

Ford 4110 LCG shown with 917 Flail mower.

The real low-down: Ford LCG.

Compact, low-slung Ford LCG tractors give you extra-low center-of-gravity . . . just 21 ³/₄ inches above ground . . . for hill-hugging stability.

Weight is well distributed front and rear for easy handling and maneuvering under all conditions. Add optional low-pressure tires for increased flotation and you'll know why Ford LCG's are the number one choice for work on fine turf.



Dual-range 8-speed transmission lets you match your ground

High-flotation tractor tires are optional at extra cost.

and growth conditions with a choice of four mowing speeds ranging from 3.4 to 6.9 mph. Or choose power-shift 10-speed, or cost-saving 6-speed transmission (2110 only).

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One convenient lever on the quadrant with an adjustable stop lets your operator raise, lower, adjust equipment on-the-go, for faster lawn maintenance and lawn renovation work.

Follow the contour. Optional rocker arm-flexible hitch linkage -lets mounted mowers follow changing ground contour. This prevents scalping.



Get the real low-down with Ford LCG tractors in three power sizes: 31.9, 38.3 and 52 PTO horsepower. Gas or diesel. Your Ford industrial tractor and equipment dealer is listed in the Yellow Pages under "Tractor Dealers" or "Contractors' Equipment & Supplies." See him for information on how to buy, lease, rent or finance.

NUMBER ONE ON WHEELS AND GROWING





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Ordinary slow release nitrogens just can't seem to control themselves. In fact, their behavior is as fickle as the weather.

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And that means that IBDU gives the best feeding control. IBDU's release rate and availability won't drastically change when the weather or soil bacterial activity change. By using IBDU, you can regulate your turf's response, because the rate at which your turf is fed is more closely controlled.



Now that you know you can control your turf's response more closely by using IBDU, and that only Par Ex contains IBDU, it makes a lot of sense to buy only Par Ex products. That's using self-control.

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"Serving The Green Industry"

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What's Happening In Golf Development 10 Harry C. Eckhoff, senior consultant, National Golf Foundation and a perennial guest author reports on golf development.
Forward Pass For Bermudagrass 12 Growth of the commercial turfgrass market continues at a feverish pace. Athletic fields and football gridirons account for much of the action. Superintendent Charles Pyron relates how he manages the University of Tennessee at Chattanooga football field throughout the year so that the annual homecoming game will be a success.
Tree Care: Helping Nature With Science
Irrigation Pump And Engine Care 22 All irrigation systems need maintenance. Former branch manager of Berkeley Pump Company Ray Lariviere tells what kind of main- tenance to perform and when.
Bent On Better Fairways 58 The move is afoot to bentgrass on fairways. With more and greater attention being given to this area by superintendents, bentgrass usage is increasing. Dr. Johnny R. Thomas, research director, North American Plant Breeders reports on a recent survey of superin- tendents and the cost of maintenance for bentgrass fairways.
SPECIAL PULL OUT SECTION Golf Car & Turf Vehicle Care
Golf Car Batteries CC New ratings in battery power permit the buyer to better determine his needs. Robert L. Balfour of Club Car, Inc. reports on the rating system and how it affects battery life.
Golf Cars: Private vs. Club Ownership DD If your club is contemplating a fleet of golf cars, read this article. Denver Brown, Otis Elevator Company reports on the pros and cons of club ownership.
Nine Points For Smooth Running Engines FF Check these tips for engine maintenance before you start this season's turf maintenance program. Daniel L. Hedglin of Cushman tells what to look for.
Golf Car Trouble-Shooting Charles W. Poole of Westinghouse Electric Corp. tells what to do when trouble starts.
Positives And Negatives Of Battery Care NN Arvid Halla of General Battery Corporation discusses this topic and the steps needed to insure long life.
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The Cover

New Products

Action on turf is captured in this clencher game which saw the University of Tennessee at Chattanooga down Southern Mississippi. Details on how the turf holds up under this kind of torture are found on page 12.

Trimmings

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THE COVER - Golf Car & Turf Vehicle Care

Ray Smoyer, superintendent at Oakwood Club, Cleveland (r) talks shop with Bil Montague, assistant superintendent. Bud Lindsay, mechanic, checks on mower parts before the season starts. A workhorse on this course is the spray rig mounted on this Cushman turf vehicle.

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WEEDS TREES and TURF

Less of everything you <u>don't</u> want in your grass.

Emerald is the posh, new creeping bentgrass so satisfying to both golfers and superintendents. Instead of demanding attention, it attracts it – with turf uniformity, texture and color unique in a seeded bent.

Its vigor self-heals wounds, including divots and cart tracks. And it has successfully held down *Poa* where other bents have failed. Tested 5 years in North America, its health, appearance and performance to date have been a well-told tale of praise.

Emerald variety creeping bentgrass. Get some, if you can. Sold by leading turfseed wholesalers and their jobbers serving your area.



Editorial

The biggest challenge we have this year is keeping closer contact with our saltatorial government. Events which marked 1973 have had a decided effect on our leadership in Washington. Much of what they held as cornerstones to democracy has either crumbled or developed gaping fissures. Rising prices under static controls, alleged food shortages, dollar devaluation, political party intrigue and more have virtually destroyed credibility in government as it once existed.

On top of this we are now faced with shortages in energy — oil, gas, electricity. Government, rather than permitting industry to solve the situation in an economy where demand meets supply, has once again grabbed the tail of the dog. Instead of governing best by governing least, the Washington machine has loosened the threat of gasoline and fuel supply rationing on the constituents. This may seem logical to shell-shocked politicians; it may even have appeal. But to the consumer, it breeds more distrust, more controls, more belt-tightening and the whole idea of rationing has a negative connotation.

Rationing of any sort represents a major energy drain. Brainpower and manpower concentrated here is counter-productive. The average consumer would far rather see tax dollars being invested in

> The Green PARK Rabbit symbolizes the fast start and seeding vigor for

> which PARK variety Kentucky blue-

grass is famous. It is the registered

trademark of the Northern Minnesota Bluegrass Growers Association

... the original producers of PARK.

People Power-An Energy Source

finding alternative sources of energy. The costs to execute an effective rationing program are astronomical. None of it adds a gallon of gasoline or a kilowatt of electricity to the total. Our experience with the debacled administration of wage and price controls would indicate that just the opposite is true. About the only thing we may buy is a little time, and scant little at that.

The Green Industry can do much to change this deteriorating situation. It is we who are at stake. Our businesses and occupations will suffer first and most drastically unless positive action is taken, and fast. Picture a tree care business without the mobility of trucks. Weed control might be done with two-gallon sprayers, but it is economical when herbicides are delivered via trucks. Commercial turfgrass care will result in nothing short of a cow pasture unless sophisticated mowing equipment and other items of a turf maintenance package are employed.

What can we do? Individually we can write letters to congressmen and senators. A letter from each reader of this magazine will increase the feedback in Washington by many thousands. If you don't believe it, try it. Tell your representative what he should be doing for you the voter, (continued on page 28)

America's No. 1 certified bluegrass from its No. 1 producer

More acres of PARK Kentucky bluegrass are grown in the United States each year than any other variety of certified Kentucky bluegrass.

It was the Northern Minnesota Bluegrass Growers Association which first introduced PARK to the commercial market... and the association remains the primary supplier of certified PARK seed.

Fact Sheet, prices and other information is available from Twin City Seed Company, exclusive distributor for all PARK variety Kentucky bluegrass grown by the Association.

Write or phone today.

Twin City Seed Company, 500 30th Avenue N.E., Minneapolis, Minn. 55418

Lush, green grass. Leafy, shady trees. Vigorous, healthy shrubs. It takes them all to make parks and commercial landscapes inviting. These Chemagro pesticides make the groundskeeping chores a lot easier and more economical. Because they provide dependable control of diseases and insects that destroy the natural beauty of turf and ornamentals.

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turf fungicide

Control seven major turf diseases with one fungicide. Gets dollar spot, plus all *Helminthosporium* strains melting out, leaf blight, leaf spot—as well as copper spot, stem rust, brown patch and snow mold.

BASANIT

nematicide

One application provides summerlong control of nematodes that destroy root systems, cause seedlings to wither and die—even though they are well-fertilized and watered.

®DYLOX

selective insecticide

Quick control for sod webworms and other chewing insects that destroy foliage. Won't destroy beneficial insect populations, when used as directed.

BI-SYSTONsystemic insecticide

Gives trees, shrubs, flowers the power to 'bite-back' when sucking insects try to destroy foliage. Prevents

dripping honey-dew that spots autos

parked under shade trees. **©GUTHION** insecticide

One insecticide that controls a whole host of harmful insects.

®SYSTOX

systemic insecticide Foliar spray gets sucking insects hiding on underside of leaves by means of systemic activity.

METASYSTOX-R

systemic insecticide

Fast-acting foliar spray, with extra systemic control of sucking pests.

BEXON

fungicide

For unexcelled control of Cottony Blight and Pythium.

BAYGON insecticide

Dependable carbamate insecticide controls turf insects which have become resistant to chlorinated hydrocarbon pesticides.

For beautiful, inviting landscapes and parks, with less work and lower cost, keep these dependable Chemagro pesticides on hand.

Chemagro Division of Baychem Corporation, Box 4913, Kansas City, Missouri 64120. 7458

Chemagro RESPONSEability to you and nature





Chalk up another goal met by the <u>American Sod Producers Association</u>. The Department of Labor has ruled that sod production and installation are an "agricultural enterprise." This means that OSHA regulations which apply to agricultural activities will also cover sod. Previously, the law was somewhat vague as to whether sod production and installation would be agricultural or construction or just what.

Purchase of the inventory and name of the F. W. Bolgiano & Co. by the <u>Vaughan-Jacklin Corporation</u> is now completed. Gager T. Vaughan, president, says V-J has also agreed to acquire the Michigan State Seed Company. Terms and acquisition price of neither transaction were disclosed.

Retail and wholesale price increases on Agrico consumer lawn and garden products have been announced by the Bishop Company, effective Jan. 1. Reason? The sharp jump in the costs of urea and diammonium phosphate, both basic ingrediants. Pre-season bookings will be filled from inventories of products purchased and manufactured at lower cost, says Agrico.

<u>Club Car, Inc.</u> of Augusta, Ga. has been acquired by Johns-Manville Corporation. It will become part of J-M's agri-turf business.

Demand for heavy-duty co-extruded plastic shipping and storage bags will increase by 10 percent in 1974, forecasts Arthur A. Kukla, general manager of U.S. Industrial Chemicals Co. Much of the increase will go to agricultural and chemical packaging. Demand is bullish in bags for fertilizer, bark chips, ammonium nitrate, peat, gravel, compost and other products.

Another purchase...American Motors Corporation of Detroit has agreed to purchase all of the outstanding stock of <u>Wheel-Horse</u>. An undisclosed amount of Am. Motors capital stock and cash is part of the deal. Wheel-Horse will be operated as a subsidiary of the number four automobile manufacturer.

<u>A speeded-up depreciation schedule on new machinery</u> can be used to good advantage if you expect future annual earnings to fall short of earnings in 1973. According to John O. Early, an ag. economist from Idaho, new machinery bought in 1973 may gain a tax savings by claiming a first-year depreciation amounting to as mcuh as 36 percent. Might be a good idea to discuss double declining balance (DDB) with accounting and tax wizzards.

<u>Point to Ponder</u>. It's been said we save two to four percent of our nation's energy by moving the clock one hour ahead into Daylight Savings Time. Could we save double that amount of energy if the clock were moved ahead two hours?



a name you can't forget

The first time a turf expert sees Fylking and he gently tests the turf, lifts a swatch and examines the root system, and closely scrutinizes the low-growing, 90-degree side angled leaves, please notice the subtle smile that crosses his face. This is the countenance of the wine connoisseur who has wet his lips with classic vintage, the man who recognizes the truly classic beauty of the Venus de Milo, the research agronomist who has spent years seeking the perfect turf and now views Fylking. Once he has, he wants to know more about this obviously elite Kentucky bluegrass. This man will appreciate knowing Fylking has received overall superior disease-resistance ratings from every major university and institution where tested for leaf spot, stripe smut, stem rust and leaf rust. When he examines the technical brochure he will smile again. Fylking is not perfect, but it's the closest of any. Fylking. It's a name you can't forget.



FYLKING KENTUCKY BLUEGRASS U.S. Plant Patent No. 2887

Another fine product of Jacklin Seed Company

If you would like our full color technical brochure No. 102 on 0217[®] Fylking Kentucky bluegrass, please ask your Fylking sod or seed distributor or write to Jacklin Seed Co., E. 8803 Sprague Ave., Spokane, WA 99213.

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DURING the past decade 3900 new golf courses including additions to existing facilities have opened for play throughout the United States. Golf course development is continuing at a very stable pace.

The number of new golf course openings during the 10 year span beginning with 1964 ranged from over 500 in 1965 to 266 in 1972 resulting in a yearly average of 390 courses. New course openings for the year just ended (1973) were 322. A breakdown of these openings by types is shown in Table 1.

Operationally, golf courses fall into one of the following categories: private, semi-private/daily fee and municipal. An analysis of the 322 new course openings for 1973 is in Table 2. A study of the golf facility growth pattern reveals that the development of short courses (par-3's and executive layouts) is leveling off. During the last seven years the total for such new courses opening throughout the nation annually has ranged from 37 to 48 (46 in 1973).

The leading states with new golf course openings in 1973 were Ohio (34), Michigan (25), California (23), Florida (21), Texas (17), Colorado (16), Tennessee (14), Iowa (13) and North Carolina (11).

Probably the most startling statistic gleaned from the 10 year golf facility development study is the great increase of golf courses associated with land development projects. NGF records indicate that at the beginning of the 10 year span (during 1964) only 16.3% of all the golf courses built were a part of land sales, new planned towns, resort and convention facilities, etc. For 1973 the figure had soared to 40.68%.

And the rate is increasing! Of the total courses now under construction in the nation, 58.97% are reported to be a part of real estate ventures. States that report over 80% of new golf projects in this category include Arizona, Colorado, Florida and Oregon. For Alabama and California, it is 70% or more. A recent directory of Florida real estate developments lists the names of 85 projects where developers are now selling homes or condominiums associated with golf facilities that are already in play.

WHAT'S AHEAD

With 290 new golf courses or additions to existing facilities now in some stage of construction in the nation, 1974 should be another normal year for golf course development.

Florida leads with 31 golf courses now under construction followed by (continued on page 56)

Table 1. Course o TYPE Regulation Executive PAR-3	NEV	V COURSES 178 21 9	COURSE ADDITIONS 98 9 7
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Table 2. Analysis	of course openings		
TYPE	PRIVATE	DAILY FEE	51 (18%)
Regulation	76 (28%)	149 (54%)	
Executive	3 (10%)	25 (83%)	2 (7%)
PAR-3	3 (18%)	8 (50%)	5 (32%)