There are plenty of monofilament trimmers on the market; all quite similar in appearance.

But before you buy, take a close look. Because one, The Green Machine—the country's best-selling gas-powered monofilament trimmer—is much more than just a great monofilament trimmer.

It's also a great brush cutter and a great tree and vine pruner.

The Green Machine's unique PowerStik™ design lets you work with maximum performance overhead, on the ground, and at all levels in between.

Using quick-change accessories, The Green Machine will trim, prune or cut just about everything in the yard. From the most delicate grasses, to three-inch thick tree branches. You'll replace a whole range of hand trimmers, pruners, clippers, edgers—even chain saws in most pruning and thinning operations.

We could almost say the only other yard tool you'll need is a lawn mower.

Remember that The Green Machine is gas powered. There are no cumbersome electrical cords to worry about. The powerful, lightweight 22.5 cc engine gives you torque to do the full range of jobs without the stalling-out problem often found with electrical units.

But performance is only one reason to buy a Green Machine. Quality is the other.

The Green Machine is engineered throughout for easy starting and long hours of trouble-free operation. Parts and service support are nation-wide.

So, don't settle for a tool that does only part of the job. Monofilament trimming is great. But for complete grounds care you need number one. Us. The Green Machine. The Trimmer-Cutter-Pruner.

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Plus these great optional tools:
Hedge trimmer—Auger—Drill.
All powered by the same interchangeable GM engine. Buy complete or in any combination.

Versatility makes it number one.
THE METICULOUS CONSULTANT

BURNS: "The superintendent should have the most to say. If he is qualified, he should get what he wants, within reason.

"I would prefer to interview for a job on a design basis, meaning, if an owner would give some nominal cost, have two or three consultants present a design on the same fairway and explain concepts and why."

WT&T: Is your system dependent upon any particular line of products, or are you personally committed to any one manufacturer?

BURNS: "No and I always ask for more than one brand be listed for competitive bidding. If the owner is satisfied he wants only one brand because of past relationship, I ask that the equipment price be negotiated as the contractor price is negotiated.

"Being in the supply business in past years myself, obviously I have a lot of understanding of pricing as to what is fair, and where a negotiated figure should be.

"I honestly don't feel any one manufacturer has an advantage over another. I do feel one supplier over another is important. The service of the supply house is what we leave with the owner after the job is completed.

"Every manufacturer would like the designer to give him an advantage, but I think most manufacturers would rather see an equal shot for his products than be left out. This past year, I was commissioned for several designs by the manufacturers directly, (as a service for that manufacturer), by three of the four major irrigation equipment manufacturers. I feel this speaks highly for our independence."

WT&T: Does every golf course need an irrigation system which is as elaborate as the systems which you design?

BURNS: "No, but I disagree strongly on some of the jobs I see go in, especially in areas where irrigation becomes somewhat supplemental. The Midwest and Eastern States can get away with more inadequacies because rain covers up mistakes. Most of my work has been in the Southwestern United States and the State of Hawaii, but I continually run across work or re-do work that would not have cost any more if it had been done right the first time."

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Easy on your budget.
But here’s the pay-off: because Emerald is easier to produce, Emerald will cost you less per pound than the most popular bentgrass.
And because Emerald develops less thatch, doesn’t demand as much top dressing and even requires less mowing and brushing, Emerald costs less to maintain, too.
In fact, while Emerald has shown equal density to other bentgrasses on the market under normal management conditions, tests have shown that Emerald will maintain its color and density with two to three pounds less nitrogen per year per 1000 sq. ft.

Exceptional uniformity.
Medium green in color, Emerald seeded on greens provides a welcome contrast in many cases to darker bluegrass aprons. And because each Emerald seed traces back to a single outstanding parent, Emerald is exceptionally uniform. There’s less patchiness, less grain, a better playing surface for your club membership.

Outstanding vigor.
In vast numbers of evaluations, Emerald has shown to be less aggressive under established conditions than the most popular bentgrass varieties. Yet Emerald still does an excellent job of crowding out weeds, including Poa annua, and self-heals divot wounds and cart tracks.

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Best design for better penetration.

We make two heavy-duty aerators. The Ryan Renovaire has 12 tine wheels that operate in pairs. Unlike other models, they swing a full 18 inches to follow the contours of your land and ride over rocks instead of being damaged by them. Weight can be added to each pair for deeper penetration.

The Ryan Tracaire is an economical, rigid axle aerator. It's available with 9 or 12 tine wheels and has a 3-point hitch to force the tines into the turf.

Both models are fast and easy to use. Each can be used with interchangeable open spoon, closed coring, and slicing tines. And you can order a 12' by 10' dragmat as optional equipment.

The large area aerators from Ryan. We've designed them simply to work well. And built them to stay that way. For more information see your Ryan distributor or write: OMC-Lincoln, a Division of Outboard Marine Corporation, 5523 Cushman Drive, Lincoln, Nebraska 68501.

The large area aerators.
Researchers tell story of aerial application

The Wright Brothers really started something in 1903 according to Connie J. Streeter and Dr. Orvin Burnside, weed scientists at the University of Nebraska-Lincoln Institute of Agriculture and Natural Resources.

The UN-L researchers, reporting at the 1976 North Central Weed Control Conference held here Dec. 7-9, said the Wrights' airplane flight at Kittyhawk, N.C., has been followed by the use of aircraft for sport, transportation, war, transportation of mail and fast freight. More recently, planes have been used to apply pesticides, herbicides, and fire fighting chemicals.

The first use of aircraft for pest control occurred in 1922 when they were used for dusting catalpa trees. Military aircraft were used because of their availability and the military did much experimentation in that era to aid the agricultural industry, the Nebraskans explained.

Ms. Streeter said that later outbreaks of the cotton boll weevil, locusts, and other devastating insect plagues did much to spur the development of the aerial application industry. Other successful agricultural uses for aircraft came into use such as sowing seed, fighting forest fires, and the application of herbicides. Helicopters as well as fixed-wing aircraft have become important in the aerial application industry since about 1946.

Arborists to meet

The National Arborist Association will hold their annual meeting at the Don CeSar Beach Resort Hotel, St. Petersburg Beach, Florida, Feb. 13-17.

Robert Lederer, Executive Vice-President of the American Association of Nurserymen will be the featured speaker in a program which will explore avenues for environmental improvement and beautification.

Two can ride cheaper than one.

When people carpool, companies benefit directly, because, obviously, fewer cars will make less demand on the parking spaces in the company lot. And some companies have attributed an increase in punctuality to the fact that more and more of their employees were carpooling.

Find out how you can help organize carpools. For your "Double up Kit," write to Double up, U.S. Department of Transportation, P.O. Box 1813, Washington, D.C. 20013.
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- PLUS...variable reel speed, cable-driven reels, superb visibility.
- FACTORY TRAINED SERVICE PERSONNEL...assures you of prompt service and parts availability.

There's no question about it! If you want the best in turf maintenance you want the Flex-A-Matic 140. Test drive a Hahn Flex-A-Matic 140 at your nearby Hahn distributor.

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U.S. pesticide consumption rate slows down

U.S. consumption of synthetic organic pesticides increased at an annual rate of nine percent between 1970-1975, but a decrease in consumption is anticipated by 1980, reports Stanford Research Institute (SRI).

In a series of reports on pesticides published as part of SRI's Chemical Economics Handbook (CEH), domestic consumption, the Institute estimated, was 1.3 billion pounds last year and is expected to reach 1.5 billion pounds by 1980. This represents a slowing of the rate of consumption to an average two to four percent per year — primarily as a result of a leveling off of herbicide demand.

“Pesticides have emerged as a large, rapidly growing chemical industry, both domestically and abroad,” says Jeanie Ayers, the primary author of the reports.

Herbicides and insecticides account for 68 percent of total pesticide consumption while fungicides are 19 percent and fumigants and nematicides are 13 percent.

Ayers says that herbicides and insecticides are expected to continue to dominate pesticide sales but growth is expected to decrease in some key agricultural markets. The outlook for the U.S. pesticide market depends on factors related primarily to the production of corn, cotton, deciduous fruits/nuts and soybeans.

The high degree of maturity of the herbicide and insecticide markets for corn and cotton and approaching maturity of the soybean herbicide market will see future consumption more sensitive to annual acreage fluctuation. Opportunities for foliar fungicide use in the soybean market are expected to develop into a growth market for these products.

SRI also predicted these developments:
— U.S. policies that will affect domestic and international agricultural commodity demands.
— Government regulation will continue to apply pressure against selective pesticides that are considered risks to health and safety.
— Marketing abilities of pesticide manufacturers will play an important role in the product mix of future pesticide consumption as competition increases in saturated markets and as key patent expirations encourage entry by new suppliers.
— International agricultural and pesticide policies will influence the volume and type of pesticide exports from the U.S.

The SRI Pesticide series is available as separate reports or as a complete 540-page series of five pesticides reports covering Fumigants and Nematicides, Fungicides, Herbicides, Insecticides, and a Pesticide Industry overview.
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The HUSTLER mower you buy to save time and money during turf care season stays on the job all year, with easy-hookup attachments:

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- **Catcher/Compactor** — ingenious! Paddles pull and compact clippings into tight mass without noisy blower or dust. No loss of maneuverability.
- **Heavy duty 72” deck** for rough cutting, discharges to rear.
- **Flail cutter**, where turf conditions or local codes dictate. 60” cut.
- **Snow thrower** (two stage) clears 54” path. Hydraulic controlled spout direction. Unique HUSTLER tractor design (weight centered over drive wheels) provides extra traction.
- **ROPS Cab** for comfort, roll-tested for safety.
- **Broom** sweeps leaves, debris, snow, removes thatch. 54” swath, 30° angle.
- **Dozer blade** turns HUSTLER tractor into mini-dozer. 60” x 18” spring-load blade raises, lowers hydraulically. Angles 30° right or left.
- **Tilt-deck trailer**. Drive mower on/off to transport at road speed.
- **HUSTLER Turf Equipment** performs like a pro: turns at a touch, trims close, saves payroll cost. HUSTLER 272A or 272A Standard; or Hillside HUSTLER 360.

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DIRECTORY APPENDIX

The following equipment listing was inadvertently omitted from our 1977 Managers Guide to Equipment and Supplies:

Tuflex Manufacturing Co., P.O. Box 13143, Port Everglades, Fla. 33316
Pumps: fiberglass spray tanks 50 to 120 gal. capacity
Irrigation Field Storage Tanks (Fiberglass)
Sprayers: Complete power unit jet or mechanical agitation
Hopper-Spreader type (Fiberglass)
Custom production-Fiberglass items

ALCA Convenes

The Associated Landscape Contractors of America will hold their annual meeting at the Riviera Hotel in Palm Springs, California, Jan. 23-28.

Peter F. Drucker will be the featured speaker in a program to be entitled “Focus on Management.”