DACAMINE® gets to the root of broadleaf weed problems.

Dacamine turf herbicide kills weeds all the way down to the roots . . . not just the tops. The secret: Dacamine works more slowly than common 2,4-D, allowing time for more chemical to be absorbed into the weed and translocated to the roots. Dacamine controls knotweed and 75 other broadleaf weeds. It is non-volatile, even in hot weather . . . provides an extra margin of safety for nearby ornamentals. Just avoid spray drift and follow label directions.

Powerful, non-volatile Dacamine. It's the broadleaf weed killer in the Diamond Shamrock Pro-4 Turf Care pesticide system that includes DACONIL 2787® fungicide, DACTHAL® preemergence herbicide, DACAMINE® and DACONATE® herbicides. See your turf chemicals supplier. Or contact the nearest Diamond Shamrock office listed below.

Diamond Shamrock
AGRICULTURAL CHEMICALS DIVISION

SALES OFFICES: • 1100 Superior Ave., Cleveland, Ohio 44114 • 1401 W. Paces Ferry Rd. NW, Atlanta, Georgia 30327 • 1006 Main St., Houston, Texas 77002 • Commerce Plaza Building, 2015 Spring Rd., Oak Brook, Illinois 60521 • 617 Veterans Blvd., Redwood City, California 94063

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Hardwoods... softwoods... conifers
perennial broadleaf weeds... vines...

A Banvel® herbicide
can control all this tough vegetation for
3 to 5 years... where phenoxies fail.

Your vegetation control program de-
mands a versatile chemical that controls the
broadest, most varied mixture of brush and
weeds.

There are no other herbicides in com-
mercial use that outperform Banvel
(dicamba) formulations. You can get Banvel
4-W.S. (water soluble) or Banvel 4-O.S. (oil
soluble) herbicide which contain four pounds
dicamba (a.e.) per gallon. These formulations
may be tank-mixed with either 2,4-D or
2,4,5-T, or with both.

Or the pre-mixed Banvel herbicide com-
binations may fit right into your prescription
for control of unwanted vegetation... from
ash, oak and cedar to puncturevine and
willow.

Premix or tank mix, you can get the
results you require, often at less cost than
using a phenoxy herbicide alone, or other
systemic herbicides.
Why Banvel® (dicamba) works so well

As a systemic herbicide, Banvel (dicamba) is more active against many weeds than phenoxyes. Banvel (dicamba) enters the plant through leaves, bark or stems, and through roots. It destroys growth tissue as it translocates through the plant system.

Banvel's different mode of action and mobility in the plant account for a higher degree of control with Banvel herbicide alone, or with Banvel (dicamba) plus phenoxy mixtures, than with phenoxyes used alone.

Thus, Banvel (dicamba) is more active against many brush species than phenoxyes. Banvel 4-W.S. not only controls brush controlled by 2,4-D and 2,4,5-T, but also controls many species not controlled by phenoxyes, such as evergreens and suckering hardwoods.

Before tough brush gets tougher...

To control ash, oak, hickory, poplar, sassafras, cedar... as a basal application use Banvel-510 (oil soluble) herbicide, containing one pound dicamba and two pounds 2,4,5-T per gallon. Or as a foliage application use Banvel-320 (water soluble) herbicide, containing one pound dicamba, one pound 2,4-D, one pound 2,4,5-T per gallon. Or Banvel-710 (water soluble) herbicide, one pound dicamba plus two pounds 2,4,5-T per gallon. These formulations control most of the species that phenoxyes alone do not control.

Translocation takes time. Banvel-510 kills brush species the same year it is applied. On some species, such as oak, complete kill is not obtained until the second growing season after application.

Chemicals that give immediate first year brownout do not necessarily give third year kill. For some species, it takes 18 to 24 months from time of application to achieve kill.

This means that your spray program goes on a three to five year cycle. You seldom have to go in again on the same area with brush killer sooner than three years.

Banvel (dicamba) nips root-sprouting in the bud

Translocation explains why Banvel (dicamba) is so effective in getting rid of root-sprouting brush... poplar, sumac, chokecherry, locust, sassafras, aspen, persimmon. Banvel (dicamba) plus a phenoxy kills dormant buds. Banvel-510, containing 2,4,5-T, for basal application, is recommended, unless use of T is restricted. Then although it does not control quite as broad a spectrum, use Banvel-520 herbicide (which contains 2,4-D and costs less).

Spot treat with Banvel XP herbicide pellets

To supplement your spray program, a follow-up spot treatment with Banvel XP herbicide pellets (ten percent dicamba in clay) gives you convenience, economy and excellent brush kill. Banvel XP pellets control sparse, scattered vegetation that is difficult to reach with mobile equipment. It's easier for one man to carry 100 pounds of Banvel XP pellets on an acre than to do the equivalent with liquid chemical weighing 2,500 pounds.

A major advantage of pellets... no waste. Apply high or low label rates as needed to get control, precisely where it's needed.

Banvel XP herbicide pellets are dust-free. There's no chance of airborne herbicide drifting to crops or ornamentals.

After Banvel herbicide application, grasses flourish

Banvel (dicamba) is a selective herbicide, allowing grasses to remain as soil cover, to prevent erosion and to permit, as directed by label, live-stock to graze.

Environmentally speaking, Banvel (dicamba) that is not absorbed by plants breaks down quickly in the soil in the process of biodegradation.

To get moving in the right direction... toward an effective, efficient brush control program... get in touch with your applicator about Banvel herbicide formulations.

For immediate information about how Banvel herbicide fits into your vegetation control program, dial toll-free on the Banvel Herbicide Hot Line.

Note: Before using any pesticide, read the label.

Apply Banvel herbicides on 3-5 year cycle

Even though the entire plant is not sprayed, Banvel herbicides can give a higher percentage kill. Other herbicides may only suppress. Banvel formulations are more effective on the toughest trees, vines or weeds that have deep, extensive root systems. Even a little Banvel (dicamba) absorbed somewhere in the plant eventually gets to the roots.

To help you on specific brush control problems, Velsicol maintains a toll-free telephone that you may use all year 'round.

BANVEL® HERBICIDE "HOT LINE"

DIAL (toll-free): 800/621-4129
Illinois callers: 800/972-8381

between 9 a.m. and 4 p.m. Monday through Friday. Calls made outside of these hours will be automatically recorded and answered within 48 hours by phone or mail.

Just cut out or tape on or near your phone for handy reference.
12 Six Turf Pests — A two-page spread with six color pictures of turf pests on one page and basic identification and control information facing it.

14 Tree Evaluation Guideline — A short interview with Fred Micha of the shade tree evaluation committee of the International Society of Arboriculture.

16 New Greens Trench Drain Method — The city of Walnut Creek, Calif, had a severe drainage problem with the greens on its municipal golf course, and solved it with a new technique.

19 Urban Insect-Tree Relationships — Understanding insect-tree relationships in an urban community may lead to reasonable decisions about what kinds of trees should be used on urban sites and how existing trees can be managed to minimize losses from insect pests.

28 Match Chain Saw to Job — Michigan State University agricultural engineer Howard Doss' checklist for safe, efficient chain saw work.

32 Soil Compaction: Now Is the Time To Fight It — W. W. Sanderson of the University of Hartford in Connecticut explains his year-round program for fighting soil compaction.

The Cover — The spittlebug is in the group of turf insect pests that suck the life from the grass. The pest produces a frothy spittle as it feeds on the plant sap. Infestation of turf by spittlebugs is easily recognized by these frothy masses.

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If you want other reasons, consider that DURSBAN insecticides give many weeks of effective insect control. And they are easy to apply.

DURSBAN insecticides mix easily with water. Just mix and spray. They are also available from selected custom formulators as a granule and as a dry fertilizer mixture.

Whether it's for broad-spectrum, effective control...or low cost...make DURSBAN insecticides part of your turf program now. Just read and follow all label directions and precautions.

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The professional's professional from Dow.
Anti-spill regulations of the Environmental Protection Agency will name 300 major chemicals, many of which are pesticides and herbicides used in the green industry. Under the soon-to-be-published regulations, penalties for spills or discharges of the chemicals "in harmful quantities" (in some cases a pound or less) would subject companies to heavy civil fines.

The federal Japanese beetle program will terminate in October if not reinstated; funding for the program was not included in the latest federal budget. Basically, this reasoning seems sound to some because this pest has about reached its geographical range. However, others feel the program was discontinued because of the banning of control materials by the Environmental Protection Agency, and that within two to three years there will be losses due to Japanese beetle grubs and other subterranean insects which have not been a problem since the 1950s. These persons feel that when these problems become extreme once again, that pressures will force federally financed studies aimed at control.

Most economists believe the economic recovery is real and are scaling their projections upward. And experts predict this favorable forecast: The median price of a new home is 20 percent cheaper than it was in 1970 when related to disposable income. This, plus declining mortgage rates, will result in 1.6 million new homes this year and two million next year — good news for landscapers, sod growers and other related green industry persons.

Another salvo in the chlordane and heptachlor fight — this time from Velsicol Chemical Corp., Chicago. In a recent letter to Environmental Protection Agency administrator Russell E. Train, Velsicol charges that a recent EPA request for recall of all stocks of chlordane and heptachlor is illegal. The letter says in part: "As you are aware, there is no authority in the law for recall of products which have been suspended...these suspension orders contain absolutely no provision for recall of these products. As you are also aware, although certain registrations have been suspended, none has been cancelled and the cancellation proceedings for heptachlor and chlordane still are pending and unresolved." Velsicol claims that although the EPA letter is phrased as a "request" since it comes by certified mail from the government, there is obvious official pressure, and registrants will be misled into believing they have to comply.

Insurance companies are seeking to become partners with the federal government in a booming line of insurance. That line is insuring the nation's farm crops against all risks, including so-called "acts of God," such as flood, frost or drought. At present, most of this insurance is written by the United States Department of Agriculture's Federal Crop Insurance Corp. Last year the government's premium volume grew to $73.6 million, up 36 percent from 1974 and double the volume of a decade ago. Is there room here for insurance for green industry crops?

The postponement for a year the requirement for certification of pesticide applicators has not resulted in any noticeable delay in states' training and certification efforts, the Environmental Protection Agency reports. 25 of the 54 states and territories that need approved state plans for applicator certification now have EPA-approved plans or ones the agency considers approvable.
Superintendents Form Industry Council

The executive committee of the Golf Course Superintendents Association of America has formed an Industrial Advisory Council to discuss problems and ideas in the industry. It will consist of representatives of the turf industry and certain members of the GCSAA executive committee.


The industry members were chosen for three-year terms. A GCSAA spokesman said the idea behind the selection of Council members was to cross product lines and sizes of companies, and to also get high-level persons in each company that could speak with authority on industry matters.

The Council met March 31 and April at GCSAA headquarters in Lawrence, Kan. and discussed a number of topics, including: the annual conference, industrial relations committee, membership, legislative matters, education, scholarship and research, identification of problems between industry and turf professionals and public relations. The Council will meet again in the fall.
City Shade Trees Dies

Edward H. Scanlon, founder of the Society of Municipal Arborists and an internationally recognized authority on developing shade trees for city use, died recently in Cleveland. He had been commissioner of shade trees for that city. He was also a founder of the International Plant Propagators Society.

He supervised the planting of more than 85,000 trees in his eight years at the Cleveland post and later as commissioner for the Cleveland Electric Illuminating Co. He developed many types of ornamental trees on his 70-acre farm near Cleveland.

He developed a controversial program to replace towering elm trees. "We should plant a tree that fits the space," he once said. The elms were dangerous in storms, often falling on houses and people, and they ruined grass, cracked sidewalks and obscured street lights, making streets dark and dangerous.

Nursery Management Seminar Is July 25-30 in Colorado

The American Association of Nurserymen's 21st Management Seminar will be held July 25-30 at Colorado State University, Fort Collins, Colo.

The seminar is a solid week of professional development to sharpen management skills, equipping staff people in any nursery business organization to operate more productively and more professionally, an Association spokesman said. It is built around specific lecture sessions — applicable to management and key employees in every wholesale, retail and landscape operation of any size — and these are supplemented by smaller group discussions.

Seminar leader is Dr. Eric W. Lawson, chairman of the Finance Department in the Syracuse School of Management. He is well-known to many in the nursery industry, widely experienced in matters of the nursery business and highly respected as an outstanding consulting authority. For further information, contact the Association at 230 Southern Building, Washington, D.C. 20005.

Sod Survey—Marketing Change Needed

A recent survey of the Maryland sod industry indicates there is a vital need for a change in marketing patterns, according to University of Maryland turf specialist Prof. John R. Hall.

"The days of sod demand exceeding supply are over for a while and new marketing techniques are needed," Prof. Hall said. "The sod industry rode the high wave of sod demand that housing construction created in 1972 and 1973 and did not broaden its marketing potential during this period."

He said perhaps innovative advertising and marketing concepts are in order to attract new consumers. The "roll your own sod" concept that is gaining momentum can serve to open the gates to the totally untapped homeowner need for sod. He said sod has so many advantages over seeding for the homeowners that it is a small wonder this market has not been extensively explored. Homeowners spend close to $50 million per year maintaining lawns in Maryland. A great deal of this money could be spent on improving existing lawns with sod if sod were more available to the average homeowner. He said there are many other areas where the advantages of sodding should be made known.

"The time for diversification and development of new marketing and advertising techniques has arrived," he said. "The sod industry can no longer sit idly by and wait for demand to knock on its door."

The report showed the number of sod growers decreased from over 80 in 1973 to 67 in 1975. Sod acreage in the state has decreased from 13,150 acres in 1973 to 10,778 acres in 1975. The average cost of an acre of sod at the point of first sale excluding installation charges increased from $1,366 per acre in 1974 to $1,419 per acre in 1975. These are gross averages and include variable services provided at each farm; 3,162 acres of sod were sold in Maryland in 1974 and only 2,367 acres in 1975.

Total value of sod sales in Maryland on a cash first sale basis has decreased over 22 percent from over $4.32 million in 1974 to over $3.35 million in 1975. The value of sod sold on a cash first sale basis was greatest in 1972 and has decreased rapidly with the general decline in housing construction.

The survey response for Maryland indicates over 65 percent of the acreage in sod production was treated with a herbicide in 1975 while insecticide and fungicide treated acreage was over 28 percent and over six percent respectively.

New officers of the National Arborist Association are: (seated, from left) Kenneth Kirk, second vice president; Gerald Farrens, first vice president; Boyd Haney, president, and Larry Holkenborg, secretary. (Standing, from left) Tom Morrison, past president; directors, Earl Sinnamon, Walter Money, George Tyler, Erik Haupt; Bruce Walgren, treasurer.
Arboriculture Convention
August 8-12 in St. Louis

The 52nd annual convention of the International Society of Arboriculture, formerly the International Shade Tree Conference, will be August 8-12 in St. Louis, Mo. The headquarters hotel will be Stouffer's Riverfront Towers and all educational sessions will be held there.

This year's program emphasizes the Bicentennial with discussion sessions and contributed paper sessions. One highlight will be an all-delegate day at the Missouri Botanical Gardens. This affair will consist of outdoor equipment demonstrations by manufacturers, a luncheon with entertainment, and a special attraction — the Arborist's Tree Climbing Jamboree — where the world champion tree climber will be chosen.

Society president Jack R. Rogers of Pasadena, Calif. has chosen the theme "Trees Form an Archway to the Future" for the meeting. Over 50 commercial companies will exhibit and demonstrate their products and equipment and an anticipated 1,500 shade tree persons will attend.

Alternatives to Pesticides in Ag Research Proposal

Alternatives to chemical pesticides, photosynthesis, nitrogen fixation and alternative technologies that reduce consumption of energy are part of a proposal that $110 million be given to areas crucial to agricultural productivity. The proposal was made recently by the National Academy of Sciences.

The Academy proposed a major reorganization of the agricultural research system in the United States. It recommended the U.S. Dept. of Agriculture appoint a high level administrator to devote his major interest to agricultural research. Further recommendations call for state and federal support of agricultural research to be increased by 40 percent, from $450 million to $630 million.

The Academy also urged a program of competitive grants be initiated and administered by the Dept. of Agriculture to encourage research in the mentioned areas. Of special importance for immediate research is a proposal to focus on ways of decreasing dependence on chemically synthesized fertilizer.

Pennsylvania Nursery Show Scheduled for July 27-29

The Penn Allied Nursery Trade Show is scheduled for July 27-29 at the Hershey Motor Lodge Convention Center, Hershey, Pa.

Exhibit space for the show has been expanded to 222 booths for plant material, equipment and supplies. Last year, 2,400 persons from 31 states attended. For information, write: S. Howard Davis, Penn Allied Nursery Trade Show, 169 W. High St., Carlisle, Pa. 17013.

New Florida Sales Agency Named by Melnor Turf

Peter C. Zaphiris, executive vice president of Melnor Industries Turf Irrigation Division, Moonachie, N.J., has appointed W & B Associates, 1180 North Rome Avenue, Tampa, as its sales agency for Florida.

Under the direction of Robert Pressner, W & B Associates will be responsible for the sales of Melnor's line of agricultural irrigation equipment to pump and sprinkler specialty supply houses in Florida.

Landscape Contractors Form Wisconsin Chapter

The Wisconsin Landscape Contractors Association has formed a new chapter to be known as the Southeast Wisconsin Chapter of the Association. The organization has 16 charter firms from Racine, Kenosha and Walworth counties.

Elected to serve as officers are: Leo Schuch, Town & Country Pines, Kenosha, president; Ray Hintz, Ray Hintz, Inc., Caledonia, vice president; and Arnold Sieg, The Bruce Co., Kenosha, secretary-treasurer. Other charter members include:

Roger Condrad, John Condrad Sr. & Sons Landscaping, Burlington; Scott Davis, Davis Sod & Landscaping Service, Racine; Warren Guentzel, G & S Landscaping, Racine; Dick Swartz, The Swartz Nurseries, Kenosha; Randy Larsen, Lawn Specialist, Inc., Racine; Gerald Kramer, Kramer's Construction Co., Inc., Kenosha; Douglas Karge, McKay Nursery Co., Racine; Phillip J. Cruz, Jr., Racine; George Kauffman, Parkside Lawn Service, Kenosha; T. R. Garcia, Tarr Lawn Service; Kenosha; Henry Halter, Halter Farms, Inc., Union Grove; Bill Burmeister, Burmeister Sod, Waterford; and Don Passuhl, Wisconsin Turf Equipment Corp., Racine.
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