

# GET THE TRIMMER/ CUTTERS WITH THE STRONGEST ROOTS.

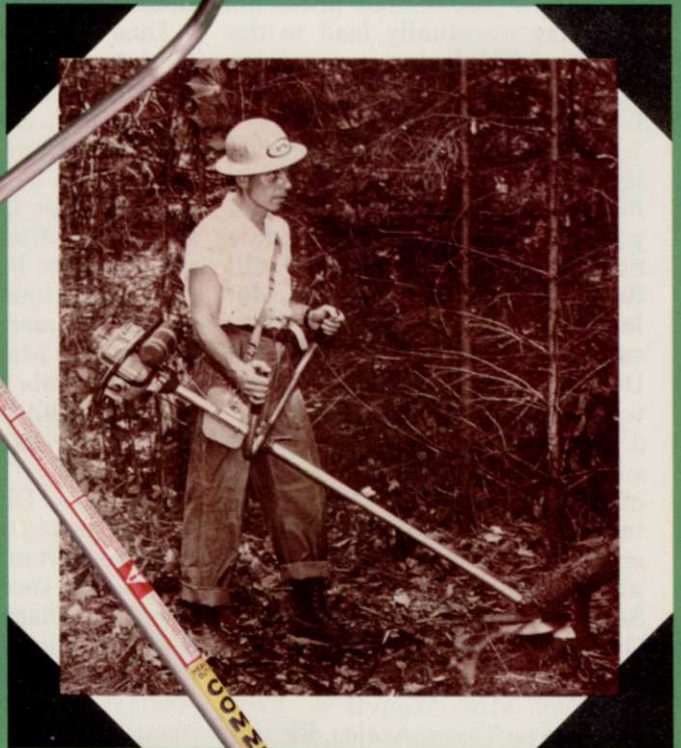
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# Landscape

drates the plant can store up for bud development and winter survival in colder areas of the country. This may leave the plant in a weakened condition making it more susceptible to winter damage or other stress related problems that may eventually lead to the failure of the plant.

## I. Foliage Feeders

1. Bag worms - Most common on narrow leaf evergreens but can be found on many other plants when population levels rise. Reasonable control can be obtained with Sevin, Diazinon, Acephate, Malathion, Methoxychlor, Bendiocarb when they are small but Dursban and Acephate are needed when more mature.

2. Japanese Beetles - Early to mid-summer favors the first emergence of this colorful but destructive insect. Favored host of prunus, apple, rose, elm and many other plants need to be protected with Sevin, Bendiocarb, Methoxychlor, Diazinon. A long residual is important.

3. Black Vine Weevil — Leaf notching on Taxus, Azalea, Rhododendron and numerous other plants in the landscape suggests weevil feeding. Black vine weevil common but several others may be present. Night feeders — Larval stages feed on roots. Control adults with Acephate, Bendiocarb, Lindane.

4. Imported Willow Leaf Beetle — Most willows attacked by this insect. Several generations. Sevin, Acephate, Methoxychlor — Timing important.

## II. Sucking Insects

1. Lace Bugs — Off color and stipple pattern on leaf is common with shiny black fecal residue on under side of leaf. Common on Azalea, Rhododendron, sycamore, Pyracantha. Use Malathion, Acephate, Sevin, Dymet, Dimethoate.

2. Spider Mites — Hot weather will favor the build up of these insects often found on juniper and spruce but many other plants are susceptible. Many regular insecticides give little to no control of spider mites. Other materials must be used such as Dicofol, Dymet, Vendex etc.

3. Aphids — Different species are present during the growing season. Must be alert to build up, especially on new succulent tissue. Use Acephate, Diazinon, Malathion.

4. White Flies — Often found on the under sides of leaves of Azaleas, privet and foundation plants that result in a black sooty mold growing on the honey dew. Difficult to control insect due to life cycle. Acephate, Dymet, Diazinon, Dimethoate, plus others.

## III. Scale Insects, Crawler Stages

1. Cottony Maple Scale - Cottony masses on silver maple and others.

Wait for all eggs to hatch for best control. Acephate, Diazinon, Sevin, Malathion.

2. Lecanium Scale-Wait for crawler stages to be active for control. Timing important — the materials are listed above.

3. Oyster Shell Scale-Watch for branch dieback or slow leaf development.

4. Pine Needles Scale

## IV. Leaf Miners, Skeletonizers

1. Solitary oak leaf miner — Various leaf miners are active at this time. Early recognition and use of a protectant insecticide or use of a systemic material is needed.

2. Leaf Skeletonizer — These insects may be annoying in areas where an oak population exists — Two generations are often found. Similar insects occur on birch and other plants. The larvae that drop from a web and the white cocoons are annoying. Timing is more important than control materials of Sevin or Diazinon.

3. Needle Miners — Needles cut off and webbed together making branches unsightly. Use Sevin or Acephate early in spring and mid-summer.

## MID-SUMMER TO EARLY-FALL:

Chewing insects that feed on foliage at this time of the year are often more unsightly than harmful to the plants. However, if the object is to keep foliage for the fall color change, one must be aware of these late season feeders. Life cycles of certain insects also dictates that control measures be employed at this time for optimum results and satisfied clients.

## I. Scale Insects

1. Magnolia Scale — The crawler stage of this scale is active in the latter part of the growing season. Use Sevin, Diazinon, Malathion, Acephate on the crawler stage.

2. Pine Needle Scale — Second generations of this insect that can

*Continued on page 56*

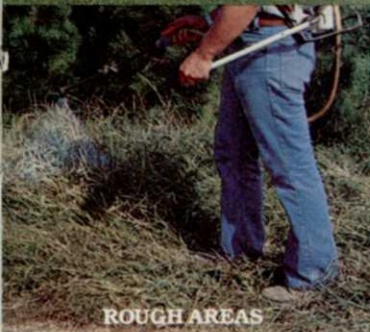


Spider mite damage to one untreated juniper is evident by off-color foliage.

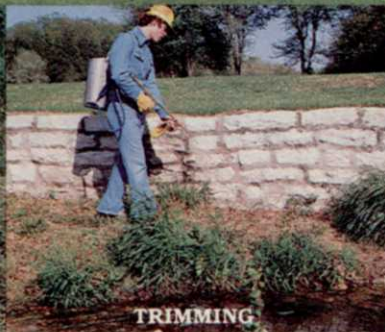


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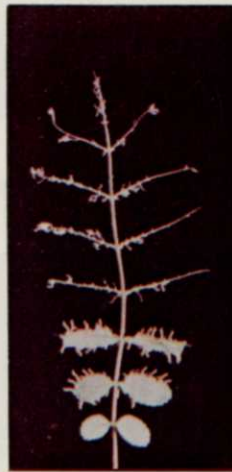




# Tree Insect Identification Quiz

Quiz yourself. Answers are on the next page.

A. \_\_\_\_\_ B. \_\_\_\_\_



C. \_\_\_\_\_

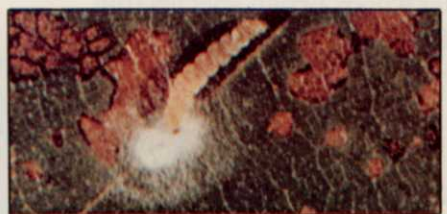


D. \_\_\_\_\_ E. \_\_\_\_\_ F. \_\_\_\_\_

G. \_\_\_\_\_



H. \_\_\_\_\_ I. \_\_\_\_\_ J. \_\_\_\_\_



K. \_\_\_\_\_ L. \_\_\_\_\_ M. \_\_\_\_\_ N. \_\_\_\_\_



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# Landscape

blow in or be carried by other insects and birds or were missed early in the season, can explode and nullify all previous treatment. Use Sevin, Diazinon, Dymet, and Acephate on the crawler stage.

3. Fletcher Scale — Watch for

crawler stage at this time of year on prone plants and use Sevin, Malathion, and Acephate.

## II. Adelgids

1. Cooley Gall — This adelgid leaves the gall in late summer to

start a new life cycle or may return from fir trees if the alternate host of this pest is in the area. Good coverage of the new growth with Diazinon, Sevin or Malathion is important.

2. Eastern Spruce Gall — Similar in nature to the cooley gall, but activity is later so timing is important for the particular area.

## III. Leaf Feeders

1. Fall Web Worms — The second generation becomes very obvious at this time of year with extensive webbing of the foliage. Suppression can be obtained with Sevin or Methoxychlor.

2. Japanese Beetle — This colorful insect is destructive on many other plants. Weather conditions play an important role in these numbers. Control with Sevin or Methoxychlor will be dependant on local analysis.

3. Mimosa Webworm — Webbing similar to fall web worm where leaves are pulled together. Several generations, Sevin, Acephate, Diazinon

4. Oak Leaf Skeletonizer — Second Generation on Oak.

## IV. Borers

1. Locust Borer — A problem on black locust — Emergency occurs in the fall and egg laying is when golden rod in bloom. Lindane as a trunk protectant where a problem exists.

2. Peach Tree Borer — Mid-late summer treatment may be necessary on valuable plants. Use Lindane or Lorsban.

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## ANSWERS TO TREE INSECTS

- A. aphids
- B. eastern tent caterpillar
- C. euonymus scale
- D. pin oak sawfly
- E. mountain ash sawfly
- F. dogwood borer (larvae)
- G. mimosa webworm
- H. willow leaf beetle
- I. spruce mite webbing/damage
- J. fall webworm
- K. gypsy moth (larvae)
- L. oystershell scale
- M. pine tube moth damage
- N. birch lead skeletonizer

# Using DYRENE for fungus disease control is the smartest thing you've always done.



You know <sup>®</sup>DYRENE Turf Fungicide gives you effective control of the various species of Helminthosporium which cause diseases known as melting-out, going-out, and leaf spot.

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# Proof that the best fungicide costs less.

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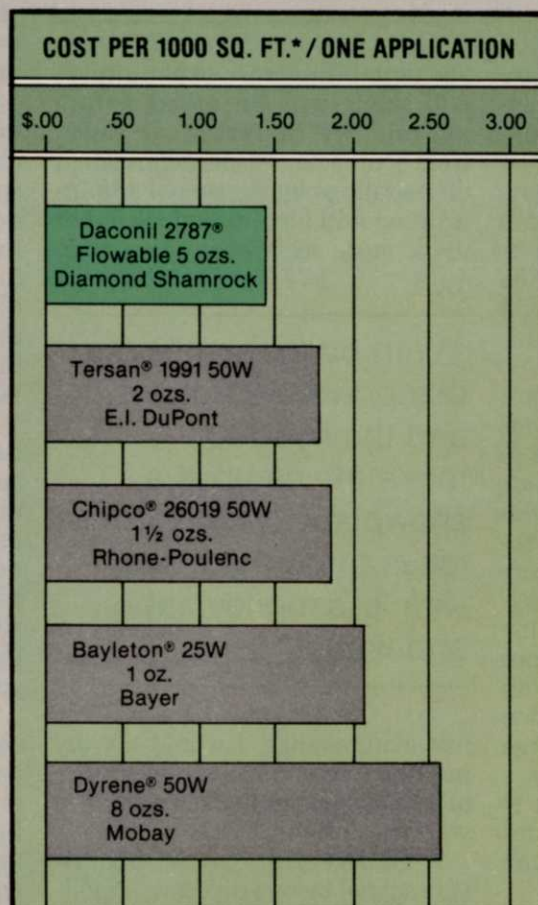
But what you may not know is that Daconil 2787 is more economical to use than the other leading fungicides.

Using a typical spray schedule, Daconil 2787 gives you greater savings on a per 1000 sq. ft. basis when it comes to controlling your most serious diseases — dollar spot (including benomyl-resistant dollar spot), Helminthosporium (leafspot and melting-out) and large brown patch.

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\*Costs based on manufacturer suggested retail unit price as of January, 1983.

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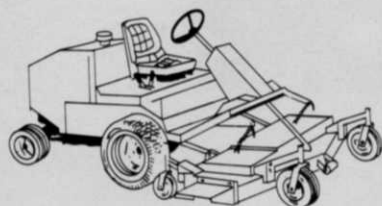


## Doing More With Less

School landscape managers seek ways to increase maintenance efficiency.

By Bruce F. Shank, Executive Editor

### School Mowing Equipment.



Riding Mowers

88% of schools have an average of 4



Trim Mowers

88% of schools have an average of 8.7



Mid-Size Walkers

23% of schools have an average of 3

Managers of school landscapes are facing a potentially severe mismatch between funding and property use according to the latest *Weeds Trees & Turf* survey. Nearly 70 percent of the school landscape managers reported their budgets have grown less than the inflation rate. Thirty percent said their budgets had not been increased at all.

"Doing more with less" was a common remark from survey respondents. "We have to be able to keep the campus and playing fields in usable condition with less help and more field use," said one respondent. A private college director of grounds said, "The most significant challenge in the next ten years will be to keep the campus maintained to high standards. With talk of budget cutbacks, reduction in manpower, and the college wanting to make the campus a showplace, it will be necessary to come up with new ideas and equipment to get more work with less money, labor, and water."

A public university landscape manager told *Weeds Trees & Turf*

accountability for expenditures and labor will be asked before budgets are increased or saved from cutbacks. "Computerization of operations by the school administration will force us to look at our work more as preventative than

"With budget cutbacks, manpower reductions, and the need to make the campus a showplace; we need new ideas to do more work with less money, labor, and water."

just maintenance. I would say my position will and has become more of a manager and planner than a working position."

A management view of his private school by one director of facilities is, "Probably the biggest challenge to me has been to

accommodate all of the various teams with playable fields. Next in line is water availability. Then women are becoming more interested in all sports. This is putting a drain on the available space. We are now in the process of proposing construction of two new fields, but this also adds to our water problem."

A public school general foreman has a bare bones attitude, "Due to the excessive damage done to school property, landscaping will have to become more basic, meaning a bare minimum of shrubs and beds. Flowering plants and bulbs are now extinct. Trees have to be larger when planted or they don't stand a chance. Seeding lawn areas is almost impossible to do anymore."

School landscape managers are more equipment oriented than chemical oriented. Some feel a responsibility to keep chemical usage down in public areas. As a result, they favor an equipment solution to efficiency. "Manufacturers and distributors can help me by producing things that can do more than one job," said a public school landscape manager.

General campus areas and athletic fields are the predominant responsibilities of school landscape managers. A third of the respondents also are responsible for gardens or an arboretum. Interior plants were described as a responsibility by 12 percent of the group. Less than five percent cared for golf courses.

A fourth of the respondents give some jobs to landscape contractors. While a large majority of the managers feel their crews can do a better job than the contractors, nearly half see the benefits of less equipment overhead and freeing up staff for other duties. Labor

*Continued on page 62*