January, 1932

The National Greenkeeper

**PLAN NOW for Better Greens at LESS COST**

Soil is shredded (not ground) and sifted in one operation. Different models and sizes—complete with built-in gas or electric motor.

In 1932 have better greens and fairways at less cost... use a KEMP Power Soil Shredder. It will save your club money, not only in first cost but in labor, fertilizer and upkeep as well.

Complete and compact, these well-known KEMP machines shred and sift in one operation. Powered with either electric motor or gas engine, or without power for operation with a tractor.


Prompt Shipment from Warehouse Stocks in Leading Centers

**KEMP POWER SOIL SHREDDERS**

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**ROLLER PRESSURE MUST BE ADJUSTABLE**

One reason why finest courses prefer DUNHAM WATER-WEIGHT Trade Mark

Fairway Roller

By increasing or decreasing the amount of water in the drums of this Fairway Roller the weight is easily regulated from 1,300 to 5,000 pounds. This permits light or heavy rolling, according to the nature of the turf. The Dunham's three great sections operate independently to conform to the contour of the ground and flatten the uneven surfaces. Total rolling width, 8 feet 3 inches. Strongly made, easily operated.

For Complete Details and Prices write to your Golf Equipment Dealer or DUNHAM LAWN ROLLER CO. 113N. Chambers Street, New York, N. Y.

Canadian Office: 262 Second Ave., Montreal

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**SHREDDERS POWER**

In 1932 have better greens and fairways at less cost... use a KEMP Power Soil Shredder. It will save your club money, not only in first cost but in labor, fertilizer and upkeep as well.

Complete and compact, these well-known KEMP machines shred and sift in one operation. Powered with either electric motor or gas engine, or without power for operation with a tractor.


Prompt Shipment from Warehouse Stocks in Leading Centers

**KEMP POWER SOIL SHREDDERS**

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**DRICONURE**

First

**A TURF FEEDER**

“DRICONURE produces better turf” says one greenkeeper who uses it regularly. And we might reply, “Naturally, its got to.” The basic contents of Driconure is purposely designed to create a better condition than you can secure with ordinary fertilizers. Walk across any green or fairway that was built and fertilized with Driconure. Note the color, the cushion of the turf, the thick growth. Driconure produces a continuous feeding program—plus—a steady, constant, up-building of soil resiliency. Free of weed seeds, quick-acting and long-lasting. Driconure contains five times the value of fresh or green manure—and—it will not burn.

**Then**

**A SOIL BUILDER**

50 lbs DRICONURE

Processed Peat Moss Cow Manure Bedding Dehydrated

ATKINS & DURBROW INC. K-165 John Street, New York City

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**WHY NOT**

come in and see us at the Annual Greenkeepers' Show? We'll be glad to discuss the pros and cons freely and candidly. Space 18.

ATKINS & DURBROW, INC.
Here is the complete Official Program of the 6th Annual Convention of the National Association of Golf Course Superintendents at New York City, January 19-22, 1932. Nationally-Linked Maintenance and Management.

Official Program, Meetings, Etc.

Monday, January 18

2:30 P.M.—Meeting Executive Committee, Headquarters, Hotel Pennsylvania
7:00 P.M.—Exhibitors' Dinner—Headquarters, Hotel Pennsylvania

Tuesday, January 19

10:00 A.M.—Golf Show Opens—Hotel Pennsylvania (Admission Free)
7:00 P.M.—Meeting of District Vice Presidents

Wednesday, January 20

10:00 A.M.—Golf Show Opens—Hotel Pennsylvania (Admission Free)
2:00 P.M.—Conference Opens—Hotel Pennsylvania
7:30 P.M.—First Session of Business Meeting (Headquarters)

Thursday, January 21

10:00 A.M.—Golf Show Opens—Hotel Pennsylvania (Admission Free)
2:00 P.M.—Educational Conference—Hotel Pennsylvania
7:00 P.M.—Annual Banquet—Hotel Pennsylvania. Guest Speaker, Mr. Ganson Depew, Chairman, United States Golf Association Green Section (Secure tickets at Registration Desk)

Friday, January 22

10:00 A.M.—Golf Show Opens—Hotel Pennsylvania (Admission Free)
10:30 A.M.—Annual N. A. G. A. Convention—Hotel Pennsylvania (Open to Members Only)
2:00 P.M.—Educational Conference—Hotel Pennsylvania
12:00 Midnight—Annual Stag Party (See Robert J. Hayes)

Note: Location of the Conference Hall will be posted on the bulletin board in the hotel lobby.
Greenkeepers' Conference Program

DR. HOWARD B. SPRAGUE, CHAIRMAN
Agronomist, State of New Jersey Agricultural Experiment Station

Wednesday, January 20 — 2:00 p.m.

ADDRESS OF WELCOME — By Colonel John Morley
SOIL STRUCTURE OF PUTTING GREENS — By Kenneth Welton, United States Golf Association Green Section, Washington, D.C.
SOME THOUGHTS ON GREENKEEPING — By M.E. Farnham, Golf Course Superintendent, Philadelphia Country Club, Philadelphia
GREENKEEPING YESTERDAY AND TODAY — By J.O. Campbell, Greenkeeper, Wethersfield Country Club, Hartford, Conn.
THE CARE OF TREES — By Homer L. Jacobs,Davey Tree Expert Co., Kent, Ohio
Golf Maintenance Budget — By John MacGregor, Greenkeeper, Chicago Golf Club, Chicago

Thursday, January 21 — 2:00 p.m.

QUALIFICATIONS FOR MEETING PRESENT-DAY DEMANDS FOR GREENKEEPING — By O.B. Fitts, Greenkeeper, Columbia Country Club, Chevy Chase, Md.
BACTERIA IN GROWING TURF — By Dr. Jacob G. Lipman, State of New Jersey Agricultural Experiment Station, New Brunswick
THE GREENKEEPER'S SCHEDULE — By C.E. Tregillus, Greenkeeper, Lasker Private Estate, Everett, Ill.
NITROGEN CHANGES IN SOIL — By Professor M.H. Cubbon, Massachusetts State College, Amherst, Mass.
OUR JOB — By L. J. Feser, Greenkeeper, Woodhill Country Club, Wayzata, Minn.

Friday, January 22 — 2:00 p.m.

TURF DISEASES — By Dr. John Monteith, Jr., United States Golf Association Green Section, Washington, D.C.
ECONOMY ON THE GOLF COURSE — By John Quaill, Greenkeeper, Highland Country Club, Pittsburgh, Pennsylvania
RELATION OF SOIL CONDITIONS TO ROOT DEVELOPMENT — By Dr. Howard B. Sprague, Agronomist, State of New Jersey Agricultural Experiment Station, New Brunswick
RE-BUILDING AND RE-SODDING OF PUTTING GREENS — By Jos. Williamson, Columbus, Ohio
FERTILIZERS — By Robert J. Hayes, Greenkeeper, Pelham Country Club, Pelham, N.Y.
Lecco completely feeds every department necessary to produce turf, namely, soil system, root, stalk, stem and leaf blade. The use of Lecco completely blends the fertilized area into one beautiful shade and growth of turf. Lecco is an acid food which makes it especially adaptable to the bent family. Leading clubs have brought a scraggly fairway growth to near perfection by the use of Lecco.

The use of Lecco with a sandy loam topsoil that will not cake or bake for surfacing will eliminate the use of the compost pile and keep your greens free from diseases that are directly traced to the infested compost pile.

Although Cocoos Bent seed is favored over the Washington stolons by many, this latter type of planting and sodding is still very popular. Lyman Carrier Products has a goodly supply of either stolons or sod in putting green length and offers prompt delivery at reasonable prices. They will appreciate early orders for this coming season.

The Worthington Mower Co.
Stroudsburg, Pa.

The Worthington Mower Company's exhibit will consist of special models of their machinery that embody important improvements. Much thought has been given to increasing the efficiency of their mowing equipment.

The 1932 Scout Overgreen power putting green mower has undergone some slight but desirable improvements. The makers state that when the work of green cutting is divided between three units of a Worthington gang, as it is divided in the Overgreen, the life of each unit is prolonged to three times that of any single mower unit of the same size, either hand or power driven, doing the same amount of work.

Its over-all cutting width of 44 inches permits an average green of 6,000 square feet to be cut in less than ten minutes, whereas hand operation with a single unit requires forty-five minutes for cutting this area. The operator walks only one-third the distance. The very large demand for this machine is a decided indication of its increasing importance to golf courses for the rapid cutting and economical maintenance of its greens.

The Worthington "Multigang" of seven units, which cuts a swath sixteen feet wide when drawn by a Worthington lawn tractor, will completely finish the mowing of the eighteen fairways in less than five hours actual cutting time. The patented hinged frame permits this machine to be converted at will into a five unit gang, or a three unit one. They claim no machine has ever been perfected for the fairway that can approach the amazing efficiency of these machines working together in perfect formation.

Because of the remarkable simplicity and excellence of their design the Worthington cutting units, whether for fairway or putting green mowing, operate with the least draft resistance. They are all equipped with the patented bed knife adjustment which is not only positive in its action but the simplest in operation of any on the market.

A very little investigation of the results accomplished by this "Overgreen" and "Multigang" on some of the foremost courses of the country, will convince Chairmen of Green committees and greenkeepers that there has been inaugurated what might be termed a new era in the subject of golf course mowing and a new conception of the cost of golf course maintenance. It has changed the relation of this mowing item from being in many cases the most expensive one in the usual golf course budget to one of comparative moderate expense. The maintenance standard may thus be brought to the highest point of excellence with a remarkable decrease in the fairway and greens mowing costs.

The Worthington "Scout" hand mower in general design conforms to the well-known standard hand mower class, but possesses patented details of construction which increase its effectiveness and performance beyond anything that has heretofore been attained. The height of cut is adjusted by means of a new device (patent pending) of the simplest construction which fixes the height through the use of the fingers alone, without recourse to any tools. This system of adjustment is a feature which usually accompanies the setting of the cutting height. In practice, the "Scout" mower pushes with unexcelled ease. It is very light but strongly constructed and cuts a swath of incomparable smoothness over any kind of turf that is to be met with in this service.

We have been advised that many new uses have been developed for the Overgreen tractor which it is claimed will be of particular interest to greenkeepers. Some of these will be on exhibition at their booth.
Leads Again
with
Substantial
Price Reduction
and
Higher Analysis
Thus Enabling Thrifty Clubs to Continue Fairway Feeding.

Visit our Booth, Hotel Pennsylvania, New York, January 19-22, during the Greenkeepers’ show.

Service Bureau Representatives will gladly help devise an economical yet effective feeding program

or write

The Sewerage Commission
Milwaukee, Wisconsin

Dept. N

BOOTH 27
AT
THE CONVENTION
WATCH IT!

Diworma
Diworma is the modern, safe worm eradicator. It needs no broadcasting, washing in or rinsing. Just mix with 250 parts of water and sprinkle it on. It brings all the worms up in a minute. None die underground. Diworma cannot harm the grass. It acts as a check on brown patch. Hundreds of clubs endorse it.

Ban
Ban is the quick, sudless cleaner, now endorsed by leading makers of golf ball washing machines. At the Convention you can see how it cleans in a jiffy and how it cannot splash and soil clothes. Absolutely harmless to paint or enamel.

Weed Killer
Dolge Weed Killer is nationally known and nationally used. With it you can sprinkle weeds away. Clear your sand traps, roadways, gutters and tennis courts of unsightly weeds with less trouble than it takes to walk.

Ant Killer
When ants infest your greens and tees, this deadly killer will kill them ALL. Instead of killing just a few ants with an ordinary killer, you can kill the whole colony with Dolco Ant Killer — Because they like the taste. Easy to apply.

Dolco Mouse Cereal
(For Moles)
At the first sign of a mole run on your greens put a teaspoonful of Mouse Cereal in the furrow. Then forget it. These little seeds treated with a deadly poison, mean sudden death to moles. Safer to use, surer to kill than Traps.

Come to Booth 27, at the Convention. See the remarkable Dolge Country Club line. Learn about the Dolge guarantee that insures their effectiveness. Lloyd Dolge—George Herrmann—Leon Coles and Bill Kohn, Jr., will be in charge. Talk your problems over with them. Also valuable souvenirs will be distributed and a good time will be had by all.

THE C. B. DOLGE CO.
WESTPORT, CONN.
For the coming season, Pennsylvania is introducing two new Fairway models, each using the now well-known Pennsylvania unit of all malleable unbreakable construction, fitted with wide-blade, six-knife reels and double-edge bottom knives, Timken reel bearings and other refinements.

The first model is a new Giant Quint using 36-inch units. The total cut is 14½ feet wide, which is only slightly less than the width of cut with a seven-unit gang using 30-inch units, and costs about $200 less.

We believe there are no other outfits on the market today which offer the wide combination of Fairway models offered by Pennsylvania.

The Pennsylvania Greens Mower is made for this season with an eight-blade reel as standard, and produces a correspondingly finer cut than the earlier model.

Economy Irrigation Co.
Seattle, Wash.

This company will have on exhibition a sample of every machine they make.

"In addition to those machines illustrated in our catalogue," they say, "we shall have one of the newest models of our Double Gear Traveler. This traveller is modelled from the pattern of our present Single Gear Traveller. In it we have eliminated the use of any ground head or packed head feature, thus saving wear and tear and replacements, which in our older type of Double Gear Traveller, were a little expensive.

"This Double Gear model will of course have much more power in 'travelling' than our Single Gear has, consequently, no matter what size hose is used the machine will easily travel over it thus completing the revolution of the travelling head with its twenty-foot radius pipe around the base.

"Operating on about fifty pounds pressure, there is no machine made which will give so large an area of coverage. This applies of course to any of our travelling machines. Whatever coverage is possible on the ordinary sprinkler, our travelling machines will cover just forty feet further in diameter."
Its Persistence in Soil Valuable for Greens

Added to the well-known features of Hyper-Humus — moisture-retention, soil warmth and aeration, general improvement, increase of beneficial bacteria, etc. — is its persistence in the soil in comparison with common peat, peat moss, spent mushroom soil, well-rotted manure, etc.

The disappearance of Hyper-Humus — in a comparison test under scientific control — was only 9.9%; whereas the loss of the other materials was from 13.4% to 32.4% — the latter figure being the manure.

This means that Hyper-Humus for greens will exert its influence over a more extended period than other organics.

Find Us at Space "No. D" — Visit us at the Convention — handle Hyper-Humus — get our story. See our New Winter Covering for Greens and for Mulching Club House Plants.

HYPER-HUMUS COMPANY
48 Park Place
Newton, New Jersey

COCOOS
Creeping Bent Seed

This outstanding Bent seed has made California greens famous. Now in use from coast to coast. Upright growth, velvety as a rug and smooth as a billiard table. Cocoos recognized by leading clubs everywhere undoubtedly produces the last word in fine turf.

LECCO, the Complete Grass Food

Contains all the elements necessary to produce healthy, vigorous growth of root system, stem and leaf blade. Long-lasting and quick-acting. Include Lecco in your 1932 budget.

Washington Strain Stolons and Sod
Fast growing, fresh viable stock, prompt delivery.

LYMAN CARRIER
For Better Turf • Granger, Indiana

THE 1932 STAUDE GENERAL UTILITY TRACTOR

Its NEW Features
Its new proven silent drive is a step forward in golf course tractor design and construction.
It has new air cleaners on oil intake and carburetor, insuring fullest protection to the motor, AND —
Demountable steel wheels that are easily replaced with pneumatic tired wheels.

Easily Pulls Five to Seven 30-inch Cutting Units
Handles rollers up to six tons, sprayer, plow or disc. Ridiculously low upkeep. Manufactured and sold under a money-back guarantee since 1916. Buy through your local Ford dealer, golf supply house or direct from us.

SEE the NEW STAUDE at the Sixth Annual Greenkeepers' Golf Show, Hotel Pennsylvania, New York City, Jan. 19-22.

NEW IDEAL SEVEN-GANG FAIRWAY MOWER. IT WEIGHS ONLY 1063 LBS.

Ideal Power Lawn Mower Company
Lansing, Michigan

While the Ideal Power Lawn Mower Co. expects to have several new items to display at the New York Golf Show, a feature of the Ideal exhibit will be their new type Fairway mower. A special feature of this new mower is that it can be quickly and easily converted by one man from a three gang to a five gang, to a seven gang, with remarkable ease. This is due to the fact that the mower has an entirely different type of frame construction, is lighter, and as a consequence such changes are easy to make.

It is claimed by the manufacturer that these new type gangs are lighter in weight and require less draw bar pull for operation than any mower of equal capacity and quality here-tofore placed on the market.

Particular emphasis is laid on the fact that the seven-gang mower which cuts a swath of sixteen feet weighs only 1063 pounds complete with frame and units, and for operation on level ground cutting heavy stand of grass shows an actual draw bar pull of only 340 pounds. The cutting unit used with the new frames is perfectly balanced for operation over either level or rather rough fairways.

The frame itself, which is light in its construction, yet well braced to withstand all strain, is carried on two wide-faced wheels so that there is no weight of the frame resting on the cutting units. Pull arms extending from the frame back to the cutting unit side frames are attached by special lug at a point slightly below the wheel center so that the cutting units are held right to their work even in heavy cutting.

The cutting units that will be provided with these new fairway frames will have 7-inch, 7-blade reels with knives of special heavy steel and the reels geared to operate at a speed that gives an exceptionally fine, smooth job of cutting and will do perfect work even on dense creeping bent turf.

The five-gang Fairway mower of this new type cuts a swath of 11½ feet, weighs only 773 pounds, and the draw bar pull is only 250 pounds. The new three-gang outfit which cuts a seven-foot swath weighs only 485 pounds, and the draw bar pull is only 160 pounds. This new frame hook-up is to be offered by Ideal in 1932 in addition to their standard frame that has been on the market for nearly ten years, and the new cutting units built for 1932 will be constructed so that they can be used in connection with either type of frame.

In addition to the new fairway equipment on display, there will be the Ideal Power Putting Green Mower which was shown for the first time last year. The Power Putting Green Mower as offered for 1932 embodies a number of refinements including a new and easily operated pneumatic rubber tire transport cart—a power driven carrier available at slight extra cost—and an entirely new type Greens Brush attachment.

Another new item to be displayed is a new Running-in Stand for back grinding cutting units, the stand being supplied complete with electric motor and will be sold at a price so reasonable that any club operating a five or seven-gang mower cannot afford to be without this convenient machine.

Other machines on display will be the Ideal Hand Putting Green mower, as well as certain size power mowers adapted to golf course upkeep.
Henderson's Tested Grass Seeds

Both in new construction and in renovation, the quality of the seed you use is of greater importance than anything else. No matter how much attention and effort is given to the other detail, it is the seed that determines the results.

When you buy Henderson’s Seeds, you get seed that has been grown by men who have specialized for years in growing certain varieties for us. This seed is cleaned and re-cleaned in our warehouses and then it is accurately tested and these tests are checked and re-checked to be sure that it is up to the Henderson standard. That Henderson’s Seeds are Tested is more than just an advertising phrase.

Let us quote you on your requirements for the coming year. We know that the quality of the seed cannot be better, and we believe our prices, quality for quality will be convincing.

PETER HENDERSON & CO.
35 Cortlandt Street New York City

Barbak 211 is not only a cure for Brown Patch and a restorer of destroyed turf. It’s also a preventive. And that’s the most efficient way to use it. Don’t wait until Brown Patch appears, to apply Barbak. Start using it at the beginning of the season, and keep your greens smooth and velvety.

Barbak is safe, economical, easy to apply. It’s odorless, doesn’t cake in the can, mixes easily. It can be safely applied dry, mixed with sand or top dressing. It can be used with a power sprayer or barrel sprinkler. Whichever method you use, it won’t burn the turf.

Greenskeepers all over the country have found, by actual test, that Barbak does everything it is claimed to do. Try it on your own greens, and you’ll reach the same conclusion. If your golf supply house doesn’t have Barbak 211, write us for the name of your nearest distributor.

AMERICAN CYANAMID SALES CO., Inc.
535 Fifth Avenue New York City

Barbak TURF DISINFECTANT
E. G. Staude Mak-a-Tractor Co., St. Paul, Minn.

The new 1932 model of the Staude General Utility Golf Course Tractor will be shown for the first time at the Sixth Annual Greenkeepers' Golf Show at the Hotel Pennsylvania, New York City, from January 19th to 22nd.

Although the new Staude has several new features, the most outstanding one is the new Proven Silent Drive. The mechanism of this drive is so quiet in operation that it does not disturb the players on the course.

The wheels of the new model are so constructed that they may be easily and quickly removed and pneumatic tired Ford truck wheels put on. This allows the Staude to be driven on paved country roads and city streets.

This model is equipped with an air cleaner breather cap on the oil intake and a new and improved air-cleaner on the carburetor, giving fullest possible protection to the motor. It also has self-starter, generator, battery and muffler.

The Staude is light, speedy, powerful and noiseless. It easily pulls from five to seven 30-inch cutting units and rollers weighing up to six tons. It will also pull sprayers, plows and discs and is equipped with all steel dump body for hauling dirt and sod. An adjustable hitch is provided so that any make or style of implements may be attached quickly.

The Staude is light in weight and has plenty of good power and speed. It has a very short turning radius, and is easy to operate—anyone can do it. The steel tractor wheels run on Timken Roller Bearings and owing to their wide surface and rolled edge rim, do not tear up or damage the turf. Repairs are seldom required as the design of the Staude is correct and the best of materials are used throughout. Extremely economical in operation.

The Staude has been manufactured continuously and sold on a money-back guarantee since 1916. It is sold and can be serviced by any Ford dealer. The E. G. Staude Mak-a-Tractor Company, St. Paul, Minnesota, will gladly furnish additional information to anyone interested.

Stumpp & Walter Co., New York City

This company was with us at Detroit, Buffalo, Louisville and Columbus. Wherever we go, their exhibit is always interesting and decorative. This time we hold the Convention in Stumpp & Walter Co.'s own home town, New York, and they have taken larger space than usual in which they will welcome their many friends.

The keynote of their display is an important one to the greenkeeper; seeds of exceptional quality, not only of high purity and high germination, as observed in laboratory tests, but seeds with a quality that goes deeper than that shown by analysts' reports. Freedom from turf weeds, for example; many samples purer than 99 per cent and containing none of those weeds which are troublesome to the greenkeeper—no mouse-ear, plantain or dandelion.

And here's an interesting fact about laboratory reports; some of our worst weeds are not officially classified as "noxious." Mouse-ear is a case in point. Grass seed may be certified as containing no noxious weeds, and yet include hundreds of mouse-ear seeds in a pound. This is where seeds from a reliable source may be better than those from another, although an analysts report of the purity and germination of the two samples would not indicate any superiority. And by reliable source we mean a seedsman who knows his seeds and realizes the importance of eliminating those weeds which are serious to the greenkeeper.

Then there are other questions about seeds which analysts' reports will only partly answer; for example, where were they grown and by whom? Are they entirely new, not blended, old with new? Is the seed good looking? An experienced greenkeeper will see many differences in the appearance of seed samples.

Finally, is the seed heavy? We are inquisitive as to the weight of a bushel of Blue Grass, and rightly so. A bushel of seed weighing twenty pounds is superior to seed weighing seventeen pounds; a twenty-four-pound bushel is better seed than a twenty-pound bushel, and a thirty-pound bushel of Blue Grass is exceptionally good.

Now, to compare the weight per bushel is a practical way of talking about specific gravity, and it is obviously just as important that all the greenkeeper's seeds be of high specific gravity, that is, his Red Top, Bent and Fescue should be heavy seed, as well as his Blue Grass.

Among the grasses to be shown by the Stumpp & Walter Co. is their new Bent, "Triple A." This is a stoloniferous strain of Colonial Bent which is so narrow in the leaf that it produces a turf nearly as fine as Velvet Bent, and it grows at a lower temperature than most other grasses, causing it to be green and growing earlier in spring and later in autumn than other strains of bent.

They will show the latest in greenkeeper's equipment; mowers, sprinklers, rollers and the like, as well as flags, poles and hole cutters.

It is gratifying to see one of the old line houses sticking by the Association so loyally. The Stumpp & Walter Co. began their association with golf at about the time that golf first