Malathion Recommended
To Control Scale Insects

Second generations of scale insects can be controlled now with chemicals such as malathion, Dr. Donald L. Schuder, Purdue University research entomologist reports.

Small, and frequently inconspicuous, scale insects suck sap from ornamental shrubs and trees. Newly hatched scale insects, called crawlers, are susceptible because they are not yet protected by a waxy covering, Schuder says.

While about 80 different kinds of these insects occur, four are particularly subject to control in midsummer. They are the brown race of oystershell scale, pine needle scale, juniper scale, and euonymus scale.

All of these can be controlled by spraying with malathion, Schuder says. Recommended usage is 2 to 4 teaspoons of 57% emulsion concentrate per gallon of water. Other insecticides Schuder claims effective against scales include Diazinon, Guthion, and Ethion. Regardless of the insecticide used, Schuder recommends adding a wetting agent, such as household detergent, to insure contact with the insects.

He also reports that malathion can be used to control euonymus scale, but this insect is harder to control because it has three generations per year. He advises repeated spraying at 7 to 10-day intervals after the initial crawler spray, continuing until late in September.

USDA Book Details Tree Ills

Preventive measures for dealing with diseased or potentially diseased trees, as well as many major tree afflictions, are described in a new booklet from the U.S. Department of Agriculture.

Titled "Tree Diseases of Eastern Forests and Farm Woodlands," the publication lists major trees found in eastern forests, with diseases to which each is most commonly subject, and lists recommended action. All tree abnormalities other than those caused by insects are included in the term "tree diseases."

CAs may obtain copies from the Forest Service, U.S. Department of Agriculture, Washington 25, D. C.

Residex Offers 1962 Catalog

A 1962 Herbicide Catalog, featuring prices and technical information on 19 herbicides used in industrial weed control operations, is available to CAs from Residex Corp.

Residex has specialized in supplying industrial herbicides since 1954, the firm says, and handles formulations with technical material supplied by chemical companies such as American Cyanamid, Dow, DuPont, and Geigy.

CAs may obtain a copy of the free catalog by writing the company at P.O. Box 816, Clark, N. J.

Calif. Town Says No to Weeds

Nearly 147 vacant lots in the city of Coalinga, Calif., must be cleared of weeds right away, or owners face a municipal fine.

City rulers termed the weeds a "public nuisance and fire hazard," and city workers were made available to perform the work if no private applicators were called in. In either case, expense of the weed destruction is to be borne by the property owner.

Welcome Contribution

Congratulations on the first edition of Weeds and Turf. As president of the Weed Society of America, I am sure that all weed control scientists and weed control specialists in research, teaching, extension, and regulatory work welcome the important contributions you have made and will make in the future to the discipline of weed control.

The Weeds and Turf section is well planned, well organized, well written, and the significant contributions in this section clearly presented.

I am especially pleased about the amount of space given to announcements on the activities of WSA and the Regional Weed Control Conferences. I hope you will continue to encourage your readers to attend these meetings, which give an enormous amount of excellent fundamental and practical information having a direct bearing on the contract applicator's business.

Congratulations again on an important contribution to more effective use of agricultural chemicals.

Dr. W. C. Shaw
Leader
Weed Investigations-Agronomic Crops
Crops Protection Research Branch
Agriculture Research Service
U. S. Dept. of Agriculture
Beltsville, Md.

Very Much Impressed

I have just seen a copy of your magazine on the desk of a customer of mine, and was very much impressed.

Although I am in the marketing end rather than the application end of weed control and turf care, I find there are many interesting articles in your publication.

William A. Freeman
Niagara Chemical Division
FMC Corporation
Richmond, Calif.

Weeds and Turf welcomes expressions of opinions from its readers. Send ideas and comments briefly as possible to Charles D. Webb, Editor, Weeds and Turf, 1900 Euclid Ave., Cleveland 15, Ohio.
Smooth crabgrass, sometimes referred to as summer grass, or finger grass, is a troublesome annual that reproduces by seed and by rooting at the nodes (joints) near the base of stems. It is generally found in lawns, uncultivated areas, and crops, on light sandy soil across Eastern North America, but it is locally common elsewhere. The smooth type is sometimes confused with large crabgrass (D. sanguinalis), which is taller, coarser, with hairy leaves, and is less purplish.

Stems of D. ischaemum are smooth and many branched, forming prostrate mats. Leaves are alternate (not directly opposed on the stem), and smooth, 2 to 12 cm. long, 3 to 6 mm. wide. Seeds are borne in two rows on one side of 3 to 10 branches that appear to radiate from the top of the upright stem. The spikelets or single flowers are about 2 mm. long. Chafflike bracts (sterile parts) which enclose the spikelets are dark brown with transparent margins.

Crabgrass begins growth only when the soil is quite warm, usually in May in northern areas, and in April southward. It flowers and sheds seed in August and September. Crabgrass grows so vigorously during the hot summer when turf grasses are under partial dormancy, that the weed tends to crowd or shade out desirable grasses.

Disodium monomethyl arsonate (DMA) when applied 3 to 7 lbs. of active ingredient per acre at weekly intervals for 2 to 3 weeks gives good control. Likewise, phenyl mercuric acetate (PMA) applied as a post-emergent spray at a rate of \( \frac{1}{3} \) to \( \frac{1}{2} \) lbs. per acre controls crabgrass infestations.

If a heavy infestation is expected in the spring, Zytron, Dacthal, or trifluralin, applied according to directions before the crabgrass germinates, are said to effect control throughout the summer.

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

DRAWING BY REGINA HUGHES, USDA, BELTSVILLE

III. Survey Supports Diquat For Aquatic Weed Control

Investigational reports from widely separated parts of the United States have indicated that Diquat is an effective herbicide for the control of aquatic weeds, according to a report from the Illinois Natural History Survey. Conclusions reached are that Diquat is quite toxic to tested aquatic weed species, and has a rapid action. In laboratory tests with bluegills, no fish deaths occurred at rates of 20 ppm. or below, the survey claims.

Diquat, marketed commercially by Ortho Division of California Chemical Co., is an aqueous solution containing 2.5 lbs. of Diquat dichloride. It has been approved for aquatic weed control by the Pesticide Labeling Division of the U.S. Department of Agriculture.

CAS may receive a copy of the Illinois report, plus a copy of the test graph, by writing to the Illinois Natural History Survey, Section of Aquatic Biology, Urbana, Ill., and asking for "The Chemical Control of Some Aquatic Weeds — Supplement No. 2."

Magnolia Debuts New Pesticides

Magnolia Chemical Co., producers of nursery and garden center pesticides, is currently introducing four new formulations, including Bug Bait, Rose and Flower Dust, Lawn Spray, and Leaf Gloss.

Rose and Flower Dust, containing Dithane Z-78, is particularly effective against black spot, the firm claims. It is recommended for use as either a dust or as a water-diluted spray.

Interested CASs can write to the company at P.O. Box 8043, Dallas, Tex., for descriptive literature.

New Label Clearance for Simazine

Additional registrations for Simazine 80-W, which now extends use of the chemical to include nurseries, Christmas tree plantings, and shelter belts, has been revealed by Geigy Agricultural Chemicals Division, which manufactures the chemical.

Copies of the label acceptance are available to operators who write the firm at P.O. Box 430, Yonkers, N.Y.
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**Book Review**

**The Chemistry and Mode of Action of Herbicides**


A much needed reference for the ever-improving field of chemical weed control is *The Chemistry and Mode of Action of Herbicides* by Dr. A. S. Crafts, Chairman of the Department of Botany at the University of California at Davis.

Though mainly a chemical reference, the author reviews, in the first five chapters, biological aspects of chemical treatment and the classification of herbicides according to their action upon weeds. Pictures of plant parts, which have taken up dyes and radioactive Carbon 14, illustrate absorption and movement of herbicides through plants.

Remainder of this work is an elaboration on the many groups of chemical compounds, from 2,4-D, which heralded a new weed control era, to Zytron, one of the most recent. Each discussion begins with structural illustrations of the compounds concerned, which gives a chemically inclined reader an idea of the relationship between chemicals and why they act in similar or different manners. Pertinent research related to each compound discussed is cited, and the mechanism of action upon plants, as far as it is known, is explained. Charts summarizing many research efforts are found throughout the text.

Dr. Crafts writes in a fluent manner which makes for easy reading, but technical terminology is used. On that basis this book is not recommended to the novice in chemistry, unless he is willing to devote serious study to the subject. No space is given to defining terms; instead this space is used for citing references.

Persons with training in organic chemistry will find this book a very good review, and one which will keep them abreast of herbicide research.

Since the beginnings of weed control were agricultural, this text is oriented in that direction, but it will prove useful to the urban vegetation controller as well. Discussions of chemical turf weed control, while not extensive, are also included.

**Sudbury Offers Free Booklet**

Information on soil testing, including sections on soil elements, pH preferences, and fertilizing, is available in a new booklet, "The Good Earth," offered by Sudbury Laboratory, manufacturer of soil testing kits used to determine chemical composition of soil.

For a free copy, write Dept. 411, Sudbury Laboratory, Sudbury, Mass.

**Trimmings**

**Onward and upward.** Veteran weed controller Dick Evans, proud president of Dick Evans, Inc., a pioneer in the industry, writes that he's moved company headquarters to Pampa, Texas, where he'll direct activities for the firm's several branches. Dick was one of the first to specialize in refinery and pipeline operations for the oil corporations, and reports he has such giants as Phillips and Shell on his book. The story of this success story from the Panhandle State, which bears out our prediction of the business boom this industry is now experiencing.

**Kitchin moves up.** Another weedman on the advance is Dr. John T. Kitchin, formerly extension horticulturist at the University of New Hampshire. Dr. Kitchin has been named chairman of the University of Rhode Island's horticulture department.

**Meade meets for weed meet.** Northeastern Weed Control Conference secretary Dr. John Meade reports he and president Don Schallock are getting together with other NEWCC mentors in September to map final plans for the forthcoming conference in New York this January. We're glad to learn everything is progressing on schedule for this industry conclave, which gives CAS a chance to visit with big city, and update themselves on the latest chemicals and techniques the NEWCC scientists are testing.

**Better guard the yard.** Just heard of a Chicago butcher who came home the other evening, happily planning a cook-out with his family, to discover his lawn was gone. Having worked long and hard over his prize turf, the butcher was understandably shaken. A quick quiz of the neighbors, who stood around shaking their heads sympathetically, revealed a suspicious-looking character had spaded up the yard, rolled up the sod, and sped away in a long, black truck. Our mysterious butcher then wandered around the neighborhood in a daze and found another recently spaded plot, whose owner was industriously seeding and raking to beat the band, and who told the deprived butcher that he had ordered his lot plowed up by a nearby gardening company. Further investigation turned up the culprit, a gardener who sheepishly admitted he'd gone to the wrong address, and spaded up the butcher's yard by mistake. He said he was sorry, and promised to bring the lawn back right away.

**Stan's plans.** Versatile Cornell researcher Dr. Stanford Fertig is about to launch a big new aquatic weed control research program, which we learned recently. Dr. Fertig is laying out a series of one-tenth acre ponds to try new herbicides on, and will certainly come up with valuable information for the applicators. The program is under the board, and we'll have a more complete progress report in a later issue.
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