Pennfine Perennial Ryegrass.

If it's got a weakness, nobody's found it. But we have heard about some new strengths.

The Pennfine story gets better as it goes along.

Four years ago, the agronomists at Pennsylvania State University finished their work on Pennfine. And the professional turf community put this remarkable fine-leafed perennial ryegrass to work on golf courses, athletic fields, sod farms, parks, cemeteries and public grounds across the country.

Clean-cutting Pennfine Other fine-leafed ryegrasses

The ultimate test.

Now, after thousands of grounds maintenance pros have used Pennfine, nobody's reported a real weakness. All the characteristics the Penn State agronomists selected for—unsurpassed mow-ability, excellent disease resistance, exceptional decumbency, persistence under diverse management conditions, fine texture and compatibility with Kentucky Bluegrass—have proven out in the real world. That's the ultimate test.

In fact, Pennfine has performed even better in some areas than anticipated. It's proven to be more tolerant to both shade and heat. It's shown excellent rust resistance on the West Coast. And, although Pennfine showed good to excellent disease tolerance in university trials, its disease tolerance appears to be even stronger in actual use.

Pennfine production fields in the Pacific Northwest where a major effort is underway to meet growing demand for seed.

Increased production.

From the very beginning, there's been only one problem with Pennfine: not enough seed to meet demand. And that problem is just about solved with substantially increased production. We can't make you a flat promise. But, if you order fairly soon, you should be able to get Pennfine seed in the quantity you want.

On the other hand, maybe you're still not convinced. In that case, we'll send you a test kit with enough Pennfine seed for you to develop a 100 sq. ft. test plot. And you can try to find a weakness on your own turf.

Either way, whether you seed Pennfine this year or just test it, we think you'll be impressed by the results.

Dr. Joe Duich of Penn State inspecting a new application for Pennfine: Independence National Historical Park, Philadelphia.
Kohler introduces a full line of "Quiet-plus" engines, both one- and two-cylinder models. Soft-spoken, air-cooled, cast iron engines that deliver big Kohler performance plus a dramatic noise reduction system... efficient mufflers, quiet-breathing carburetors, shrouded cooling. And designed to run hard and cool within a closed engine compartment—requiring only one intake and one exhaust duct. All of which results in a substantial reduction in dBA*.

Until now there was nothing but a lot of noise about noise. Now there are "Quiet-plus" engines. Only from Kohler.

... no wonder 7 out of 10 major manufacturers of garden tractors specify Kohler 4-cycle engines.

KOHLER CO., KOHLER, WI 53044

*Test data available on request.
11 Natural Grass vs. Artificial Turf — It's Fall. All eyes are focused on this season's gridiron action and planning next year's strategy. If one of those plans includes replacing your natural grass fields with an artificial surface, you had better take a look at these actual yearly cost comparisons.

14 Lawn Care Business Is Changing . . . Are You? — More custom lawn service companies are springing-up almost overnight. And the stiff competition is favoring the professional. Maintaining your market share includes a lot more than just being able to perform a satisfactory job.

20 Reducing Maintenance Costs, And Keeping the Quality Up — Golf play activity on most courses has increased tremendously. It requires an even tighter maintenance program to keep up with the increased play and remain within an acceptable budget. One superintendent, Charles Santolanni, reviews his operation and tells how he reduces costs and increases the quality of his course.

24 Greener by the Year — Once sunny Southern California's Coachella Valley's only inhabitants were coyotes, jackrabbits, and the like. But underground irrigation installations have brought green to Coachella. Arnold Palmer's new 125-acre Ironwood Country Club is just one example of a green, ultra-modern layout in this once-arid region.

39 Do Anti-Transpirants Increase Transplant Success? — Trees undergo large water deficits even if they're not moved, says T. T. Kozlowski. Once the trees are moved, however, chances of drying out and death become very real. Kozlowski examines two forms of anti-transpirants and their effects on water loss in trees.

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THE COVER — Now that players and coaches have begun demanding natural grass over artificial playing surfaces, it's time to take a look at actual cost figures. The ball is teed-up and the action is ready to begin. You decide which surface is best for your team.
TRAILEVATOR the hydraulic elevating trailer that lifts its own load in seconds

Trailevator lowers to ground level for fast, 'roll aboard' loading, then lifts its own load to hauling position in seconds. Lowers and lifts without uncoupling from towing vehicle. Saves time, saves money. Four models, two capacities: 3000 lbs. and 2000 lbs. Bed sizes up to 5'-10" x 10'.

TILTSTER the low bed trailer that tilts

Drop axle tilt type trailer handles loads up to 5000 lbs. Easy one-man operation. Tailgate serves as self-adjusting access ramp, provides smooth, gradual incline for fast ground level loading. Bed returns to hauling position when loaded; size: 5'-10" x 12'.

NORTHLAND utility trailers

Strong, durable, all-purpose utility trailer with unitized steel bed construction. Body tilts to ground level for fast, easy loading. Steel side racks and end gate with positive locking latch available. Three models; capacities to 2000 lbs.; bed sizes to 6' x 8'.
Most slow release fertilizers depend on temperature. The hotter it gets, the faster they release. And when it gets cold, they stop. In fact they start slowing down as bacterial activity slackens—when the temperature falls below 80°F. Winter starts for them long before the leaves fall.

IBDU is activated by water. As long as there is unfrozen moisture in the soil, IBDU is releasing nitrogen. At 40°F, the

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release rate for IBDU is only 20% slower than at 80°F. So your turf gets a steady meal whether it’s hot or cold. When the winter freeze sets in, your turf will still be thick and green. And the IBDU will be ready to start feeding at the first thaw of spring. IBDU. It works longer to make your grass greener.
Many businessmen in the green industry have already started budget planning for another year. Others will be starting within the next several months.

Unfortunately, far too many managers feel that budget time is the most disagreeable part of the year — the bookwork, the estimating, the reflecting, the heavy thinking. When they feel this way managers are tempted to hurry through what might just be the most important job they have all year.

We feel a basic foundation plan is critical in every business — an overview philosophy . . . a base . . . a grouping of long-term goals. If you will . . . every business needs a dream.

A common error some managers make is to establish next year’s budget based on last year’s budget plus inflation. Next year is a new year. Planning should take into account experiences of past years, of course, but the failures and achievements in last year’s operation should not dictate the new plan.

No, a budget is a plan of operation — a plan to work within guidelines to meet goals. These goals dictate the priorities.

What we’re saying is that planning is creative . . . not automatic. It’s dreaming and estimating — not adding and subtracting.

To start with next year’s plan, we recommend a blank sheet of paper and a pencil . . . not last year’s budget figures. On the paper, list the things you would like to see accomplished next year — regardless of the cost. Suggest continuation of successful programs and list possible new area to investigate. Be sure to include as many staff people in this creative planning session as possible.

The next step is to determine the value and importance of the list of goals. This involves priorities, costs and finally . . . the experience of past years.

When the budget is finished for next year it will be a plan that leads to accomplishments — not just a way to spend money more efficiently than last year.

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LIQUI-SYSTEM™ horticultural service machine. A new specialized tool for feeding, spraying and treating plants, trees and lawns. Protected storage provides varied supplies for a 2000 gallon day’s work.

This versatile machine sprays at 800 psi, fertilizes with standard corrosive fertilizers and pumps interchangeably from its ten formula tanks. The patented two pump injector and control system reduces by five the tank sizes and multiples by five the speed of refilling.

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circular saw. This brush cutter features STIHL's famous AV anti-vibration system that absorbs fatiguing engine vibrations. Lets you cut longer and easier with less effort.

Ask your rental friends or your nearest dealer about STIHL'S better performance, lower maintenance & down-time and proven earning capacity.
Rohm and Haas Company plans to begin construction of a pilot plant to expand facilities for new product exploration and development. Construction of their new Life Sciences plant is scheduled to begin in 1975 and will be completed in 1977. Estimated cost is $5 million. Site for the plant has not yet been determined.

Dow Chemical Company research data on 2,4,5-T is currently being reviewed by EPA. Samples of fish, mud and human milk taken from two areas where the pesticide had been used showed no evidence of TCDD, says Dow. Dow officials said that the equipment used was capable of measuring levels below 10 parts per trillion. EPA claims to have found low levels of TCDD in samples from beef-grazed land treated with 2,4,5-T.

Department of Labor's 23 jurisdictions with approved safety and health plans conducted 39,554 inspections enforcing their own job safety and health laws during the first quarter of 1975. OSHA officials said that under federal OSHA of 1970, states are encouraged to develop their own plans for job safety and health programs. To be approved by OSHA, a plan must contain assurances that a state's program will be "at least as effective as" the federal program. OSHA retains enforcement authority in states without plans (New Jersey, New York and Wisconsin).

House of Representatives' Agriculture Committee defeated an amendment to FIFRA that would have required EPA to obtain approval of the Secretary of Agriculture before cancelling a pesticide registration. But wait. The same committee substituted an amendment which would require that the Secretary's comments be published in the Federal Register when EPA-proposed regulations are published.

EPA has released their guide for commercial pesticide applicators. The "CORE Manual" is a 48-page booklet designed to help pesticide applicators meet the general certification standards. The guide does not include information to meet specific standards required by Federal regulations or State law. Copies of "Apply Pesticides Correctly--A Guide for Commercial Applicators" are available from the U. S. Government Printing Office, Washington, D. C.

Diamond Shamrock Corporation announced a multi-million dollar expansion at its T. R. Evans research center near Painesville, Ohio. First phase of the expansion on the company's 800-acre site will be two new laboratory buildings, consisting of 67,000 square feet devoted to life sciences and 61,000 square feet for plastics applications, and a 48,000 square foot expansion of the existing process development building. The expansion program, when completed in 1976, will more than double the research center facilities.

EPA's "Guidelines for Registering Pesticides" has come under fire from the DuPont Company. DuPont objects to the use of mice as a valid test animal for pesticide cancer evaluation. DuPont says that rats and dogs are more valid test animals in determining whether pesticides may or may not cause cancer in humans.

Hawaii Irrigation Supply Company has been named the exclusive distributor in the Hawaiian Islands for Weather-matic's lawn and garden and heavy turf irrigation lines.