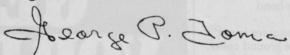






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s a turf professional you probably agree with your peers that acre for acre and dollar for dollar. Trimec turf herbicide is unsurpassed in effectiveness and efficiency. But perhaps you don't realize that Trimec is being constantly improved through the development of new complexes for use in specialized situations... Designated Hitters to help you increase your efficiency.

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Trimec* is a registered trademark of PBI/GORDON Corporation, U.S. Patent No. 3,284,186.



George Toma is a turf grass consultant. He is groundskeeper for the Kansas City Royals and the Chiefs, and has been in charge of preparing the playing fields for

all 17 Super Bowls and Pro Bowls that have been played to date.

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Answer:

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Problem.

The control of broadleaf weeds in turf.

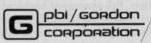
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Dollar Spot Fusarium Patch Leaf Spot Brown Patch Red Thread

alternataive tools to control weed seeds as they germinate. The above materials give better control of annual grasses than broadleaf weeds. Usually herbicides should be applied yearly until the ground cover fills in properly. This will minimize the need for hand weeding.

Keep the area properly watered during establishment

and during dry periods.

You could also consider producing ground cover in a sod-like manner. Reports from Ohio State University indicate that plants like euonymus, English ivy and pachysandra can be grown in a sod-like manner and can be rooted into the soil and established 6 months after transplanting into the field. With this method, you should have little need for hand weeding.

Q: Please give your recommendations for killing tall fescue which is growing up through junipers we have covering a hillside. We have several thousand shrubs, so you can see the magnitude of the problem. The fescue appears to be perennial. What do you recommend that can be applied as a spray directly to the plants without any damage to them? (New York)

A: Dichlobenil (Casoron) is labelled for the control of fescue in juniper. Casoron granules are easily applied with a hand-held cyclone spreader and penetrate through the foliage dropping to the ground. Casoron, as a wettable powder, may be sprayed over plants, but because of the density of juniper foliage, it is best to direct the spray to the area beneath and around the plants.

A recent report from Ohio State University indicates that dichlobenil, formerly marketed only as Casoron by

By Balakrishna Rao, Ph.D. and Thomas P. Mog, Ph.D.

Q: Do you have any tips on getting ground covers established under tree canopies without massive hand weeding? (Ohio)

A: Establishing ground covers under tree canopies is not very difficult; however, to have a weed-free ground cover, beds require a little bit of effort. The following guidelines should help you establish ground cover under trees with a minimum of weed problems and possibility of hand weeding.

Prepare the soil in the planting area by removing the sod and tilling the soil to at least 6 inches deep. If the soil is clay, improve drainage and incorporate organic materials such as leaf mold, compost, rotted manure, peat moss or similar materials to improve the aeration, penetration and infiltration. Based on soil test results, adjust the pH (to 6-7) and fertility levels.

Although plants can be planted at anytime during the growing season, for best results plant them during early spring and early fall. Plants like English ivy, pachysandra or myrtles are usually planted on one-foot centers and cotoneaster, junipers and euonymus three feet apart. For

quick fill-up, plant them closer.

Weed problems can be eliminated or minimized by uniformly spreading mulching materials like peat moss, sawdust, wood chips and pine bark. Mulching also can enhance establishment by maintaining uniform temperature and conservation of moisture. Wood chips and sawdust materials can require the addition of nitrogen to speed up the decomposition. Pre-emergent herbicides, such as DCPA (dacthal), diphenamid (Dymid, Enide), norea (Herban), and trifluralin (Treflan) are available as



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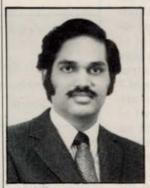
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TOUGH

Cut Worms Chinch Bugs Sod Webworms Billbugs, Grubs and Many Other Insects spores are colorless, one-celled, long and narrow, and curved or hooked on one end. The presence of beta spores makes identification of P. juniperovora fairly easy.

Benomyl is federally registered for Phomopsis blight and prevents infection of the new foliage.

Poor drainage, shade and overhead sprinkling seems to encourage development of this disease. Situations which discourage infection are well-drained beds, sunlight and watering underneath the branches.





Balakrishna Rao is plant pathologist and Thomas Mog is pest management specialist for Davey Tree Expert Co., Kent OH.

Questions should be mailed to Problem Solver, Weeds Trees & Turf, 7500 Old Oak Boulevard, Cleveland, Ohio 44130. Please allow 2-3 months for an answer to appear in the magazine.

the Thomson Hayward Company, is now available under the following trade names and forms:

Casoron - Uniroyal Agricultural Chemicals (for commercial use);

Dyclomec - Acme Agricultural Products (for home garden use - pbi/Gordon); and

Norosac - Gordon's Professional Products (for commercial use - pbi/Gordon).

Q: Is there a disease which causes browning and dieback of spreading junipers? It must be a disease because we haven't seen any insects or red spiders. (Pennsylvania)

A: Dieback is caused by many things and for an accurate diagnosis, the plants or some of the affected branches must be examined.

Cerocospora sequoiae and Phomopsis juniperovora are two fungi which cause a blight disease of junipers. Winter injury or drought will also result in symptoms similar to those you described.

Cerocospora starts on the oldest needles of the lower branches spreading upward and outward; whereas, Phomopsis infects the youngest needles first.

P. juniperovora is more common than C. sequoiae on ornamental junipers. The following information should be helpful in identifying Phomopsis blight. Symptoms start at the tips of branches. The green color of the foliage gets lighter, then red-brown, and eventually turns to an ashen grey. Stems about 3/8-inch in diameter or smaller may have cankers because the fungus grows through the needles and into the stem. These cankers eventually girdle smaller branches. Sometimes small, black fruiting bodies (pycnidia) can be found on dead and dying tissue, usually they appear in the advanced stages of infection.

Phomopsis is somewhat unusual in that it produces two kinds of spores called alpha and beta spores. The beta



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Surprisingly, park superintendents reported they manage more tennis courts than soccer fields. Baseball and softball fields are the most common athletic responsibility of the superintendents with 86 percent managing an average of 14 fields. Nearly 70 percent manage an average of 13 tennis courts. Two-thirds care for an average of 7 soccer fields. Football fields are the responsibility of 57 percent of the park superintendents with an average of 4 fields. Sixty percent are responsible for swimming pools with an average of 2.5 pools. Finally, less than a fifth care for golf courses.

The average acreage managed is 208 acres. The most common title is superintendent of parks and recre-

Impact on Athletic Field Use by Percent Responding			
	Great	Moderate	None
Women's Sports	48	48	4
Soccer	52	34	9
Children's Sports	55	45	0
Teenage Sports	41	62	0
Adult Sports	69	38	0

ation. The closer the individual in charge of fields is to the actual maintenance, the more knowledgeable he is. A set of national standards for park athletic fields could be a major support for park superintendents in combatting in-

tensive wear of athletic fields. We offer Dr. Daniel's standards here as an example.

It seems only sensible to spend a little more for natural field maintenance than a great deal more for an artificial surface.

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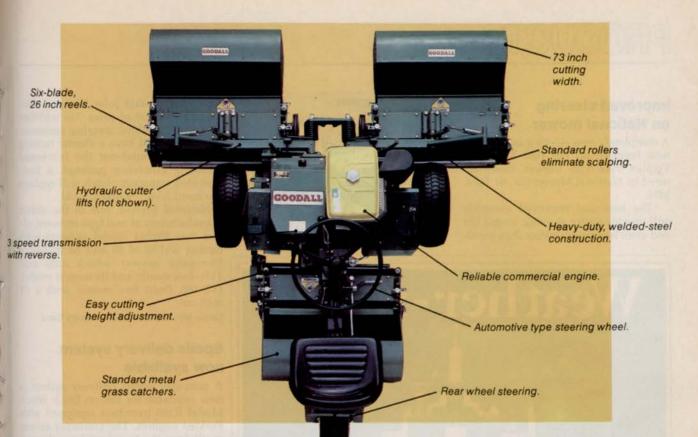
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Improved steering on National mower

A completely new steering assembly is now featured on the 1983 Model 84 Triplex reel-type mower manufactured by National Mower Co., St. Paul,

"The new and improved assembly will provide easier steering, longer life and even less maintenance than previ-



ous models," said John Kinkead, National's director of sales. "In addition to a more positive steering response, the mower will have a shorter turning radius. To round-out the increased handling efficiency package, a footoperated transport clutch will replace the hand lever," Kinkead said.

National Mower, one of the oldest manufacturers of reel type mowers, offers two triplex model mowers with cutting widths of 68 and 84 inches; a five-gang mower which cuts and 111/2-foot swath; and its newest model, JTS-180, front line mower with a 71 inch cut.

Circle No. 150 on Reader Inquiry Card

Spoils delivery system now available

A conveyor spoils delivery system is now available for use on Ditch Witch Model R100 trenchers equipped with Perkins engines. The conveyor moves spoils from the trench and can deposit



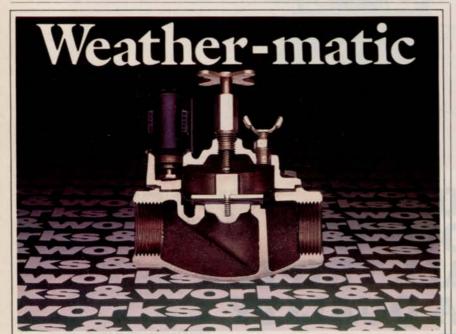
the material to either side of the trench. The conveyor is able to move more spoils than auger spoils delivery systems.

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Brochure describes Pene-Turf permiability

A new full-color brochure published by Four Star Agricultural Services shows how Pene-Turf Soil Treatment can improve permeability and aeration in the soil. An annual application of Pene-Turf can help establish better rooting, eliminate isolated wet and dry spots and reduce soil erosion problems. Independent tests show that Pene-Turf speeds water percolation through any type of soil, thus promoting better drainage. The brochure is available free.

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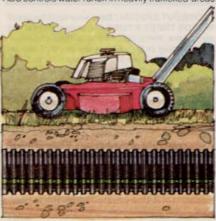
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