

FOR SMALL JOBS — 5'4" unit puts seed in top ¼" of soil, the ideal depth for closely controlled moisture and growth conditions.



FOR BIG JOBS — 8' and 10' seeders-tuck seeds at ½" depth, as recommended for parks, golf courses, free ways, sod farms and other large acreage seedings where natural moisture and growth conditions prevail.



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Only Brillion enables you to choose the seeder that fits your operation — in 5'4", 8' and 10' seeding widths. And all are precisely built and calibrated to tuck your seed accurately and uniformly in the top ¼" or ½" of the soil for fast, complete germination and healthier growth.

A Brillion crushes the small lumps, presses down small stones and gently packs the soil into a firm, clod-free seedbed — in one operation. One man can seed up to 50 acres per day. No extra equipment or operations are needed for seedbed conditioning.

Large hoppers minimize re-fills. And you can hug fences, trees and building foundations to keep hand broadcasting to a minimum. Options include acreage meters and transport wheels for the 8' and 10' seeders. So to seed more lawn and save more money, include a Brillion Landscape Seeder in your budget. Send coupon for complete information.

BRILLION IRON WORKS, INC., Dept. LS-59-7, Brillion, Wisconsin 54110

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- New 8' Seeder
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LS-9

When Writing to Advertisers Please Mention WEEDS TREES AND TURF

operation of moving the products from the field to the consumer's location should undergo many changes. The patent office has issued several patents on machines for forming sod into rolls in the past several years, and it would seem that in the near future a reliable machine should be on the market. However, there seems to be a rising interest in the North in handling sod flat, as has been the southern practice. There has been some work done by individual growers in flat handling and mechanical placement of sod on pallets. Palletizing and mechanical loading and unloading of deliveries is a minor factor in the industry today and will be subject to much serious appraisal.

One-Crop Acreage

Most of the new acreage in sod production has been a "one-crop" endeavor. In the North, much of this has been devoted to Merion bluegrass. Consideration for the future indicates an investigation of diversification. Merion is an excellent grass



Demonstration beds like these, on view at Warren's Palos Park (Ill.) farms, let customers see the exact type of sod which they will purchase from this major turfgrass producer. Customers for cultivated sod may be landscapers, nurserymen, golf course superintendents, highway landscape maintenance supervisors, or those who retail to homeowners. Characteristic of the phenomenal growth of the sod production business is the adoption of modern marketing techniques such as these demonstration plots. Warren's Turf Nursery also carries out experimentation to develop techniques to solve the many problems in harvesting, storage, and transportation of sod.

The Finest Sod Must Begin With The Finest Seed . . .

ASGROW SPECIALIZES IN SEED FOR SOD GROWERS

1. CERTIFIED BLUE TAG MERION KENTUCKY BLUEGRASS

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PLUS OTHER FINE TURFGRASSES



Asgrow Seed Company
Milford, Conn.

Here's how easy it is to get long-lasting control of nematodes and soil insects that ruin turf

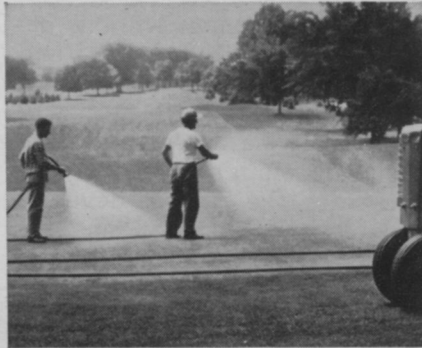
- A single spray of Nemagon® Soil Fumigant kills root-choking nematodes all season.
- A single application of dieldrin insecticide controls root-pruning insects for years.

THE FACTS that follow quickly explain the essential value of controlling soil pests with Nemagon and dieldrin; their flexibility and ease of use; why the root protection they provide far outweighs the cost of treatment.

Nematode control with Nemagon

Nemagon works as a pre-planting application or on established turf. It fumigates the root zone to kill the nematodes (microscopic worms, not insects) that can infest soil in fantastic numbers. All damaging species are controlled and reinfestation will normally not occur for a year or more.

Without the root knots and lesions caused by nematodes, water and soil



Protecting a golf green with Nemagon eliminates any chance of unsuspected nematode infestation causing costly damage and disrupting play.

resodding.

Nemagon is easily drenched into soil following a spray application. There's no need for special equipment and grass isn't disturbed. Easy-to-follow directions are printed on every package.

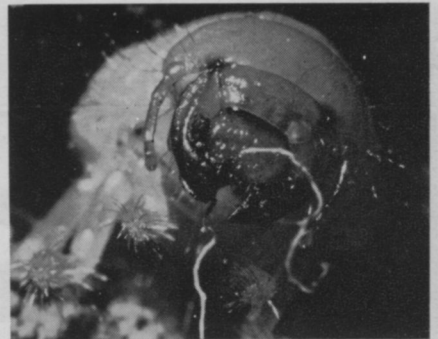
Soil insect control with dieldrin

Dieldrin controls all species of grubs, including the larvae of Japanese and June beetles. It can be used ahead of time to prevent damage from ever starting. Or you can apply dieldrin to stop an infestation when discolored turf indicates that soil insects are pruning roots and limiting the crop's access to fertilizer and water.

Dieldrin can be applied any time after soil warms up. Effectiveness usually lasts 3 to 5 years. Control is so thorough that grub-eating moles and rodents can't find food in the treated area and leave.

Dieldrin can be put on in fertilizer, or in granular form. Liquid concentrates and wettable powders are available for spray use and drenching.

Full details on using dieldrin for



This root-chewing white grub can kill turf or make it look sick. So can a host of other grubs and soil insects. Dieldrin stops them all.

control of soil or surface insects are on every package label.

Nemagon and dieldrin are both available as branded products of well-known manufacturers and sold where you normally buy insecticides, and other turf maintenance products.

For more information, write Shell Chemical Company, Agricultural Chemicals Division, 110 West 51st St., New York, New York 10020.

Follow label directions carefully when using any pesticide.



A Nemagon spray knocks out nematodes fast, and thoroughly. Turf isn't disturbed. And nearby plants won't be injured.

nutrients can pass freely through roots. Turf can respond fully to fertilizer and irrigation. Risk of stunting, poor appearance and dead patches is eliminated. So is the risk of a reseeding or

Shell Chemical Company
Agricultural Chemicals Division





Foundation beds of named strains of creeping bent, maintained to retain varietal trueness, are typical of the advanced technology found on America's professionally managed cultivated turfgrass sod farms.

when used in the proper environment, but there are many areas in which it will not perform satisfactorily.

Locations such as highway rights-of-way, shaded lawns, and athletic fields are illustrations of areas poorly or questionably served by Merion. Evaluation of turf species available now and their adaption to these uses reveals opportunity to diversify. The breeding and selection work

underway in the country should broaden the possibilities of better serving many of these new requirements.

This development work is being done by both industry- and tax-supported programs. New releases from the former will most likely be accompanied by efforts to retain a degree of control, since the cost of development is substantial. Plans for the future should include the

possibility of licensing or franchising arrangements which could be part of a varietal release.

Arrangements of this kind are common in other industries and should find ready acceptance among sod growers. The advantages are two-fold. Enabling the developer to maintain exclusive rights to a variety follows the philosophy of our patent laws and encourages investment in this kind of progress. And the growers should benefit by avoiding over-production.

Active promotional programs directed towards increasing volume through advertising, public relations, and sales effort is expanding in the industry and in a few years should become a universal practice.

Developments such as these should see the production more and more in the hands of well-rounded turf nurseries producing a complete line of grass for all purposes and less growing of sod by farmers who shift from crop to crop depending on variations in the markets.

MOCK .. Specialist in GRASS SEED To The Sod Grower

Merion Bluegrass, other Bluegrass, Fescues,—no matter what your requirements, Mock Seed Company has select lots of extra quality grass seed. More than ten years ago, when the infant sod industry was demanding seed free of bentgrass, *poa annua*, timothy, and other pesky crop grasses, Mock was able to supply. And we still are, despite the fact that the industry has become a lusty, vigorous man. Write, or phone collect for latest quotations on identical lots of Mock's Seed for Sod.

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Tensiometer Cuts Water Bill In Half, Survey By UC Turf Expert Proves

Millions of gallons of water are saved each month by using tensiometers, new moisture-measuring devices, according to recent research by Wayne Morgan, University of California turf expert, Riverside, Calif.

Tensiometers, relatively new instruments which tell if plants or soil need water, are closed tubes filled with water. On the lower tip sits a piece of ceramic with a porous wall, and at the top is a vacuum gauge. The device is inserted into the ground, and as soil dries, moisture is sucked through the ceramic tip, creating a partial vacuum inside. The gauge registers this soil suction, and gives a reading of relative soil wetness.

Morgan supervised installation of tensiometers at five golf courses, four bowling greens, two parks, and three cemeteries in Los Angeles County during the past two years. He returned to check watering records after the inexpensive (\$10-20) tools

were placed, and here's what he found:

Water use down 50% at Holmby Park Bowling Green (West Los Angeles), 40% reduction at

Tensiometer, new water-saving device, gets close scrutiny here at Victoria Club Golf Course, Riverside, Calif., from Wayne Morgan (right), UC turf expert, and Rod Barker, Victoria superintendent. The latter said his facility saved \$1,200 in 1963, and \$1,500 last year by using this water measuring instrument. Today many sod producers are experimenting with forms of irrigation to increase harvests, and the possible use of tensiometers to cut down on water bills could be promising for these sod growers. With water shortages experienced in many parts of the country during summer, this could be especially important.

Deauville Country Club (Tarzana), and down 57% on a section of UCLA campus. Other facilities reported even larger savings with tensiometers.

"It's not just a matter of saving water," Morgan asserts. "Better irrigation promotes healthy, attractive grass."



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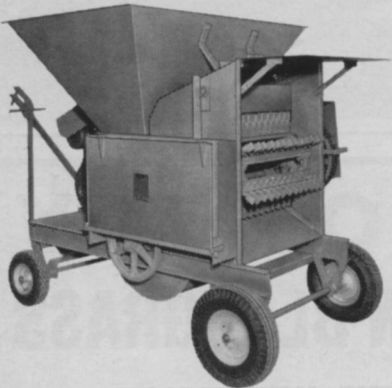


Shreds 101 Cubic Yards An Hour NEW KING KEMP

Growing demand for topsoil, sod, peat, humus and mulch is being met by more and more topsoil producers with the aid of the new King Kemp, which spews out soil at the rate of 101 cubic yards an hour.

Shredded, aerated, stoneless, rubble-free topsoil is ready when needed with this rugged Shredder, powered with a Ford 58½ hp four-cylinder engine.

Kemps are used to shred mulch for roadside maintenance, phosphate rock, sewage sludge, brush, vines, palm fronds, sod, wood chips and other matter. A Kemp soon pays for itself.



There's a Kemp Shredder for every professional use. Capacities from 4 cu. yds. to 101. No. 2 Gladiator, above, shreds 30 cu. yds. an hour.

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AGRONOMISTS • LANDSCAPE ARCHITECTS
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Sod, Sprigs of New Centipede Variety

Available to Certified Growers for '66

A new drought-hardy, shade-tolerant centipede turfgrass has been approved for release by the agricultural experiment station of Oklahoma State University, Stillwater. It is named Oklawn.

Sod and sprigs of the new variety will be available to certified seed growers for the 1966 season. Thereafter, it is expected that enough sod and sprigs will be produced to supply public demand.

Called a "lazy man's grass" by Dr. Wayne Huffine of Oklahoma State, Oklawn does not require high management practices. It is adapted to all of Oklahoma, with the possible exception of the high plains. It should also do exceptionally well in southern and southeastern states, University officials said.

Oklawn is a bluish-green, medium-textured, slow-growing perennial which spreads by above-ground runners. The runners root at the nodes, forming a dense sod which resists bermudagrass and weed invasion. It grows to a maximum height of 3 to 4 inches above the soil surface. Propagation may be either by sod or sprigs.

Oklawn is resistant to insects and diseases, the school's spokesmen maintain. It grows well in partial shade as well as in full sunlight. It has shown excellent heat and drought tolerance, surviving temperatures ranging from 15° below zero to 115° F.

Oklawn grows well on moder-

ately acid, medium-fertile soils and actually is not its best on highly fertile ground. For more information, sod producers and seed growers may write to the Agricultural Information Services, Agricultural Experiment Station, Oklahoma State University, Stillwater.

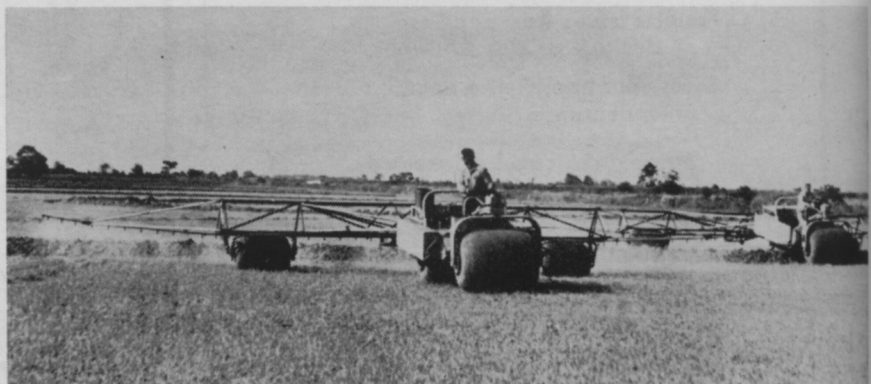
Soft-Treading Sprayer Rig Uses Air Bags for Traction

Contract applicators can now increase and diversify their spraying service with the addition of a ground spraying vehicle which can be used on windy days and at night when airplanes are grounded.

Called the Rolligon Two-Bagger Model 2251, this soft-treading vehicle, equipped with air bags instead of wheels, and accompanying spray boom, averaged 25 acres per hour when used on Texas rice fields. The machines can double their capacity by conducting another 10-hour shift at night, spraying an average of 500 acres every 24 hours, says Rolligon Corp., Houston, Texas.

Use of air-inflated rubber bags for wheels allows the Rolligon Two-Bagger to traverse soft grounds with less impact than the step of a man walking, the company says.

Complete details on this product are available from the Rolligon Corp., 1602 Old Spanish Trail, P.O. Box 20096, Houston, Texas 77025.



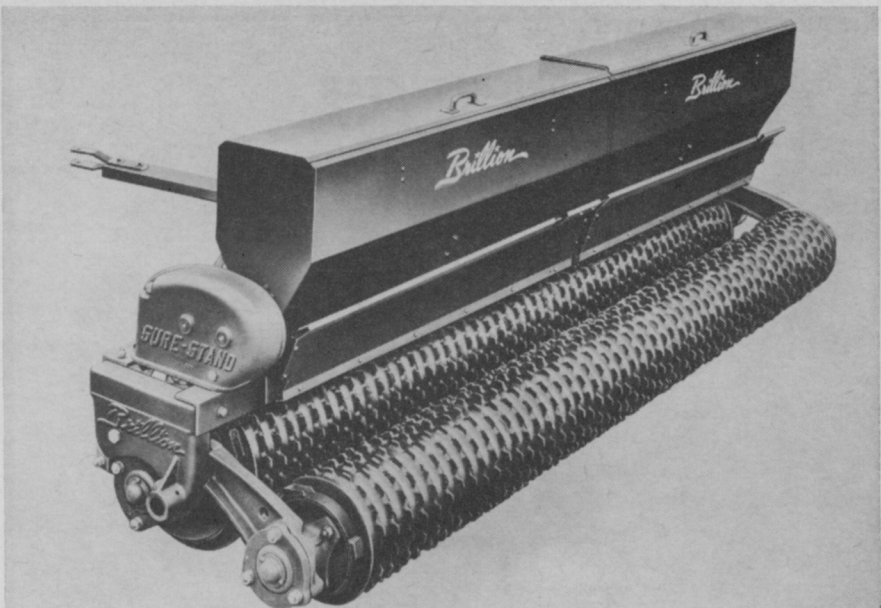
Operating when wind gusts were up to 25 mph, this ground spraying equipment has dispensed spray solution to crops with no spray drift, says Rolligon Corp., Houston, Texas. Forty nozzles on the 46-foot-wide spray boom are only 27 inches above the ground.

**Brillion Machines Designed
For Big Landscape, Sod Work**

Machines that reportedly enable one man to prepare the seedbed and plant seed in one operation, at a rate of 50 to 60 acres a day, are now manufactured by Brillion Iron Works, Brillion, Wis. These SSL, 8- and 10-foot seeders have built into them brush agitators and precisely calibrated seeding devices said to provide additional savings of up to 50% on expensive seeds.

A double set of notched semi-steel rollers press down small stones into the soil, crush lumps, and eliminate air pockets to form a clodfree seedbed. The precise seeding mechanism accurately meters seed at preset rates into the small furrows formed by the front rollers. The smaller rear wheels are offset to split the ridges and furrows and tuck the seed into the desired top half-inch of the moist soil for fast germination.

Named SRS pulverizers, sin-



Preparing seedbed and seeding major landscape projects and sod farms in a single one-man operation is possible with SSL model seeding machines, manufacturer Brillion Iron Works says. These machines are built in 8- and 10-foot sizes, and have brush agitators.

gle-gang models have 9-, 10½- and 12-foot rolling widths. Triple-gang pulverizers are available in rolling widths from 15 to 20 feet.

The pulverizers incorporate semi-steel cast iron wheels, 21 inches in diameter and 6 inches

wide, weighing 60 pounds. Wheels are carried on a 4-inch pipe axle and have triple-sealed, lifetime, lubricated bearings.

For further information on this equipment write to Farm Implement Div., Brillion Iron Works, Inc., Brillion, Wis. 54110.

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Mixtures to your specifications.

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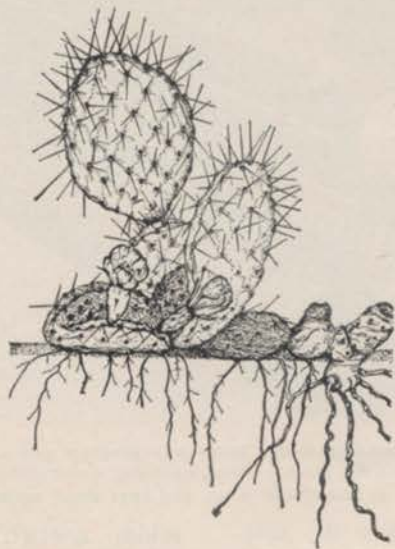
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PRICKLY PEAR

(*Opuntia* spp.)



Prickly pear is a cactus found on dry, sandy soils, but not restricted to arid regions. The cactus is a perennial and reproduces by seeds and by rooting stems (pads). Its growth characteristics are prostrate or semiprostrate. It sometimes ascends up to 3 feet. Prickly pear may be confused with other cactus species. Species of this plant may be found in Massachusetts, New York, west to British Columbia, and south to California, Texas, and Florida.

Stems of *Opuntia* cactus are flattened and fleshy; they may be described as padlike. There are no true leaves of cactus, but leaves are represented as sharp yellow spines, 1 inch long.

Flowers are bright yellow with long succulent petals. Some species have red centers. After pollination and maturation, the fruit is formed; this is a pear-shaped, fleshy protuberance on the spiny stem. Inside are many hard seeds.

This pest is troublesome on many overgrazed pastures and ranges. In extreme infestations, prickly pear may be plowed under and the area reseeded to grasses after one or more years of intertilled crops where the climate and soil are adapted to this practice.

Prickly pear cactus is resistant to sprays of 2,4-D. Sprays of 2,4,5-T in diesel oil will kill it on an individual-plant-treatment basis. Recent work indicates 2 to 4 lbs. per acre of silvex spray on prickly pear that had been run over by land roller gave good control.

Heavy infestations of this cactus in Australia in the 1930's were brought under control biologically, predominantly by importation of an Argentinian cactus moth, *Cactoblastis cactorum*. There are many other predators of cactus but their own predators in turn prevent them from being very effective.

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)

Brush Control at TVA

(from page 18)

trast, careless and indiscriminate use of the same chemicals can result not only in unsatisfactory control but also in actual damage to desirable crops.

We believe that users of herbicides have a definite responsibility to the general public to exercise extreme discretion when using these chemicals, especially along rights-of-way conspicuously exposed to public view. This is particularly true in those areas where garden clubs, civic organizations, or government agencies have made special efforts to improve the landscape.

Use of discretion in applying these chemicals should result in public acceptance and reduced pressure for restrictive legislation. When inquiries are received concerning chemicals being used and reasons for using them, we should always discuss them thoroughly with the public or the person making the inquiry. We should explain our chemical program and economics involved in this type of maintenance.

Summary

Value of chemical brush control on rights-of-way has been definitely proved during the past few years. There are several effective methods that have been in use for herbicide application. These methods all have their merits and should be given consideration in planning an effective and economical chemical brush control program.

Today we know that chemical brush control is not a "one-shot cure-all" for the majority of our rights-of-way. Chemical brush control may be accomplished by several methods, from the ground as well as from the air, depending upon the specific problem. After the specific brush control problem has been determined, a successful right-of-way maintenance program at a reasonable cost will depend upon selecting the proper chemicals and equipment and making certain that the crews are thoroughly trained and adequately supervised in their proper use.

Tree Dedication by LBJ to Highlight Int. Shade Tree Conference, Aug. 15-19

President Lyndon Johnson is expected to dedicate a scarlet oak (official District of Columbia tree) adjacent to the White House grounds at noon, Aug. 16, highlighting activities of the 41st annual International Shade Tree Conference convention in the nation's capitol, Aug. 15-19.

Site for the planting and dedication, selected by U. S. Secretary of the Interior Stewart Udall, is Lafayette Park, opposite the President's living quarters. The First Lady and other government officials also plan to attend, according to ISTC president Joseph Dietrich (Parks Superintendent, Greenwich, Conn.).

Unique corollary feature to this event will be simultaneous plantings of state trees on each of the nation's 50 state capitol grounds at noon, in respective time zones.

Theme for the five-day conclave at Washington-Hilton Hotel is "Trees in the Beautification of the Modern Municipality." Timely panel discussions will include: "Trees for City Streets, Malls, and Other Public Areas," moderated by Edward A. Connell, Supt. of Parks & Trees, Stamford, Conn.; and "Cooperation With Civic Groups,

Rohm & Haas Markets 'Fore'

A new turf and ornamental fungicide called "Fore" is now available from Rohm and Haas Co., Philadelphia.

Fore, a Dithane M-45 product, is said to control such grass diseases as dollar spot, Fusarium blight, red thread, slime molds, copper spot, Helminthosporium melting out, Rhizoctonia brown patch, and Fusarium snow mold.

Ornamental diseases it knocks out are black spot of roses, and Botrytis petal spot of chrysanthemums, the company says.

Additional information will be sent those who write to A & SC Dept., Rohm & Haas Co., Independence Mall West, Philadelphia, Pa. 19105.

Departments and Others on Municipal Tree Programs," led by Harold Gray, chairman, DC Commissioners Planning and Urban Renewal Advisory Council.

Also offered delegates and guests will be a prognostication of things to come when Cy Parimier, landscape architect for Johnson, Johnson and Roy, Inc., Ann Arbor, Mich., speaks on "City of the Future."

Convention agenda also lists excursions to Washington's many historical sites.

Geigy Makes New Nematocide

Sarolex, a new nematocide that reportedly kills both nematodes and soil insects, has been introduced by Geigy.

This nematocide-insecticide also greens-up turf severely damaged by nematodes, chinch bugs, and other lawn pests, the manufacturer says.

Long residual action (one treatment all season), low phytotoxicity to surrounding ornamentals, compatibility with other materials, and no corrosive effects on equipment are other listed Sarolex advantages.

Tests with the new product have proved there is gradual growth of new grass in infested areas after treatment on most southern turfs, Geigy claims.

More detailed information is available from Geigy Chemical Corp., Saw Mill River Road, Ardsley, N. Y.

Chemical Mixer Produced

Multi-Film Compex, a new chemical mixer, said to be completely soluble in liquid solutions, is now marketed by Colloidal Products Corp.

Compex provides contract applicators with an inexpensive aid to treat soil with liquid fertilizers, insecticides, or herbicides in a single operation, Colloidal says.

For further details write Colloidal Products Corp., P. O. Box 667, Sausalito, Calif. 94965.

Meeting Dates



Mississippi Valley Golf Course Superintendents' Assn. Meeting, St. Louis Country Club, St. Louis, Mo. Aug. 3.

Indiana Assn. of Nurserymen Summer Meeting, Richmond, Aug. 3-4.

Massachusetts Nurserymen's Assn. Summer Meeting, Mahoney's Rocky Ledge Nursery, Winchester, Aug. 4.

New Jersey Assn. of Nurserymen Summer Meeting, Lovett's Nursery, Little Silver, Aug. 4.

Louisiana Nurserymen's Assn. Meeting, Municipal Auditorium, Lafayette, Aug. 5-7.

Southern Nurserymen's Assn. Meeting, Golden Triangle Motor Hotel, Norfolk, Va., Aug. 8-10.

Midwestern Nurserymen, Summer Seminar, J. V. Bailey Nurseries, St. Paul, Minn., Aug. 9-11.

Michigan Assn. of Nurserymen Annual Conference, Kellogg Center, East Lansing, Aug. 11-12.

Rutgers University Lawn & Utility Turf Field Day, New Brunswick, N.J., Aug. 11.

Rutgers University Golf & Fine Turf Field Day, New Brunswick, N.J., Aug. 12.

Texas Association of Nurserymen, Shamrock Hilton Hotel, Houston, Aug. 15-18.

International Shade Tree Conference Annual Convention, Washington-Hilton Hotel, Washington, D.C., Aug. 15-20.

Midwest Regional Turf Field Days, Purdue University, Lafayette, Ind., Aug. 16-17.

Iowa Nurserymen's Assn. Summer Meeting, Iowa State University, Ames, Aug. 16-17.

Nebraska Assn. of Nurserymen Summer Meeting, Nebraska Center for Continuing Education, Lincoln, Aug. 24-25.

Pennsylvania Grassland Council "Forage Progress Days," Milton Hershey Farms, Hershey, Aug. 27-28.

Arkansas Nurserymen's Assn. Annual Meeting, Arlington Hotel, Hot Springs, Aug. 29-31.

Illinois Turfgrass Field Day, University of Illinois, Urbana, Sept. 10, 13.

Penn State Turfgrass Field Day, on campus, University Park, Pa., Sept. 15-16.

Northwest Nurserymen's Indian Summer Session, Salishan Lodge, Gleneden Beach, Ore., Sept. 17-19.

Tennessee Nurserymen's Assn. Convention, Holiday Inn, Nashville, Sept. 19-20.

Alabama's Weed Spraying Equipment

(from page 12)

them four weeks earlier, the same spray might have killed them easily.

The spray used was 2,4-D, or 2, 4, 5-1 in water, or both, with a surfactant, at 4 lbs. active ingredients to 100 gal. of water. The rate of spray was to be "in an amount sufficient to thoroughly wet, to the point of runoff, all exposed foliage surfaces." The amount needed was found to be not less than 25 gal. per acre (which spread 1 lb. of active ingredient per acre).

After the 23rd of June, when rains came to most of Alabama, the effect of the spray could be easily seen soon after the spraying operation. On the areas which were sprayed during the drought, the effect was not noticeable for two or three weeks.

The second spraying began August 10 and plants were growing vigorously from the frequent rains. Summer weeds including bitterweed, ragweed, and spurge were principal targets for this operation. The worst pests, crabgrass and Johnsongrass, were not affected by the spray; in fact, they were probably helped by the reduced competition. A second generation of dockweed and plantain was caught by this spray, but there are no doubt still plenty of seeds remaining to germinate later.

Table I. Weed count in 1/100 of an acre in unsprayed area as compared to 1/100 of an acre in adjoining sprayed area.*

Aug. 19—Unsprayed Area	
Ragweed	1155
Goldenrod	189
Nodding Spurge	84
Poison Ivy	126
Blackberry	147
Dallisgrass	20%
Common Bermuda	5%
Crabgrass	189
Sprayed (One Time)	
Blackberry	2
Buttonweed	51
Ragweed	14
Bindweed & Briar Vines	10
Crabgrass	460
Dallisgrass	10%
Common Bermuda	20%
Broomsedge	10%
Bahia	5%

*Grasses are represented in percent of area covered.



Blackened and dead horseweed and other weeds in the 20-foot strip alongside this Alabama highway show effectiveness of the state's weed control experiment carried out by the authors.

The effect of the spray on certain tall weeds such as wild (tall) lettuce (*Lactuca canadensis*) and blue vervain (*Verbena hastata*) was a disappointment to the maintenance people. The weeds were blackened and most of them were killed; but the strong stalk stood long after it was dead and made an unsightly appearance along the road. They had to be mowed along with those portions which had not been sprayed.

One of the purposes of spraying is to reduce the cost of roadside maintenance. To do that it should eliminate the need to mow at least one time. In our case, the spraying did not eliminate the need to mow. Each scheduled mowing was required in both sprayed and unsprayed areas.

At many spots along our highways, the kudzu or honeysuckle vines growing exuberantly on steep fills or backslopes are growing onto the shoulders of the road and even to the pavement. The spray was very helpful in controlling these vines, particularly with the second application. The first spray seemed to kill the leaves but not the vines; while the second evidently killed the plants within the 20-ft. strip. This is a great help to maintenance crews who are relieved of the difficult mowing or swing-blading in those situations.

On the other hand, one mowing crew foreman told me that the spray made the grass and weeds much tougher and harder to mow, and that his tractors

used 5 gal. more gasoline per day when mowing behind the spray trucks.

A good control area was obtained on Highway US 82 between Montgomery and Tuscaloosa. The entire length of this road was to have been sprayed; however, a construction project was begun which eliminated a 3-mile-stretch of the road from both spraying and mowing. The weed count made in this area showed very clearly the difference in weed population between sprayed and unsprayed roadsides adjacent to each other, as shown in Table I.

Effects on Clover

The reseeded crimson clover, of which we have a great deal in Alabama, was mature before the spraying started on May 18. On the example of U.S. 231 south of Dothan, the crimson clover seed was being harvested the week before spraying began. The spray did not affect the germination of the seed later in the year, as is shown by the postspray counts on both July 13 and September 15 when crimson clover seedlings were observed in abundance.

The hop clover observed on May 18 at the same location was also mature at the time of spraying. No germination of hop was observed on the postspray counts.

Common lespedeza showing in most prespray counts, was killed by the spray.

Sericea lespedeza was killed by the spray. In most cases the *Sericea* within 20 ft. of the road has to be mowed anyway, and