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GREEN INDUSTRY NEWS

SEED

Burning limits due this month in Oregon

The U.S. Environmental Protection Agency's regional office in Seattle hopes to decide by mid-April on the amount of land in Oregon that can be set aside for field burning by the state's grass seed growers.

Although state law limits the burning to 50,000 acres, the Oregon Seed Council is requesting that 180,000 acres be used this year to prepare the land for the 1979 seed crop. Opposition has formed in Eugene and Springfield, with groups there saying that particulates from the burning fields create a health hazard and violate the federal Clean Air Act.

Oregon Assistant Attorney General Don Arnold said he believes the farmers will be allowed to burn between 100,000 and 120,000 acres. "They (EPA) hinted they would

allow something over the 50,000-acre limit," he said.

Dave Nelson, executive secretary for the Oregon Seed Council, said his group is working on a proposal to permit use of 180,000 acres, by using burning methods that would reduce particulate levels by about one-third. Nelson said back-firing and strip-lighting would be used.

However, he said the group is prepared to go to court if the EPA does not grant the 180,000-acre limit or its equivalent. "We will definitely take the appropriate legal action if we're stuck with less than 180,000 acres," he said. The council has asked the state's growers, which number about 1,000, for contributions to pay for possible legal fees. It will soon approach the seed com-

panies, Nelson said.

A 50,000-acre limit will cause a gradual deterioration of seed quality and between a 25-75 percent reduction in the amount of seed produced for the 1979 crop, Nelson said. "If we can't clean it up (by burning), we won't get the tillering to produce the extra stock shoot growths out of the plant," Nelson said.

The Seed Council feels burning has done little to violate the clean air standards in Eugene and Springfield. A recent air sampling in the two cities revealed that only one station recorded violations in the amount of particulates, Nelson said, and that dust accounted for 57 percent of the particulates. The station is near a gravel parking lot and dust from cars driving in the lot probably caused the high levels, Nelson said.



University of Nebraska turf specialist Dr. Robert Shearman spoke to superintendents about preemergents and their affect on bluegrass.

GOLF

GCSSA takes over San Antonio

Both San Antonio, Texas, newspapers carried front-page headlines about one of the largest conventions to be held there since the World's Fair, the 49th International Turfgrass Conference and Show, Feb. 12-17.

More than 5,500 attendants saw a record 200 exhibits and availed themselves of an expanded educational program. Special educational sessions were held for management, public golf, research, equipment, turf, personnel management, and even weather.

Former Secretary of Agriculture Earl Butz kicked off the program with a joke-laden speech defending the profit motive against a mismanaged onslaught of government environmental and consumer regulators. Butz predicted that the trend toward more leisure time and shorter work week would favor growth in

the golf market. Emphasizing the importance of adapting to change, Butz recommended constant innovation to fight off the effects of spiraling inflation. "There is a feeling in this country that making a profit is evil. We've got to educate consumers to the fact that profit is not a four-letter word."

During the opening ceremonies, outgoing GCSAA President Ted Woehrle presented the Association's highest award, the Distinguished Service Award, to Dr. Roy Goss, Washington State University turf specialist; Dr. John Harper II, Pennsylvania State University extension agronomist; and Arthur Snyder, retired superintendent of Paradise Country Club, Scottsdale, Ariz.

More than 40 speakers participated in the educational and general

sessions. The research sessions were well-attended signifying increased interest in future turf techniques.

Regional topics were covered in special sessions on southern, northern, and western turf problems.

Texas A&M's Dr. Richard Duble discussed bentgrass/Bermuda grass transition in the South. May and October are two months where greens undergo transition from one grass to the other and consequently golf courses look yellow at these times. Duble said the problem can be minimized with a program of overseeding, aerating, verticle mowing, and topdressing at the proper times. He recommended earlier (March) aeration and topdressing in the spring to encourage the Bermuda before the bentgrass goes out in May, and summer (August) aeration and topdressing combined with vertical mowing and applying fungicides in September to promote the bentgrass.

Other tips offered by Duble were a one to one nitrogen to potassium fertilizer ratio and the use of MSMA for control of nutgrass. Duble said eradication of nutgrass is essentially impossible and only control is feasible.

Dr. Victor Gibeault of the University of California, Riverside, presented the results of a survey of California's 600 golf courses. He identified three distinct regions of the state for golf courses; southern California with its warm climate and cucuya grass fairways, inland with a subtropical climate, and northern California with a cool climate where bluegrass predominates. A very low percentage of California superintendents use fungicides, Gibeault pointed out.

Dr. Robert Shearman, turf specialist for the University of Nebraska, warned that use of preemergents on bluegrass can cause side effects. Shearman said preemergents can reduce root growth of bluegrass, thin rhizomes, and add to thatch buildup if overused. Shearman said use preemergents only when necessary and provide supplementary irrigation because some preemergents lower the water uptake of desirable grasses.

Dr. Joseph Vargas Jr., associate professor of plant pathology at Michigan State University, described the specific susceptibility of *poa annua* to anthracnose in warm weather. Vargas said *poa annua* is highly susceptible to anthracnose when the temperature gets above 80 degrees. He recommended use of summer

fertilization ($\frac{1}{2}$ lb./1,000 sq. ft.) to discourage anthracnose if nights are cool. If both days and nights are hot the only solution is a good fungicide and, Vargas said, the reluctance to use fungicides doesn't make sense when you consider the investment already in the turf. To risk the entire investment for the cost of fungicides is foolish he implied.

New GCSAA officers elected at the meeting are George Cleaver of Chestnut Ridge CC, Lutherville, Md., president; Charles Tadge, Mayfield CC, S. Euclid, Oh., vice president; and directors David Holler of Gulph Mills Golf Club in Prussia, Pa.; James Wyllie, Lambton Golf and CC, Toronto, Ontario; and Melvin Lucas, Garden City CC, Garden City, N.Y.

TREES

Ice storms to add to spring business

National Arborist Association Executive Secretary Robert Felix predicts the recent ice storms in the Midwest and the Northeast will result in a huge amount of corrective maintenance work for regional arborists.

Felix said the work, when added to normal spring maintenance business, may test the arborist's ability to meet such a large, unplanned demand for service. Felix also said the

demand will take place as homeowners and commercial caretakers begin their spring property inspections.

NAA just gave Felix a new three-year contract as executive secretary of the growing organization.

RECLAMATION

Field trips set for Canadian meeting

The Canadian Land Reclamation Association will hold its Third Annual Meeting from May 29-June 1 at Laurentian University in Sudbury, Ontario, Canada. Approximately 44 papers will be presented and all day field trips to reclamation sites will be conducted on Tuesday, May 30 and Thursday, June 1.

Following is a list of just a few of the paper presentations:

- The establishment of vegetation on high iron-sulphur tailings by means of an overburden.
- Revegetation of tailings area and other disturbed lands.
- Preplanning of a deactivated mine site for aesthetic and wildlife improvement.
- Environmental considerations for reclamation of abandoned mine spoils.
- Evaluation of unconsolidated materials for plant growth.
- Reclamation of abandoned coal mined lands in the U.S.



The National Interior Plant Environment Committee was formed recently in Washington, D.C., by representatives of landscape industry associations and design related societies. They are: (seated l. to r.) Charles Blumberg of IBD and Karl Korstad of ALCA; and (standing l. to r.) Kent Slepicka of ASID, Walter Gammel of FFA, and John Gattuso of ASLA.

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GOVERNMENT

UPDATE

—Thirty-two years of co-operative range improvement and land reclamation in the U.S.

—The use of antitranspirants and individual tree mulching as an aid to the establishment of trees on surface mine spoils.

—The use of sawmill residues as a soil amendment on eastern Kentucky surface mines.

TREES

NAA Florida meeting has record attendance

More than 250 arborists traveled to Sarasota, Florida, in February and, although the weather didn't cooperate, the trip was extremely worthwhile.

The ladies program featured speakers on accounting practices, handling insurance claims, planning short term loans and investments, managing safety and other regulatory programs, and overseeing public relations programs.

In the general session, Rex Russell, assistant chief of the U.S. Forest Service spoke on the role of the commercial arborist in urban forestry programs as the Forest Service sees it. New and proposed legislation will direct the Forest Service into the urban areas. The arborist will play a vital part in the programs of the Forest Service in the future.

Jeff Kahn, an engineer with Ford Motor Co., spoke on preventative maintenance of equipment. Gregg Dujets, an audiologist discussed hearing problems of arborists. Dujets said the arborist can suffer measurable loss of hearing without proper protection. Robert Herder, vice president of Asplundh Co. spoke on safety in tree care operations.

Warren Purdy, a management consultant to the landscape industry, was the featured speaker. His topic was financial management of tree care companies. Purdy provided part of the educational role in the ladies' sessions also. An estimators' session was chaired by NAA Executive Secretary Robert Felix.

Winners of the first NAA Awards of Merit were Dr. Paul Tilford, the first executive secretary of the group; Ross Farrens, past president and charter member; and Ed Irish, past president and chairman of the educational committee.

Velsicol, EPA reach chlordane agreement

Velsicol Chemical Corp. announced in March that it had reached agreement with the Environmental Protection Agency, the Environmental Defense Fund, and other interested parties, permitting certain uses of chlordane and heptachlor previously suspended. Chlordane hearings started in 1974.

The agreement, which discontinues most home uses, will cut Velsicol's production of the two pesticides from 23 million pounds to 7.2 million pounds per year until 1983. Under the terms of the agreement, Velsicol may apply for new registrations of the products in the future. No limitations were placed on exported uses for the chemicals.

Allowed by the agreement are:

- use of chlordane for control of imported fire ants and Japanese beetle larvae in nursery stock for compliance with Federal or state quarantines, and in nursery stock to control black vine weevil for compliance with state nursery certification regulations, up to January 1980.
- use of chlordane for control of imported fire ant on lands not presently used or to be used for food or feed production or grazing for a period of two years following treatment, up to January 1981.
- use of chlordane for control of white grubs, strawberry rootworm, strawberry rootweevil or crown girdler, strawberry crown borer and black vine weevil in strawberries up to August 1979.

Du Pont rebuts RPAR on fungicides

The E. I. Du Pont de Nemours Company has formally rebutted the RPAR issued by the Environmental Protection Agency last August against registration of the EBDC fungicides. In a 12-volume statement, summarized in an 89-page discussion of the EPA presumptions and review of the benefits, the company reported that proper and common use of two EBDC fungicides, maneb and mancozeb, does not cause adverse effects. Tersan LSR is the trade name, under the common name of manzeb, for Du Pont's turf fungicide labeled against leaf spot, rust, and rhizoctonia brown patch.

The rebuttal reported studies that demonstrate that the EBDCs and their metabolite, ethylenethiourea (ETU), degrade rapidly and do not persist or buildup in the environment. Studies have also demonstrated that EBDCs are not teratogenic, that is, they do not tend to cause developmental malformations. Thus, human exposure to EBDCs or ETU is insignificant, according to Du Pont.

Under the RPAR procedure, the EPA may now return the EBDC fungicides to normal registration status or it may begin to evaluate the benefits of these compounds. Meanwhile, the fungicides will continue to be available.

Uniroyal questions EPA's MH test

Uniroyal Chemical Co. has termed an EPA test inadequate to justify a rebuttable presumption against registration (RPAR) for maleic hydrazide, an important growth regulator. The company questions a test for oncogenicity contending that the number of animals used in the test and errors found in the report make it unreliable as evidence for RPAR. A similar test is currently in progress by Uniroyal and results are expected by 1980.

PEOPLE

Three new vice presidents have been appointed at the Toro Co., Minneapolis. **Gary Richard Holland** has been named vice president-general manager of the new Outdoor Appliance Div. **Kenneth D. Larson** has been appointed vice president-manufacturing and engineering in the Outdoor Power Equipment Group. New vice president-marketing and sales in the Outdoor Power Equipment Group is **Robert J. Moeller**.

Barry L. Bartlett has been appointed vice president distribution at Massey-Ferguson Inc., North American Operations, Des Moines, Iowa. He succeeds **Murray A. Thorndycraft**, new president of Badger-Northland Inc., Kaukauna, Wis., a Massey-Ferguson subsidiary specializing in farmstead equipment.

John B. Arnaiz has been named manager of engineering by Willson Products Div., ESB Inc., Reading, Pa. He will have responsibility for research, development, design, and quality control of personal safety equipment manufactured by Willson.

Deppe Ag-Tec Ltd., Burlington, Ont. has appointed **J. V. Little** sales manager for the firm's outdoor power equipment markets in the U.S. and Canada.

Joe Tanouye, Redwood City, Calif., has been installed as the 27th president of the California Landscape Contractors Association at the group's recent annual meeting. He succeeds **Bill Kessloff**, Stanton, who has become chairman of the board.

New vice presidents elected at the meeting include **Jim Keener**, Newbury Park; **Ken Gerlack**, Martinez; **Clifton Christmas**, Compton; and **Don Napolitano**, Montebello. **Bart Bartman**, Huntington Beach, was elected treasurer, and **Mickey Strauss**, Van Nuys, was named secretary.

Jack A. Best has been named national field development manager for the Commercial Development Department, Agricultural Business Group, Velsicol Chemical Corp., Chicago. Formerly, he was regional manager in the same group.

New president of the Idaho Research Foundation is **Dr. Robert R. Furgason**,



John B. Arnaiz



Barry L. Bartlett



Jack A. Best



Dr. Larry S. Murphy

dean of the College of Engineering, University of Idaho (UI), Moscow, Idaho. **Dr. Raymond J. Miller**, associate dean, College of Agriculture and director, Agricultural Experiment Station, was elected vice president. **Robert N. Steele**, UI trust and investment officer, was reappointed secretary-treasurer.

Lawrence L. Carville has been retained as executive secretary by the Connecticut Nurserymen's Association and by the New England Nurserymen's Association. He runs Horticultural Associates, Tolland, Conn., and has been active in various regional professional associations. He succeeds **Charles Barr**, who will be retained by both groups on a consulting basis.

Dr. Larry S. Murphy has become western midwest director of the Potash/Phosphate Institute, Atlanta. He is professor of agronomy at Kansas State University and will direct cooperative programs with agriculture and industry in Kansas, Nebraska, North Dakota, South Dakota, Colorado, and Wyoming.

New officers of the South Carolina Plant Food Education Society are **Jack Hartley**, Carolina Chemicals Inc., president, and **John Sitton Jr.**, Pendleton Oil Mill, vice president.

Directors for three-year terms are: **Bruce Duncan**, Royster Co.; **Jim Gravitt**, C. E. Gravitt Inc.; **John Hill**, Columbia Nitrogen Corp.; **Jim McKelvey**, BASF Wyandotte Corp.; **Ed Murphy**, IMC Corp.; and **Bob Pearson**, Swift Agri-Chemicals Corp.

Gary Bailey has been named national sales manager, Moody Sprinkler Co., Santa Ana, Calif. He has been with Moody for five years.

Paul L. Smeal, professor of horticulture at Virginia Polytechnic Institute, Blacksburg, Va., has been elected president of the American Society for Horticultural Science, Southern Region. He has served on the society's executive committee for six years.

James W. DiVall has received an honorary membership from the North Central Weed Control Conference. He is product development manager-midwest region, Stauffer Chemical Co., Omaha.

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WEEDS TREES & TURF went to Morris Mower and Small Engine Repair to find out what the typical causes of small engine failure are. Clint Morris, who runs the shop, has been repairing small engines for 20 years. He attends all the manufacturers' schools to keep abreast of small engine technology.

"If a small engine has been properly taken care of, oil changed, filter cleaned, blade sharpened, and the mechanical parts are sound, getting it to run properly is simply a matter of getting the spark and fuel to meet in the right place at the right time," according to Morris.



If an engine is otherwise mechanically sound, test for spark by holding the spark plug wire close to, but not touching, the spark plug. Pull the starter rope. Blue sparks should arc between the wire and the plug.



If there is no spark, it is necessary to replace the points and condenser and time the engine. First step is to loosen the bolt holding the air filter and remove it.



Remove the three bolts that hold the engine housing in place. Grasp the housing by the top and lift sharply.

There are special tools to remove the starter clutch, but in lieu of these; a soft wooden block and hammer will do. The clutch loosens in a counter-clockwise manner, so place the block against one of the ears of the clutch and hit the block with a hammer until the clutch is free. It should then spin off.



Guarding the threads on the crankshaft, place a screwdriver under the edge of the flywheel and press down. Tap the top of the crankshaft with the hammer and the flywheel will break loose. There is a cupped spring washer under the flywheel.



Two small bolts hold the dust cover over the points and condenser. Remove the cover to expose the points.



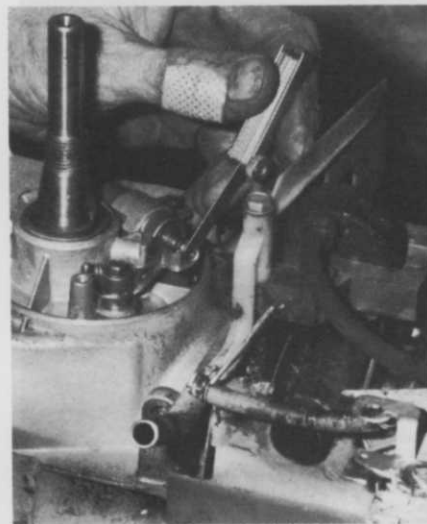
The points in this photo have a white, pitted surface, indicating they need to be replaced.

Remove the bolt holding the clamp in place over the condenser. There is a small plastic tool provided in new point and condenser kits to aid in removing the wires from the condenser. Place the piece over the spring of the condenser and compress it until the wires pull free. Install the new condenser by compressing the spring until the wires enter the hole. Reinstall clamp and tighten.





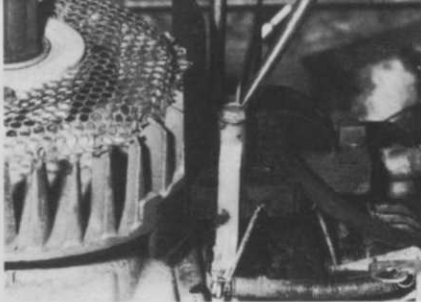
Remove the bolt holding the point assembly and remove the points, with spring attached. Install the new points in the same manner. In order to gap the points correctly at .020, it is necessary to rotate the engine so that the slot in the crank shaft points towards the rear of the engine (away from the cylinder head).



Insert a feeler gauge between the points and adjust the gap by loosening the condenser and moving it. There should be only minimum resistance as the gauge is pulled through the points.



Reinstall the dust cover and tighten it. Place the spring washer back over the crankshaft with the cup up. Line up the grooves in the crankshaft and flywheel so that the aluminum key will slip in without force. Always use an aluminum key in this slot. If the key is bent or damaged, it will affect the timing of the engine.



The engine is timed by adjusting the air gap between the legs of the magneto and the magnetic surface of the flywheel. A postcard is just the right thickness for this. Loosen the two screws holding the magneto and move it for the right gap. Replace the starter clutch and tap it with the wooden block and hammer in a clockwise manner until it is secure. Replace the trash screen. Clean the air filter element in kerosene or hot soapy water. Saturate it with oil and squeeze out the excess.

Fill the gas tank half full and attempt to start it. Screw in the idle mixture screw (clockwise) until snug. Back it off one and one-half turns. Unless something is wrong with the carburation, the engine should start. If it starts but fails to respond to the idle mixture screw, this indicates warping between the faces of the carburetor and gas tank. Briggs & Stratton Repair Kit#391413 will correct this.

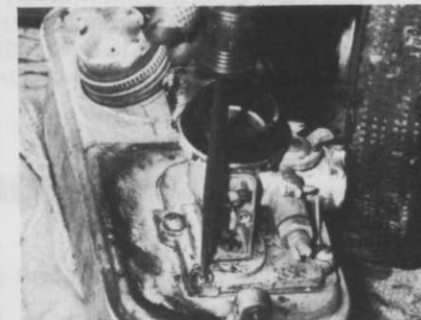


Remove the control cable from the engine housing. Lift it up and slide it out of the hole in the carburetor control plate. Remove the screw in the back and the side. Make sure you don't lose the spacer behind the side screw. Remove the spring from the control plate, being careful not to stretch it. Lift the tank and tilt it to remove the governor linkage wire.



Remove the choke linkage cover and slip the linkage free of shaft.

Remove the bolts holding the carburetor to the gas tank and lift the carburetor free.



Place the pin from the repair kit in the hole as indicated and place the small teflon washer over the pin.



Place a 5/16-inch bolt behind the choke valve as shown.



This places the proper tension on the choke valve spring. Replace the linkage in its shaft and replace the cover to hold it in place. Tighten the carburetor to the gas tank. Attach the tank-carburetor assembly to the engine, tilting it to attach the governor linkage before securing it. Attach the governor spring and the control cable.

The control plate must come into contact with the point indicated by the pliers in order to stop it. Raise it up if necessary. Refill the tank at least half full. Start with the air filter off, but replace it after the engine starts and before making any adjustments. Adjust the idle mixture until the engine is running smoothly.





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