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JUNE 1978/VOL. 17, NO. 6

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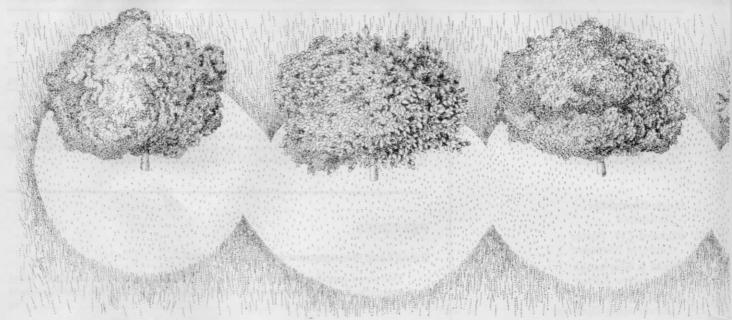


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## THE NEW GRAV IT'LL RUN CIRCLES AROL



With its optional 72" mower and 50" wing, the new Gravely GMT 9000 cuts a 9',11" swath, allowing an operator to mow as many as 33 acres in a standard eight-hour day.

But even better than that, the GMT 9000's tight turning radius and the 50"wing enable it to execute a 360° turn, leaving no uncut grass in the circle. As a result, an operator can mow down one side, turn right around and head

back the other way without missing a blade of grass in between.

Yet as big and sizeable as the GMT 9000 is, it's also ma-



The GMT 9000 can cut within one inch of obstacles. So you save on trimming equipment.

neuverable enough to cut within an inch of obstacles like fences, shrubs and trees. So you eliminate the need for a lot of costly extra trimming equipment.

Perhaps best of all, besides being able to mow a lot of grass, the new GMT 9000 is designed to keep doing it for a lot of years.

#### THE STORY OF OUR LIFE

You see, beneath that impressive rugged exterior, lies an even more impressive interior. Designed to give each and every GMT 9000 a long, lively life.

The exclusive Gravely 8-speed transmission is a good example.

The result of years of testing, it delivers the precise speeds and power you need to do a lot of jobs a lot easier. And a lot better.

You get steady power at low ground speeds to handle the muscle jobs. You also get a choice of seven other speeds for mowing, hauling and rapid transit.

What's more, its precision-cut gears run in an oil bath, for less friction and longer life.

#### MORE POWER TO YOU.

The engine itself is another excellent example. A water-cooled 4-cycle, 4-cylinder brute, it delivers 26 HP at 3200 RPM. The engine has an oil filter and is pressure lubricated. The crankshaft is spheroid cast iron, counter-

weighted, running in three replaceable precision bearings.

The cylinder head is aluminum alloy for lighter weight and better heat dissipation.

The wet-type cylinder liners also help to dissipate heat.



Full-time power steering makes a full day of mowing easy, and practically everything's right before your eyes on the full instrument panel.

The result is an engine that is built to last. And last. And last.

#### HANDLE WITH EASE

Yet for all the GMT 9000's brute strength, it handles like a pussycat. The instant forward and reverse, by moving one lever, increases maneuverability, reduces operator fatigue. And you have

full-time powersteering.

ersteering.
Individual
wheel brakes
improve steering control. In
proper locked
position they
provide a parking brake for
the tractor.



Gravely's all-gear direct drive.

A transmission with a lot of teeth in it

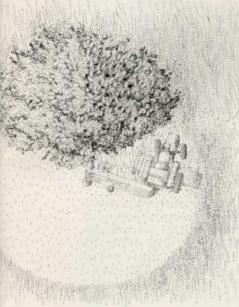
The highback seat is foam-padded, hydraulicallysuspended and fully adjustable for individualized operator comfort.

The full instrument panel shows the operator everything from the water temperature, to hours of operation, at a glance.

THINGS ARE TOUGH ALL OVER.

As you've already seen, every possible part of a Gravely is built extra tough to stand up to year after year of day-in, day-out grounds maintenance. The transmission housing is cast iron.

# ELY GMT 9000. IND THE COMPETITION.



The pivoting front axle is welded steel construction and comes with rugged king-pin bushings. Precision bearings are used at major wear points.

ALL-GEAR DIRECT DRIVE The Gravely all-gear direct drive from engine through the transmission and to the PTOs vastly improves power transmission.

And because it's all-gear, it com-

been prone to break, slip or wear out. WITH ALL YOU CAN ATTACH TO A GMT 9000, YOU'RE GOING TO BECOME VERY ATTACHED TO IT.

You've already seen how the 72" mower and 50"wing attachments make the GMT 9000 unsurpassed in mowing efficiency.

What's more, its optional live

and independent rear PTO and category 1, 3-point hitch enable it to utilize a number of other attachments as well.



How to keep your tractor from going into hibernation for the win

Attachments like plows, cultivators, carts, sweeper and snowblower. As well as equipment like a seeder, sprayer, snow blade, aerator and enclosed cab.

As a result, the GMT 9000 can handle just about every grounds maintenance

mance, durability and versatility

job imaginable. In addition to building tractors to last, Gravely wants its attachments to last.too.That's why most Gravelyattachmentsare engineered to be completely compatible. IT CUTS COSTS NICELY, TOO Thanks to its greater perfor

over most single purpose mowers, a GMT 9000 should result in a lower total cost ownership in the long run.

And, as you know, Gravelys do run a long, long time. Which brings us to yet another important point.

With as well as a Gravely performs, you won't want to replace it.

With as well as a Gravely is built, you probably won't have to.

If you've got a lot of grounds to maintain, let us show you a lot of grounds maintenance tractor Company **GRAVELY** 



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#### **VIEWPOINT**

Bruce F. Shank, Editor

Labor. Good people make your company stand out. Bad people make attempts at quality control fruitless.

The quality of labor today is suffering. Managers complain of an absence of ambition, a seemingly unwarranted hostility toward management, and an unwillingness to accept responsibility.

Labor intensive industries are feeling labor pressure more this year than in past years. Minimum wage legislation, labor reform amendments making union organization easier, and unemployment compensation increases have managers on the defensive. Labor, primarily because of unions, is also on the defensive.

How managers react will play a significant role in the future relationship between managers and labor. That is, if they could react and be heard. Unions are making this nearly impossible.

Unions get in the way of the manager's communication with his workers. Incidents with individual workers are too often taken as attacks on the entire work force. Committees designed for the purpose of resolving individual problems overplay their intended role and become lobbying groups for antimanagement sentiment. Likewise, management often overreacts to union requests assuming a built-in compromise area.

Unions are not the entire problem. It goes much deeper.

Managers of the present are paying penalties for bad management of the past. Short-sightedness still pervades many companies. Top management, unwilling to pay middle managers adequately in salaries and fringes, hires less qualified middle managers. Since it is the middle manager who deals primarily with labor, the resulting poor managers often cause labor unrest.

The middle manager who is good often sees his path to upper management based upon an anti-labor stance.

The profit line of short-sighted companies may be higher in the short term, but will not stay there if labor and middle management assume the qualities mentioned at the beginning of this Viewpoint.

Now is the time for management to investigate and institute profit sharing programs for both labor and middle management to obtain the committment necessary for quality work. This will be the best defense against union entry. Once unions organize in your firm you will slowly lose control of salaries and quality. If you can give a person a piece of the action and a sense of pride, why should he or she join a union?



The Rain Bird Pressure Vacuum Breaker meets or exceeds performance requirements set by A.S.S.E., U.S.C.F.C.C.C. and I.A.P., M.O.

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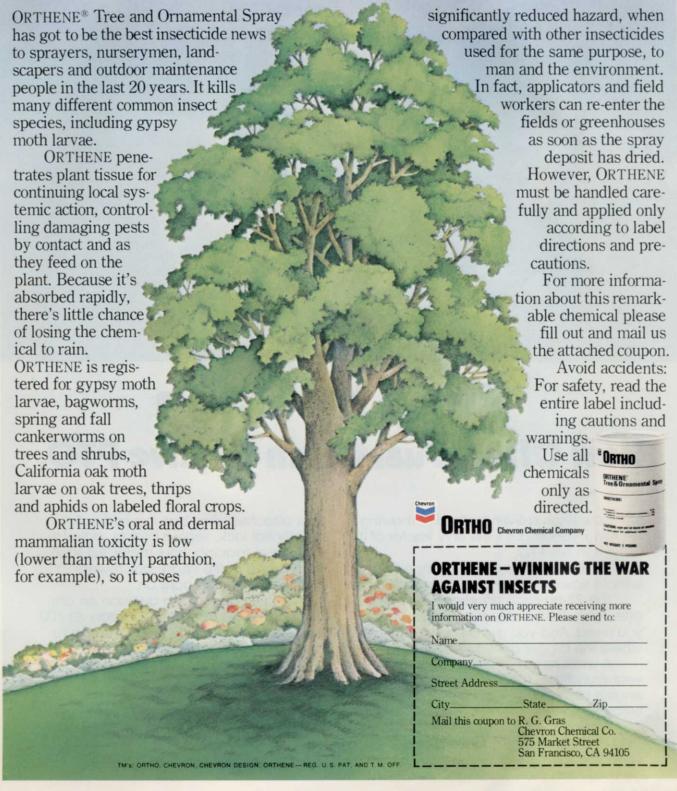
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plus attached drawbar, live hydraulics, differential lock, sealed brakes, adjustable wheel spacing, hour meter, full lighting, choice of tire tread, downswept muffler and the list goes on.

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#### GREEN INDUSTRY NEWS

RECLAMATION

#### Kentucky seminar presents latest technology

More than one hundred persons seeking information on mined land reclamation technology gathered at the Madisonville Community College in Madisonville, Kentucky for a field trip and seminar in May. Delegates traveled from Illinois, Ohio, Kentucky and Tennessee, for the two-day educational meeting. Hosted by the College of Engineering of the University of Kentucky and Madisonville Community College, the entourage heard speakers from the U.S. Forest Service, Madisonville Community College, University of Kentucky, AMAX Coal Company, and Peabody Coal Com-

The sessions began Thursday, May 11, with the business meeting of the Council for Surface Mining and Reclamation Research in Appalachia. The major concern was revision of that council's by-laws to broaden horizons, yet limit activities to providing information on vital reclamation techniques and research for those involved.

Dr. Richard Barnhisel, associate professor of agronomy at the University of Kentucky, began the educational sessions by explaining the University of Kentucky's role in reclamation research in Western Kentucky. It includes: land preparation techniques, "ripping" versus smooth grading; the effects of lime and phosphorus on orphaned mined lands; and wood fiber with straw as mulch.

Dr. John Sencindiver, a soil scientist with the Forest Service, showed slides of various mulching experiments he has undertaken and explained the results. He is also concerned with analyzing the benefits of various organic soil amendments for mine reclamation.

Dr. Sencindiver's research has shown that lime and fertilizer, applied on an acid spoil, along with a mulch, will increase vegetative

Mike Ellis, senior reclamation

engineer with AMAX Coal Company, talked about using fly ash and sewage sludge in Western Kentucky and Southern Indiana. In one experiment, fly ash was applied to four one-acre plots at a rate of 300 tons per acre. Four different fertilizer rates were used, along with two different seeding rates. Problems immediately cropped up, beginning with incorporation of such a large amount of applied material. The mixture was not homogenous, according to Ellis, and the color was so dark that he felt perhaps enough heat accumulated to damage the emerging seedlings. He also found that the cost of the fly ash far outweighed the advantages and the project was finally dropped.

James Powell, reclamation supervisor-vegetation specialist with the Kentucky division of Peabody Coal Company discussed the research deficiencies of soil reconstruction in land reclamation. Arising out of the new federal regulations and subsequent adoption by states, and mainly in areas classified by the soil conservation service and in the federal register as prime farmland, soil reconstruction presents a dilemma for anyone attempting reclamation. Physical properties, including structure, aggregation, pore space, and bulk density, are going to be affected, probably adversely, during the initial stages of soil reconstruction, Powell said. Compaction will also be a problem, as large machinery necessary to move the soil is emploved.

Rufus Allen, U.S. Forest Service, presented data on tree survival on reclamation sites. His research is published in this issue.

Dr. Wayne Rosso, reclamation supervisor and water resource specialist for Peabody, spoke about methods to meet the manganese limits of the new federal surface mining act. Total suspended solids can now be no more than 70 and must average 35 milligrams per liter.

The maximum manganese allowed is four milligrams per liter and the average cannot exceed two.

Norman K. Breeding, hydrogeologist in reclamation/mining technology at Madisonville Community College described the use of domestic waste as an erosion control technique in reclaiming mined land.

The Office of Surface Mining was represented by Dr. David Maneval, assistant director, who spoke at the banquet. The federal program will be concerned with such things as blasting, certification, permits, insurance, bonding, and state and federal grants. The current 60 employees will be expanded to 800 a year from now, indicating a significant government interest in mined land reclamation.

#### TURF

#### Mower manufacturers urge practical standards

In a special product demonstration recently before the Consumer Product Safety Commission, the lawn mower industry once again urged that any standards developed by the commission avoid restrictive design requirements. It also asked that performance requirement be adopted which would allow manufacturers to develop new technological approaches to protecting users of power lawn mowers.

The commission is in its fifth year of developing a mandatory power mower safety standard. It is not known what effect those standards, once set, would have on larger mowers.

David T. McLaughlin, vice president of the Outdoor Power Equipment Institute and chairman of The Toro Co., Minneapolis, presented the commissioners with a suggested "first draft" of performance language.

#### Landscape Contractor News

#### Mine sites to receive funds chosen

Seven sites where coal mines, long ago abandoned, now cause potential danger or health hazards to nearby residents have been chosen for reclamation by the U.S. Office of Surface Mining, an agency of the Interior Department. The government estimates that these projects will cost about \$5 million and the work will be done by coal operators with heavy equipment to repair underground mines and landscape contractors to reseed the land to make it usable again.

Some projects will require both kinds of reclamation. One site is near a school building used to teach 272 elementary and high school students in Scranton, S.D., where subsidence near old mining tunnels has created caverns easily accessible to the youngsters. Work to fill the subsidence and revegetate will take between 15-18 months.

The projects were announced May 16 and will get final approval sometime between mid-June and mid-August. These projects are just the beginning of an ambitious program to reclaim old mines which could easily total \$100 million in its first fiscal year. Contractors interested in bidding on the projects, which are located in seven states, can write the Office of Surface Mining for further information. Letters should be addressed to Paul Reeves, assistant director for abandoned mine lands, U.S. Department of the Interior, Washington, D.C., 20240.

#### California tax cut may help landscapers

Landscape contractors in California should experience an upturn in business shortly if that state's voters approve a proposed constitutional amendment June 6 that could cut taxes up to \$7 billion a year.

The proposal would roll back real estate taxes to 1 percent of the 1975-76 assessed value and would prevent assessments from rising to current market value until the property changed hands. Approval of the proposal, referred to as the Jarvis-Gann amendment, would sleek to see paid by hydrogeness and homeowners.

slash taxes paid by businesses and homeowners.

Such a large cut in taxes would probably have a beneficial effect on landscapers since it's believed much of the money would be used to improve corporate grounds and homeowners lots. "Hopefully they'll take the extra money and reinvest in their own business and improve the local surroundings," said Joe Brazin, executive secretary for the California Landscape and Irrigation Council, a group of landscape contractors engaged primarily in commercial and industrial work in 13 counties of Southern California. The landscapers hire union employees for their projects.

#### Denver erosion meeting planned

A symposium on erosion control and revegetation, coupled with an exhibition on equipment and supplies and followed by a two-day tour of reclamation/revegetation projects in the Rocky Mountains has been scheduled from August 1-5 at the Marriott Hotel in Denver, Colo.

The symposium will feature technical programs, including speakers from some of the largest firms engaged in reclamation projects.

The event is co-sponsored by the Associated Landscape Contractors of America and the High Altitude Revegetation Association. Information about the symposium is available from ALCA headquarters, 1750 Old Meadow Rd., McLean, Va. 22101.

"The public interest will not be served by the promulgation of requirements that compel industry to adopt one specific design which increases costs without commensurate benefits, eliminates any element of choice, and retards the incentive to develop new and innovative approaches to lawn mower safety," he told the commission.

The commission is proposing a requirement on future mowers that would include a "deadman control" device. This would shut off power completely or disengage the blade from the power source when the user releases the handle. The commission's staff is considering implementing this device through a blade brake/clutch mechanism.

McLaughlin told the commission that testing by his company indicates that blade/clutch devices presently on the market are not reliable.

Alternative designs addressing the blade contact hazard, which accounts for 68 percent of lawn mower injuries, say the commission, were also demonstrated. They include:

— A conventional walk-behind mower equipped with a control on the handle which requires continuous activation by the operator in order for the unit to run. When the operator releases the control, the blade stops. Starting and stopping controls would also be mounted on the handle.

— A conventional walk-behind mower modified to place the heightof-cut adjustment control in the handle. The unit also includes auxiliary side shields to reduce the possibility of foot contact with the blade.

— A conventional walk-behind mower that incorporates a blade interlock with the discharge chute, as well as an automatic latching mechanism to the discharge chute. The latching system prevents the removal of the grass bag unless the latch is unhinged.

#### EQUIPMENT

#### Jacobsen and Textron ink sale agreement

Textron, Inc., of Providence, R.I., has signed an agreement "in principle" with Allegheny Ludlum Industries to purchase Jacobsen Manufacturing and the sale should be completed by the end of May, Jacobsen officials have announced.

Allegheny Ludlum sold the firm so it could use that money to help buy Wilkinson Sword, one Jacobsen dealer said.