

What can a hole in the ground do?

When your grounds become hard-packed from constant use and temperature changes, or if the ground is naturally hard, grass has a tough time growing.

The answer is aeration.

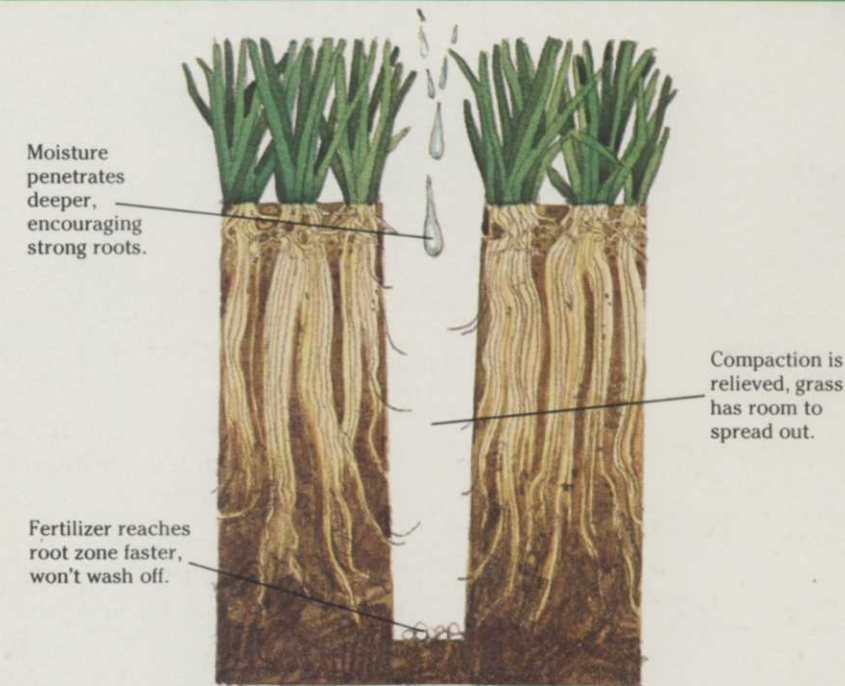
These holes allow air, water and fertilizer to penetrate to the root zone where they're needed. They relieve compaction, giving grass room to grow. New, more drought-resistant roots are stimulated. And the turf takes on a springy, soft feel.

Ryan makes two pieces of equipment specifically for aeration of parks, athletic fields, playgrounds, golf course fairways, or any large turf area.

The Ryan Renovaire® is designed to contour aerate compacted turf on hilly as well as flat areas. Its 12 tine wheels are mounted in pairs, operating independently to give both high and low spots equal penetration.



RENOVAIRE



The Ryan Tracaire® is used to aerate large level areas, especially athletic fields. Mounted by a 3-point hitch, it gets the job done quickly, easily, efficiently.

Both the Renovaire and the Tracaire can be equipped with coring, slicing or open spoon tines for aerating all types of soil in all seasons. Both can be used with a 12-foot-wide dragmat to

break-up cores and groom the grass. And both are built to last, like all Ryan equipment.

Give your large turf areas room to breathe with the Ryan Renovaire and Tracaire aerators. You'll see the green, healthy difference a few simple holes can make.

Write for your free Ryan catalog today.



TRACAIRE

Ryan Aerators.

The turfman's timesaver.

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OCTOBER 1977, Vol. 16, No. 10

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Member, American Business Press, Business Publications Audit



Single Copy Price: \$1.25 for current and all back issues. Foreign \$1.50. Subscription Rates: WEEDS TREES AND TURF is mailed free, within the U.S. and possessions and Canada, to qualified persons engaged in the vegetation care industry and related fields in controlled circulation categories. Non-qualified subscriptions in the U.S. and Canada are \$10.00 per year; other countries, \$12.00 per year. Controlled circulation postage paid at Cleveland, Ohio 44101.



The seed that's changing the face of America.

Pennfine Perennial Ryegrass

The biggest breakthrough in the greening of America began in 1970. That's when turfgrass specialists at Pennsylvania State University completed development of a remarkable fine-leaved perennial ryegrass with all the advantages of ryegrass. And none of the drawbacks. They called it Pennfine.

Now, just six years later, the success of their undertaking is evident. On golf courses and athletic fields. In parks and cemeteries. And on public grounds across the country.

Proven in tests. Among the nine perennial ryegrasses tested over a five-year period at University Park, Pennsylvania, Pennfine ranked finest in texture. Most resistant to disease. First in density and decumbency (low growth).

The University Park test results were only the beginning. Over 5,000 test kits with seed samples were distributed over the entire country in answer to requests from turf professionals wanting to test Pennfine. The results confirmed the University Park findings.

Most importantly, Pennfine established a new standard of mowability. Some other perennial ryegrasses, cut with the same mower, left ragged, fibrous tops that quickly turned brown. Pennfine's softer fibers cut smooth and clean.

Proven from coast to coast, from North to South. Pennfine's durable beauty has been demonstrated at prestigious sites all over America. From the lawns at an historic national landmark to the greens at a nationally-renowned golf course.

Besides possessing the ability to stand up under heavy traffic, Pennfine germinates rapidly. That makes it ideal for winter overseeding in the South. And, its non-competitiveness allows a smooth spring transition to bermudagrass.

Proven quality control under the Plant Variety Protection Act. You can be sure that all Pennfine Perennial Ryegrass meets the same high standards, because Pennfine is covered by the Plant Variety Protection Act.

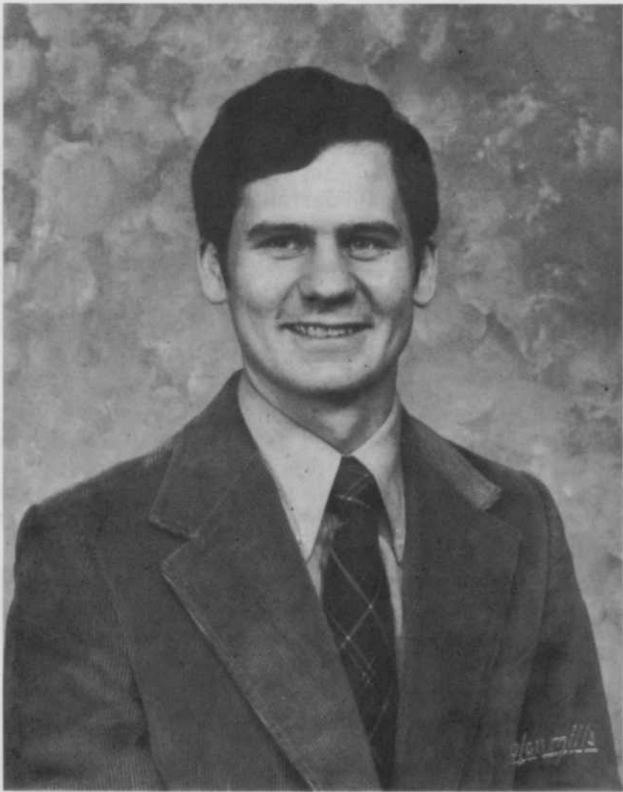
That means every pound of Pennfine is certified. You are assured, by law, that it's produced exactly as intended by the original variety breeder.

Prove it to yourself. To learn more about how Pennfine is changing the face of America—and how it can work for you—write: Pennfine, P.O. Box 923, Minneapolis, MN 55440.



Circle 133 on free information card

The best thing growing.



Hello Green Industries

For nearly four years I've been behind the scenes at Harvest waiting for the opportunity to be your editor. Now that it has become reality, I feel grateful to Harvest and challenged by your needs.

In the coming year, I have four chief goals:

First, to involve as many readers as possible in the magazine. I plan to arrange question and answer columns with knowledgeable experts in your field. The letters section will be enlarged to fit opinions from more readers than in the past. I hope to create a board of industry advisors to help direct the magazine.

To direct the magazine's content toward the primary industry sectors is the second goal. Ron Morris and I have outlined four primary subject matter areas to cover every month, not just in special issues. These are, as the magazine's name signifies, weeds, trees, and turf, plus increased emphasis on landscaping and rights of way.

To make the magazine graphically more functional is the third objective. Beginning with the January 1978 issue, WEEDS TREES & TURF will look different. The information you need will be easier to find, easier to read, and more pleasing to the eye. You will be able to catch quickly the information most important to you at the time, and then go back for more thorough coverage when you have time.

The fourth goal is to bridge the technical/layman gap. It is my contention that the people who have the most significant information to pass on, are often not the easiest people to understand, primarily because their work is disguised in scientific jargon and poorly explained statistics. There is middle ground and I intend to find it.

This takes cooperation from both sides. It's not easy

to ask a researcher to write in lay terms. From his bachelor's degree on, he (or she) was taught to write in big, multisyllabic words with latin names scattered throughout. As editor of Pest Control magazine, I discovered that it can be done, without sacrificing a reference image, which business publications in technical fields must have.

In addition, there will be other improvements, such as a steady supply of how-to-material for training purposes; industry data to point out trends; and news from industry sectors, regions, and organizations.

As you can see, Ron and I have a lot to do. It's not easy to make a good magazine even better. We would appreciate any comments or suggestions from you. After all, it is your magazine.

A handwritten signature in black ink that reads "Bruce F. Shank". The signature is fluid and cursive.

Bruce F. Shank, Editor

There are 785 different tree species...



And they all thrive on **Ross Super Tree Stakes** and **Ross Super Fruit Tree Stakes!**

Dependable **Ross Super TREE STAKES** provide once-a-year feeding of trees, shrubs, and evergreens with a high food value analysis of 16-10-9 PLUS iron and zinc formulation.

New **Ross FRUIT TREE STAKES** contain 16-5-10 PLUS iron and zinc to provide precise, pre-measured feeding of all fruit trees: apple, pear, apricot, plum, peach, cherry, all citrus, berries and fruit bearing shrubs.

Each commercial case contains approximately 155 stakes . . . enough to feed more than 35 trees of 3" diameter. There are 20 solid nylon pounding caps to simplify driving into the toughest soil.

For best results, place stakes at drip line of tree, using three stakes for every 2" of trunk diameter. Water does the rest, carrying plant food to the feeder roots.



Two great once-a-year formulas . . .

- 16-10-9 For Beautiful Trees & Evergreens
- 16-5-10 For bigger, better Fruit

Contact your nearest Ross Daniels distributor for Ross Super Tree Stakes and Ross Super Fruit Tree Stakes. If unavailable in your area, order direct from: ROSS DANIELS, INC., P.O. Box 430, West Des Moines, Iowa 50265. Use this coupon to order.

ROSS Super Tree Stakes
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ROSS Fruit Tree Stakes
 Commercial Pack,
 Stock no. 1812
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 check enclosed.

Approximately 155 stakes per case, weight 44 lbs.
 1-3 cases, \$35.00 per case
 4-11 cases, \$30.00 per case
 12 or more cases, \$25.00 per case
 Each case includes
 20 Nylon Pounding Caps

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 Organization _____
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Make check payable to Ross Daniels, Inc.

Government News

State Certification

Maine and Utah applicator certification plans have been given "full approvals" by the EPA, according to notices published in the August 31 Federal Register. Colorado, Massachusetts and Nebraska are now the only states without an EPA approved certification program.

The notice on the Maine plan stated that the only comments on it were filed by the National Cannery Association, and that the State's responses to the comments were satisfactory to EPA.

"Grandfather Clause"

The proposed Federal applicator certification rule, titled "Federal Certification of Pesticide Applicators in States or on Indian Reservations without an EPA-Approved Certification Plan", has a "grandfather clause" which would permit the EPA to "issue a certificate to an individual possessing any other valid Federal, State, or Tribal certificate without further demonstration of competency."

Under the proposal, commercial applicators would be certified by passing written examinations; be recertified every two years; keep and maintain records on use and application of restricted pesticides for at least two years and make the records available for inspection and copying by EPA representatives.

Record Requirements

The commercial applicator record-keeping requirements include: "(a) name and address of the person for whom the pesticide was applied; (b) location of pesticide application; (c) target pest(s); (d) specific crop, commodity, and site to which the pesticide was applied; (e) year, month, day, and time of application; (f) trade name and EPA registration number of pesticide applied; (g) amount and concentration in pounds or gallons per unit or percentages of active ingredient per unit of the pesticides used; (h) types and amounts of pesticides disposed, methods of disposal, date(s) of disposal, and location of disposal sites; and (i) other information as the Administrator may deem appropriate."

Heptachlor/Chlordane


The National Cancer Institute (NCI) has concluded, in its final validated report, that in separate bioassays of chlordane and heptachlor, mice receiving either compound in feed responded with significant incidences of liver cancer, but that rats given either compound did not have liver cancer increases that could be related to the chemicals. The final NCI results also showed that both chlordane and heptachlor were possible causes of thyroid tumors in rats, although that report cautioned that this evidence was not conclusive.



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Do you want to receive Weeds Trees & Turf?

 YES NO

Are you interested in receiving or continuing to receive WEEDS TREES & TURF? If you are, complete all the information on this card and mail today.

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Please check the one item which best describes your primary type of business:

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 <input type="checkbox"/> b. Utility
 <input type="checkbox"/> c. Railroad</p> <p>2. Chemical Applications (vegetation and structural)
 <input type="checkbox"/> a. Commercial/Industrial ground applicators
 <input type="checkbox"/> b. Aerial Applicators</p> <p>3. <input type="checkbox"/> Extension Services; Forestry; Federal and State Regulatory Agencies</p> <p>4. <input type="checkbox"/> Parks and Grounds Maintenance — Federal, State, Municipal (does not include Forestry)</p> <p>5. <input type="checkbox"/> Golf Courses</p> <p>6. <input type="checkbox"/> Cemeteries</p> <p>7. <input type="checkbox"/> Industrial Parks</p> <p>8. <input type="checkbox"/> Shopping Centers</p> <p>9. <input type="checkbox"/> Hospitals, Nursing Homes, Schools, Colleges and Universities (Grounds maintenance personnel only)</p> <p>10. <input type="checkbox"/> Athletic Fields</p> <p>11. <input type="checkbox"/> Race Tracks</p> | <p>12. <input type="checkbox"/> Airports</p> <p>13. <input type="checkbox"/> Military Installations</p> <p>14. <input type="checkbox"/> Grounds or Landscape personnel in businesses not specified above.</p> <p>15. <input type="checkbox"/> Mine Field Reclamation</p> <p>16. <input type="checkbox"/> Chemical lawn care companies</p> <p>17. <input type="checkbox"/> Landscape contractors</p> <p>18. <input type="checkbox"/> Landscape architects</p> <p>19. <input type="checkbox"/> Sod Growers</p> <p>20. <input type="checkbox"/> Seed Growers</p> <p>21. <input type="checkbox"/> Tree Service Companies/Arborists</p> <p>22. <input type="checkbox"/> Wholesale nurseries/Tree Farms</p> <p>23. <input type="checkbox"/> Irrigation and Water Drilling Contractors/Consultants</p> <p>24. <input type="checkbox"/> Chemical Dealers/Distributors</p> <p>25. <input type="checkbox"/> Equipment Dealers/Distributors</p> <p>26. <input type="checkbox"/> Other (Specify) _____

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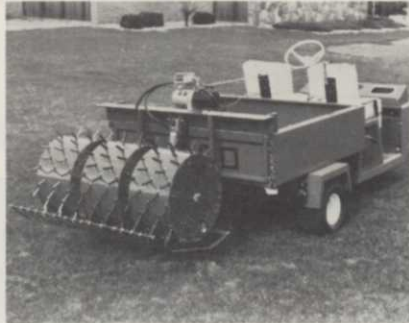
Dedoes

Aerators Can Be Quickly Mounted To Most Any Type Vehicle



Garden Tractor

The Dedoes new Two-Drum Aerator has 72 pluggers and aerates a 25" Swath. Mounts to any 10-14-16 H.P. or Larger Garden Vehicle. Includes a self-contained hydraulic unit. *If weight is needed a separate Weight Tray is available.*



Utility Vehicle

Attaching the Dedoes Aerator to your utility vehicle is a simple matter. The Basic Frame Unit allows you to adapt to any equipment in a matter of minutes. *Available with hinged doors and removable sides. Collects plugs internally.*



Specialty Equipment

Even a vehicle built for specific use, can be used with the Dedoes aerator to give quick, neat aeration for small areas.

The complete Aerator that offers speed and quality in addition to the following:

- 3" Tine in 3/8, 1/2, or 3/4 diameter.
- Pivoting Tine gives you a clean hole.
- Hydraulic principle utilizes weight of vehicle for down pressure.
- TCA551 Model gives you close to 2" Tine spacing.

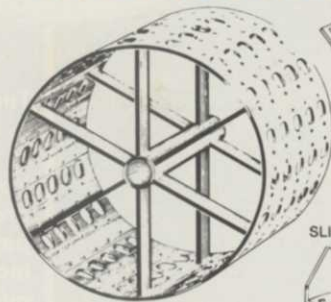
New Items Now In Production

Pointed Tine



Dedoes now has a pointed tine available for tees and greens which gives up to 3" penetration in the turf.

Separate Slicers and Spikers



INDIVIDUAL SLICER OR SPIKER UNITS SHOULD BE ATTACHED TO DRUM SURFACE.

Interchangeable with the tines on the Regular Dedoes drums.



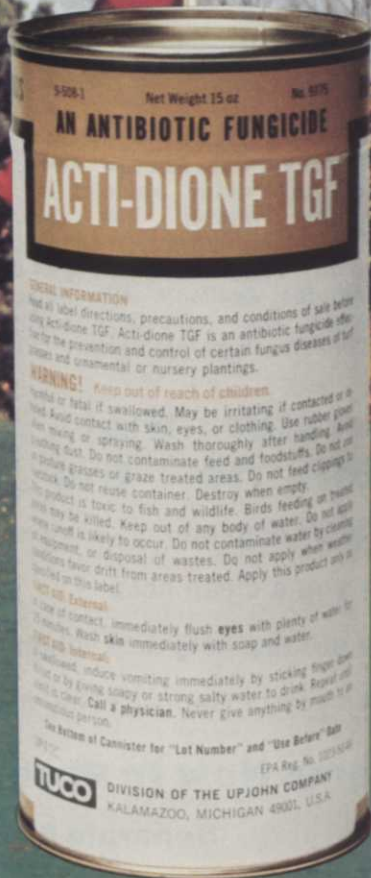
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The

Standard.



Turf playability: it's your responsibility. When it's right, you know it. When it's wrong, everyone seems to know it. When a piece of you is on the line, you don't want to leave anything to chance. You want the dependability of proven programs and products: products that set the standard by which others are often compared — products like Acti-dione® turf fungicides. They've set an industry standard during their more than 20 years of continuous use without evidence of fungus resistance. And today, Acti-dione acceptance continues to grow. That's got to be proof of reliability. Shouldn't you, too, join the growing rank of professionals who rely on the standard, Acti-dione turf fungicides?

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