are seldom compatible, do not intersperse one within the other evenly and easily. As a matter of fact, I have still to see a permanently successful interplanting of these grasses,—the combination that was to conquer American lawns!

Nor has everything been completely rosy in the South. The enthusiasm of the 1950's for starting zoysia sod nurseries didn't reckon with the facts of life as that the vaunted Meyer strain discolored more readily in the South than local matrellas; that zoysia in time develops thatch (and consequent problems) which can cause debilitation; that diseases and insects eventually would find zoysia attractive (billbug has recently about finished off the zoysia sod business in Florida); that the very characteristics which make zoysia so wear-resistant underfoot, also make necessary an expensive heavy-duty mower to attend it.

In short, zoysia cannot be all things to all people in all locations. But among zoysias are the finest lawngrasses available for the South, aristocrats the equal of the better bermudas. Zoysia won't establish so readily as bermuda, but it will wear better. It can stand shade. It requires only modest fertilization. Seedheads are not abundant, little bother. It is not a rampaging pest at borders as is bermuda, and it is reasonably resistant to salt spray, so useful near the coast. But it is not a turf to endure neglect ungrudgingly, as so often implied. Nor is it adapted to wet places.

Zoysia's capabilities are better understood now, and there is a revival of interest in it for areas

where it was something of a flop earlier. For example, it may help golf fairways planted to U-3 bermuda in bluegrass country, which have suffered so much recently from winterkill (on north slopes especially) and from spring dead spot disease.

Growth

Zoysia spreads by above-ground runners (stolons), and underground stems (rhizomes). Rate varies greatly, and among the selections now under test are many potential releases that spread much more rapidly than is generally expected of zoysia. One of the drawbacks to zoysia has always been the lengthy period needed to fully establish it as a sod—a full growing year even in southern Florida, usually three years in northerly areas. During this interval weeds must be controlled, lest the zoysia be further slowed or even lost. A zoysia lawn has been expensive, and only for the patient man.

But once established, slow growth becomes a virtue. Mowing need not be so frequent as with bermuda, although the turf should be "evened up" regularly, at least each ten days. No grass makes a thicker, more resilient carpet than does zoysia. But here too, there are side effects. Such durability and tightness builds thatch in time, in some lawns so tight that water runs from the surface as from a shingled roof. The turf may then dry brown even though watered. And lawn mowers sufficiently powered to mow zoysia are not the inexpensive sorts. A heavy-duty machine with an extra reel blade is almost needed. Likewise, thinning heavily accumulated zoysia thatch requires special machines or skilled burning, just too much for the average homeowner-with-a-rake. And because of slow recovery, mistakes show for quite a while.

Zoysia has no terribly serious diseases; dollar spot and brown patch are sometimes found, but respond to fungicidal prevention. Until billbugs came along, siliceous zoysia was not greatly bothered by insects. Billbug larvae work deep in the grass, and unless organic phosphates

thoroughly douse the sod, control is difficult. Nematodes also attack zoysia, often seriously in Florida.

Not being the rampant grower that is bermuda, fertility needs are not so great with zoysia. "Average" fertilization for the soil and region is suggested, generally about 6 lbs. nitrogen/M/year. Resistance to drought is pretty good, though occasional irrigation is needed to keep a lawn continuously attractive. Mowing varies with use and variety, ranging from about $\frac{3}{4}$ inch to as high as 2 inches in more northerly locations. The tight growth of zoysia is quite a help in preventing weeds. Where weeds do pock the lawn, the 2,4-D family of herbicides takes out most broadleaf sorts without injury to zoysia. Nor will the usual preemergence and arsonate checks against annual grasses damage the grass.

Planting

Zoysia is best started in spring or early summer, to give the maximum period of warm weather for establishment. Seed is available only for unselected *Z. japonica*, usually sowed about 2 lb./M. Zoysia seed fits nicely

seeding mixtures for everyday lawns, where the special characteristics of varietal selections are not important.

Named varieties, of course, must be planted from living starts, sprigs (stems about three nodes in length, one extremity to be buried, the other exposed), or by plugs (biscuits of sod). New plantings generally show little activity for 2-3 weeks. Tests indicate slightly more rapid spread from sprigs than from plugs, but the planting is more of a chore and keeping the new planting sufficiently moist more of a problem. Likewise, larger plugs have proven more enduring than smaller ones, especially if interplanted into existing turf. Spacing between starts should not be more than six inches, lest filling to a complete sod take unduly long.

Quickest fill results from planting into a cultivated and well-fertilized seedbed. If the soil cannot be sterilized, weeds may be checked somewhat with herbicides and hand pulling. In Florida Simazine and Atrazine have checked weeds without setback to zoysia, when sprayed over a new planting the same as recommended for St. Augustine.



Cross section of *Zoysia matrella* sod with soil washed away. (Photo courtesy Asgrow Seed Company).

Weeds Trees and Turf's 1964 Index of Articles

An alphabetical reference to subjects and titles of all major feature articles, feature columns, news stories, letters published in *Weeds Trees and Turf* in 1964. A list of authors of this year's articles follows the Directory.

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WEEDS TREES AND TURF 1965 SUPPLIERS GUIDE

Weeds Trees and Turf presents below its annual Guide to Suppliers of vegetation control chemicals and equipment for use in urban/industrial areas. There is a mixture of common and trade-marked names (indicated by an asterisk*). This has been unavoidable since usage and recommendations of researchers refer to a particular chemical by one or the other, depending upon the newness of the compound, whether its common name is easier to use, or industry acceptance. There will also be

some differences of opinion over the inclusion or omission of certain chemicals under particular use categories. Here again confusion exists among reference sources. We have made our choices on the basis of most frequent mention in our surveys which preceded this compilation. Readers' comments and suggestions are invited to help us improve future editions. Keep this year's Guide handy for frequent use.

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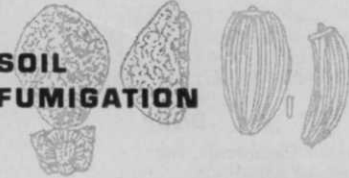


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Baird & McGuire, Inc.
R. H. Bogle Co.
Bonide Chemical Co., Inc.
Brayton Chemicals, Inc.
Burlin & Co., Inc.
California Chemical Co., Ortho Div.
California Farm Supply Co.
Chapman Chemical Co.
Chipman Chemical Co.
Destruxol Corp.
E-Z Flo Chemical Co.
Faesy & Besthoff, Inc.
Gabriel Chemicals, Ltd.
General Chemical Div., ACC
Hopkins Agricultural Chemical Co.
Hub States Chemical & Equip. Co.
Industrial Materials Co.
Lobel Chemical Corp.
Miller Chemical & Fertilizer Corp.
Miller Products Co.
National Chemsearch Corp.
Niagara Chemical Div., FMC
Pennsalt Chemicals Corp.
B. G. Pratt Co.
Sherwin-Williams Co.
Southern Mill Creek Products Co.
Thompson-Hayward Chemical Co.
Triangle Chemical Co.
U. S. Borax
Utility Chemical Co.
Andrew Wilson Co., Inc.
Wood Treating Chemicals Co.

SODIUM CHLORATE

Agricultural Chemicals, Inc.
American Potash & Chemical Co.
Baird Chemical Corp.
Barada & Page Co.
R. H. Bogle Co.
Braun-Knecht-Heimann Co.
Chipman Chemical Co.
General Chemical Div., ACC
Hooker Chemical Corp.
Miller Products Co.
Nalco Chemical Co.
Pennsalt Chemicals Corp.
Pittsburgh Plate Glass Co.
Utility Chemical Co.

TBA

Amchem Products, Inc.
E. I. du Pont de Nemours & Co., Inc.
Miller Products Co.
Nalco Chemical Co.
Residex Corp.

TCA

Amchem Products, Inc.
Armour Agricultural Chemical Co.

R. H. Bogle Co.
Braun-Knecht-Heimann Co.
Brayton Chemicals, Inc.
Chapman Chemical Co.
Dow Chemical Co.
General Chemical Div., ACC
Miller Products Co.
Nalco Chemical Co.
Robeco Chemicals, Inc.
Southern Mill Creek Products Co.
Thompson-Hayward Chemical Co.

TRITAC*

Hooker Chemical Corp.
Miller Products Co.
U. S. Borax

URAB*

Brayton Chemicals, Inc.
General Chemical Div., ACC
Niagara Chemical Div., FMC
Southern Mill Creek Products Co.
Triangle Chemical Co.

UREABOR*

Brayton Chemicals, Inc.
Hub States Chemical & Equip. Co.
Miller Products Co.
U. S. Borax

UROX* WEEDKILLERS

Brayton Chemicals, Inc.
General Chemical Div., ACC
Hub States Chemical & Equip. Co.
Niagara Chemical Div., FMC
Southern Mill Creek Products Co.
Triangle Chemical Co.

PREEMERGENCE

(Selective)

ALANAP*

Brayton Chemicals, Inc.
Gabriel Chemicals, Ltd.
General Chemical Div., ACC
Hub States Chemical & Equip. Co.
Miller Products Co.
Naugatuck Chemical
Niagara Chemical Div., FMC
Riverdale Chemical Co.
Thompson-Hayward Chemical Co.

AMIBEN*

Amchem Products, Inc.
Armour Agricultural Chemical Co.
Brayton Chemicals, Inc.
Gabriel Chemicals, Ltd.
Riverdale Chemical Co.

ATRAZINE

See Soil Sterilants

AZAK*

Hercules Powder Co.
Southern Mill Creek Products Co.

BANDANE*

Archem Corp.

Brayton Chemicals, Inc.
Chapman Chemical Co.
Prentiss Drug & Chemical Co.
Residex Corp.
Riverdale Chemical Co.
Seacoast Laboratories, Inc.
Southern Mill Creek Products Co.
Thompson-Hayward Chemical Co.
Velsicol Chemical Corp.

BENEFIN

Elanco Products Co.

BETASAN*

Stauffer Chemical Co.

CALCIUM PROPYL ARSONATE

W. A. Cleary Corp.
Lobel Chemical Corp.
Vineland Chemical Sales Corp.

CASORON*

Miller Products Co.
Thompson-Hayward Chemical Co.

CHLORDANE

See Insecticides

CIPC

Brayton Chemicals, Inc.
Miller Products Co.
Pittsburgh Plate Glass Co.
Riverdale Chemical Co.
Thompson-Hayward Chemical Co.
Woodbury Chemical Co.

DACTHAL*

Armour Agricultural Chemical Co.
Brayton Chemicals, Inc.
Chipman Chemical Co.
Diamond Alkali Co.
Gabriel Chemicals, Ltd.
Heritage House Products, Inc.
Hub States Chemical & Equip. Co.
International Minerals & Chem.
Corp.
Riverdale Chemical Co.
Seacoast Laboratories, Inc.
Smith Douglass Co., Inc.
Southern Mill Creek Products Co.

DNBP

Brayton Chemicals, Inc.
Diamond Alkali Co.

DIPHENAMID

Armour Agricultural Chemical Co.
Elanco Products Co.

DIPHENATRILE

Bonide Chemical Co., Inc.
Elanco Products Co.

DIPROPALIN

Elanco Products Co.

DIURON

See Soil Sterilants

ENDOTHALL

Brayton Chemicals, Inc.
Chipman Chemical Co.
Gabriel Chemicals, Ltd.
Miller Products Co.
Pennsalt Chemicals Corp.
Residex Corp.

EPTAM*

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Brayton Chemicals, Inc.
Miller Products Co.
Riverdale Chemical Co.
Stauffer Chemical Co.
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Residex Corp.
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Mallinckrodt Chemical Works

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Geigy Agricultural Chemicals
Residex Corp.
Southern Mill Creek Products Co.

SESONE

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Armour Agricultural Chemical Co.
Brayton Chemicals, Inc.
Miller Products Co.

SIMAZINE

See Soil Sterilants

TILLAM*

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Miller Products Co.
Stauffer Chemical Co.
Triangle Chemical Co.

TREFLAN*

Elanco Products Co.

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General Chemical Div., ACC
Sherwin-Williams Co.
Woolfolk Chemical Works, Ltd.

ZYTRON*

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Armour Agricultural Chemical Co.
Bonide Chemical Co., Inc.
Brayton Chemicals, Inc.
Dow Chemical Co.
Miller Products Co.
Residex Corp.
Riverdale Chemical Co.
Southern Mill Creek Products Co.
Thompson-Hayward Chemical Co.
Woodbury Chemical Co.

POSTEMERGENCE

(Selective and Nonselective)

AMITROLE

Amchem Products, Inc.
American Cyanamid Co.
R. H. Bogle Co.
Brayton Chemicals, Inc.
General Chemical Div., ACC
Miller Products Co.
Nalco Chemical Co.
Residex Corp.
Riverdale Chemical Co.
Wood Treating Chemicals Co.

AMMONIUM METHYL ARSONATE

Armour Agricultural Chemical Co.
Brayton Chemicals, Inc.
W. A. Cleary Corp.
Doggett Fison Co.
General Chemical Div., ACC
B. G. Pratt Co.
Seacoast Laboratories, Inc.
Southern Mill Creek Products Co.
Vineland Chemical Sales Corp.
Wood Treating Chemicals Co.

AMMONIUM THIOCYANATE

J. T. Baker Chemical Co.
Utility Chemical Co.

AMMONIUM SULFAMATE

See Soil Sterilants

ARSENIC ACID

Alco Chemical Co.
Armour Agricultural Chemical Co.
R. H. Bogle Co.
Chipman Chemical Co.
General Chemical Div., ACC
Hub States Chemical & Equip. Co.
Niagara Chemical Div., FMC
Sherwin-Williams Co.
Wood Treating Chemicals Co.

ATRAZINE

See Soil Sterilants

BANVEL-D*

R. H. Bogle Co.
Brayton Chemicals, Inc.
General Chemical Div., ACC
Miller Products Co.
Riverdale Chemical Co.
Southern Mill Creek Products Co.
Velsicol Chemical Corp.

BORATE COMPOUNDS

See Soil Sterilants

BROMACIL

See Soil Sterilants

CACODYLIC ACID

The Ansul Co.
Bonide Chemical Co., Inc.
Chapman Chemical Co.
Southern Mill Creek Products Co.

CALCIUM ACID METHYL ARSONATE

Brayton Chemicals, Inc.
Doggett Fison Co.
General Chemical Div., ACC
Vineland Chemical Sales Corp.

CALCIUM PROPYL ARSONATE

See Preemergence Herbicides

DACAMINE*

Armour Agricultural Chemical Co.
Brayton Chemicals, Inc.
Diamond Alkali Co.
Gabriel Chemicals, Ltd.
Heritage House Products, Inc.
Southern Mill Creek Products Co.

DALAPON

Armour Agricultural Chemical Co.
R. H. Bogle Co.
Brayton Chemicals, Inc.
Dow Chemical Co.
Hub States Chemical & Equip. Co.
Miller Chemical & Fertilizer Corp.
Miller Products Co.
Nalco Chemical Co.
Residex Corp.
Riverdale Chemical Co.
Southern Mill Creek Products Co.

DINITRO COMPOUNDS

Woodbury Chemical Co.

DIURON

See Soil Sterilants

DMA

Alco Chemical Co.
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Armour Agricultural Chemical Co.
Chapman Chemical Co.
Chipman Chemical Co.
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Diamond Alkali Co.
Dow Chemical Co.
Elanco Products Co.
General Chemical Div., ACC
Lobel Chemical Corp.
Miller Chemical & Fertilizer Corp.
O. M. Scott & Sons
Stauffer Chemical Co.
Southern Mill Creek Products Co.
Vineland Chemical Sales Corp.
Wood Treating Chemicals Co.

ENDOTHALL

See Preemergence

FENAC

See Soil Sterilants

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E. I. du Pont de Nemours & Co., Inc.
General Chemical Div., ACC
Miller Products Co.
Nalco Chemical Co.
Residex Corp.
Southern Mill Creek Products Co.

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Brayton Chemicals, Inc.
Chipman Chemical Co.
Diamond Alkali Co.
Dow Chemical Co.
General Chemical Div., ACC
Miller Products Co.
Nalco Chemical Co.
Riverdale Chemical Co.

MCPP

Chipman Chemical Co.
W. A. Cleary Corp.
Doggett Fison Co.
Miller Products Co.
Morton Chemical Co.
Niagara Chemical Div., FMC

MSMA

The Ansul Co.

METHANEARSONIC ACID

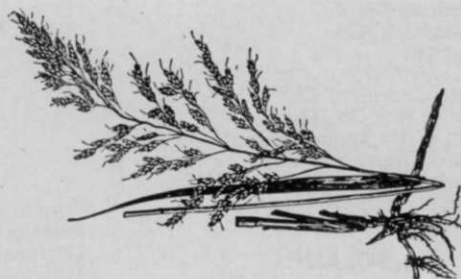
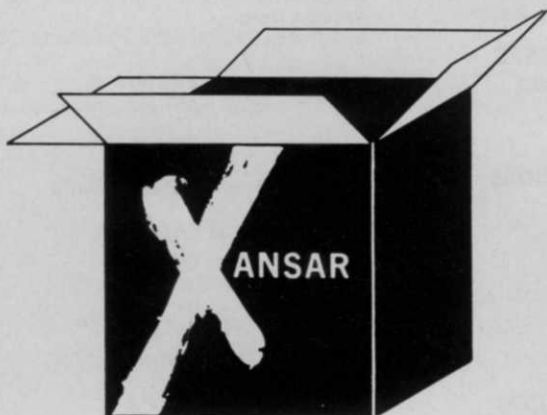
O. M. Scott & Sons
Vineland Chemical Sales Corp.

MONURON

See Soil Sterilants

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Braun-Knecht-Heimann Co.
Brayton Chemicals, Inc.
Browning Chemical Corp.
Chapman Chemical Co.
Daly-Herring Co.
The Dow Chemical Co.



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PROGRESS REPORT: ● In the brief span of two years "Ansar" herbicides have compiled a remarkable record in the eradication of weeds—especially Johnson Grass—in cotton and non-crop areas. ● Cotton growers have kept our plants working at top capacity night and day to meet the demand . . . and as a result we'll shortly start construction of a new multi-million pound capacity "Ansar" plant!

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Stephenson Chemical Co., Inc.
Triangle Chemical Co.
Woodbury Chemical Co.
Wood Treating Chemicals Co.

PETROLEUM

Richfield Oil Corp.

PHENYLMERCURIC ACETATE

American Liquid Fertilizer Co.
Armour Agricultural Chemical Co.
Brayton Chemicals, Inc.
W. A. Cleary Corp.
General Chemical Div., ACC
Guard Chemical Co., Inc.
O. M. Scott & Sons
Southern Mill Creek Products Co.,
Wood Ridge Chemical Corp.
Wood Treating Chemicals Co.

PROMETONE*

See Soil Sterilants

SILVEX

Acme Quality Paints, Inc.
Amchem Products, Inc.
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Chipman Chemical Co.
Diamond Alkali Co.
The Dow Chemical Co.
Elanco Products Co.
Hercules Powder Co.
Heritage House Products, Inc.
Neil A. Maclean Co., Inc.
Miller Chemical & Fertilizer Corp.
Miller Products Co.
Nalco Chemical Co.
B. G. Pratt Co.
Residex Corp.
Riverdale Chemical Co.
Smith Douglass Co., Inc.
Southern Mill Creek Products Co.
Thompson Chemicals Corp.
Thompson-Hayward Chemical Co.
Woodbury Chemical Co.
Wood Treating Chemicals Co.

SOLAN*

Niagara Chemical Div., FMC

TCA

See Soil Sterilants

TORDON*

R. H. Bogle Co.
Brayton Chemicals, Inc.
The Dow Chemical Co.
Miller Products Co.
Nalco Chemical Co.

TRITAC-D*

Hooker Chemical Corp.
Miller Products Co.
Residex Corp.

2,4-D And 2,4,5-T
(alone or mixed)

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American Liquid Fertilizer Co.
Archem Corp.
Armour Agricultural Chemical Co.
Baird & McGuire, Inc.
R. H. Bogle Co.
Bonide Chemical Co.
Brayton Chemicals, Inc.
California Chemical Co., Ortho Div.
Campbell Mfg. Co.

Central Solvents & Chemicals Co.
Chapman Chemical Co.
Chipman Chemical Co.
W. A. Cleary Corp.
Destruxol Corp.
Diamond Alkali Co.
Dow Chemical Co.
Elanco Products Co.
E-Z Flo Chemical Co.
Gabriel Chemicals, Ltd.
General Chemical Div., ACC
Hercules Powder Co.
Heritage House Products, Inc.
Hub States Chemical & Equip. Co.
Lethelin Products Co., Inc.
Lobel Chemical Corp.
C. J. Martin & Sons, Inc.
Miller Chemical & Fertilizer Corp.
Miller Products Co.
Nalco Chemical Co.
National Chemsearch Corp.
Niagara Chemical Div., FMC
B. G. Pratt Co.
Residex Corp.
Riverdale Chemical Co.
O. M. Scott & Sons
Seacoast Laboratories, Inc.
Smith Douglass Co., Inc.
Stauffer Chemical Co.
Southern Mill Creek Products Co.
Thompson Chemicals Corp.
Thompson-Hayward Chemical Co.
Triangle Chemical Co.
Utility Chemical Co.
Andrew Wilson Co., Inc.
Woodbury Chemical Co.
Wood Treating Chemicals Co.
Woolfolk Chemical Works, Ltd.

UROX* WEEDKILLERS

See Soil Sterilants

AQUATIC HERBICIDES

AMITROLE

See Postemergence

AMITROL-T*

Amchem Products, Inc.
Brayton Chemicals, Inc.
General Chemical Div., ACC
Hub States Chemical & Equip. Co.
Miller Products Co.
Residex Corp.
Riverdale Chemical Co.
Southern Mill Creek Products Co.

AQUALIN*

Shell Chemical Co.

AQUATHOL*

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Chipman Chemical Co.
Gabriel Chemicals, Ltd.
Miller Products Co.
Pennsalt Chemicals Co.
Triangle Chemical Co.

AQUATHOL PLUS*

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Chipman Chemical Co.
Miller Products Co.
Pennsalt Chemicals Corp.

BORASCU*

Miller Products Co.

CALCIUM HYPOCHLORITE

Robeco Chemicals, Inc.
Utility Chemical Co.

CETYL PICOLINIUM BROMIDE

Michigan Chemical Corp.

COPPER SULFATE

W. R. E. Andrews Co.
Brayton Chemicals, Inc.
Lobel Chemical Corp.
Miller Products Co.
Phelps Dodge Refining Corp.
Robeco Chemicals, Inc.
Tennessee Corp.
Triangle Chemical Co.
Utility Chemical Co.
Vineland Laboratories, Inc.
Wood Treating Chemicals Co.

DACAMINE*

See Postemergence

DALAPON

See Postemergence

DELRAD*

Southern Mill Creek Products Co.

DICHLONE

Brayton Chemicals, Inc.
General Chemical Div., ACC
M. W. Hardy & Co., Inc.
Miller Products

DIQUAT*

Brayton Chemicals, Inc.
California Chemical Co., Ortho Div.
Chipman Chemical Co.
General Chemical Div., ACC
Miller Products Co.
Residex Corp.
Southern Mill Creek Products Co.

ERBON

See Soil Sterilants

FENAC

See Soil Sterilants

HYAMINE*

Alco Chemical Co.
Rohm & Haas Co.

HYDROTHOL*

Pennsalt Chemicals Corp.

MCPA

See Postemergence

ORTHODICHLOROBENZENE

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Pittsburgh Plate Glass Co.
Robeco Chemicals, Inc.
Southern Mill Creek Products Co.
Utility Chemical Co.
Andrew Wilson Co., Inc.

PETROLEUM PRODUCTS

California Chemical Co., Ortho Div.
Destruxol Corp.
Richfield Oil Corp.
Southern Mill Creek Products Co.

POTASSIUM IODINE

Robeco Chemicals, Inc.

POTASSIUM PERMANGANATE

Carus Chemical Co., Inc.

PHYGON XL*

Brayton Chemicals, Inc.
General Chemical Div., ACC
Miller Products Co.
Naugatuck Chemical
Utility Chemical Co.

SILVEX

See Postemergence

SODIUM ARSENITE

See Soil Sterilants

2,4-D

See Postemergence

2,4,5-T

See Postemergence

2-(2,4-DB)

Amchem Products, Inc.
Armour Agricultural Chemical Co.
Brayton Chemicals, Inc.
Chipman Chemical Co.
General Chemical Div., ACC
Hub States Chemical & Equip. Co.
Miller Products Co.
Southern Mill Creek Products Co.
Thompson-Hayward Chemical Co.
Wood Treating Chemicals Co.

TCA

See Soil Sterilants

GROWTH RETARDANTS**CYCOCEL***

American Cyanamid Co.

PHOSFON*

Virginia-Carolina Chemical Corp.

MALEIC HYDRAZIDE

Alco Chemical Corp.
Brayton Chemicals, Inc.
General Chemical Div., ACC

M. W. Hardy & Co., Inc.

Miller Products Co.

Naugatuck Chemical
Southern Mill Creek Products Co.

RO-PEL*

Upjohn Co.

B-NINE*

Naugatuck Chemical

FUNGICIDES**ACTI-DIONE***

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Miller Products Co.
Southern Mill Creek Products Co.
Upjohn Co.

CADMIUM CARBONATE

Southern Mill Creek Products Co.

CADMIUM CHLORIDE

W. A. Cleary Corp.
General Chemical Division, ACC
Metalsalts Corp.
Seacoast Laboratories, Inc.
Southern Mill Creek Products Co.
Vineland Chemical Sales Corp.

CADMIUM SEBACATE

(Kromad*)

Mallinckrodt Chemical Works

CADMIUM SUCCINATE

(Cadminate*)

Mallinckrodt Chemical Works

CALOMEL

Dogget Fison Co.
Mallinckrodt Chemical Works
Metalsalts Corp.
Wood Ridge Chemical Corp.

CAPTAN

Archem Corp.
Armour Agricultural Chemical Co.
Brayton Chemicals, Inc.
California Chemical Co., Ortho Div.
Hub States Chemical & Equip. Co.
Miller Products Co.
Niagara Chemical Div., FMC
Smith Douglass Co., Inc.
Southern Mill Creek Products Co.
Stauffer Chemical Co.
Stephenson Chemical Co., Inc.
Triangle Chemical Co.

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Miller Products Co.
Southern Mill Creek Products Co.

CHLORANIL

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Naugatuck Chemical

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DestruXol Corp.

COPPER SULFATE

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W. R. E. Andrews Co.
Bonide Chemical Co.
Brayton Chemicals, Inc.
Calumet & Hecla, Inc.
DestruXol Corp.

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COPPER ZINC CHROMATE

Destruoxol Corp.

CORROSIVE SUBLIMATE

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Mallinckrodt Chemical Works
Metalsalts Corp.
Wood Ridge Chemical Corp.

MERCUROUS/MERCURIC CHLORIDES

Mallinckrodt Chemical Works
Metalsalts Corp.

CYCLOHEXIMIDE

See *Actidione**

CYPREX*

American Cyanamid Co.

DEXON*

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Chemagro Corp.
Miller Products Co.
Southern Mill Creek Products Co.

DICHLONE

See *Aquatic Herbicides*

DICHLOROPROPENE FUMIGANTS

See *Soil Fumigants*

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C. J. Martin & Sons, Inc.
Miller Products Co.
Rohm & Haas Co.

DYRENE*

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Heritage House Products, Inc.
Miller Products Co.
Smith Douglass Co., Inc.
Southern Mill Creek Products Co.

ELCIDE* 73

Elanco Products Co.

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Berkshire Chemicals, Inc.
Brayton Chemicals, Inc.
Chipman Chemical Co.
Daly-Herring Co.
E. I. du Pont de Nemours & Co.
General Chemical Div., ACC
Miller Products Co.
Niagara Chemical Div., FMC
Pennsalt Chemicals Corp.
Residex Corp.
O. M. Scott & Sons
Sherwin-Williams Co.
Stauffer Chemical Co.
Triangle Chemical Co.
Wood Ridge Chemical Corp.
Woolfolk Chemical Works, Ltd.

FOLPET

Brayton Chemicals, Inc.
California Chemical Co., Ortho Div.
Stauffer Chemical Co.

GLYODIN

Brayton Chemicals, Inc.
Union Carbide Corp.

KARATHANE

See *Miticides*

MANEB

Armour Agricultural Chemical Co.
Brayton Chemicals, Inc.
California Chemical Co., Ortho Div.
Daly-Herring Co.
E. I. du Pont de Nemours & Co.
Elanco Products Co.
Florida Agricultural Supply Co.
Miller Products Co.
Residex Corp.
Rohm & Haas Co.
Triangle Chemical Co.
Woodbury Chemical Co.
Wood Treating Chemicals Co.

MANZATE D*

Brayton Chemicals, Inc.
E. I. du Pont de Nemours & Co.
Miller Products Co.
Residex Corp.
Triangle Chemical Co.

MEMMI*

Riverdale Chemical Co.
Southern Mill Creek Products Co.
Velsicol Chemical Corp.

MERCURY COMPOUNDS

Armour Agricultural Chemical Co.
Brayton Chemicals, Inc.
Chipman Chemical Co.
W. A. Cleary Corp.
Doggett Fison Co.
E. I. du Pont de Nemours & Co.
Guard Chemical Co., Inc.
Mallinckrodt Chemical Works
Metalsalts Corp.
Miller Products Co.
Southern Mill Creek Products Co.
Vineland Chemical Sales Corp.
Wood Ridge Chemical Corp.

METHYL BROMIDE

See *Soil Fumigants*

MOROCIDE*

Brayton Chemicals, Inc.
Niagara Chemical Div., FMC

MORSODREN*

Morton Chemical Co.

NABAM

Archem Corp.
Brayton Chemicals, Inc.
E. I. du Pont de Nemours & Co.
Florida Agricultural Supply Co.
Mallinckrodt Chemical Works
Niagara Chemical Div., FMC
Rohm & Haas Co.
Woodbury Chemical Co.
Wood Treating Chemicals Co.

NEMAGON

See *Nematocides*

PANOGEN*

Armour Agricultural Chemical Co.
Brayton Chemicals, Inc.
Miller Products Co.

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ARE LISTED IN BOLDFACE**

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Aceto Chemical Co., Inc.
California Farm Supply Co.
Cotton States Chemical Co.
Miller Products Co.
Olin Mathieson Chemical Corp.
Pennsalt Chemicals Corp.
Stauffer Chemical Co.
Wood Treating Chemicals Co.

PHENYLMERCURY ACETATE

Aquatrols Corp. of America
Brayton Chemicals, Inc.
W. A. Cleary Corp.
Doggett Fison Company
General Chemical Div., ACC
Guard Chemical Co., Inc.
Mallinckrodt Chemical Works
Metalsalts Corp.
Niagara Chemical Div., FMC
Southern Mill Creek Products Co.
Wood Ridge Chemical Corp.
Vineland Chemical Sales Corp.
Wood Treating Chemicals Co.

PIPRON*

Elanco Products Co.

PURATIZED* AGRICULTURAL SPRAY

Brayton Chemicals, Inc.
General Chemical Div., ACC
Metalsalts Corp.
Miller Products Co.
Niagara Chemical Div., FMC

SEMESAN*

Brayton Chemicals, Inc.
Gabriel Chemicals, Ltd.
E. I. du Pont de Nemours & Co.
Miller Products Co.

SULFUR

Armour Agricultural Chemical Co.
Brayton Chemicals, Inc.
Chipman Chemical Co.
California Chemical Co., Ortho Div.
Chemwest, Inc.
Destruoxol Corp.
General Chemical Div., ACC
C. J. Martin & Son, Inc.
Miller Products Co.
Niagara Chemical Div., FMC
Stauffer Chemical Co.
Stephenson Chemical Co., Inc.
Triangle Chemical Co.
Wood Treating Chemicals Co.

THIRAM

Bonide Chemical Co., Inc.
Brayton Chemicals, Inc.
W. A. Cleary Corp.
Doggett Fison Co.
E. I. du Pont de Nemours & Co.
General Chemical Div., ACC
Hub States Chemical & Equip. Co.
Lobel Chemical Corp.
Mallinckrodt Chemical Works
Metalsalts Corp.
Miller Products Co.
Naugatuck Chemical
Niagara Chemical Div., FMC
Pennsalt Chemicals Corp.
Residex Corp.
Riverdale Chemical Co.
O. M. Scott & Sons
Seacoast Laboratories, Inc.
Southern Mill Creek Products Co.
Vineland Chemical Sales Corp.
Wood Treating Chemicals Co.

THIRAMAD-PLUS*

Mallinckrodt Chemical Works
Miller Products Co.

THIRAM/MERCURY

W. A. Cleary Corp.
 Doggett Fison Co.
 E. I. du Pont de Nemours & Co.
 Metalsalts Corp.
 Vineland Chemical Sales Corp.

VELSICOL "2-1"*

Velsicol Chemical Corp.

ZINEB

Armour Agricultural Chemical Co.
Brayton Chemicals, Inc.
 Chipman Chemical Co.
 E. I. du Pont de Nemours & Co.
 Florida Agricultural Supply Co.
 Gabriel Chemicals, Ltd.
 General Chemical Div., ACC
 Hopkins Agricultural Chemical Co.
 Lobel Chemical Corp.
 Neil A. Maclean Co., Inc.
Miller Products Co.
 Niagara Chemical Div., FMC
 Pennsalt Chemicals Corp.
Residex Corp.
 Sherwin-Williams Co.
Triangle Chemical Co.
 Woodbury Chemical Co.
 Wood Treating Chemicals Co.

ZIRAM

Woolfolk Chemical Works, Ltd.
 E. I. du Pont de Nemours & Co.
 Sherwin-Williams Co.

INSECTICIDES

ANTIRESISTANT* DDT

General Chemical Div., ACC
 Prentiss Drug & Chemical Co.

ALDRIN

Armour Agricultural Chemical Co.
 Archem Corp.
 Bonide Chemical Co., Inc.
Brayton Chemicals, Inc.
 Campbell Mfg. Co.
 Chemwest, Inc.
 Chapman Chemical Co.
 Chipman Chemical Co.
 Daly-Herring Co.
 Florida Agricultural Supply Co.
 Gabriel Chemicals, Ltd.
 General Chemical Div., ACC
 Hopkins Agricultural Chemical Co.
 Hub States Chemical & Equip. Co.
Miller Products Co.
 Niagara Chemical Div., FMC
 Pennsalt Chemicals Corp.
 Pest Control Equip. Co.
 Prentiss Drug & Chemical Co., Inc.
Residex Corp.
 Riverdale Chemical Co.
 Shell Chemical Co.
 Southern Mill Creek Products Co.
 Stauffer Chemical Co.
 Thompson-Hayward Chemical Co.
Triangle Chemical Co.
 Woodbury Chemical Co.
 Wood Treating Chemicals Co.

ASPON*

Brayton Chemicals, Inc.
 Southern Mill Creek Products Co.
 Stauffer Chemical Co.

BACILLUS POPILLAE

Fairfax Biological Laboratory

BACILLUS THURINGIENSIS

Nutrilit Products, Inc.
 Pennsalt Chemicals Co.

Stauffer Chemical Co.
Triangle Chemical Co.

BAYGON*

Chemagro Corp.

BAYTEX*

Archem Corp.
Brayton Chemicals, Inc.
 Chemagro Corp.
 Hub States Chemical & Equip. Co.
Miller Products Co.
Residex Corp.
 Southern Mill Creek Products Co.
 Thompson-Hayward Chemical Co.

BOMYL*

General Chemical Div., ACC

CHLORDANE

Agricultural Chemicals, Inc.
 Alco Chemical Co.
 American Fluoride Corp.
 American Liquid Fertilizer Co.
 Archem Corp.
 Armour Agricultural Chemical Co.
 Barada & Page Co.
 Bonide Chemical Co., Inc.
Brayton Chemicals, Inc.
 Browning Chemical Corp.
 California Chemical Co., Ortho Div.
 Chapman Chemical Co.
 Chemwest, Inc.
 Chipman Chemical Co.
 W. A. Cleary Corp.
 Continental Chemiste Corp.
 Cornell Chemical & Equip. Co., Inc.
 Cotton States Chemical Co.
 Daly-Herring Co.
 Destruxol Corp.
 Doggett Fison Co.
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 Lobel Chemical Corp.
 Neil A. Maclean Co., Inc.
 C. J. Martin & Sons, Inc.
Miller Products Co.
 Niagara Chemical Div., FMC
 National Chemsearch Corp.
 Pennsalt Chemicals Corp.
 Pest Control Equip. Co.
B. G. Pratt Co.
 Prentiss Drug & Chemical Co., Inc.
Residex Corp.
 Riverdale Chemical Co.
 O. M. Scott & Sons
 Seacoast Laboratories, Inc.
 Sherwin-Williams Co.
 Smith Douglass Co., Inc.
 Southern Mill Creek Products Co.
 Stauffer Chemical Co.
 Stephenson Chemical Co., Inc.
 Thompson Chemicals Corp.
 Thompson-Hayward Chemical Co.
Triangle Chemical Co.
 Utility Chemical Co.
Velsicol Chemical Corp.
 Andrew Wilson Co., Inc.
 Woodbury Chemical Co.
 Wood Treating Chemicals Co.

COPPER ARSENATE, BASIC

Chipman Chemical Co.
 Destruxol Corp.
 Hub States Chemical & Equip. Co.
 Southern Mill Creek Products Co.

CYGON*

American Cyanamid Co.
Brayton Chemicals, Inc.
 Gabriel Chemicals, Ltd.
 General Chemical Div., ACC
 Hub States Chemical & Equip. Co.
Miller Products Co.
B. G. Pratt Co.
 Prentiss Drug & Chemical Co., Inc.
 Southern Mill Creek Products Co.

DDT

Agricultural Chemicals, Inc.
 Alco Chemical Co.
 American Fluoride Corp.
 American Liquid Fertilizer Co., Inc.
 American Oil Co.
 Archem Corp.
 Armour Agricultural Chemical Co.
 Bonide Chemical Co., Inc.
Brayton Chemicals, Inc.
 Browning Chemical Corp.
 California Chemical Co., Ortho Div.
 Campbell Mfg. Co.
 Chapman Chemical Co.
 Chemwest, Inc.
 Chipman Chemical Co.
 W. A. Cleary Corp.
 Continental Chemiste Corp.
 Cornell Chemical & Equip. Co.
 Cotton States Chemical Co.
 Daly-Herring Co.
 Destruxol Corp.
Diamond Alkali Co.
 Doggett Fison Co.
 E. I. du Pont de Nemours & Co.
 E-Z Flo Chemical Co.
 Faesy & Besthoff, Inc.
 Gabriel Chemicals, Ltd.
 General Chemical Div., ACC
 Hopkins Agricultural Chemical Co.
 Hub States Chemical & Equip. Co.
 Lebanon Chemical Corp.
 Lethelin Products Co., Inc.
 Lobel Chemical Corp.
 C. J. Martin & Sons, Inc.
 Michlin Chemical Corp.
Miller Products Co.
 Montrose Chemical Co.

Niagara Chemical Div., FMC
 Pennsalt Chemicals Corp.
 Pest Control Equip. Co.
B. G. Pratt Co.
 Prentiss Drug & Chemical Co., Inc.
 Riverdale Chemical Co.
 Sherwin-Williams Co.
 Stauffer Chemical Co.
 Southern Mill Creek Products Co.
 Thompson Chemicals Corp.
 Thompson-Hayward Chemical Co.
Triangle Chemical Co.
 Utility Chemical Co.
 Andrew Wilson Co., Inc.
 Woodbury Chemical Co.
 Wood Treating Chemicals Co.

DDVP

Alco Chemical Co.
 Archem Corp.
 Armour Agricultural Chemical Co.
Brayton Chemicals, Inc.
 Chapman Chemical Co.
 Continental Chemiste Corp.
 Gabriel Chemicals, Ltd.
 Hub States Chemical & Equip. Co.
 C. J. Martin & Sons, Inc.
Miller Products Co.
 Niagara Chemical Div., FMC
 Norda Essential Oil & Chemical Co.
B. G. Pratt Co.
 Prentiss Drug & Chemical Co., Inc.
Residex Corp.
 Riverdale Chemical Co.
 Shell Chemical Co.
 Southern Mill Creek Products Co.
 Stauffer Chemical Co.
 Thompson-Hayward Chemical Co.
Triangle Chemical Co.
 Woodbury Chemical Co.

DELNAV*

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 Hercules Powder Co.
 Southern Mill Creek Products Co.
 Thompson-Hayward Chemical Co.

DIATOMACEOUS INSECTICIDE

Phoenix Gems

DIAZINON

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 American Fluoride Corp.
 Archem Corp.
 Bonide Chemical Co., Inc.
Brayton Chemicals, Inc.
 Campbell Mfg. Co.
 Continental Chemiste Corp.
 Cornell Chemical & Equip. Co., Inc.
 Destruxol Corp.
 Doggett Fison Co.
 Gabriel Chemicals, Ltd.
 Geigy Agricultural Chemicals
 Hub States Chemical & Equip. Co.
Miller Products Co.
B. G. Pratt Co.
 Prentiss Drug & Chemical Co., Inc.
Residex Corp.
 Riverdale Chemical Co.
 Seacoast Laboratories, Inc.
 Southern Mill Creek Products Co.
 Thompson-Hayward Chemical Co.
Triangle Chemical Co.
 Woolfolk Chemical Works, Ltd.

DIBROM*

(Naled)

Archem Corp.
Brayton Chemicals, Inc.
 California Chemical Co., Ortho Div.
 Chipman Chemical Co.
 Gabriel Chemicals, Ltd.
 General Chemical Div., ACC
 Hub States Chemical & Equip. Co.
Miller Products Co.
 Niagara Chemical Div., FMC
 Prentiss Drug & Chemical Co., Inc.

Residex Corp.
 Stauffer Chemical Co.
 Southern Mill Creek Products Co.

DIELDRIN

Alco Chemical Co.
 Archem Corp.
 Armour Agricultural Chemical Co.
 Bonide Chemical Co., Inc.
Brayton Chemicals, Inc.
 California Chemical Co., Ortho Div.
 Campbell Mfg. Co.
 Chapman Chemical Co.
 Chemwest, Inc.
 Chipman Chemical Co.
 Continental Chemiste Corp.
 Cotton States Chemical Co.
 Destruxol Corp.
 Elanco Products Co.
 Florida Agricultural Supply Co.
 Gabriel Chemicals, Ltd.
 General Chemical Div., ACC
 Hub States Chemical & Equip. Co.
 Lobel Chemical Corp.
 Neil A. Maclean Co., Inc.
Miller Products Co.
 National Chemsearch Corp.
 Niagara Chemical Div., FMC
 Pennsalt Chemicals Corp.
 Pest Control Equip. Co.
B. G. Pratt Co.
 Prentiss Drug & Chemical Co., Inc.
Residex Corp.
 Riverdale Chemical Co.
 Seacoast Laboratories, Inc.
 Shell Chemical Co.
 Smith Douglass Co., Inc.
 Sherwin-Williams Co.
 Southern Mill Creek Products Co.
 Stauffer Chemical Co.
 Stephenson Chemical Co., Inc.
 Thompson Chemicals Corp.
 Thompson-Hayward Chemical Co.
Triangle Chemical Co.
 Andrew Wilson Co., Inc.
 Woodbury Chemical Co.

DINITRO COMPOUNDS

Armour Agricultural Chemical Co.
Brayton Chemicals, Inc.
 The Dow Chemical Co.
 General Chemical Div., ACC
 Niagara Chemical Div., FMC
Miller Products Co.
 Woodbury Chemical Co.

DIPTEREX*

Brayton Chemicals, Inc.
 Chemagro Corp.
 General Chemical Div., ACC
 McLaughlin Gormley King Co.
 Hub States Chemical & Equip. Co.
Miller Products Co.
Residex Corp.
 Southern Mill Creek Products Co.

DISYSTON*

Brayton Chemicals, Inc.
 Chapman Chemical Co.
 Chemagro Corp.
 Hub States Chemical & Equip. Co.
Miller Products Co.
 Thompson-Hayward Chemical Co.
 Woolfolk Chemical Works, Ltd.

DRINOX*

Miller Products Co.
 Morton Chemical Co.

ENDRIN

Archem Corp.
 Armour Agricultural Chemical Co.
Brayton Chemicals, Inc.
 California Chemical Co., Ortho Div.
 Chapman Chemical Co.
 Chipman Chemical Co.
 Daly-Herring Co.
 Gabriel Chemicals, Ltd.

General Chemical Div., ACC
 Hub States Chemical & Equip. Co.
Miller Products Co.
 Niagara Chemical Div., FMC
 Pennsalt Chemicals Corp.
 Prentiss Drug & Chemicals Co., Inc.
 Riverdale Chemical Co.
 Shell Chemical Co.
 Sherwin-Williams Co.
 Southern Mill Creek Products Co.
 Stauffer Chemical Co.
 Thompson-Hayward Chemical Co.
Triangle Chemical Co.
 Woodbury Chemical Co.

EPN

E. I. du Pont de Nemours & Co.

ETHION

American Liquid Fertilizer Co.
 Armour Agricultural Chemical Co.
Brayton Chemicals, Inc.
 California Chemical Co., Ortho Div.
 Destruxol Corp.
 General Chemical Div., ACC
 Hub States Chemical & Equip. Co.
Miller Products Co.
 Niagara Chemical Div., FMC
 O. M. Scott & Sons
 Southern Mill Creek Products Co.
 Stauffer Chemical Co.
Triangle Chemical Co.

GUTHION*

Armour Agricultural Chemical Co.
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 Chapman Chemical Co.
 Chemagro Corp.
 Hub States Chemical & Equip. Co.
Miller Products Co.
 Southern Mill Creek Products Co.
Triangle Chemical Co.

HEPTACHLOR

Archem Corp.
 Armour Agricultural Chemical Co.
Brayton Chemicals, Inc.
 California Chemical Co., Ortho Div.
 Campbell Mfg. Co.
 Chapman Chemical Co.
 Chipman Chemical Co.
 Daly-Herring Co.
 Gabriel Chemicals, Ltd.
 General Chemical Div., ACC
 Hub States Chemical & Equip. Co.
Miller Products Co.
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 Pennsalt Chemicals Corp.
B. G. Pratt Co.
 Prentiss Drug & Chemical Co.
Residex Corp.
 Riverdale Chemical Co.
 Seacoast Laboratories, Inc.
 Sherwin-Williams Co.
 Southern Mill Creek Products Co.
 Stauffer Chemical Co.
 Stephenson Chemical Co., Inc.
 Thompson-Hayward Chemical Co.
Velsicol Chemical Corp.
 Woodbury Chemical Co.
 Wood Treating Chemicals Co.

KEPONE*

General Chemical Div., ACC
 Lethelin Products Co., Inc.

KORLAN*

Alco Chemical Co.
 Archem Corp.
Brayton Chemicals, Inc.
 The Dow Chemical Co.
 Hub States Chemical & Equip. Co.
Miller Products Co.
 Niagara Chemical Div., FMC

B. G. Pratt Co.
Residex Corp.
 Southern Mill Creek Products Co.
 Thompson-Hayward Chemical Co.

LEAD ARSENATE

Brayton Chemicals, Inc.
 California Chemical Co., Ortho Div.
 Chipman Chemical Co.
 E-Z Flo Chemical Co.
 Faesy & Besthoff, Inc.
 General Chemical Div., ACC
 Hub States Chemical & Equip. Co.
 Hopkins Agricultural Chemical Co.
 Lobel Chemical Corp.
 C. J. Martin & Sons, Inc.
Miller Products Co.
 Niagara Chemical Div., FMC
B. G. Pratt Co.
 Sherwin-Williams Co.
 Southern Mill Creek Products Co.
 Stauffer Chemical Co.
 Thompson-Hayward Chemical Co.
 Wood Treating Chemicals Co.

LETHANE 60*

Archem Corp.
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 Hub States Chemical & Equip. Co.
Miller Products Co.

LIME SULFUR

Brayton Chemicals, Inc.
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 Faesy & Besthoff, Inc.
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Chemwest, Inc.
Chipman Chemical Co.
Continental Chemiste Corp.
Cotton States Chemicals Co.
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Thompson-Hayward Chemical Co.
Triangle Chemical Co.
Utility Chemical Co.
Vineland Laboratories, Inc.
Woodbury Chemical Co.
Wood Treating Chemicals Co.

MALATHION

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American Liquid Fertilizer Co.
American Oil Co.
Archem Corp.
Armour Agricultural Chemical Co.
Bonide Chemical Co., Inc.
Brayton Chemicals, Inc.
California Chemical Co., Ortho Div.
Campbell Mfg. Co.
Chapman Chemical Co.
Chipman Chemical Co.
Continental Chemiste Corp.
Cornell Chemical & Equip. Co.
Cotton States Chemical Co.
Daly-Herring Co.
Destruxol Corp.
J. J. Dill Co.
Doggett Fison Co.
Elanco Products Co.
Faesy & Besthoff, Inc.
Gabriel Chemicals, Ltd.
General Chemical Div., ACC
Hub States Chemical & Equip. Co.
C. J. Martin & Sons, Inc.
Michlin Chemical Corp.
Miller Products Co.
National Chemsearch Corp.
Niagara Chemical Div., FMC
Pennsalt Chemicals Corp.
B. G. Pratt Co.
Prentiss Drug & Chemical Co.
Residex Corp.
Riverdale Chemical Co.
Seacoast Laboratories, Inc.
Sherwin-Williams Co.
Smith Douglass Co., Inc.
Southern Mill Creek Products Co.
Stauffer Chemical Co.

Stephenson Chemical Co., Inc.
Thompson Chemicals Corp.
Thompson-Hayward Chemical Co.
Triangle Chemical Co.
Andrew Wilson Co., Inc.
Woodbury Chemical Co.
Vineland Laboratories, Inc.

METALDEHYDE

Chipman Chemical Co.
Commercial Solvents Corp.
Destruxol Corp.
Miller Products Co.
Stauffer Chemical Co.
Triangle Chemical Co.

META-SYSTOX*-R

Brayton Chemicals, Inc.
Chemagro Corp.
Elanco Products Co.
Miller Products Co.

METHOXYCHLOR

Archem Corp.
Armour Agricultural Chemical Co.
Bonide Chemical Co., Inc.
Brayton Chemicals, Inc.
Destruxol Corp.
E. I. du Pont de Nemours & Co.
Gabriel Chemicals, Ltd.
Geigy Agricultural Chemicals
General Chemical Div., ACC
Hub States Chemical & Equip. Co.
Neil A. Maclean Co., Inc.
C. J. Martin & Sons, Inc.
Miller Products Co.
Niagara Chemical Div., FMC
B. G. Pratt Co.
Prentiss Drug & Chemical Co., Inc.
Residex Corp.
Riverdale Chemical Co.
Seacoast Laboratories, Inc.
Southern Mill Creek Products Co.
Stauffer Chemical Co.
Thompson-Hayward Chemical Co.
Triangle Chemical Co.

METHYL PARATHION

American Cyanamid Co.
American Potash & Chemical Corp.
Armour Agricultural Chemical Co.
Brayton Chemicals, Inc.
California Chemical Co., Ortho Div.
Chapman Chemical Co.
Chemagro Corp.
Chipman Chemical Co.
Cotton States Chemical Co.
Daly-Herring Co.
Gabriel Chemicals, Ltd.
General Chemical Div., ACC
Miller Products Co.
Niagara Chemical Div., FMC
Pennsalt Chemicals Corp.
Shell Chemical Co.
Stauffer Chemical Co.
Thompson-Hayward Chemical Co.
Triangle Chemical Co.
Woodbury Chemical Co.

METHYL TRITHION*

Armour Agricultural Chemical Co.
Brayton Chemicals, Inc.
Miller Products Co.
Southern Mill Creek Products Co.
Stauffer Chemical Co.
Triangle Chemical Co.

MIREX*

General Chemical Div., ACC

NICOTINE

Archem Corp.
Brayton Chemicals, Inc.
Destruxol Corp.
M. W. Hardy & Co., Inc.
Miller Products Co.
B. G. Pratt Co.

Prentiss Drug & Chemical Co., Inc.
Andrew Wilson Co., Inc.

OIL: DORMANT

Bonide Chemical Co., Inc.
Brayton Chemicals, Inc.
California Chemical Co., Ortho Div.
Destruxol Corp.
The Dow Chemical Co.
Faesy & Besthoff, Inc.
Hub States Chemical & Equip. Co.
Miller Products Co.
Niagara Chemical Div., FMC
B. G. Pratt Co.
Smith Douglass Co., Inc.
Thompson-Hayward Chemical Co.
Andrew Wilson Co., Inc.
Wood Treating Chemicals Co.

OIL: SUMMER

Armour Agricultural Chemical Co.
Bonide Chemical Co., Inc.
Brayton Chemicals, Inc.
California Chemical Co., Ortho Div.
Cornell Chemical & Equip. Co., Inc.
Destruxol Corp.
Hub States Chemical & Equip. Co.
Miller Products Co.
Niagara Chemical Div., FMC
B. G. Pratt Co.
Southern Mill Creek Products Co.
Thompson-Hayward Chemical Co.

PARATHION

Agricultural Chemicals, Inc.
American Cyanamid Co.
American Fluoride Corp.
American Liquid Fertilizer Co.
American Potash & Chemical Corp.
Armour Agricultural Chemical Co.
Brayton Chemicals, Inc.
Browning Chemical Corp.
California Chemical Co., Ortho Div.
Chapman Chemical Co.
Chemagro Corp.
Chipman Chemical Co.
Daly-Herring Co.
Gabriel Chemicals, Ltd.
General Chemical Div., ACC
Hub States Chemical & Equip. Co.
Miller Products Co.
Niagara Chemical Div., FMC
Pennsalt Chemicals Corp.
Sherwin-Williams Co.
Southern Mill Creek Products Co.
Stauffer Chemical Co.
Thompson-Hayward Chemical Co.
Triangle Chemical Co.
Woodbury Chemical Co.

PERTHANE*

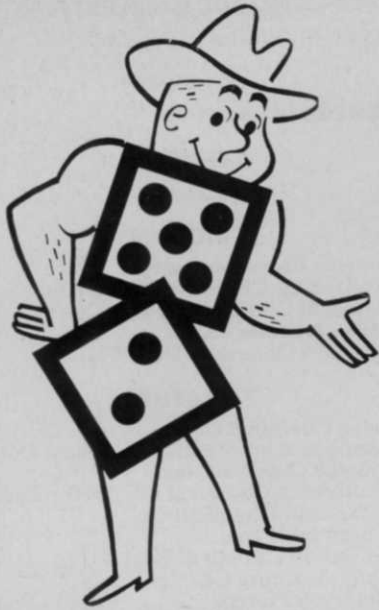
Rohm & Haas Co.

PHOSDRIN*

Armour Agricultural Chemical Co.
Brayton Chemicals, Inc.
California Chemical Co., Ortho Div.
Chipman Chemical Co.
Daly-Herring Co.
Gabriel Chemicals, Ltd.
General Chemical Div., ACC
Miller Products Co.
Niagara Chemical Div., FMC
Riverdale Chemical Co.
Shell Chemical Co.
Stauffer Chemical Co.
Thompson-Hayward Chemical Co.
Triangle Chemical Co.
Woodbury Chemical Co.

PHOSPHAMIDON*

Armour Agricultural Chemical Co.
Brayton Chemicals, Inc.
California Chemical Co., Ortho Div.
Chipman Chemical Co.
General Chemical Div., ACC
Southern Mill Creek Products Co.
Stauffer Chemical Co.



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INSECTICIDE

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Brayton Chemicals, Inc.
Chapman Chemical Co.
Continental Chemiste Corp.
Cornell Chemical & Equip. Co.
Destruxol Corp.
Gabriel Chemicals, Ltd.
Hub States Chemical & Equip. Co.
Lethelin Products Co., Inc.
McLaughlin Gormley King Co.
Niagara Chemical Div., FMC
B. G. Pratt Co.
Prentiss Drug & Chemical Co., Inc.
Residex Corp.
Southern Mill Creek Products Co.
Thompson-Hayward Chemical Co.
Triangle Chemical Co.
Utility Chemical Co.
Wood Treating Chemicals Co.

PYRETHRUM/ROTENONE

Archem Corp.
Bonide Chemical Co., Inc.
Brayton Chemicals, Inc.
Gabriel Chemicals, Ltd.
Hub States Chemical & Equip. Co.
Niagara Chemical Div., FMC
B. G. Pratt Co.
Prentiss Drug & Chemical Co., Inc.
Seacoast Laboratories, Inc.

ROTENONE

Bonide Chemical Co., Inc.
Brayton Chemicals, Inc.
Chipman Chemical Co.
Daly-Herring Co.
Fairfield Chemicals, FMC
Gabriel Chemicals, Ltd.
Hopkins Agricultural Chemical Co.
Hub States Chemical & Equip. Co.
Niagara Chemical Div., FMC
C. J. Martin & Sons, Inc.
Miller Products Co.
B. G. Pratt Co.
Prentiss Drug & Chemical Co.
Seacoast Laboratories, Inc.
Southern Mill Creek Products Co.
Stephenson Chemical Co., Inc.
Thompson-Hayward Chemical Co.
Triangle Chemical Co.

SEVIN*

(Carbaryl)

American Fluoride Corp.
Archem Corp.
Armour Agricultural Chemical Co.
Bonide Chemical Co., Inc.
Brayton Chemicals, Inc.
California Chemical Co., Ortho Div.
Chapman Chemical Co.
Cotton States Chemical Co.

Daly-Herring Co.
Destruxol Corp.
Doggett Fison Co.
Faesy & Besthoff, Inc.
Gabriel Chemicals, Ltd.
General Chemical Div., ACC
Heritage House Products, Inc.
Hub States Chemical & Equip. Co.
C. J. Martin & Sons, Inc.
Miller Products Co.
Niagara Chemical Div., FMC
B. G. Pratt Co.
Residex Corp.
Riverdale Chemical Co.
O. M. Scott & Sons
Seacoast Laboratories, Inc.
Smith Douglass Co., Inc.
Stauffer Chemical Co.
Stephenson Chemical Co., Inc.
Triangle Chemical Co.
Union Carbide Corp.

SYSTOX

(Demeton)

Brayton Chemicals, Inc.
Chemagro Corp.
Chipman Chemical Co.
Gabriel Chemicals, Ltd.
General Chemical Div., ACC
Hub States Chemical & Equip. Co.
Miller Products Co.
Woodbury Chemical Co.

TDE (DDD)

Armour Agricultural Chemical Co.
Bonide Chemical Co., Inc.
Brayton Chemicals, Inc.
California Chemical Co., Ortho Div.
Daly-Herring Co.
Gabriel Chemicals, Ltd.
General Chemical Div., ACC
Miller Products Co.
Niagara Chemical Div., FMC
Riverdale Chemical Co.
Rohm & Haas Co.
Seacoast Laboratories, Inc.
Sherwin-Williams Co.
Stauffer Chemical Co.
Triangle Chemical Co.
Woodbury Chemical Co.
Wood Treating Chemicals Co.

TEPP

American Potash and Chemical Corp.
Brayton Chemicals, Inc.
California Chemical Co., Ortho Div.
Chipman Chemical Co.
Gabriel Chemicals, Ltd.
General Chemical Div., ACC
Miller Products Co.
Niagara Chemical Div., FMC
Sherwin-Williams Co.
Stauffer Chemical Co.
Triangle Chemical Co.

THALLIUM SULFATE

Lethelin Products Co., Inc.

THANITE*

Hercules Powder Co.

THIMET*

See Miticides

THIODAN*

Brayton Chemicals, Inc.
California Chemical Co., Ortho Div.
General Chemical Div., ACC
Miller Products Co.
Niagara Chemical Div., FMC

TOXAPHENE

Alco Chemical Co.
Armour Agricultural Chemical Co.
Brayton Chemicals, Inc.
California Chemical Co., Ortho Div.
Chapman Chemical Co.
Chemwest, Inc.
Chipman Chemical Co.
Daly-Herring Co.
Destruxol Corp.
Gabriel Chemicals, Ltd.
General Chemical Div., ACC
Hercules Powder Co.
Hub States Chemical & Equip. Co.
Neil A. Maclean Co., Inc.
C. J. Martin & Sons, Inc.
Miller Products Co.
Niagara Chemical Div., FMC
Pennsalt Chemicals Corp.
Riverdale Chemical Co.
Southern Mill Creek Products Co.
Stauffer Chemical Co.
Thompson-Hayward Chemical Co.
Triangle Chemical Co.
Woodbury Chemical Co.
Wood Treating Chemicals Co.

TRITHION*

Armour Agricultural Chemical Co.
Brayton Chemicals, Inc.
California Chemical Co., Ortho Div.
Miller Products Co.
Niagara Chemical Div., FMC
Pennsalt Chemicals Corp.
Seacoast Laboratories, Inc.
Southern Mill Creek Products Co.
Stauffer Chemical Co.
Triangle Chemical Co.
Woolfolk Chemical Works, Ltd.

V-C 13*

Armour Agricultural Chemical Co.
Miller Products Co.
Pennsalt Chemicals Corp.
Southern Mill Creek Products Co.
Virginia-Carolina Chemical Co.



TWIN TANK model

POWER KNAPSACK MISTBLOWER DUSTER

Spray, dust, wet-dust, and apply granules with the same machine; no extra attachments needed.

NO DISMANTLING OR REBUILDING — Two separate back tanks and the exclusive KWH 'non-clog' nozzle permit single or simultaneous application of wet and dry chemicals. Cover up to 40 ft. swaths. Simple fingertip controls give precise regulation of output and allow instant switching from liquid to dust or granules and vice-versa. Sturdy all-metal construction yet only 27 lbs.

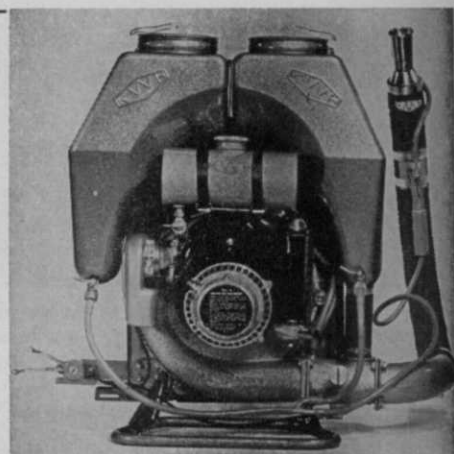
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VANDERMOLLEN EXPORT CO.

378 Mountain Ave.

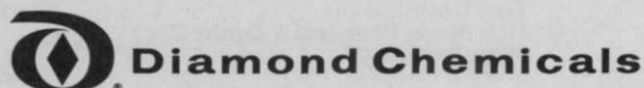
North Caldwell, N. J.





DACAMINE[®]
kills brush and weeds
as if you pulled them out by hand

For difficult-to-control weeds and brush species, Diamond Dacamine provides the safety of amines with the killing power of the esters. Dacamine herbicide is an emulsifiable amine. The advantages: positive brush and weed control, materials needed reduced, hazards of crop damage reduced. Used along the sides of roads, along railroad tracks, around lakes and ponds, Dacamine will prove one of the most useful and effective means of controlling unsightly and destructive weed and brush growths. For details on specific Dacamine formulation techniques, write Diamond Alkali Company, 300 Union Commerce Bldg., Cleveland, Ohio 44114.



ZECTRAN*

Armour Agricultural Chemical Co.
Bonide Chemical Co., Inc.
Dow Chemical Co.
Miller Products Co.
Residex Corp.
Southern Mill Creek Products Co.

ZINOPHOS*

American Cyanamid Co.
Miller Products Co.

MITICIDES**ARAMITE***

Archem Corp.
Bonide Chemical Co., Inc.
Brayton Chemicals, Inc.
California Chemical Co., Ortho Div.
Chipman Chemical Co., Inc.
General Chemical Div., ACC
Miller Products Co.
Naugatuck Chemical
Niagara Chemical Div., FMC
Southern Mill Creek Products Co.
Andrew Wilson Co., Inc.

BIDRIN*

Daly-Herring Co.
Miller Products Co.
Niagara Chemical Div., FMC
Shell Chemical Co.
Stauffer Chemical Co.
Thompson-Hayward Chemical Co.
Triangle Chemical Co.

CHLOROBENZILATE*

Armour Agricultural Chemical Co.
Brayton Chemicals, Inc.
Gabriel Chemicals, Ltd.
Geigy Agricultural Chemical
Hub States Chemical & Equip. Co.
Miller Products Co.
Prentiss Drug & Chemical Co.
Residex Corp.
Triangle Chemical Co.

DELNAV*

See Insecticides

DIBROM*

See Insecticides

DIMITE*

Miller Products Co.
Pennsalt Chemicals Corp.
Sherwin-Williams Co.

ETHION

See Insecticides

GENITE*

Brayton Chemicals, Inc.
General Chemical Div., ACC
Miller Products Co.
Niagara Chemical Div., FMC
B. G. Pratt Co.
Southern Mill Creek Products Co.

KARATHANE

Bonide Chemical Co., Inc.
Brayton Chemicals, Inc.
Gabriel Chemicals, Ltd.
Neil A. Maclean Co., Inc.
Miller Products Co.
Niagara Chemical Div., FMC
B. G. Pratt Co.
Rohm & Haas
Seacoast Laboratories, Inc.
Smith Douglass Co., Inc.

KELTHANE*

Bonide Chemical Co.

Brayton Chemicals, Inc.
Destruxol Corp.
Gabriel Chemicals, Ltd.
Hub States Chemical & Equip. Co.
Miller Products Co.
B. G. Pratt Co.
Residex Corp.
Riverdale Chemical Co.
Rohm & Haas
Seacoast Laboratories, Inc.
Smith Douglass Co., Inc.
Southern Mill Creek Products Co.

METHYL TRITHION*

See Insecticides

MITOX*

California Chemical Co., Ortho Div.

MORESTAN*

Brayton Chemicals, Inc.
Chemagro Corp.
Miller Products Co.

MOROCIDE*

See Fungicides

OVEX

Bonide Chemical Co.
Brayton Chemicals, Inc.
The Dow Chemical Co.
Gabriel Chemicals, Ltd.
General Chemical Division, ACC

PENTAC*

Brayton Chemicals, Inc.
Hooker Chemical Corp.

SCHRADAN

(OMPA)

Miller Products Co.
Pennsalt Chemicals Corp.

SYSTOX*

(Demeton)

See Insecticides

TEDION*

American Liquid Fertilizer Co.
Brayton Chemicals, Inc.
California Chemical Co., Ortho Div.
General Chemical Div., ACC
Miller Products Co.
Niagara Chemical Div., FMC
Thompson-Hayward Chemical Co.

THIMET*

American Cyanamid Co.
Brayton Chemicals, Inc.
General Chemical Div., ACC
Hub States Chemical & Equip. Co.
Miller Products Co.
Triangle Chemical Co.

TOXAPHENE

See Insecticides

TRITHION*

See Insecticides

NEMATOCIDES

Also See Soil Fumigants

CHLOROPICRIN

Armour Agricultural Chemical Co.
Brayton Chemicals, Inc.
Dow Chemical Co.
Hub States Chemical & Equip. Co.
Miller Products Co.
Morton Chemical Co.
Southern Mill Creek Products Co.

D-D*

Armour Agricultural Chemical Co.
Brayton Chemicals, Inc.
The Dow Chemical Co.
Miller Products Co.
Shell Chemical Co.
Southern Mill Creek Products Co.
Triangle Chemical Co.

FUMAZONE*

Brayton Chemicals, Inc.
Dow Chemical Co.
Miller Products Co.
Residex Corp.

NEMAGON

Armour Agricultural Chemical Co.
Brayton Chemicals, Inc.
California Chemical Co., Ortho Div.
Daly-Herring Co.
Miller Products Co.
Niagara Chemical Div., FMC
B. G. Pratt Co.
Shell Chemical Co.
Southern Mill Creek Products Co.
Stephenson Chemical Co., Inc.
Triangle Chemical Co.

PENPHENE*

Pennsalt Chemicals Corp.

VAPAM*

Armour Agricultural Chemical Co.
Brayton Chemicals, Inc.
Destruxol Corp.
E. I. du Pont de Nemours & Co., Inc.
Miller Products Co.
Residex Corp.
Southern Mill Creek Products Co.
Stauffer Chemical Co.
Triangle Chemical Co.
Woolfolk Chemical Works, Ltd.

VC-13*

See Insecticides

VORLEX*

Armour Agricultural Chemical Co.
Miller Products Co.
Morton Chemical Co.

SOIL FUMIGANTS

Also See Nematocides

BEDRENCH

Niagara Chemical Div., FMC

DICHLOROPROPENE FUMIGANTS

Armour Agricultural Chemical Co.
The Dow Chemical Co.
Vineland Laboratories, Inc.

DOWFUME*

Armour Agricultural Chemical Co.
Brayton Chemicals, Inc.
The Dow Chemical Co.
Miller Products Co.
Residex Corp.
Southern Mill Creek Products Co.

ETHYLENE DIBROMIDE

American Potash & Chemical Corp.
Armour Agricultural Chemical Co.
The Dow Chemical Co.
Hub States Chemical & Equip. Co.
Michigan Chemical Corp.
Miller Products Co.
Niagara Chemical Division, FMC
Residex Corp.
Southern Mill Creek Products Co.
Wood Treating Chemicals Co.

METHYL BROMIDE

American Potash & Chemical Corp.
Archem Corp.

Armour Agricultural Chemical Co.
Brayton Chemicals, Inc.
The Dow Chemical Co.
E-Z Flo Chemical Co.
Hub States Chemical & Equip. Co.
Lobel Chemical Corp.
Neil A. Maclean Co., Inc.
Michigan Chemical Corp.
Miller Products Co.
Residex Corp.
Southern Mill Creek Products Co.
Thompson-Hayward Chemical Co.
Triangle Chemical Co.
Velsicol Chemical Corp.
Wood Treating Chemicals Co.

MYLONE*

Armour Agricultural Chemical Co.
Brayton Chemicals, Inc.
Niagara Chemical Div., FMC
Union Carbide Corp.

PROPARGYL BROMIDE

General Aniline and Film Corp.

SODAM*

Wood Ridge Chemical Corp.

TELONE*

Armour Agricultural Chemical Co.
Brayton Chemicals, Inc.
The Dow Chemical Co.
Miller Products Co.
Residex Corp.

TRIZONE*

Armour Agricultural Chemical Co.
The Dow Chemical Co.

VIDDEN D*

The Dow Chemical Co.

SURFACTANTS

EMULSIFIERS

Archem Corp.
Armour Industrial Chemicals Co.
Atlas Chemical Industries, Inc.
Chapman Chemical Co.
Cloro-Spray Corp.
Destruoxol Corp.
Emery Industries, Inc.
General Aniline and Film Corp.
Hub States Chemical & Equip. Co.
Industrial Materials Co.
Jefferson Chemical Co.
Marathon
C. J. Martin & Sons, Inc.
Miller Products Co.
Petrochemicals Co.
Retzloff Chemical Co.
Rohm & Haas Co.
Sole Chemical Corp.
Southern Mill Creek Products Co.
A. E. Staley Manufacturing Co.
Stepan Chemical Co.
Thompson-Hayward Chemical Co.
Triangle Chemical Co.
Utility Chemical Co.
Woodbury Chemical Co.

WETTING AGENTS

Alco Chemical Co.
American Cyanamid Co.
Aquatrols Corp. of America
Archem Corp.
Armour Agricultural Chemical Co.
Armour Industrial Chemicals Co.
Chapman Chemical Co.
Chipman Chemical Co.
W. A. Cleary Corp.
Cloro-Spray Corp.
Colloidal Products Corp.
Destruoxol Corp.

The Dow Chemical Co.
Emery Industries, Inc.
General Aniline and Film Corp.
Jefferson Chemical Co.
Miller Products Co.
Petrochemicals Co.
Retzloff Chemical Co.
Rohm & Haas Co.
Sole Chemical Corp.
Southern Mill Creek Products Co.
Tennessee Corp.
Triangle Chemical Co.
Utility Chemical Co.
"Water-In" Inc.
Woodbury Chemical Co.

SPREADER STICKERS

Agricultural Specialties, Inc.
Alco Chemical Co.
Archem Corp.
Armour & Co.
Brayton Chemicals, Inc.
California Chemical Co., Ortho Div.
Chipman Chemical Co.
Colloidal Products Corp.
Destruoxol Corp.
E. I. du Pont de Nemours & Co.
Emery Industries, Inc.
Hub States Chemical & Equip. Co.
Miller Products Co.
Nursery Specialty Products
Pennsalt Chemicals Corp.
Retzloff Chemical Co.
Rohm & Haas Co.
Sole Chemical Corp.
Southern Mill Creek Products Co.
Thompson-Hayward Chemical Co.
Triangle Chemical Co.
Andrew Wilson Co., Inc.
Woodbury Chemical Co.
Wood Treating Chemicals Co.

MARASPERSE*

Marathon

PLYAC*

General Chemical Div., ACC

SURFACTANT WK*

E. I. du Pont de Nemours & Co.

SURF-AID*

Chapman Chemical Co.

CARRIERS

GRANULAR

American Talc Co.
American Vermiculite Corp.
Chemwest, Inc.
Destruoxol Corp.
Floridin Co.
Great Lakes Carbon Corp.
Magnet Cove Barium Corp.
C. J. Martin & Sons, Inc.
Minerals & Chemicals Philipp Corp.
Mississippi Lime Co.
Narvon Mines, Ltd.
Pittsburgh Plate Glass Co.
Thompson-Hayward Chemical Co.

LIQUID

American Mineral Spirits Co.
American Oil Co.
Amoco Chemicals Corp.
Anderson-Prichard Oil Co.
Destruoxol Corp.
Gulf Oil Corp.
Humble Oil & Refining Co.
Jefferson Chemical Co.
C. J. Martin & Sons, Inc.
Mobil Oil Co., Inc.
Signal Oil & Gas Co.
Southern Mill Creek Products Co.
A. E. Staley Mfg. Co.

Tenneco Oil Co.
Utility Chemical Co.

DILUENTS

GRANULAR, MISCELLANEOUS

American Vermiculite Corp.
Aquafile Co.
Chemwest, Inc.
Columbia Quarry Co.
Destruoxol Corp.
Floridin Co.
Magnet Cove Barium Corp.
C. J. Martin & Sons, Inc.
Minerals & Chemicals Philipp Corp.
Mississippi Lime Co.
Pittsburgh Plate Glass Co.
A. E. Staley Manufacturing Co.
Thompson-Hayward Chemical Co.
Utility Chemical Co.

DIATOMACEOUS EARTH

Aquafile Co.
Eagle-Picher Co.
Great Lakes Carbon Corp.

TALC

American Talc Co.
Blue Ridge Talc Co., Inc.
Commercial Minerals Co.
Miller Products Co.

KAOLINS (Clay)

Narvon Mines, Ltd.
United Clay Mines

MISCELLANEOUS COMPOUNDS

ANTIDESICCANT SPRAYS

Aquatrols Corp. of America
Armour Agricultural Chemical Co.
Bonide Chemical Co.
Brayton Chemicals, Inc.
Cornell Chemical & Equipment Co.
Nursery Specialty Products
Thompson-Hayward Chemical Co.
Andrew Wilson Co., Inc.

TREE WOUND PAINT

Bartlett Mfg. Co.
Brayton Chemicals, Inc.
Samuel Cabot, Inc.
Walter E. Clark & Son
A. M. Leonard & Son, Inc.
Andrew Wilson Co., Inc.

TREE KILLERS

Amchem Products, Inc.
Bonide Chemical Co.
Brayton Chemicals, Inc.
Chapman Chemical Co.
Chipman Chemical Co.
E. I. du Pont de Nemours & Co.
Hub States Chemical & Equip. Co.
Industrial Materials Co.
Thompson-Hayward Chemical Co.
Triangle Chemical Co.
Utility Chemical Co.

STUMP REMOVING COMPOUNDS

Brayton Chemicals, Inc.
E. I. du Pont de Nemours & Co.
Utility Chemical Co.

ANTICAKING CONDITIONERS

Petrochemicals Co.
United Clay Mines

ANIMAL REPELLENTS

Morton Chemical Co.
Sudbury Laboratories

TURF COLOR SPRAYS

W. A. Cleary Corp.
Cornell Chemical & Equipment Co.
Doggett-Fison Co.
The Gregg Co.
Mallinckrodt Chemical Works

GRASS SEED

Asgrow Seed Company
Chanderlin Div.
O. M. Scott & Sons

MULCHES

TURFIBER*

International Paper Co.

SEEDING MULCH

Armour Agricultural Chemical Co.
Boise Cascade Corp.
Brayton Chemicals, Inc.
Troy Blanket Mills

EROSION CONTROL MULCHES

Cloro-Spray Corp.

SOIL CONDITIONERS

PEAT-HUMUS

Agri-Humus Co., Inc.
Brayton Chemicals, Inc.
Conrad Fafard, Inc.
Floridin Co.
Michigan Peat, Inc.
Waverly Petroleum Products Co.
Western Peat

TURFACE*

Wyandotte Chemicals Corp.

BARK

Boise Cascade Corp.

VERMICULITE

American Vermiculite Corp.
Michigan Peat, Inc.
Zonolite Division

PEAT MOSS

Conrad Fafard, Inc.
Premier Peat Moss Corp.

CALCINED CLAY

Floridin Co.
Minerals & Chemicals Philipp Corp.
Oil-Dri Corp. of America

DIALOAM*

Eagle-Picher Co.

pH CONTROLLERS

(Base Formers—Raise pH)

LIME

Dolcito Quarry Co.
Ohio Lime Co.

LIMESTONE

Columbia Quarry Co.
Commercial Minerals Co.
Dolcito Quarry Co.
Limestone Products Div.
Ohio Lime Co.

LIMESTONE, BURNED CALCITE

Columbia Quarry Co.
Limestone Products Division

Minerals & Chemicals Philipp Corp.
Mississippi Lime Co.

LIMESTONE, HYDRATED CALCITE

Columbia Quarry Co.
Limestone Products Div.
Minerals & Chemicals Philipp Corp.
Mississippi Lime Co.

DOLOMITE

Dolcito Quarry Co.
Heritage House Products, Inc.
Ohio Lime Co.

DOLOMITIC LIME, HYDRATED

Ohio Lime Co.

CALCIUM CARBONATE

Columbia Quarry Co.
Commercial Minerals Co.

(Acid Formers—Lower pH)

SULFUR

Destruxol Corp.
General Chemical Div., ACC
C. J. Martin & Sons, Inc.
Miller Products Co.
Stauffer Chemical Co.

ALUMINUM SULFATE

Brayton Chemicals, Inc.
Faesy & Besthoff, Inc.
General Chemical Div., ACC
M. W. Hardy & Co., Inc.
International Minerals & Chemical
Utility Chemical Co.
Andrew Wilson Co., Inc.

AMMONIUM THIOSULFATE

General Chemical Div., ACC

AMMONIUM POLYSULFIDE (APS*)

General Chemical Div., ACC

LIQUID FISH

K. C. Mattson Co.

FERTILIZER, COMMERCIAL

NITROGEN SOURCES

AMMONIUM NITRATE

American Cyanamid Co.
Armour Agricultural Chemical Co.
Armour Agricultural Chemical Co.
California Chemical Co., Ortho Div.
John Deere Chemical Co.
General Chemical Div., ACC
Hercules Powder Co.
International Minerals & Chemical
Miller Products Co.
Utility Chemical Co.

AMMONIUM NITRATE—UREA

Hercules Powder Co.

AMMONIUM PHOSPHATE

American Agricultural Chemical Co.
Armour Agricultural Chemical Co.
Best Fertilizer Co.
John Deere Chemical Co.
Miller Products Co.
Tennessee Corp.
Utility Chemical Co.

AMMONIUM SULFATE

American Agricultural Chemical Co.

American Cyanamid Co.
Armour Agricultural Chemical Co.
Best Fertilizer Co.
California Chemical Co., Ortho Div.
Donner-Hanna Coke Corp.
Faesy & Besthoff, Inc.
General Chemical Div., ACC
Miller Products Co.
Rohm & Haas Co.

CALCIUM CYANAMID

American Cyanamid Co.
Armour Agricultural Chemical Co.
Miller Products Co.

CALCIUM NITRATE

Armour Agricultural Chemical Co.
Barium & Chemicals, Inc.

NITROGEN SOLUTIONS

American Cyanamid Co.
General Chemical Div., ACC
U. S. Industrial Chemicals Co.

SODIUM NITRATE

American Agricultural Chemical Co.
Armour Agricultural Chemical Co.
Destruxol Corp.
General Chemical Div., ACC
Utility Chemical Co.

UREA

American Cyanamid Co.
Armour Agricultural Chemical Co.
Best Fertilizer Co.
Brayton Chemicals, Inc.
Elanco Products Co.
John Deere Chemical Co.
Destruxol Corp.
E. I. du Pont de Nemours & Co.
General Chemical Div., ACC
Hercules Powder Co.
Hub States Chemical & Equip. Co.
Miller Products Co.
Southern Mill Creek Products Co.
Utility Chemical Co.

SLOW RELEASE UREAFORM

Archem Corp.
Armour Agricultural Chemical Co.
E. I. du Pont de Nemours & Co., Inc.
General Chemical Div., ACC
Hercules Powder Co.
Heritage House Products, Inc.
International Minerals & Chemical
Smith-Douglass Co., Inc.
Southern Mill Creek Products Co.
Triangle Chemical Co.

ORGANIC NITROGEN

HU ACTINITE*

Armour Agricultural Chemical Co.

MILORGANITE*

Milwaukee Sewerage Commission
Armour Agricultural Chemical Co.

TRU ORGANIC

Southern Mill Creek Products Co.

SOYBEAN MEAL

Archem Corp.
A. E. Staley Mfg. Co.

COTTONSEED MEAL

Armour Agricultural Chemical Co.
Destruxol Corp.
Faesy & Besthoff, Inc.
Andrew Wilson Co., Inc.

AGRINITE

American Agricultural Chemical Co.

SMIROW TANKAGE

Smith-Douglass Co., Inc.

NUTRONITE

Smith-Douglass Co., Inc.

PHOSPHOROUS SOURCES**PHOSPHATE ROCK**

American Agricultural Chemical Co.
 American Cyanamid Co.
 Armour Agricultural Chemical Co.
 Columbia Quarry Co.
 Destruol Corp.
 International Minerals & Chemical

BONE MEAL, RAW

Andrew Wilson Co., Inc.

BONE MEAL, STEAMED

Armour Agricultural Chemical Co.
 Faesy & Besthoff, Inc.
 Smith-Douglass Co., Inc.
 Andrew Wilson Co., Inc.

FISH SCRAP

Armour Agricultural Chemical Co.
 Destruol Corp.
 K. C. Mattson Co.
 Miller Products Co.

NITRATE OF SODA

Faesy & Besthoff, Inc.

SEWAGE SLUDGE

Armour Agricultural Chemical Co.

**SUPERPHOSPHATE,
CONCENTRATED**

American Agricultural Chemical Co.
 American Cyanamid Co.
 Armour Agricultural Chemical Co.
 California Chemical Co., Ortho Div.
 International Minerals & Chemical
 Miller Products Co.
 Tennessee Corp.

SUPERPHOSPHATE, ENRICHED

American Cyanamid Co.

SUPERPHOSPHATE, NORMAL

American Agricultural Chemical Co.
 American Cyanamid Co.
 Armour Agricultural Chemical Co.
 Best Fertilizer Co.
 California Chemical Co., Ortho Div.
 Faesy & Besthoff, Inc.
 Andrew Wilson Co., Inc.

MONOAMMONIUM PHOSPHATE

California Chemical Co., Ortho Div.

DIAMMONIUM PHOSPHATE

American Agricultural Chemical Co.
 American Cyanamid Co.
 Armour Agricultural Chemical Co.
 Brayton Chemicals, Inc.
 California Chemical Co., Ortho Div.
 John Deere Chemical Co.
 Hooker Chemical Corp.
 International Minerals & Chemical
 Tennessee Corp.
 Utility Chemical Co.

AMMONIUM PHOSPHATE**NITRATE**

Armour Agricultural Chemical Co.

California Chemical Co., Ortho Div.

**AMMONIUM PHOSPHATE
SULFATE**

Best Fertilizer Co.

AMMONIUM PHOSPHATE—UREA

John Deere Chemical Co.

PHOSPHORIC ACID

Armour Agricultural Chemical Co.

POTASH SOURCES**NITRATE OF POTASH**

Armour Agricultural Chemical Co.
 Miller Products Co.
 Utility Chemical Co.

POTASSIUM CARBONATE

Hooker Chemical Corp.
 Utility Chemical Co.

POTASSIUM SULFATE

American Agricultural Chemical Co.
 American Potash & Chemical Co.
 Armour Agricultural Chemical Co.

**POTASSIUM CHLORIDE
(MURIATE OF POTASH)**

American Potash & Chemical Corp.
 International Minerals & Chemical
 U.S. Borax

*Check off our name on Reader Reply Card!***USE**

The Right Chemical
 On the Right Crop
 In the Right Manner
 At the Right Time
 In the Right Amount

WE DISTRIBUTE

The Nation's Leading Brands of
 Agricultural Chemicals and
 Allied Equipment.

BACKED UP BY

30 Years' Field Experience in
 Economic Entomology on Control
 Problems and Chemical Use.

FOR A COMPLETE LINE:

- ✓ Herbicides
- ✓ Chelating Agents
- ✓ Fungicides
- ✓ Growth Retardants
- ✓ Insecticides
- ✓ Miticides
- ✓ Nematocides
- ✓ Soil Fumigants
- ✓ Equipment
- ✓ Safety Materials

BRAYTON**CHEMICALS, INC.**

P.O. Box 56 • Burlington, Iowa • Tel.: 319+752-2779

FERTILIZER, MIXED ANALYSIS

SOLID

Paul E. Allen Co.
American Cyanamid Co.
Armour Agricultural Chemical Co.
Best Fertilizer Co.
Brayton Chemicals, Inc.
California Chemical Co., Ortho Div.
Columbia Nitrogen
Dairyman's Fertilizer Cooperative
Doggett Fison Co.
Faesy & Besthoff, Inc.
W. R. Grace & Co.
Hercules Powder Co.
International Minerals & Chemical
Miller Chemical & Fertilizer Corp.
Miller Products Co.
Nitrogen Division, ACC
Robert B. Peters Co., Inc.
Ra-Pid-Gro Corp.
O. M. Scott & Sons
Southwest Potash Corp.

PLASTIC COATED— SLOW RELEASE N-P-K

Archer Daniels Midland Co.

LIQUID

American Liquid Fertilizer Co., Inc.
Armour Agricultural Chemical Co.
Best Fertilizer Co.
Brayton Chemicals, Inc.
Certified Laboratories
Cloro-Spray Corp.
Hercules Powder Co.
National Chemsearch Corp.
Plant Marvel Laboratories
Smith-Douglass Co., Inc.

TRACE ELEMENTS

MAGNESIUM

MAGNESIUM SULFATE

Armour Agricultural Chemical Co.
Berkshire Chemicals, Inc.
Destruoxol Corp.
The Dow Chemical Co.
C. J. Martin & Sons, Inc.
Tennessee Corp.
Utility Chemical Co.

MAGNESIUM CARBONATE

See Dolomite

MANGANESE

MAGNESIUM SULFATE

W. R. E. Andrews Co.
Armour Agricultural Chemical Co.
Carus Chemical Co., Inc.
C. J. Martin & Sons, Inc.
Miller Products Co.
Tennessee Corp.

MANGANESE CHELATE

Armour Agricultural Chemical Co.
Brayton Chemicals, Inc.
Geigy Agricultural Chemicals
Marathon
Miller Products Co.
Robert B. Peters Co., Inc.
Triangle Chemical Co.

MANGANOUS OXIDE

Tennessee Corp.

COPPER

COPPER SULFATE

Acme Quality Paints, Inc.
W. R. E. Andrews Co.

Armour Agricultural Chemical Co.
Destruoxol Corp.
C. J. Martin & Sons, Inc.
Miller Products Co.
Phelps Dodge Refining Corp.
Tennessee Corp.
Triangle Chemical Co.
Utility Chemical Co.

COPPER SULFATE— TRI BASIC

Calumet & Hecla, Inc.
Tennessee Corp.

COPPER CHELATE

Armour Agricultural Chemical Co.
Brayton Chemicals, Inc.
Destruoxol Corp.
The Dow Chemical Co.
Geigy Agricultural Chemicals
Marathon
Robert B. Peters Co., Inc.

ZINC

ZINC CHELATE

Armour Agricultural Chemical Co.
Brayton Chemicals, Inc.
Destruoxol Corp.
Eagle-Picher Co.
Geigy Agricultural Chemicals
Miller Products Co.
Robert B. Peters Co., Inc.

ZINC SULFATE

American Smelting & Refining Co.
W. R. E. Andrews Co.
Armour Agricultural Chemical Co.
California Chemical Co., Ortho Div.
Destruoxol Corp.
Eagle-Picher Co.
M. W. Hardy & Co., Inc.
Miller Products Co.
Tennessee Corp.
Triangle Chemical Co.
Utility Chemical Co.

IRON

IRON CHELATE

American Liquid Fertilizer Co.
Armour Agricultural Chemical Co.
Brayton Chemicals, Inc.
Chapman Chemical Co.
Destruoxol Corp.
The Dow Chemical Co.
Eagle-Picher Co.
Faesy & Besthoff, Inc.
Florida Agricultural Supply Co.
Geigy Agricultural Chemicals
Hub States Chemical & Equip. Co.
Lobel Chemical Corp.
Neil A. Maclean Co., Inc.
Marathon
National Chemsearch Corp.
Robert B. Peters Co., Inc.
Residex Corp.
Riverdale Chemical Co.
Southern Mill Creek Products Co.
Stephenson Chemical Co., Inc.
Tennessee Corp.
Triangle Chemical Co.

IRON SULFATE

Armour Agricultural Chemical Co.
Crown Zellerbach Corp.
Destruoxol Corp.
Eagle-Picher Co.
Faesy & Besthoff, Inc.
C. J. Martin & Sons, Inc.
Miller Products Co.
Tennessee Corp.
Triangle Chemical Co.

BORON

BORAX

American Potash & Chemical Corp.

Armour Agricultural Chemical Co.
Chapman Chemical Co.
Miller Products Co.
U.S. Borax
Utility Chemical Co.

BORO-SPRAY

American Potash & Chemical Corp.

MOLYBDENUM

Armour Agricultural Chemical Co.
Climax Molybdenum Co.

• EQUIPMENT •

TURF MANAGEMENT

AERATORS

Aero-Thatch, Inc.
Eagle-Picher Co.
John H. Graham & Co., Inc.
Henderson Mfg. Co.
Ryan Equip. Co.
Toro Mfg. Co.
West Point Products Corp.

AIR BLAST APPLICATOR

Chowning Regulator Corp.

BINS, PORTABLE

Transtan Co.

BOTTLES, GLASS

Destruoxol Corp.
Hedwin Corp.

BOTTLES, PLASTIC

Destruoxol Corp.
Hedwin Corp.

DETHATCHERS

See Vertical Mowers

FUMIGANT APPLICATORS

Brayton Chemicals, Inc.
Cornell Chemical & Equip. Co.
Hub States Chemical & Equip. Co.
Morton Chemical Co.
Southern Mill Creek Products Co.
Triangle Chemical Co.

FUMIGANT COVERS (PLASTIC SHEETING)

Brayton Chemicals, Inc.
Cornell Chemical & Equip. Co.
Southern Mill Creek Products Co.
Triangle Chemical Co.
Wood Treating Chemicals Co.

HOSE

Broadway Rubber Co.
Electric Hose & Rubber Co.
Evans Orchard Supply Co.

HYDRAULIC MULCHING MACHINES

Bowie Machine Works
Finn Equip. Co.

IRRIGATION SYSTEMS

Adamson Sprinkler Co.
John Bean Div., FMC Corp.
Buckner Industries
Doggett Fison Co.
International Protected Metals, Inc.
Rain Bird
Rain-O-Mat
Telsco Industries

MEASURING WHEEL

Gandy Co.
B. G. Reilly Co.
Rolatape, Inc.

MOWERS, REEL AND GANG

Bolens Div.
Devere-Locke Div., Locke Mfg. Co.
Dille and McGuire Mfg. Co.
Gilson Brothers Co.
International Harvester Co.
Jacobsen Mfg. Co.
Roseman Mower Corp.
Toro Mfg. Co.

MOWERS, ROTARY

Allis-Chalmers Mfg. Co.
Ariens Co.
Bolens Div.
John Deere
Devere-Locke Div., Locke Mfg. Co.
Dille and McGuire Mfg. Co.
Falls Products, Inc.
Gilson Brothers Co.
Goodall Mfg. Corp.
Homelite
International Harvester Co.
Jacobsen Mfg. Co.
Rental Equip. Mfg. Co.
Simplicity Mfg. Co.
Toro Mfg. Co.
Vandermolten Export Co.

MOWERS, FLAIL

John Deere
Mott Corp.

NOZZLES, SPRAY DISCS & WHIRLS FOR

Cooley Spray Equip. Works

PUMPS

Ace Pump Corp.
John Bean Div., FMC Corp.
Brayton Chemicals, Inc.
California Heater Co.
Century Engineering Corp.
Clark Mfg. Co.
Delavan Mfg. Co.
Evans Orchard Supply Co.
Friend Mfg. Corp.
Hanson Equip. Co.
Hardie Sprayers
Hub States Chemical & Equip. Co.
H. D. Hudson Mfg. Co.
Hypro Engineering Co.
L. L. Larson Machine, Inc.
Marlow Pumps
F. E. Myers & Brothers Co.
Precision Chemical Pump Corp.
Simplex Mfg. Co.
Solo Industries, Inc.
Southern Mill Creek Products Co.
Thuron Sprayer Mfg. Co.
Tryco Mfg. Co., Inc.
Ulrich Mfg. Co.
Viking Pump Co.

PROPORTIONING SYSTEMS

John Bean Div., FMC Corp.
Brayton Chemicals, Inc.
Dragon Engineering Co.
Hayes Spray Gun Co.
Hub States Chemical & Equip. Co.

RAKES

John Deere
Destruol Corp.
International Harvester Co.
Rental Equip. Mfg. Co.
York Modern Corp.

ROLLERS

International Harvester Co.
Rowco Mfg. Co., Inc.

Ryan Equip. Co.
Sun Industries, Inc.
Wichita Equip. Co.

ROLLER-SPRAYERS

Hanson Equip. Co.
Hub States Chemical & Equip. Co.
Sun Industries, Inc.

SCRAPERS

Allis-Chalmers Mfg. Co.
John Deere
York Modern Corp.

SEEDERS, DISC-TYPE

Cyclone Seeder Co., Inc.
International Harvester Co.
L. L. Larson Machine, Inc.

SEEDERS, HOPPER-TYPE

Betrager Mfg.
Brillion Iron Works, Inc.
Cyclone Seeder Co., Inc.
John Deere
Ezee Flow Div., AVCO Corp.
Gandy Co.
H. & R. Mfg. Co.
International Harvester Co.
L. L. Larson Machine, Inc.
Lely, Ltd.
Schneider Metal Mfg. Co.
Sunnyhill Research & Mfg. Co.

SHREDDERS, SOIL

Gilson Brothers Corp.
W-W Grinder Corp.
Kemp Mfg. Co.
Lindig Mfg. Co., Inc.
Royer Foundry & Machine Co.

SLICERS

West Point Products Corp.

SOD CUTTERS

Ryan Equip. Co.
Sod-Master

SOD PLUGGER

West Point Products Corp.

SPIKERS

See Aerators

SPRAY BOOMS

John Bean Div., FMC Corp.
John Blue Co.
Brayton Chemicals, Inc.
Broyhill Co.
California Heater Co.
Century Engineering Corp.
Chapman Chemical Co.
Clark Mfg. Co.
Custom Spray Equip. Corp.
Friend Mfg. Corp.
Hanson Equip. Co.
Hardie Sprayers
Hub States Chemical & Equip. Co.
H. D. Hudson Mfg. Co.
L. L. Larson Machine, Inc.
Little Giant Products, Inc.
F. E. Myers & Brothers Co.
Simplex Mfg. Co.
Southern Mill Creek Products Co.
Tote Systems Div.
Tryco Mfg. Co., Inc.
Wood Treating Chemicals Co.

SPRAY GUNS

Archem Corp.
John Bean Div., FMC Corp.
Brayton Chemicals, Inc.
Broyhill Co.
California Heater Co.
Century Engineering Corp.
R. E. Chapin Mfg. Works, Inc.
Clark Mfg. Co.

Delavan Mfg. Co.
Friend Mfg. Corp.
Hanson Equip. Co.
Hardie Sprayers
Heritage House Products, Inc.
Hub States Chemical & Equip. Co.
H. D. Hudson Mfg. Co.
L. L. Larson Machine, Inc.
F. E. Myers & Brothers Co.
Silver Creek Precision Corp.
Southern Mill Creek Products Co.
Spraying Systems Co.
Tryco Mfg. Co., Inc.
Wood Treating Chemicals Co.

SPRAY NOZZLES

Archem Corp.
John Bean Div., FMC Corp.
Brayton Chemicals, Inc.
Broyhill Co.
California Heater Co.
Century Engineering Corp.
R. E. Chapin Mfg. Works, Inc.
Chapman Chemical Co.
Clark Mfg. Co.
Cooley Spray Equip. Works
Delavan Mfg. Co.
DeVilbiss Co.
Evans Orchard Supply Co.
Friend Mfg. Corp.
Hanson Equip. Co.
Hardie Sprayers
Hub States Chemical & Equip. Co.
H. D. Hudson Mfg. Co.
L. L. Larson Machine, Inc.
Little Giant Products, Inc.
Monarch Mfg. Works, Inc.
F. E. Myers & Brothers Co.
Simplex Mfg. Co.
Southern Mill Creek Products Co.
Spraying Systems Co.
Wm. Steinen Mfg. Co.
Tryco Mfg. Co., Inc.
Wood Treating Chemicals Co.

SPRAYER ACCESSORIES

Delavan Mfg. Co.

SPRAY RIG LINE MARKERS

Contree Sales

SPRAYERS, BOOM

John Bean Div., FMC Corp.
Brayton Chemicals, Inc.
Broyhill Co.
California Heater Co.
Century Engineering Corp.
Chapman Chemical Co.
Clark Mfg. Co.
Cornell Chemical & Equip. Co.
Cushman Motors
John Deere
Friend Mfg. Corp.
Hanson Equip. Co.
Hardie Sprayers
Hub States Chemical & Equip. Co.
H. D. Hudson Mfg. Co.
L. L. Larson Machine, Inc.
Little Giant Products, Inc.
F. E. Myers & Brothers Co.
Southern Mill Creek Products Co.
Sun Industries, Inc.
Tryco Mfg. Co., Inc.
Wood Treating Chemicals Co.

SPRAYERS, CART-TYPE

John Bean Div., FMC Corp.
Buffalo Turbine
California Heater Co.
R. E. Chapin Mfg. Works, Inc.
Cooley Spray Equip. Works
Cushman Motors
Hub States Chemical & Equip. Co.
H. D. Hudson Mfg. Co.
L. L. Larson Machine, Inc.
F. E. Myers & Brothers Co.
Silver Creek Precision Corp.

D. B. Smith & Co.
Southern Mill Creek Products Co.
Sun Industries, Inc.
Tarrant Mfg. Co.
Universal Metal Products Div.

SPRAYERS, COMPRESSED AIR

John Bean Div., FMC Corp.
Brayton Chemicals, Inc.
R. E. Chapin Mfg. Works, Inc.
Chowning Regulator Corp.
Hub States Chemical & Equip. Co.
H. D. Hudson Mfg. Co.
Residex Corp.
D. B. Smith & Co.
Southern Mill Creek Products Co.
Tryco Mfg. Co., Inc.
Universal Metal Products Div.
Wood Treating Chemicals Co.

SPRAYERS, HAND

Archem Corp.
John Bean Div., FMC Corp.
Brayton Chemicals, Inc.
Century Engineering Corp.
R. E. Chapin Mfg. Works, Inc.
Chapman Chemical Co.
John Deere
DestruXol Corp.
Friend Mfg. Corp.
Gabriel Chemicals, Ltd.
Hub States Chemical & Equip. Co.
H. D. Hudson Mfg. Co.
F. E. Myers & Brothers Co.
Residex Corp.
Root-Lowell Corp.
Silver Creek Precision Corp.
D. B. Smith & Co.
Solo Industries, Inc.
Southern Mill Creek Products Co.
Spraying Systems Co.
Tradewinds, Inc.
Tryco Mfg. Co., Inc.
Universal Metal Products Div.
Vandermolen Export Co.
Wood Treating Chemicals Co.

SPRAYERS, KNAPSACK

ArChem Corp.
John Bean Div., FMC Corp.
Brayton Chemicals, Inc.
Buffalo Turbine
Gabriel Chemicals, Limited
Hanson Equip. Co.
Hub States Chemical & Equip. Co.
H. D. Hudson Mfg. Co.
Ben Meadows Co.
Root-Lowell Corp.
D. B. Smith & Co.
Solo Industries, Inc.
Southern Mill Creek Products Co.
Tradewinds, Inc.
Universal Metal Products Div.
Vandermolen Export Co.
Wood Treating Chemicals Co.

SPRAYERS, COMPLETE POWER UNIT

Archem Corp.
John Bean Div., FMC Corp.
Besler Corp.
John Blue Co.
Brayton Chemicals, Inc.
Broyhill Co.
Buffalo Turbine
California Heater Co.
Century Engineering Corp.
Champion Sprayer Co.
R. E. Chapin Mfg. Works, Inc.
Chapman Chemical Co.
Clark Mfg. Co.
Cooley Spray Equip. Works
Cushman Motors
John Deere
Dutton-Lainson Co.
Evans Orchard Supply Co.
Friend Mfg. Corp.

Gabriel Chemicals, Ltd.
Gro-Spray Mfg. Co.
Hanson Equip. Co.
Hardie Sprayers
Hub States Chemical & Equip. Co.
H. D. Hudson Mfg. Co.
L. L. Larson Machine, Inc.
Marlow Pumps
F. E. Myers & Brothers Co.
Oakes Mfg. Co.
Root-Lowell Corp.
Silver Creek Precision Corp.
Solo Industries, Inc.
Southern Mill Creek Products Co.
Sun Industries, Inc.
Tarrant Mfg. Co.
Thuron Sprayer Mfg. Co.
Tryco Mfg. Co., Inc.
Universal Metal Products Div.
Vandermolen Export Co.
Wood Treating Chemicals Co.

SPREADERS, DISC-TYPE

Belt Corp.
Heritage House Products, Inc.
L. L. Larson Machine, Inc.
Southern Mill Creek Products Co.
Tyler Mfg. Co.

SPREADERS, HOPPER-TYPE

Belt Corp.
Brettrager Mfg.
Brillion Iron Works, Inc.
Cyclone Seeder Co., Inc.
Ezee Flow Div., AVCO Corp.
Gandy Co.
H. & R. Mfg. Co.
Heritage House Products, Inc.
Highway Equip. Co.
Hub States Chemical & Equip. Co.
International Harvester Co.
L. L. Larson Machine, Inc.
Lely, Ltd.
Schneider Metal Mfg. Co.
O. M. Scott & Sons
Smith-Douglass Co., Inc.
Southern Mill Creek Products Co.
Sunnyhill Research & Mfg. Co.

SPRIGGERS

Thompson Mfg. Co.
Western Turfgrass, Inc.
Wichita Equip. Co.

SPRIG HARVESTER

Wichita Equip. Co.

STONEPICKER

Bridgeport Implement Works, Inc.

SWEEPERS

International Harvester Co.
Little Giant Products, Inc.

TANKS, SPRAY

John Bean Div., FMC Corp.
Broyhill Co.
California Heater Co.
Century Engineering Corp.
Clark Mfg. Co.
Hanson Equip. Co.
H. D. Hudson Mfg. Co.
L. L. Larson Machine, Inc.
F. E. Myers & Brothers Co.
Southern Mill Creek Products Co.
Tryco Mfg. Co., Inc.

TILLERS

Bolens Div.
Dille & McGuire Mfg. Co.
Gilson Brothers Co.
International Harvester Co.
Jacobsen Mfg. Co.
Merry Mfg. Co.
Solo Industries, Inc.
Tradewinds, Inc.

TOP DRESSERS

Eagle-Picher Co.
Ezee Flow Div., AVCO Corp.
H. & R. Mfg. Co.
Ryan Equip. Co.
Sod-Master

TRACTORS

Allis-Chalmers Mfg. Co.
Balmar Tractor Corp.
Bolens Div.
J. D. Case Co.
Caterpillar Tractor Co.
Cushman Motors
John Deere
Devere-Locke Div., Locke Mfg. Co.
Ford Motor Co.
Gilson Brothers Co.
International Harvester Co.
Jacobsen Mfg. Co.
Massey-Ferguson
Merry Mfg. Co.
Oliver Corp.
Tradewinds, Inc.

TRAILERS

Century Engineering Corp.
Champion Co.
John Deere
International Harvester Co.
Tyler Mfg. Co.
West Point Products Corp.

TRIMMING (EDGING) TOOLS

Allegretti & Co.
Black & Decker Mfg. Co.
Jacobsen Mfg. Co.
A. M. Leonard & Son
Rowco Mfg. Co., Inc.
Seymour Smith & Son, Inc.
Sod-Master

UTILITY VEHICLES

Allis-Chalmers Mfg. Co.
Cushman Motors
Gilson Brothers Co.
Harley-Davidson Motor Co.
Trailevator Div.
Walker Mfg. Co.

VACUUMS

Black & Decker Mfg. Co.
Dille & McGuire Mfg. Co.
Gilson Brothers Co.
Parker Sweeper Co.
Tarrant Mfg. Co.

VALVES, PRESSURE RELIEF

Delavan Mfg. Co.

VERTICAL MOWERS

Aero-Thatch, Inc.
Parker Sweeper Co.
Rental Equip. Mfg. Co.
Ryan Equip. Co.
West Point Products Corp.

WEED AND BRUSH CONTROL

AIRCRAFT, FIXED WING

Cessna Aircraft Co.
Grumman Aircraft Corp.
Imco, Inc., Intermountain Mfg. Co.
Piper Aircraft Corp.
Snow Aeronautical Corp.

AIRCRAFT, HELICOPTER

Bell Helicopter Co.
Hiller Aircraft Corp.
Republic Aviation Corp.
Sikorsky Aviation Div.

AERIAL SPRAY ACCESSORIES

Simplex Mfg. Co.

AQUATIC WEED MOWERAquatic Controls Corp.
Jari Products, Inc.**BARRELS, PLASTIC-LINED**Broyhill Co.
Clark Mfg. Co.
Hanson Equip. Co.
Hedwin Corp.
L. L. Larson Machine, Inc.**BARREL LINERS—PLASTIC**

B. H. Jordan & Co.

BARRELS—STEELBroyhill Co.
DestruXol Corp.
Hedwin Corp.
L. L. Larson Machine, Inc.
Southern Mill Creek Products Co.**BOATS, AIR-**Airboat Sales & Service
Airboats, Inc.
Hurricane Fiberglass Products Co.**BRUSHCUTTERS, POWER**Fairmont Hydraulics
Hoffco, Inc.
Homelite
McCulloch Corp.
Rowco Mfg. Co., Inc.
Vandermolen Export Co.**BRUSH AXE**

Sandvik Steel, Inc.

CANS, METALDestruXol Corp.
Hedwin Corp.**CHIPPERS**Asplundh Chipper Co.
Fitchburg Engineering Co.
Mitts & Merrill
Wayne Mfg. Co.**CHIPPER BLADES**Brooks Products
H & G Tool Co.
Mitts & Merrill**DRUMS, METAL**

DestruXol Corp.

FLAMETHROWERSAeroil Products Co., Inc.
Cranco Co.
Gabriel Chemicals, Ltd.
Hanson Equip. Co.
H. D. Hudson Mfg. Co.
Root-Lowell Corp.
Solo Industries, Inc.
Universal Metal Products Div.
Vandermolen Export Co.**KNIVES, BRUSH**

International Harvester Co.

MISTBLOWERS, BACKPACKGabriel Chemicals, Ltd.
Hanson Equip. Co.
Hub States Chemical & Equip. Co.
H. D. Hudson Mfg. Co.
Silver Creek Precision Corp.
Solo Industries, Inc.
Southern Mill Creek Products Co.
Tradewinds, Inc.
Vandermolen Export Co.**MISTBLOWERS, TRUCK-MOUNTED**

John Bean Div., FMC Corp.

Brayton Chemicals, Inc.

Buffalo Turbine

Cooley Spray Equip. Works
Hardie Sprayers
Hub States Chemical & Equip. Co.
F. E. Myers & Brothers Co.
Silver Creek Precision Corp.
Solo Industries, Inc.
Southern Mill Creek Products Co.
Vandermolen Export Co.**NOZZLES, SPRAY DISCS & WHIRLS FOR**

Cooley Spray Equip. Works

PUMPS*See Turf Management***SICKLE BAR MOWER**John Deere
Jari Products, Inc.**SPRAYER ACCESSORIES**

Delavan Mfg. Co.

SPRAYERS, BOOM*See Turf Management***SPRAYERS, HAND***See Turf Management***SPRAYERS, COMPLETE POWER UNIT***See Turf Management***SPRAY BOOMS***See Turf Management***SPRAY NOZZLES***See Turf Management***SPRAY SYSTEMS, INVERT EMULSION**Amchem Products, Inc.
Hercules Powder Co.**SCYTHES, HAND**

Sandvik Steel, Inc.

SCYTHES, POWERHoffco, Inc.
Jari Products, Inc.
Merry Mfg. Co.
Solo Industries, Inc.**TANKS, FIBERGLAS**

Molded Fiber Glass Companies

TREE INJECTORSCranco Co.
Panama Pump Co.
Tree-Ject Co.
Vandermolen Export Co.**UNDERWATER WEED RAKE**

Jari Products, Inc.

VALVES, CONTROL

Delavan Mfg. Co.

VALVES, PRESSURE RELIEF

Delavan Mfg. Co.

TREE SERVICE

AERIAL BUCKET LIFTSArlo Industries, Inc.
Besler Corp.
Hunt-Pierce Corp.
Miller-Robinson Co.
Mobile Aerial Towers, Inc.**AERIAL BUCKET SAFETY BELT**

W. M. Bashlin Co.

ARBORIST SUPPLIES, GENERAL LINEBartlett Mfg. Co.
Samuel Cabot, Inc.
Collins Co.
Fruit Growers of Chester County
Harder Arborist Supply Co.**AUGERS, EARTH**Fairmont Hydraulics
Hoffco, Inc.**AXES**

Sandvik Steel, Inc.

CABLING SUPPLIES

A. M. Leonard & Son

CHIPPERS*See Weed and Brush Control***CHIPPER BLADES***See Weed and Brush Control***CLIMBERS (SPURS)**

W. M. Bashlin Co.

DRILLS

Black & Decker Mfg. Co.

LADDERS

Sandvik Steel, Inc.

LEAF BLOWER

Vandermolen Export Co.

LOG SPLITTER

Waco Aircraft Div.

MISTBLOWERS, BACKPACK*See Weed and Brush Control***MISTBLOWERS, TRUCK-MOUNTED***See Weed and Brush Control***NOZZLES, SPRAY DISCS & WHIRLS FOR**

Cooley Spray Equip. Works

PRUNERS, POLEW. M. Bashlin Co.
DestruXol Corp.
Hunt-Pierce Corp.
A. M. Leonard & Son
H. K. Porter, Inc.
Seymour Smith & Son, Inc.**PRUNERS, POWER**

Vandermolen Export Co.

PRUNERS, HANDDestruXol Corp.
H. K. Porter, Inc.
Seymour Smith & Son, Inc.**PUMPS***See Turf Management***ROOT FEEDER RODS**

Velsicol Chemical Corp.

SAWS, MANUALW. M. Bashlin Co.
Fanno Saw Works
Sandvik Steel, Inc.
Seymour Smith & Sons, Inc.**SAWS, POWER**

Black & Decker Mfg. Co.

Fairmont Hydraulics
Homelite
Hoffco, Inc.
McCulloch Corp.
Omark Industries, Inc.
Solo Industries, Inc.
Southern Mill Creek Products Co.
Vandermolen Export Co.

shears

Destruxol Corp.
Fairmont Hydraulics
Marine Industrial Supply Co.
H. K. Porter, Inc.
Seymour Smith & Son, Inc.

shears, power

Vandermolen Export Co.

sprayer accessories

Delavan Mfg. Co.

sprayers, complete power unit

See Turf Management

sprayers, backpack

*See Turf Management:
Sprayers, Knapsack*

spray nozzles

See Turf Management

spray guns

See Turf Management

stump cutters

Brooks Products
International Harvester Co.
Vermeer Mfg. Co.

stump cutter teeth

H & G Tool Co.

tractors

See Turf Management

tree carts

A. M. Leonard & Son

tree movers

Ideal Crane Div.
Vermeer Mfg. Co.

valves, control

Delavan Mfg. Co.

valves, pressure relief

Delavan Mfg. Co.

wedges

Omark Industries, Inc.

TECHNICAL AIDS

METERS, pH

Analytical Measurements, Inc.
Kel Instruments Co., Inc.

METER, SOIL MOISTURE

Industrial Instruments, Inc.

SOIL TEST KITS

Edwards Laboratory
Hub States Chemical & Equip. Co.
Industrial Instruments, Inc.
LaMotte Chemical Products Co.
Sudbury Laboratories
West Point Products Corp.

SOIL PROBES

West Point Products Corp.

SAFETY EQUIPMENT

FIRST AID KITS

General Scientific Equip. Co.
Mine Safety Appliances Co.

GLOVES, CHEMICAL RESISTANT

Brayton Chemicals, Inc.
Charleston Rubber Co.
General Scientific Equip. Co.
B. H. Jordan & Co.
Mine Safety Appliances Co.
Pioneer Rubber Co.
Pulmosan Safety Equip. Co.
Southern Mill Creek Products Co.
Wilson Rubber Co.

GOGGLES

American Optical Co.
Brayton Chemicals, Inc.
General Scientific Equip. Co.
Glendale Optical Co.
Martindale Electric Co.
Mine Safety Appliances Co.
Pulmosan Safety Equip. Co.
Southern Mill Creek Products Co.
Vandermolen Export Co.
Willson Products Div.

HELMETS

General Scientific Equip. Co.
Mine Safety Appliances Co.
Willson Products Div.

MASKS, DUST

American Optical Co.
Archem Corp.
Brayton Chemicals, Inc.
Flexo Products, Inc.
General Scientific Equip. Co.
Glendale Optical Co.
B. H. Jordan & Co.
Martindale Electric Co.
Mine Safety Appliances Co.
Southern Mill Creek Products Co.
Vandermolen Export Co.
Willson Products Div.
Wood Treating Chemicals Co.

RESPIRATORS

Acme Protection Equip. Co.
American Optical Co.
Archem Corp.
Brayton Chemicals, Inc.
Flexo Products, Inc.
General Scientific Equip. Co.
Glendale Optical Co.
Martindale Electric Co.
Mine Safety Appliances Co.
Pulmosan Safety Equip. Corp.
Southern Mill Creek Products Co.
Vandermolen Export Co.
Willson Products Div.
Wood Treating Chemicals Co.

SAFETY BELTS, AUTOMOTIVE

Mine Safety Appliances Co.

SAFETY BELTS, TREE CLIMBER

W. M. Bashlin Co.
General Scientific Equip. Co.
A. M. Leonard & Son
Mine Safety Appliances Co.

STEEL TOE SHOES

General Scientific Equip. Co.

UNIFORMS, PROTECTIVE COVERALLS & JACKETS

Disposables, Inc.
General Scientific Equip. Co.
Mine Safety Appliances Co.
Riverside Mfg. Co.
Worklon, Inc.

Alphabetical Listing of Suppliers in this Buyer's Guide with their Complete Addresses

A

Ace Pump Corp., 1650 Channel Ave.,
Memphis, Tenn.
Aceto Chemical Co., Inc.,
40-40 Lawrence St., Flushing, N.Y.
Acme Protection Equipment Co.,
1225 Kalamazoo St., S. Haven,
Mich.
Acme Quality Paints, Inc.,
8250 St. Aubin Ave., Detroit, Mich.
Adamson Sprinkler Co., 229 Barry
Ave., Los Angeles, Calif.
Aeroil Products Co., 69 Wesley St.,
South Hackensack, N.J.
Aero-Thatch, Inc., 673 New
Brunswick Ave., Rahway, N.J.
Agricultural Chemicals, Inc.,
P.O. Box 398, Llano, Tex.
Agri-Humus Co., Inc., P.O. Box 4105,
317 W. Voorman Ave., Fresno,
Calif.
Airboat Sales & Service,
3123 N.W. 29th St., Miami, Fla.
Airboats, Inc.,
P.O. Box 5306, Denver, Colo.
Alco Chemical Co.,
19220 Pioneer Blvd., Artesia, Calif.
Allegretti & Co., 7232 Fulton Ave.,
North Hollywood, Calif.
Paul E. Allen Co.,
Route 584, Palm Harbor, Fla.
Allis-Chalmers Mfg. Co.,
Milwaukee, Wis.
Amchem Products, Inc.,
Box 301, Ambler, Pa.
American Agricultural Chemical
Co., 100 Church St., New York,
N.Y.
American Cyanamid Co., Ag. Chem.
Div., P.O. Box 400, Princeton, N.J.
American Fluoride Corp., 855 Ave.
of Americas, New York, N.Y.
American Liquid Fertilizer Co., Inc.,
Box 267, Marietta, Ohio
American Mineral Spirits Co.,
Murray Hill, N.J.
American Oil Co.,
910 S. Michigan Ave., Chicago, Ill.
American Optical Co., Safety Prod.
Div., 14 Mechanic St., Southbridge,
Mass.
American Potash & Chemical Corp.,
300 W. 6th St., Los Angeles, Calif.
American Smelting & Refining Co.,
120 Broadway, New York, N.Y.
American Talc Co., Chatsworth, Ga.
American Vermiculite Corp.,
527 Madison Ave., New York, N.Y.
Amoco Chemicals Corp.,
130 E. Randolph Dr., Chicago, Ill.
Analytical Measurements, Inc.,
490 Morris Ave., Summit, N.J.
Anderson-Prichard Oil Corp.,
Liberty Bank, Oklahoma City,
Okla.
W. R. E. Andrews Co.,
1505 Race St., Philadelphia, Pa.
The Ansul Co.,
One Stanton St., Marinette, Wis.
Aquafile Co., Box 94,
349 First St., Los Altos, Calif.
Aquatic Controls Corp.,
Hartland, Wis.
Aquatrols Corp. of America,
217 Atlantic Ave., Camden, N.J.
ArChem Corp.,
1514 11th St., Portsmouth, Ohio

Archer Daniels Midland Co.,
P.O. Box 532, Minneapolis, Minn.
Ariens Co.,
293 Calumet St., Brillion, Wis.
Arlo Industries, 451 Sanford
Blvd. E., Mt. Vernon, N.Y.
Armour & Co., Adhesives Div.,
1355 W. 31st St., Chicago, Ill.
Armour Agricultural Chemical Co.,
P.O. Box 1685, Atlanta, Ga.
Armour Industrial Chemical Co.,
110 N. Wacker Dr., Chicago, Ill.
Asgrow Seed Co.,
272 George St., New Haven, Conn.
Asplundh Chipper Co.,
Hamilton St., Chalfont, Pa.
Atlas Chemical Industries, Inc.,
Wilmington, Del.

B

Baird & McGuire, Inc.,
Holbrook, Mass.
Baird Chemical Corp.,
10 W. 33rd St., New York, N.Y.
J. T. Baker Chemicals Co.,
Phillipsburg, N.J.
Balmar Tractor Corp.,
3500 Clipper Rd., Baltimore, Md.
Barada & Page Co., Guinotte &
Michigan Aves., Kansas City, Mo.
Barium & Chemicals, Inc., Box 230,
State Rt. 7 N, Steubenville, Ohio
Bartlett Manufacturing Co.,
3003 E. Grand Blvd., Detroit, Mich.
W. M. Bashlin Co.,
119 W. Pine St., Grove City, Pa.
John Bean Div., FMC Corp.,
1305 S. Cedar St., Lansing, Mich.
Bell Helicopter Co.,
P.O. Box 482, Fort Worth, Tex.
Belt Corp.,
5314 Mill St., Orient, Ohio
Berkshire Chemicals, Inc.,
155 E. 44th St., New York, N.Y.
Besler Corp., Box 8427,
Emeryville, Oakland 8, Calif.
The Best Fertilizer Co., Box 4311,
Bayshore Annex, Oakland, Calif.
Bioferm Corp., Wasco, Calif.
The Black & Decker Mfg. Co.,
E. Joppa Rd., Towson, Md.
John Blue Co., Inc., Huntsville, Ala.
Blue Ridge Talc Co., Inc., Henry, Va.
The R. H. Bogle Co.,
P.O. Box 588, Alexandria, Va.
Boise Cascade Corp., Bark Prod.
Div., Box 200, Boise, Idaho
Bolens Div., FMC Corp.,
214 S. Park, Port Washington, Wis.
Bonide Chemical Co., Inc.,
382 Genessee St., Utica, N.Y.
Bowie Machine Works, Inc.,
P.O. Box 630, Bowie, Tex.
Braun-Knecht-Heimann Co.,
1400 16th St., San Francisco, Calif.
Brayton Chemicals, Inc.,
P.O. Box 56, Burlington, Iowa
Brettrager Manufacturing,
5410 East St., Saginaw, Mich.
Bridgeport Implement Works, Inc.,
1483 Stratford Ave., Stratford,
Conn.
Brillion Iron Works, Brillion, Wis.
Broadway Rubber Corp.,
529 E. Broadway, Louisville, Ky.
Brooks Products, Div. Tool Steel
Gear & Pinion Co., 211 Township
Ave., Elmwood Place, Cincinnati,
Ohio
Browning Chemical Corp.,
295 Madison Ave., New York, N.Y.
The Broyhill Co., Dakota City, Nebr.
Brun & Co., 2939 Columbia Ave.,
Indianapolis, Ind.
Buckner Industries, Inc.,
P.O. Box 232, Fresno, Calif.
Buffalo Turbine Agricultural Equip. Co.,
Industrial St., Gowanda, N.Y.

C

Samuel Cabot, Inc.,
246 Summer St., Boston, Mass.
California Chemical Co., Ortho Div.,
200 Bush St., San Francisco, Calif.
California Farm Supply Co.,
2223 Fulton St., Berkeley, Calif.
California Heater Co.,
1511 W. Second St., Pomona, Calif.
Calumet & Hecla, Inc., 17200
Southfield Rd., Allen Park, Mich.
Campbell Mfg. Co., Walthill, Nebr.
Carus Chemical Co., Inc.,
1375 8th St., LaSalle, Ill.
J. D. Case Co., Racine, Wis.
Caterpillar Tractor Co., Peoria, Ill.
Central Solvents & Chemicals Co.,
2540 W. Flournoy St., Chicago, Ill.
Century Engineering Corp.,
221 4th Ave., Cedar Rapids, Iowa
Certified Laboratories,
Box 2493, Fort Worth, Tex.
Cessna Aircraft Co., Wichita, Kans.
The Champion Co.,
400 Harrison, Springfield, Ohio
Champion Sprayer Co.,
6509 Heintz Ave., Detroit, Mich.
Chandlerlin Div., Lofts Pedigreed
Seed Co., Chimney Rock & Foot-
hills Rd., Bound Brook, N.J.
R. E. Chapin Mfg. Works, Inc.,
27 Liberty St., Batavia, N.Y.
Chapman Chemical Co., Box 3158,
416 E. Brooks Road, Memphis,
Tenn.
Charleston Rubber Co., Stark
Industrial Park, Charleston, S.C.
Chemagro Corp., P.O. Box 4913,
Hawthorn Rd., Kansas City, Mo.
Chemwest, Inc.,
600 S. Fourth St., Richmond, Calif.
Chipman Chemical Co., Inc.,
Burlingame, Calif.
Chowning Regulator Corp.,
165 Cedar St., Corning, N.Y.
Clark Mfg. Co., Atherton, Mo.
Walter E. Clark & Son,
Orange, Conn.
W. A. Cleary Corp.,
Box 749, New Brunswick, N.J.
Climax Molybdenum Co., Div. of
American Metal Climax, Inc.,
1270 Ave. of Americas,
New York, N.Y.
Cloro Spray Corp., 2215 N. American
St., Philadelphia, Pa.
The Collins Co., Collinsville, Conn.
Colloidal Products Corp.,
P.O. Box 667, Sausalito, Calif.
Columbia Nitrogen,
Box 1493, Augusta, Ga.
Columbia Quarry Co., 1007
Washington Ave., St. Louis, Mo.
Commercial Minerals Co.,
6898 Smith Ave., Newark, Calif.
Commercial Solvents Corp.,
260 Madison Ave., New York, N.Y.
Continental Chemiste Corp.,
2256 W. Ogden Ave., Chicago, Ill.
Contree Sales,
P.O. Box 129, Columbus, Wis.
Cooley Spray Equipment Works,
Springfield Road, Sommers, Conn.
Cornell Chemical & Equipment Co.,
1115 Rolling Road, Baltimore, Md.
Cotton States Chemical Co.,
100 Trenton St., West Monroe, La.
Cranco Co.,
7 Clermont Ave., Trenton, N.J.
Crown Zellerbach Corp., 231
Sansome St., San Francisco, Calif.
Cushman Motors,
958 N. 21st, Lincoln, Nebr.
Custom Spray Equipment Corp.,
R.D. #2, Binghamton, N.Y.
The Cyclone Seeder Co., Urbana,
Ind.

D

Dairyman's Fertilizer Cooperative,
P.O. Box 998, Artesia, Calif.
Daly-Herring Co., Adkin &
University Sts., Kinston, N.C.
John Deere, Deere & Co.,
John Deere Rd., Moline, Ill.
John Deere Chemical Co.,
P.O. Box 1736, Tulsa, Okla.
Delavan Manufacturing Co.,
811 4th St., West Des Moines, Iowa
Destruxol Corp., Box 265,
1450 W. 228th St., Torrance, Calif.
Devere-Locke Div., Locke Mfg. Co.,
1220 Washington Ave., Racine,
Wis.
DeVilbiss Co.,
296 Phillips Ave., Toledo, Ohio
Diamond Alkali Co., Union
Commerce Bldg., Cleveland, Ohio
J. J. Dill Co.,
P.O. Box 788, Kalamazoo, Mich.
Dille & McGuire Mfg. Co.,
N. 13th & F Sts., Richmond, Ind.
Disposables, Inc., 15-18 130th St.,
College Point, N.Y.
Doggett Fison Co.,
Purcell Court, Moonachie, N.J.
Dolcito Quarry Co., Tarrant, (Ala.)
Box 6566, 2101 Pinson St.,
Birmingham, Ala.
Donner-Hanna Coke Corp.,
Abby & Mystic Sts., Buffalo, N.Y.
The Dow Chemical Co.,
P.O. Box 512, Midland, Mich.
Dragon Engineering Co.,
626 McClary Ave., Oakland, Calif.
E. I. du Pont de Nemours & Co., Inc.,
Industrial & Biochemical Div.,
Wilmington, Del.
The Dutton-Lainson Co.,
P.O. Box 729, Hastings, Nebr.

E

E-Z Flo Chemical Co., P.O. Box
808, 2011 N. High St., Lansing,
Mich.
Edwards Laboratory,
P.O. Box 318, Norwalk, Ohio
Eagle-Picher Co., Central Parkway
& Walnut Sts., Cincinnati, Ohio
Elanco Products Co., Greenfield
Div., 640 S. Alabama,
Indianapolis, Ind.
Electric Hose & Rubber Co.,
Wilmington, Del.
Emery Industries, Inc., 8733 South
Dice Rd., Santa Fe Springs, Calif.
Evans Orchard Supply Co.,
301 Delaware St., Kansas City, Mo.
Ezee Flow Div., AVCO Corp.,
3428 N. Harlem Ave., Chicago, Ill.

F

Faesy & Besthoff, Inc.,
143 River Rd., Edgewater, N.J.
Conrad Fafard, Inc.,
P.O. Box 2131, Springfield, Mass.
Fairfax Biological Laboratory,
Clinton Corners, N.Y.
Fairfield Chemicals, FMC Corp.,
633 Third Ave., New York, N.Y.
Fairmont Hydraulics,
415 N. Main St., Fairmont, Minn.
Falls Products, Inc.,
415 Railroad Ave., Genoa, Ill.
The Fanno Saw Works, P.O. Box
628, 224 W. Eighth Ave.,
Chico, Calif.
Finn Equipment Co., 2525
Duck Creek Rd., Cincinnati, Ohio
Fitchburg Engineering Co.,
Fitchburg, Mass.
Flexo Products, Inc.,
24864 Detroit Rd., Westlake, Ohio
Florida Agricultural Supply Co.,
1611 Talleyrand Ave.,
Jacksonville, Fla.

Floridin Co.,
375 Park Ave., New York, N.Y.
Ford Motor Co., Tractor &
Implement Operations, 2500 E.
Maple, Birmingham, Mich.
Friend Manufacturing Corp.,
Prospect St., Gasport, N.Y.
Fruit Growers of Chester County,
Inc., 250 S. Franklin,
West Chester, Pa.

G

Gabriel Chemicals, Ltd.,
60 E. 42nd St., New York, N.Y.
Gandy Co.,
10 Gandrud Rd., Owatonna, Minn.
Geigy Agricultural Chemicals,
Div. of Geigy Chemical Corp.,
Saw Mill River Rd., Ardsley, N.Y.
General Aniline & Film Corp.,
435 Hudson St., New York, N.Y.
General Chemical Div., ACC,
P.O. Box 70, Morristown, N.J.
General Scientific Equipment Co.,
Limekiln Pike & Williams Ave.,
Philadelphia, Pa.
Gilson Brothers Co.,
P.O. Box 152, Plymouth, Wis.
Glendale Optical Co., 600 West
Merrick Rd., Valley Stream, N.Y.
Goodall Manufacturing Corp., 1205
E. Sanborn St., Winona, Minn.
W. R. Grace & Co., Davison Chemical
Div., 101 N. Charles,
Baltimore, Md.
John H. Graham & Co., Inc.,
105 Duane St., New York, N.Y.
Great Lakes Carbon Corp., 612 South
Flower St., Los Angeles, Calif.
The Gregg Co.,
P.O. Box 149, Riverton, N.J.
Gro-Spray Mfg. Co., 1639 S.W.
2nd Ave., Ft. Lauderdale, Fla.
Grumman Aircraft Corp., S. Oyster
Bay Rd., Bethpage, L.I., N.Y.
Guard Chemical Co., Inc.,
N. Water St., Ossining, N.Y.
Gulf Oil Corp.,
Gulf Bldg., Pittsburgh, Pa.

H

H & G Tool Co.,
22474 Sherwood, Warren, Mich.
H. & R. Manufacturing Co., 3463
Motor Ave., Los Angeles, Calif.
Hanson Equipment Co., Beloit, Wis.
Harder Arborist Supply Co.,
Box 111, Hempstead, N.Y.
Hardie Pumps & Sprayers, 4200
Wissahickon Ave.,
Philadelphia, Pa.
M. W. Hardy & Co., Inc.,
141 Broadway, New York, N.Y.
Harley-Davidson Motor Co.,
Box 653, Milwaukee, Wis.
Hayes Spray Gun Co., 98 N. San
Gabriel Blvd., Pasadena, Calif.
Hedwin Corp.,
609 Fifth Ave., New York, N.Y.
Henderson Mfg. Co., Fisher, Ill.
Hercules Powder Co., Hercules
Tower, Wilmington, Del.
Heritage House Products, Inc., 1146
Gulf Oil Bldg., Pittsburgh, Pa.
Highway Equipment Co., 616 D.
Ave. N.W., Cedar Rapids, Iowa
Hiller Aircraft Corp.,
1350 Willow Rd., Palo Alto, Calif.
Hoffco, Inc., 25 Washington Ave.,
Richmond, Ind.
Homelite, Div. of Textron, Inc.,
Riverdale Ave., Port Chester, N.Y.
Hooker Chemical Corp., 65 Iroquois
St., Niagara Falls, N.Y.
Hopkins Agricultural Chemical Co.,
P.O. Box 584, Madison, Wis.
Hub States Chemical & Equipment
Co., 1255 N. Windsor St.,
Indianapolis, Ind.

H. D. Hudson Mfg. Co.,
589 E. Illinois St., Chicago, Ill.
Humble Oil & Refining Co.,
Houston, Tex.
Hunt-Pierce Corp.,
230 Old Gate Lane, Milford, Conn.
Hurricane Fiberglass Products Co.,
Rt. 1, Box 1130, Auburndale, Fla.
Hypro Engineering, Inc., 700 39th
Ave., N.E., Minneapolis, Minn.

I

Ideal Crane Div., 15051 E. Admiral
Place, Tulsa, Okla.
Imco, Inc., Intermountain Mfg. Co.,
Afton, Wyo.
Industrial Instruments, Inc., 89
Commerce Rd., Cedar Grove, N.J.
Industrial Materials Co.,
1017 McCall St., Houston, Tex.
International Harvester Co.,
180 N. Michigan Ave., Chicago, Ill.
International Minerals & Chemical
Corp., 5401 Old Orchard Rd.,
Skokie, Ill.
Internat'l Paper Co., Spec. Prod.
Div., Drawer A, Mobile, Ala.
International Protected Metals, Inc.,
Box 543, South Plainfield, N.J.

J

Jacobsen Mfg. Co.,
1721 Packard Ave., Racine, Wis.
Jari Products, Inc., 2938 Pillsbury
Ave., Minneapolis, Minn.
Jefferson Chemical Co., Box 53300,
1121 Walker Ave., Houston, Tex.
B. H. Jordan & Co., 10 South
Middleneck Rd., Great Neck, N.Y.

K

Kel Instruments Co., Inc., P.O. Box
744, New Brunswick, N.J.
Kemp Mfg. Co., P.O. Box 975,
1027 E. 29th St., Erie, Pa.

L

LaMotte Chemical Products Co.,
Chestertown, Md.
L. L. Larson Machine, Inc.,
215 Walnut St., Princeville, Ill.
Lebanon Chemical Corp.,
P.O. Box 532, Lebanon, Pa.
Lely, Ltd., P.O. Box 523,
Burlington, Ontario, Canada
A. M. Leonard & Son, Piqua, Ohio
Lethelin Products Co., 15
MacQuesten Parkway, S.,
Mt. Vernon, N.Y.
Limestone Products Div.,
North Western-Hanna Fuel Co.,
320 First St., Menominee, Mich.
Lindig Manufacturing Co., 1875 W.
County Rd., "C", St. Paul, Minn.
Little Giant Products, Inc.,
1600 N.E. Adams St., Peoria, Ill.
Lobel Chemical Corp.,
165 Broadway, New York, N.Y.

M

Neil A. Maclean Co., Inc., 1536
Industrial Way, Belmont, Calif.
Magnet Cove Barium Corp.,
702 Western Savings Fund Bldg.,
Philadelphia, Pa.
Mallinckrodt Chemical Works,
3600 N. 2nd St., St. Louis, Mo.
Marathon Div. of American Can
Co., Neenah, Wis.
Marine Industrial Supply Co., 645
W. Anaheim St., Long Beach,
Calif.
Marlow Pumps,
P.O. Box 200, Midland Park, N.J.
C. J. Martin & Sons,
P.O. Box 6248, Austin, Tex.
Martindale Electric Co.,
1375 Hird Ave., Cleveland, Ohio

Massey-Ferguson, Inc., 12601
Southfield Rd., Detroit, Mich.
K. C. Mattson Co., 5392 Alhambra
Ave., Los Angeles, Calif.
McCulloch Corp., 6101 W. Century
Blvd., Los Angeles, Calif.
McLaughlin Gormley King Co.,
1715 Fifth St., Minneapolis, Minn.
The Ben Meadows Co.,
315 Pharr Rd., N.E., Atlanta, Ga.
Merry Mfg. Co., P.O. Box 370, 138
Railroad Ave., Edmonds, Wash.
Metalsalts Corp., 200 Wagaraw Rd.,
Hawthorne, N.J.
Michigan Chemical Corp.,
Velsicol Chemical Corp. Sales
Agent. (See Velsicol)
Michigan Peat, Inc.,
202 E. 47th St., New York, N.Y.
Michlin Chemical Corp.,
9045 Vincent, Detroit, Mich.
Mico Corp., 669 Ultimo Ave.,
Long Beach, Calif.
Miller Chemical & Fertilizer Corp.,
3006 W. Cold Spring Lane,
Baltimore, Md.
Miller Products Co., 7737 N.E.
Killingsworth, Portland, Ore.
Miller-Robinson Co., 700 Avalon
Blvd., Los Angeles, Calif.
Milwaukee Sewerage Comm.,
Milorganite Div., Box 2079,
Milwaukee, Wis.
Mine Safety Appliances Co., 201 N.
Braddock Ave., Pittsburgh, Pa.
Minerals & Chemicals Div.,
Minerals & Chemicals Philipp
Corp., Menlo Park, N.J.
Mississippi Lime Co.,
7 Alby St., Alton, Ill.
Mitts & Merrill, Inc., Dept. WT,
109 McCoskry St., Saginaw, Mich.
Mobil Oil Co., Inc.,
150 E. 42nd St., New York, N.Y.
Mobile Aerial Towers, Inc., 2314
Bowser Ave., Fort Wayne, Ind.
Molded Fiber Glass Companies, 4601
Benefit Ave., Ashtabula, Ohio
Monarch Manufacturing Works,
2501 E. Ontario St.,
Philadelphia, Pa.
Montrose Chemical Co.,
104-12 Lister Ave., Newark, N.J.
Morton Chemical Co.,
110 N. Wacker Dr., Chicago, Ill.
Mott Corp.,
500 Shawmut Ave., La Grange, Ill.
The F. E. Myers & Bro. Co.,
400 Orange St., Ashland, Ohio

N

Nalco Chemical Co.,
6216 W. 66th Pl., Chicago, Ill.
Narvon Mines, Ltd., Keller Ave. &
Fruitville Pike, Lancaster, Pa.
National Chemsearch Corp.,
Box 10087, Dallas, Tex.
Naugatuck Chemical, Div. of U.S.
Rubber, Naugatuck, Conn.
Niagara Chemical Div., FMC Corp.,
100 Niagara St., Middleport, N.Y.
Nitrogen Div., Allied Chemical
Corp., 40 Rector St.,
New York, N.Y.
Norda Essential Oil & Chemical Co.,
601 W. 26th St., New York, N.Y.
Nursery Specialty Products,
202 E. 47th St., New York, N.Y.
Nutrilite Products, Inc., 5600
Grand Ave., Buena Park, Calif.

O

Oakes Manufacturing Co.,
516 W. Dearborn, Tipton, Ind.
Ohio Lime Co.,
Main St., Woodville, Ohio
Oil-Dri Corp. of America,
520 N. Michigan Ave., Chicago, Ill.

Olin Mathieson Chem. Corp., Chems. Div., 420 Park Ave., New York, N.Y.
Oliver Corp., Industrial Div., 400 W. Madison, Chicago, Ill.
Omark Industries, Inc., 9701 S.E. McLaughlin Blvd., Portland, Ore.

P

Panama Pump Co., Meadow Lane, Hattiesburg, Miss.
Parker Sweeper Co., 91-99 N. Bechtle Ave., Springfield, Ohio
Pennsalt Chemicals Corp., Box 1297, 2901 Taylor Way, Tacoma, Wash.
Pest Control Equipment Co., 24 N. Bond St., Mt. Vernon, N.Y.
Robert B. Peters Co., Inc., 2833 Pennsylvania Ave., Allentown, Pa.
Petrochemicals Co., 1825 E. Spring St., Long Beach, Calif.
Phelps Dodge Refining Corp., 300 Park Ave., New York, N.Y.
Phoenix Gems, Inc., 1701 E. Elwood St., Phoenix, Ariz.
The Pioneer Rubber Co., 638 Tiffin Rd., Willard, Ohio.
Piper Aircraft Corp., Bald Eagle St., Lock Haven, Pa.
Pittsburgh Plate Glass, Chem. Div., 1 Gateway Center, Pittsburgh, Pa.
Plant Marvel Laboratories, 622 W. 119th St., Chicago, Ill.
H. K. Porter, Inc., 74 Foley, Somerville, Mass.
B. G. Pratt Co., 204 21st Ave., Paterson, N.J.
Precision Chemical Pump Corp., 1396 Main St., Waltham, Mass.
Premier Peat Moss Corp., 25 W. 45th St., New York, N.Y.
Prentiss Drug & Chemical Co., Inc., 101 W. 31st St., New York, N.Y.
Pulmosan Safety Equip. Corp., 644 Pacific St., Brooklyn, N.Y.

R

Rain Bird Sprinkler Mfg. Corp., P.O. Box 37, Glendora, Calif.
Rain-O-Mat Sprinklers, 11701 E. Washington Blvd., Whittier, Calif.
Ra-Pid Grow Corp., 88 Ossian, Dansville, N.Y.
B. G. Reilly Co., P.O. Box 231, North Scituate, R.I.
Rental Equipment Mfg. Co., 1924 S. Navajo St., Denver, Colo.
Republic Aviation Corp., Helicopter Div., Farmingdale, L.I., N.Y.
Residex Corp., 225 Terminal Ave., Clark, N.J.
Retzloff Chemical Co., P.O. Box 45296, Houston, Tex.
Richfield Oil Corp., 555 South Flower St., Los Angeles, Calif.
Riverdale Chemical Co., 220 E. 17th St., Chicago Heights, Ill.
Riverside Manufacturing Co., 11th St. S.W., Moultrie, Ga.
Robeco Chemicals, Inc., 25 E. 26th St., New York, N.Y.
Rohm & Haas Co., 222 West Washington Sq., Philadelphia, Pa.
Rolatape, Inc., 1301 Olympic Blvd., Santa Monica, Calif.
Root-Lowell Corp., Lowell, Mich.
Roseman Mower Corp., 2300 W. Lake Ave., Chicago, Ill.
Rowco Manufacturing Co., Inc., 48 Emerald St., Keene, N.H.
Royer Foundry & Machine Co., 158 Pringle St., Kingston, Pa.
Ryan Equipment Co., 2055 White Bear Ave., St. Paul, Minn.

S

Sandvik Steel, Inc., 1702 Nevins Rd., Fair Lawn, N.J.

Schneider Metal Mfg. Co., 1805 S. 55th Ave., Chicago, Ill.
O. M. Scott & Sons Co., 160 Main St., Marysville, Ohio
Seacoast Laboratories, Inc., 156-158 Perry St., New York, N.Y.
Shell Chemical Co., Ag. Chem. Div., 100 W. 51st St., New York, N.Y.
The Sherwin-Williams Co., 101 Prospect Ave., Cleveland, Ohio
Signal Oil & Gas Co., Houston Div., Box 5008, Houston, Tex.
Sikorsky Aviation Div., United Aircraft Corp., Stratford, Conn.
Silver Creek Precision Corp., Central Ave., Silver Creek, N.Y.
Simplex Manufacturing Co., 5224 N.E. 42nd Ave., Portland, Ore.
Simplicity Manufacturing Co., 6414 Spring St., Port Washington, Wis.
D. B. Smith & Co., Utica, N.Y.
Smith Douglass Co., Inc., 5100 Va. Beach Blvd., Norfolk, Va.
Smith Precision Products Co., 1299 Lawrence Dr., Newbury Park, Calif.
Seymour Smith & Son, Inc., Main St., Oakville, Conn.
Snow Aeronautical Corp., P.O. Box 516, Olney, Tex.
Sod-Master, 3456 N. Washington Ave., Minneapolis, Minn.
Sole Chemical Corp., 7740 S. Chicago Ave., Chicago, Ill.
Solo Industries, Inc., Box 128, 37-41 57th St., Woodside, N.Y.
Southern Mill Creek Products Co., P.O. Box 4297, Tampa, Fla.
Southwest Potash Corp., 1270 Ave. of Americas, New York, N.Y.
Spraying Systems Co., 3201 Randolph St., Bellwood, Ill.
A. E. Staley Mfg. Co., Box 151, 2200 E. Eldorado, Decatur, Ill.
Stauffer Chemical Co., 380 Madison Ave., New York, N.Y.
Wm. Steinen Mfg. Co., 29 E. Halsey Rd., Parsippany, N.J.
Stegan Chemical Co., Edens & Winnetka, Northfield, Ill.
Stephenson Chemical Co., Inc., P.O. Box 188, College Park, Ga.
Sudbury Laboratory, Sudbury, Mass.
Sun Industry, Inc., 12418 W. Rosemary, New Berlin, Wis.
Sunnyhill Research & Mfg. Co., Imperial, Pa.

T

Tarrant Manufacturing Co., 110 Jumel Pl., Saratoga Springs, N.Y.
Telsco Industries, P.O. Box 18205, Dallas, Tex.
Tenneco Oil Co., P.O. Box 18, Houston, Tex.
Tennessee Corp., 44 Broad St., Atlanta, Ga.
Thompson Chemicals Corp., 3600 Monon St., Los Angeles, Calif.
Thompson Equipment Co., Box 750, Starkville, Miss.
Thompson-Hayward Chemical Co., P.O. Box 768, Kansas City, Mo.
Thuron Sprayer Mfg. Co., Box 14231, Dallas, Tex.
Toro Mfg. Corp., 8111 Lyndale Ave. S., Minneapolis, Minn.
Tote Systems Div., 656 S. 7th, Beatrice, Nebr.
Tradewinds, Inc., P.O. Box 1191, Tacoma, Wash.
Trailevator Div., Magline, Inc., P.O. Box 446, Pinconning, Mich.
Transtan Co., 5314 Mill St., Orient, Ohio
Tree-Ject Co., P.O. Box 396, 1309 Grove Ave., Waycross, Ga.

Triangle Chemical Co., Box 1501, 206 Lower Elm St., Macon, Ga.
Troy Blanket Mills, 132 W. 34th St., New York, N.Y.
Tryco Mfg. Co., P.O. Box 1277, 1160 S. Monroe St., Decatur, Ill.
Tyler Manufacturing Co., Inc., Benson, Minn.

U

Ulrich Mfg. Co., Bump Pump Div., Roanoke, Ill.
Union Carbide Corp., Olefins Div., 270 Park Ave., New York, N.Y.
United Clay Mines Corp., Box 1201, Trenton, N.J.
U. S. Borax, 3075 Wilshire Blvd., Los Angeles, Calif.
U.S. Industrial Chemicals Co., 99 Park Ave., New York, N.Y.
Universal Metal Products Div., Leigh Products, Saranac, Mich.
The Upjohn Co., 7171 Portage Rd., Kalamazoo, Mich.
Utility Chemical Co., 145 Peel St., Paterson, N.J.

V

Vandermolen Export Co., 378 Mountain Ave., N. Caldwell, N.J.
Velsicol Chemical Corp., 341 E. Ohio St., Chicago, Ill.
Vermeer Manufacturing Co., Box 190, Pella, Iowa
Viking Pump Co., 4th & State, Cedar Falls, Iowa
Vineland Chemical Sales Corp., W. Wheat Rd., Vineland, N.J.
Vineland Laboratories, Inc., P.O. Box 70, Vineland, N.J.
Virginia-Carolina Chemical Corp., 401 E. Main St., Richmond, Va.

W

W-W Grinder Corp., 2957 N. Market, Wichita, Kans.
Waco Aircraft Div., Allied Aero Ind. Peters Ave., Troy, Ohio.
Walker Mfg. Co., Fowler, Kans.
"Water-In" Inc., P.O. Box 421, Altadena, Calif.
Waverly Petroleum Products Co., 3018 Market St., Philadelphia, Pa.
Wayne Manufacturing Co., 1201 E. Lexington St., Pomona, Calif.
West Point Products Corp., West Point, Pa.
Western Peat, P.O. Box 308, 5800 Monroe St., Sylva, Ohio
Western Turfgrass, Inc., 305 Agostino Rd., San Gabriel, Calif.
Wichita Equipment Co., Box 1329, Old Burk Rd., Wichita Falls, Tex.
Willson Products Div., Ray-O-Vac Co., 2nd & Washington St., Reading, Pa.
Andrew Wilson Co., Inc. Baltusrol Way, Springfield, N.J.
The Wilson Rubber Co., 1200 Garfield Ave., S.W., Canton, Ohio
Woodbury Chemical Co., P.O. Box 788, St. Joseph, Mo.
Wood Ridge Chemical Corp., Park Place, E., Wood-Ridge, N.J.
Wood Treating Chemicals Co., 5137 Southwest Ave., St. Louis, Mo.
Woolfolk Chemical Works, Ltd., Fort Valley, Ga.
Worklon, Inc., P.O. Box 117, Huntington, N.Y.
Wyandotte Chemicals Corp., J. B. Ford Div., Wyandotte, Mich.

Y-Z

York Modern Corp., Unadilla, N.Y.
Zonolite Div., W. R. Grace & Co., 135 S. LaSalle St., Chicago, Ill.

NUTSEGE

(*Cyperus* spp.)



Nutsedge (1) is a perennial which reproduces by spreading rootstocks, underground tubers, and partially by seeds. Although nutsedge bears a superficial resemblance to some grasses and is sometimes called nutgrass and coco grass, it is not a true grass, but instead is a sedge. Nutsedge grows best under moist lowland conditions and is found in fields, waste areas, gardens, and lawns.

Nutsedges may grow to a height of 6 to 36 inches and are characterized by a solid (not hollow) stem which is triangular in cross section. Stiff, coarse, yellowish-green leaves are borne in rows of three about the base of the stem (grass leaves are two ranked).

Flowers and seeds are borne atop a relatively long leafless stem. Yellowish-brown flowers are inconspicuous and produce coarse spikelets of seeds. Seeds (2) attached to radiating branchlets (spikes) appear umbrellalike.

Scaly rootstocks bear small nutlike tubers at the ends.

There are two species of nutsedge in this important group of lawn pests: yellow nutsedge, *Cyperus esculentus*, and purple or common nutsedge, *C. rotundus*. These differ in geographic distribution, size, and coloration. Yellow nutsedge is a native North American plant and is most commonly found in northern areas of the United States, although it does extend its range at times into the South. Purple nutsedge is believed to have been introduced from tropical areas into the South. It is now common from Florida to California. Nutsedges are serious pests wherever they grow.

Upright stems of purple nutsedge grow longer than the basal leaves, whereas leaves are longer than the main stem in yellow nutsedge. Spikelets of purple nutsedge are colored a brownish purple, but yellow nutsedge has yellowish-green spikelets. Underground tubers of purple nutsedge measure 1 inch long and $\frac{3}{4}$ inch in diameter, but yellow nutsedge tubers seldom exceed $\frac{1}{4}$ inch in diameter.

2,4-D can be applied repeatedly until nutsedge is eliminated. EPTC has also proven useful as a control. Controls should be applied within two weeks of shoot emergence.

Prepared in cooperation with Crops Research Division, Agricultural Research Service, United States Department of Agriculture, Beltsville, Maryland.

(DRAWING FROM NORTH CENTRAL REGIONAL PUBLICATION NO. 36, USDA EXTENSION SERVICE)

U. S. Borax Builds New Regional Office, Warehouse

Construction of a new regional office and warehouse is already under way in Des Plaines, Ill., announces Hugo Riemer, president, U. S. Borax, Los Angeles, Calif. The proposed structure will occupy 27,750 square feet of a two-acre site.

W. W. Wilson, regional marketing manager, says the new building will serve as regional and district headquarters for midwestern distribution of the company's products, including industrial and agricultural borates, potash, herbicides, and 20 Mule Team line of household and industrial maintenance products.

The new facility will also serve as national headquarters for the firm's railroad sales organization which supplies weed-killers and application equipment for railroad rights-of-way.

Completion of the new building late in 1965 will consolidate U. S. Borax' Chicago warehouse on Lumber St., and the Peterson Ave. offices.

In another announcement, J. F. Corkill, U. S. Borax marketing department vice president, says the company's Atlanta regional sales office has been moved from 1627 Peachtree St. N.E. to 1720 Peachtree Rd. N.W., in Atlanta, Ga.

WACA Reelects Stewart

Frank B. Stewart was re-elected president of the Western Agricultural Chemical Association at the annual convention held recently at Pebble Beach, Calif.

This association, comprised of agricultural chemical companies from 13 western states, cooperates with the U.S. Dept. of Agriculture and state departments of agriculture in enactment of laws and regulations for safe use of insecticides, fungicides, and weedkillers.

Stewart is executive vice president and general manager of Miller Products Co., Portland, Ore.

International Turf-Grass Conference

Scheduled for Cleveland, Feb. 7-12

More than 40 speakers, an exhibition of equipment, supplies and services occupying a 33,000-square-foot exhibition hall, will be major attractions when the 36th International Turf-Grass Conference and Show is held in Sheraton-Cleveland Hotel, Cleveland, Ohio, Feb. 7-12.

Advance registrations exceed those of previous years and indicate that a record-breaking attendance will be realized at the forthcoming event.

"We really look forward to being in Cleveland," said Dr. Gene C. Nutter, executive director of the sponsoring Golf Course Superintendents Association of America. "It is fitting that GCSAA again takes its conference and show to Cleveland for it was there in 1923 that GCSAA really had its beginning with the birth of the Cleveland Greenskeepers Association. Appropriately, too, the Northern Ohio Chapter is host. Every member of this chapter is also a GCSAA member making it the largest 100% chapter in North America."

John J. Spodnik, superintendent of the Westfield Country Club courses, LeRoy, Ohio, is co-chairman with Dr. Nutter. Serving with Spodnik as co-chairman of the host committee is Malcolm E. McLaren, superintendent of the Oakwood Club in Cleveland.

Officials are enthusiastic over the outstanding array of speakers chosen to address the superintendents during the 5-day educational program. They include superintendents, educators, researchers, golf course architects and other turf experts. There will be six educational assemblies.

While the conference and show is primarily for superintendents and others involved in the care and maintenance of turf, those who are interested may attend upon payment of registration fees. Information may be obtained from the Golf Course Superintendents Association of

America, Box 1385, Jacksonville Beach, Fla. 32050.

Further details on this important meeting will be given in the January issue of this magazine.

"Water-In" Tests Successful

Recent tests conducted with "Water-In," a product that is said to eliminate waterlogging due to a tendency of water to remain in soil capillaries, have been reported as successful by "Water-In," Inc., Altadena, Calif. The most recent test was conducted by Soil & Plant Lab, Inc., Orange, Calif.

In one test, roses growing in hard compacted or adobe soils tend to have waterlogged roots. With a treatment of "Water-In" the soil was aerated and the plants fed and watered at regu-

lar intervals with no ill effect.

Other tests in various areas of the Los Angeles City Recreation and Parks Department have proven likewise satisfactory. At the Sepulveda golf course, half of a green treated with "Water-In" remained open and aerated, while the untreated half remained compacted with water runoff.

Further details are available from "Water-In," Inc., by writing to P.O. Box 421, Altadena, Calif.

IMC Opens West Coast Office

A fertilizer sales office was recently opened by International Minerals & Chemical Corp. as part of its West Coast expansion program.

A company spokesman reports that successful completion of IMC's potash mine at Esterhazy, Canada, enables the company to expand its activities. The new office is located at 16 E. Third Ave., San Mateo, Calif.



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Weeds Trees and Turf Wins National Award for Editorial Excellence; Aquatic Weed Series Singled Out for Citation

In a ceremony at the Waldorf-Astoria Hotel in New York City, November 12, *Weeds Trees and Turf* received a 1964 Award of Merit for Editorial Excellence from *Industrial Marketing* magazine. The awards were initiated 25 years ago as a means of recognizing superior editorial quality in America's business press.

Basis of the award to *WTT* was the three-part series, "Applicator's Manual of Aquatic Weed Control," which appeared in the October, November, and December 1963 issues.

Other winners in the *WTT* category were *Steel* and *Chemical Engineering* magazines.

In presenting the awards, *Industrial Marketing* spokesmen said the panel of judges, drawn from the communications industry, looked for importance of subject matter, quality of writing, ease of communication, and effectiveness of illustrations.

When *WTT* began the series in fall of 1963, the full effects of Rachel Carson's *Silent Spring*, a violent attack on pesticides, were just beginning to be felt. Scientists, applicators, and public health officials were particularly concerned about application of chemicals to control aquatic weeds. It was feared such applications, if not properly handled, might adversely affect potable water supplies.

But rampant weeds pose a major threat to the utility of lakes and ponds, irrigation ditches, and other waterways. Because of the lack of use-oriented information on this subject, *Weeds Trees and Turf* decided to present readers with a series of articles which would serve as an "on-job" manual.

WTT's Staff Biologist, David E. Schneider, began to prepare a three-part series on the subject, using as a guideline the concept that the series should tell readers: (1) how to identify aquatic weeds; (2) what chem-

icals to use for control; and (3) how to select application equipment.

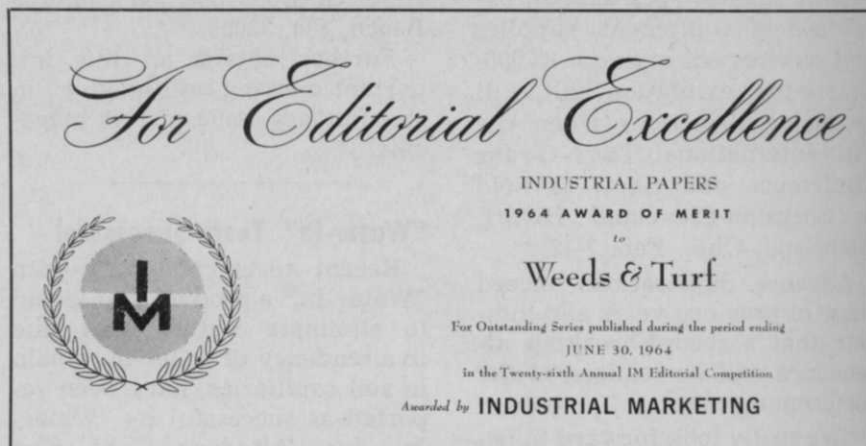
Because of the project's complexity, copies of the first draft were mailed to leading researchers with federal and state agencies, universities, and chemical manufacturers, for review and comment. When these annotated copies were returned, they were reviewed and pertinent comments were incorporated into the final version.

Besides using previously unpublished photographs from the Plantation Field Laboratory, USDA, in Ft. Lauderdale, Fla., *WTT* staffers made field trips into problem aquatic weed areas and shot additional species.

The project was six months in preparation; the series was one of three award winners in its

category (Industrial Publications) in the annual competition sponsored by *Industrial Marketing*.

Luncheon speaker during the presentation of the awards, Philip Gisser, told the assembled editors that the function of the business press today is vital to all productivity in industry and science. Moreover, he said, it is not enough to communicate data; editors must avoid overcommunication in a time when so much technical material is being produced. Gisser, Director of Advertising and Publicity for U. S. Industrial Chemicals Co., advised the editors to be selective in presentation of their materials. *WTT*'s citation is a recognition that its editors are achieving this selectivity for its readers.



Certificate of Editorial Excellence was presented by S. R. Bernstein (left), president of Advertising Publications, Inc., to *WTT* editor Charles D. Webb. Bernstein's company publishes *Industrial Marketing* magazine, which for 25 years has presented the annual awards to business papers judged outstanding by a panel of judges selected from the communications industry.



Patterson to Head New Mexico Turf Group; Conference Studies Turf Varieties, Mowing

A. S. Patterson of Albuquerque was named president of the New Mexico Turfgrass Association at the 10th annual Turfgrass Conference on the New Mexico State University campus at University Park, October 9.

Other officers named were Bernard Corley, El Paso, vice-president, and C. E. Watson, NMSU agronomist, secretary-treasurer. Bill Leftwich of Holloman Air Force Base, Julian Serna of Albuquerque, and Harvour Jones of Los Lunas, were named to the board of directors.

In a report on new developments in grasses, John A. Long of O. M. Scott Company of Marysville, Ohio, said Texturf 10, also known as T-47, and Tifway, two varieties of bermudagrass, are the best all-around warm-season grasses for lawns and play areas. Tifgreen is recommended for putting greens but not for general planting because of the extra care it requires.

Windsor, Park, and Newport varieties of bluegrass have shown more disease resistance than Merion or common Kentucky bluegrass of the cool-season grasses.

J. R. Watson of Toro Manufacturing Company, Minneapolis, Minn., in a report on mowing, said "growing grasses for lawns and turf defied the natural processes of the plants. The extreme mowing required for the neat-appearing lawn requires that everything else be ideal. Mowing removes the parts of the grass that manufacture food for the plants weakening them and if other conditions of moisture and fertility are not ideal the plants don't make it," he said.

Bunch-type grasses—ryegrass, tall fescue, and bluegrass—need higher mowing than the creeping grasses, Watson said, because the bunch grasses grow upright and more of each plant is removed in mowing.

Zoysia and bermuda can be

clipped closer because they naturally grow close to the soil and only occasionally send up shoots which are clipped by a mower.

A sharp mower is important to lawn appearance. A dull mower bruises the ends of the leaves as it cuts, leaving a burned appearance. A sharp mower cuts cleanly.

Marvin Ferguson, U.S. Golf Association, Green Section, College Station, Texas, said golf courses in recent years have too often been designed without regard to drainage, foot, and car traffic, and efficiency of watering systems. He reported an excessive number of golf courses are in trouble because these factors were not considered when the courses were laid out.

The two-day conference was attended by about 50 persons.

HSAF Convention Takes Steps To Form National Trade Group

(from page 10)

prompted skilled turfman White to say he uses the Mott hammer knife back on the sod farm. He added that many commercial lawn companies, such as the ones gathered at the Pier 66, are now using the Ryan and the West Point machines. These were developed initially to prove them-

Two kinds of spray programs for lawn service companies were described by horticultural spraymen Larry Nipp (left) and Jack Cuthrell during the 1964 convention at Pier 66 Hotel in Ft. Lauderdale. Out-of-staters found the various programs offered by Florida industry men of particular interest.



New recreational areas management curriculum at New Mexico State University was explained by Arden Baltensperger (left), Head of the Department of Agronomy, and C. E. Watson, Associate Agronomist, at a meeting of the New Mexico Turfgrass Association. The new course is one of the few offered in the U.S. to specifically train superintendents for golf courses, parks, forest areas and to build a background for research in this area. The course is offered jointly by NMSU's departments of agronomy and horticulture.

selves on the fairways, but now they're keeping the nation's lawns green as well.

Smaller in number than usual, bigger than ever in ambition, and as cordial and warmhearted as always, the Florida 1964 convention was universally praised when it came time to wind up the note taking and step out to a banquet and dance on the last day. Officers promised to continue in the same fruitful spirit throughout the coming months as the national trade association takes its last wavering steps before striding full-fledged into the future of vegetation maintenance and control, a billion dollar business in America today.



Meeting Dates



- Connecticut Nurserymen's Assn. Annual Meeting, Statler-Hilton Hotel, Hartford, Dec. 30.
- North Central Weed Conference, Inc., Meeting, Kellogg Center, Michigan State University, East Lansing, Mich., Dec. 14-16.
- North Carolina Nurserymen's Assn. Meeting, North Carolina State College, Student Union, Raleigh, Jan. 3-5.
- New York State Nurserymen's Assn. Meeting, Concord Hotel, Kiamasha Lake, N.Y., Jan. 4-7.
- Indiana Association of Nurserymen Meeting, Claypool Hotel, Indianapolis, Jan. 6-8.
- Northeastern Weed Control Conference, Hotel Astor, New York City, Jan. 6-8.
- Illinois State Nursery Assn. Trade Show and Convention, LaSalle Hotel, Chicago, Jan. 11-13.
- North Carolina State, Annual Pesticide School, Raleigh, Jan. 11-12.
- Kentucky Nurserymen's Assn. Meeting, Kentucky Hotel, Louisville, Jan. 17-20.
- Oregon Association of Nurserymen, 32nd Annual Meeting, Marion Motor Hotel, Salem, Jan. 19-21.
- 17th Annual California Weed Conference, Hacienda Motel, Fresno, Jan. 19-21.
- Southern Weed Conference, Annual Meeting, Hotel Adolphus, Dallas, Tex., Jan. 19-21.
- Kansas State Shade Tree Conference, Umberger Hall, K.S.U., Manhattan, Jan. 21-22.
- New Jersey Association of Nurserymen, Annual Winter Meeting, Princeton Inn, Princeton, Jan. 21-22.
- Ohio Nurserymen's Assn. Annual Meeting, Columbus Plaza, Columbus, Jan. 25-28.
- Utah Association of Nurserymen, Annual Convention, Ramada Inn, Salt Lake City, Jan. 31-Feb. 2.
- 35th International Turf-Grass Conference and Show, Sheraton-Cleveland Hotel, Cleveland, O., Feb. 7-12.
- Aquatic Weed Control Society Annual Meeting, LaSalle Hotel, Chicago, Ill., Feb. 11-12.
- National Arborists Association Winter Meeting, Guy Lombardo's Port-O-Call Inn, Tierra Verde, Florida, Feb. 14-15.
- Midwest Regional Turf Foundation Meeting, Purdue University Memorial Center, Lafayette, Ind., March 1-3.
- 35th Annual Michigan Turfgrass Conference, Kellogg Center, Michigan State University, East Lansing, March 11-12.

Northeastern Weed Conference Plans Full "Industrial" Day

For the first time the annual Northeastern Weed Control Conference will devote a full day to industrial weed and brush control topics, according to John A. Meade, secretary-treasurer. The industrial sessions will be part of the three-day meeting set for January 6-8 at the Hotel Astor in New York City.

In addition to the industrial weed discussions, the yearly affair will include talks on agronomy, horticulture, and related subjects. As usual, there will be examinations of latest techniques and chemicals for weed control in turf, for highway weed control, and aquatic weed control. Farm crop subjects will round out the program.

During first-day sessions, five key addresses will be offered. Included are: (1) "From Test Tube to Label," by L. L. Coulter of The Dow Chemical Co., Midland, Mich.; (2) "The Mechanics of Herbicide Application," by Art Williams of Agway, Inc.; (3) "Other Dimensions of the Weed Problem," by L. Holm of the University of Wisconsin, Madison; (4) "Progress of the CRF-1 Project on Aquatics and Woody Plants," by Dr. Stanford Fertig of Cornell University in Ithaca; and (5) "Standardization of Terminology in Weed Science," by Dr. Dayton Klingman, Agricultural Research Service, U.S. Department of Agriculture, Beltsville, Md.

Also in the offing is the traditional "New Herbicides from Industry" presentation on Wednesday evening.

Highlights of the industrial sessions include a talk entitled "Eighteen Years of Chemical Brush Control Experiences," by Fred Ashbaugh of West Penn Power Co., Greensburg, Pa.; and talks on such products as Tordon, new brush killer from Dow, and MH-30T, growth retardant from Naugatuck Chemical Co.

For more information, write Dr. John A. Meade, Department of Agronomy, University of Maryland, College Park. Make reservations directly with Hotel Astor, New York City.

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Dr. John A. Meade, Secretary-Treasurer,
Northeastern Weed Control Conference,
Department of Agronomy, University of
Maryland, College Park, Md.

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New Jersey Certified Sod Program Started; Will Establish High-Quality Producer

The first square foot of certified sod in New Jersey was harvested recently during a program arranged to celebrate the occasion. The top-quality sod received the admiring scrutiny of state officials, agricultural leaders and sod producers at the LaBarre and Schuch Sod Farm in Springfield, New Jersey, where it was produced.

The sod certification program was initiated in the spring of 1963. It is being conducted as a cooperative program between the College of Agriculture, Rutgers—The State University, and the Bureau of Seed Certification of the New Jersey Department of Agriculture. The program is under the guidance of Dr. Henry W. Indyk, extension specialist in turf management, at the College of Agriculture. Inspections and all regulatory aspects of the program are under the supervision of William Cranstoun, chief of the Bureau of Seed Certification, New Jersey Department of Agriculture.

A number of factors have stimulated the initiation of a program of this nature. The use of sod in establishing lawns is rapidly increasing. A high de-

gree of variation in quality of sod available to the public exists. Certified sod will protect the customer investing in sod by guaranteeing genetic identity and a high quality product, Dr. Indyk says.

The producer as well as the customer stands to benefit from the program. It will provide the high quality producer the recognition he deserves for his efforts. Competitively, also, he will be in a better position, it is reported.

The procedure in certifying sod begins with preplanting field inspections to assure their acceptability in the program. Inspecting officials must approve the seed before it is planted. Throughout the growing period of the grass, fields are periodically inspected. A final inspection is conducted at the time of marketing before issuance of certification tags if the sod meets all standards of certified sod.

Producer interest in the program is rapidly increasing. A substantial acreage is enrolled in the program at the present time and the availability of certified sod to the public should increase substantially within the next year, Dr. Indyk told *Weeds Trees and Turf*.



Officials witnessing the harvesting of the first certified sod in New Jersey are presented with certified sod. On the left is William Cranstoun, chief of Bureau of Seed Certification presenting Frank Soraci, Director of Bureau of Plant Industry, both representing the New Jersey Department of Agriculture, with certified sod. On the far right is Dr. Henry W. Indyk, extension specialist in turf management, College of Agriculture, doing the honors for Dr. Leland G. Merrill, Jr., Dean of the College of Agriculture, Rutgers—The State University.

Trimmings

Up in the Air. Speaking of varied services, there's an aerial operator in Gettysburg, Pa., whose direct mail pieces are indicative of what's happening today with those contract applicators who have taken to the air and who now offer an unusual panorama of custom spraying. Company is Agrotors, Inc., which offers rights-of-way spraying and similar service by helicopter. Agrotors' president is Dr. Carl M. Voss, and Charles M. Mark is vice president and chief pilot. Services offered include spraying of shade trees for canker worm and gypsy moth, weed control in field crops, utility brush control, etc. Now the company has branched out south, where "Ski" Bykowski heads the Lake Wales, Fla., operation. A modern and aggressive outfit, Agrotors, Inc. is jet-age example of industry advancement.

* * *

All's Fair. In New York last week a member of our staff rode by the World's Fair site on his way into the city from the airport on Long Island. While the Fair has been closed for several weeks, it was refreshing to see the tiptop shape surrounding turf areas are being kept in, presumably to continue right up to snowtime! A good plug for the maintenance company which is keeping the fairgrounds ready for the crowds to come next spring.

* * *

Stose Away! In our editorial on page 6 we talk about the "rounding out" of industry firms into more than one kind of vegetation maintenance and control, and we have a good case in point, a Pacific Northwest operator who's away and running with his thriving business of weed control, insecticide application, and tree pruning. He's Glenn L. Stose of Portland, Oregon. Glenn's calling card outlines the variety of his services, and adds that his company is licensed and bonded. Here's another of that active group of forward-thinking applicators who've done so much to upgrade the profession in the Northwest!

* * *

To the Notebooks. Conference time is upon us. Checking our calendar of coming events, we see that hardly a week will go by from now until March without an important weed control, turf management, or tree maintenance seminar everywhere from New York City, where the Northeastern Weed Control Conference meets next month, to California, where the state weedmen are also congregating in January (details in Meeting Dates, p. 48). We again urge all our readers to take time out to attend one or more of these helpful technical sessions. The small cost of registration and transportation is nil compared to the worth of the great scientific brains one traditionally finds gathered at the conferences!



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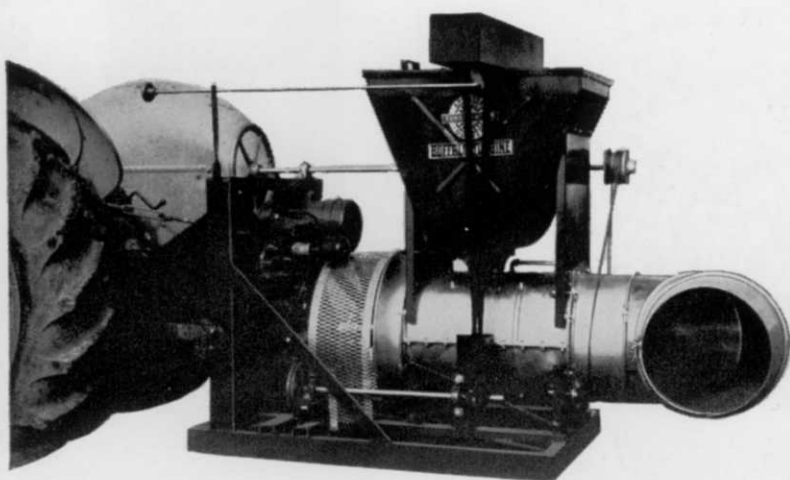
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