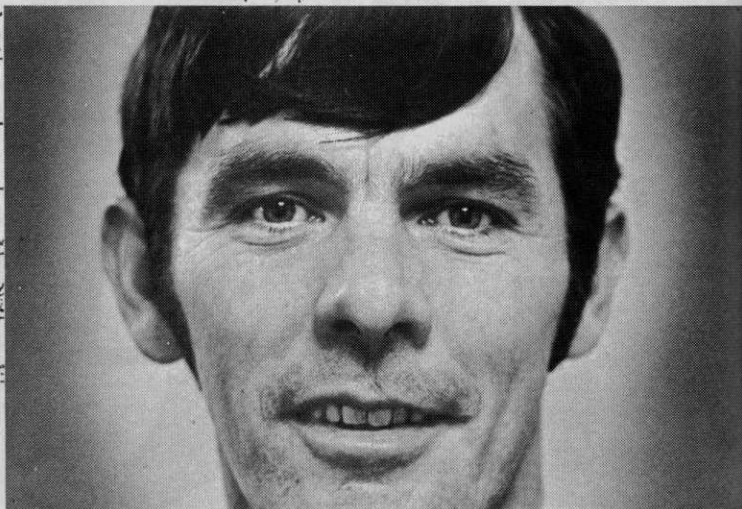


COUNTY AND FARM NO. 023-901 NAME _____

(1)	(2)	(3)	(4)	(5)	(6)
WATCHING COSTS			<i>It takes a computer ... and your head, says Jack Kidwell</i>		
L I N E	O N T H	D A Y	ITEM DESCRIPTION	TO WHOM OR FROM WHOM	
1	6	18	<i>Leaf Spreader Pcs.</i>	1	<i>221</i>
2	6	18	<i>Diodes</i>	1	<i>Spray Nozzle</i>
3	6	18	<i>Employee Pcs.</i>	1	<i>32</i>
4	6	18	<i>Tractor</i>		
5	6	18	<i>Leaf Sprea</i>		
6	6	18	<i>Employee</i>		
7	6	18	<i>delegations Un</i>		
8	6	18	<i>Employee</i>		
9	6	18	<i>Truck</i>		



JACK KIDWELL is a sod grower of the future . . . right now! He is applying principles and practices many turf specialists feel may be required of sod growers generally within the decade.

Stack up the scope of your operation against that of Kidwell Turf Farms, Culpeper, Va.:

INTEGRATED SERVICE — Sod production, delivery, and installation; landscape design, construction and maintenance assistance; retail lawn and garden center, supplying both nursery stock and products and equipment.

COMPUTERIZED ACCOUNTING, to include periodic analysis of profitability of the various segments of operations.

MULTI-APPROACH MARKET PROMOTION, using radio, newspaper and magazine advertising; direct mail brochures; customer relations literature; personal letter writing; sales representatives; and standardized and published pricing.

PROFESSIONAL ASSOCIATION MEMBERSHIP pertinent to each major segment of the business, plus a close working relationship with the area land-grant universities.

CATEGORIZED WORK FORCE, specially trained for certain jobs.

Kidwell Turf Farms, 450 acres, part of J. L. Kidwell Landscape Corporation, is Virginia's largest supplier of cultivated sod. In 1969, Kidwell Turf harvested and delivered an average of 2,050 sq. yds. of turf per day (6-day week) during the season, Apr. 1 to Dec. 1.

A Decade of Growth

All this growth came in the past 10 years, since 1959, when Jack Kidwell bought a sod cutter on credit to engage in the pasture sod business.

Of all the factors contributing to the success he has achieved, three stand out: a continuing goal to produce a better product; a relentless and aggressive desire to increase his professional knowledge; and an unwavering objective to operate on sound business principles.

While the pasture sod business was satisfying his reason for quitting as a farm supervisor ("Because I had a family to feed"), there were problems. Pasture sod was hard to handle and, basically, it was a poor product. He continued offering it

until 1965; in the meantime watching for the chance to grow his own sod and for related business opportunities.

One was the opening in 1962 of the Green Thumb Garden Center, the first of its kind in Culpeper (about 75 miles southwest of Washington, D.C.). In 1964, the Center's name was changed to the J. L. Kidwell Landscape Corporation.

"This year, we decided to handle Toro and Ryan equipment and to carry a supply of parts," said Kidwell. "We had several reasons, and the move has resulted in some fantastic things.

"With the nearest outlets in Washington, D.C., and Richmond, we needed a closer source for our own operations. But we also put in the service for the pasture sod growers in the area."

Kidwell hopes that when pasture sod growers come in for machinery or parts, they will become better acquainted with cultivated turf and will eventually switch to it. And he hopes improved communications

ADDRESS _____

COUNTY Calhoun

(7)		(8)	(9)		(10)			(11)		(12)		
QUANTITY		Unit Price	TOTAL DOLLAR AMOUNT		TRANSACTION CODES			ENTERPRISE		FURTHER IDENTIFICATION		
No. Hd.	Hrs., Bu., Lbs., Tons, Doz., Gals.				(a)	(b)	(c)	(a)	(b)	(a)	(b)	(c)
					Trans. Type (See* Below)	Trans. Class	Trans. Detail	Code	Lot No. (Lvstk. or Crop)	Work-er No	Grade-Test	Field, Machine, Lvstk. or Bldg. No.
	3.0 hrs.		\$		29	529	081	057	009			221
	300 lbs.	.35	105	00	29	432	081	057	009			
	2.5 hrs.	1.65	41	25	29	001	081	057	005	32		
	2.5 hrs.											
	2.5 hrs.											
	3.0 hrs.	3.00	9	0								



A computer farm management service provided by Virginia Polytechnic Institute has been adapted to the Kidwell turf operations. Every employee and piece of equipment is assigned a number. Daily field records are kept on hours worked and on what job. Field reports are posted on the monthly report, a portion of which is shown above. VPI uses this input data to compute costs. Printouts are made quarterly.

will mean better cooperation on matters of mutual benefit.

The real beginning of Kidwell Turf came in 1965 with the purchase of 450 acres along famed Rappahannock River in Fauquier County. Some 200 acres already was established in bluegrass sod.

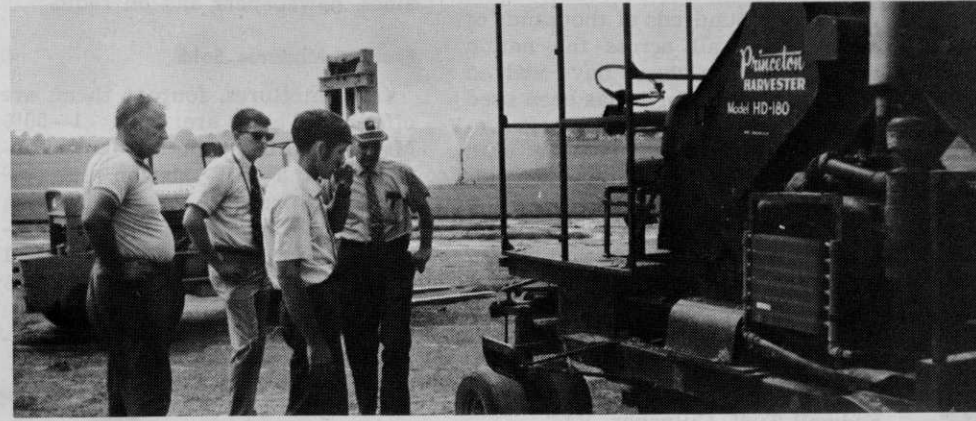
Of course, that didn't mean he was immediately in business. Buying the land was one financial exercise; the real test coming, however, "in estimating my capital outlay for the next two years and then taking it to a lending institution."

University-Industry Cooperation

About the next thing Kidwell did was to visit the Extension and Agronomy departments at Virginia Polytechnic Institute. The relationship that developed caused Kidwell to state later that "VPI practically fostered Kidwell Turf Farms!"

And it could be added that Kidwell Turf practically fostered the cultivated turf industry in the State of Virginia.

The Virginia Cultivated Turfgrass



Association was inaugurated in 1966, with Kidwell a charter member and a two-term president. He helped write the guideline specifications for soil preparation and sodding, an industry first, adopted by the states of Virginia and Maryland. He helped bring about the recognition of a two-state "Certified Turfgrass Sod," labeled, and enforced by the states' departments of agriculture.

"The message that continues to be difficult to get across," Kidwell said, "is that these things were achieved for the benefit of all sod growers in the area and not just for a handful of the biggest ones."

Active in the American Sod Producers Association since its beginning, Kidwell currently is working on national guidelines for soil preparation and sodding that would have ASPA backing. He is the present ASPA treasurer.

Kidwell also is active in the American Landscape Contractors Association. His interest in turf took him in 1969 to Harrogate, England, to an international meeting that resulted in the formation of the International Turfgrass Society.

Twice, the Virginia Cultivated Turfgrass Association annual tours have visited Kidwell Turf, in 1968 and 1969.

Many Have Tred Kidwell Turf

Literally hundreds of thousands of people from all across the nation and around the world have walked on Kidwell turf, for it has been used around the John F. Kennedy gravesite during a five-year contract with Arlington National Cemetery. Kidwell Turf also graces the Governor's Mansion and the City Hall in Richmond, numerous colleges and universities and housing projects.

So well known is Kidwell turf that some construction specifications actually specify, concerning sod quality, "as can be obtained from Kidwell Turf, Culpeper, Va."

Market Promotion

Multi-functional promotion spread the word, much of it created by Chuck Rose, who served as advertising manager until this summer when he joined the staff of a Culpeper bank. The word is carried personally by Kidwell himself and by sales manager Powell O'Bannon, who travels up to 80,000 miles per year.

"We're going to use our airplane more in sales effort this coming year," Kidwell said.

These are samples of the market promotion and customer information literature.

As examples of how Kidwell Turf gets business: A subscription to Dodge Reports keeps the company posted on construction activity. Letters are then written to the architect, the project owner/developer, to the bidders, and low bidder.

"But of primary importance is the followup by a sales representative," Kidwell stressed.

It is in this communication that Kidwell can promise the quality and fulfill the specifications he helped bring about. From the experience of contract cancellations in earlier years, Kidwell had concluded that there was a "definite need for a better product and for specifications for the product. Many times when we bid, the product was good, but because of the lack of proper specifications, the contract called for a delivery time when the product was not so good."

With the letters to potential customers, Kidwell could send a portfolio of information — a history of Kidwell Turf, how Kidwell cultivated turf is grown, turf mixtures offered, the guideline specifications for sod, information listing the advantages of sodding over seeding, instructions for taking care of a newly sodded lawn, delivery costs, and price lists.

Advertising is used in area magazines, newspapers and on radio.

Product Mixtures Sold

Only mixtures, four of them, are offered. They are: No. 1—50% Merion and 50% South Dakota Certified; No. 2—60% Merion and 40% S.D. Certified; No. 3—45% Merion, 45% S.D. Certified and 10% Pennlawn Fescue; and No. 4—90% K-31 Tall Fescue, 5% Merion, and 5% S.D. Certified.

"We're changing this year to of-



Mrs. Christine Estep mans the computer corner, compiling the records that go to VPI. She also handles ordering, billing, secretarial work, and bookkeeping.

fering a 30% Merion, 30% Fylking, 30% South Dakota Certified, and 10% Pennlawn fescue. Eventually, this will replace the first three mixtures."

Retail prices range from 80¢ for fewer than 100 sq. yds. to 68¢ for orders 10,000 and over. Shipping charges are listed by five zones radiating out from Culpeper and run from \$60 to \$180.

"About 75% of production was installed by us in 1969, said Kidwell. At mid-point of 1970, the figure had dropped to about 50%.

Mechanization and Training

Kidwell believes in a work force in which "each man is trained to do



a particular job . . . and trained well." He has a farm production crew and a harvest crew. Ralph W. Firebaugh is farm manager; Bill Estep is field superintendent in charge of harvesting and delivery. The normal farm work force of eight men swells to 30 in peak season, including all related services.

With the help of mechanization, turf production in the decade of the 60s quadrupled while the labor force barely doubled. The eight men were easily growing, harvesting and delivering 2,000 sq. yds. of sod per day to most localities within Virginia, Maryland, and Washington, D.C.

Yet by 1968, despite market promotion, consumer education, staff organization and specialized training, mechanization, development of a high-quality product, Kidwell could see that "our costs were eating us up. Either we had to get more volume, or cut costs."

He again turned to VPI for management advice, working with John Shoulders, Extension turf specialist, and Robert Reynolds, agricultural economist.

Computer Management

Together they adapted the University's computer farm management program to a turf farm.

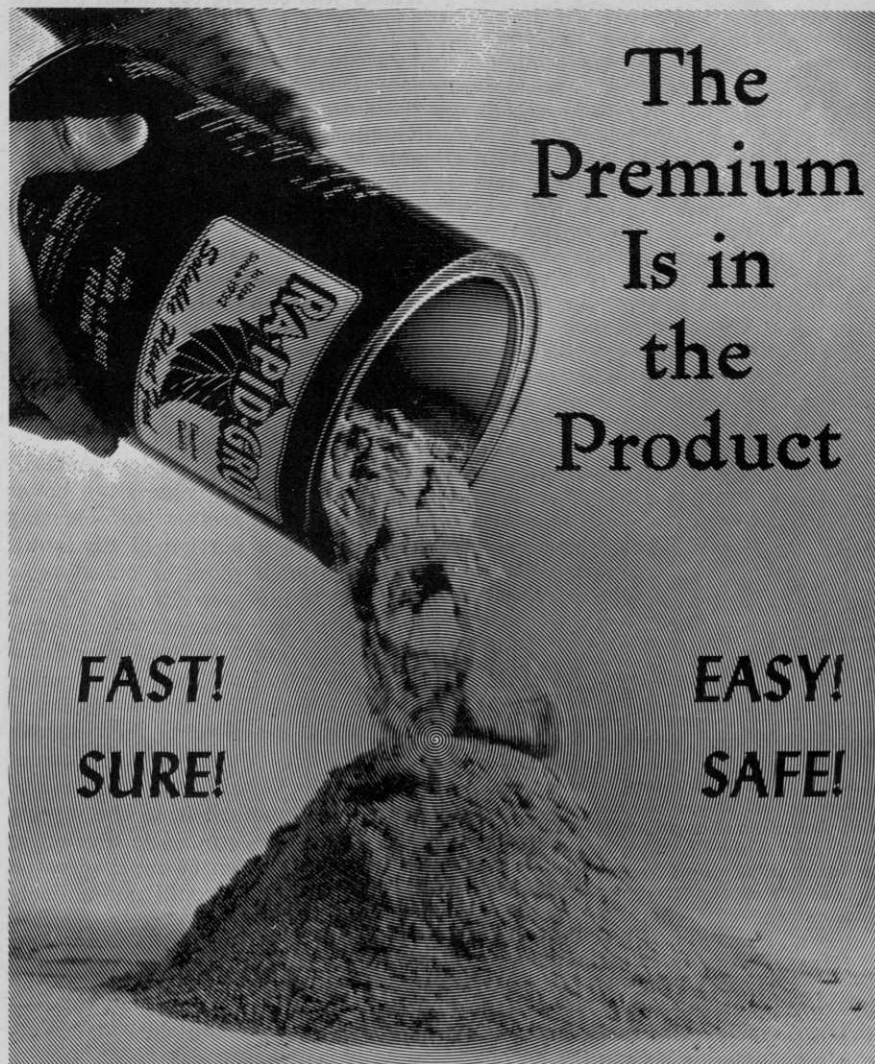
"Our purpose was to pinpoint our costs," explained Kidwell. "We wanted to find out the cost of each piece of equipment, then decide if we still needed it to get the job done."

A code number was assigned to each person and piece of equipment and detailed record-keeping began on Jan. 1, 1969. The diligence of employees responsible for keeping records and the extraordinary ability of secretary-treasurer, Mrs. Christine Estep in compiling and reporting the information has provided Kidwell with the analytic breakdown of costs he was after.

"Our program is designed to tell us our costs per yard of sod in four major areas," Kidwell explained, "production, harvest, transportation, and installation.

"What I like about it is that we can evaluate any one item independently." But Kidwell hastens to add that the computer doesn't have the last say one whether a piece of equipment or employee stays or goes. "If the computer says the cost is high, then you have to evaluate its need. Your costs might be higher without it." In other words—use the computer, but don't quit using your head.

So precise has been the informa-



The
Premium
Is in
the
Product

FAST!
SURE!

EASY!
SAFE!

America's Best-Known Water-Soluble Plant Food

So Why Gamble?

Why Don't You Find Out For Yourself
How Good It Really Is?

More and more commercial growers and groundskeepers depend on RA-PID-GRO. You get exceptionally reliable quality, good results and performance under a wide range of conditions on all kinds of plant material. Save time! Save money! For foliar and root feeding; also combine with pest controls. Dissolve 1 lb. in 30 gal. water. Fast-acting, non-burning. Completely soluble; high analysis 23-19-17.



RA-PID-GRO

Sold only through local distributors and dealers.



There's a well-beaten path between Kidwell Turf and Virginia Polytechnic Institute. It's traveled both ways. Above, John Shoulders, center, VPI Extension turf specialist, is at the farm. With Ralph Firebaugh, left, farm manager, and Kidwell, they are checking the location of some research plots on the use of cover crops planted with grass seed.

tion that on one occasion the quarterly breakout reflected the cost of miring a tractor in a muddy field.

"A man plowing a field triples our soil preparation costs and we have records to prove it," said Kidwell. "So we're trying to get away from plowing. We're using a chisel plow instead.

As an illustration of analyzing specific equipment costs, Kidwell reported that a recent readout confirmed that "one of our tandem

trucks was costing too much for the payload it carried. It was rated a 2½-ton, but its gear ratio and engine weren't efficiently pulling a 40,000-lb. payload. We got rid of it. We're looking now for one capable of pulling 56,000 lbs."

How Kidwell Grows Turf

As we toured Kidwell Turf Farms before, during and after a cloudburst, the story of how Kidwell Turf is raised came out. Keep in mind its location in that difficult "transition zone" between cool-season and warm-season grasses, on rolling and occasional rocky terrain.

SOIL PREPARATION — According to amount of vegetative cover (he's in the process of clearing timber from a portion of his land), a conventional plow or chisel plow is used, wind permitting. With a chisel, it is cross-plowed. After plowing, a liquid 10-10-10 goes down at 1,000 lbs. per acre. Allowing enough time for weed seeds to germinate, the field is then disked, usually three times. A land leveler and rock picker are used if necessary. Rocks are removed from the top six inches and the ground is leveled so that "a car driven 50 mph across it in any direction would not indicate any bumps." Every five years, the farm is covered with granular dieldrin to eliminate the possibility of grub, or other soil insect, invasion. Lime is applied only when the pH falls below 6.0.

SEEDING — Begins about mid-August and continues through September. For bluegrasses, the rate is 1 lb. per thousand sq. ft. "We're interested in rhizome development, and the lighter rate is conducive to this," he explained. When seedlings are six months old, the first nitrogen goes down at the rate of ¾ lb. per

1,000 sq. ft. At 12 months, another pound per 1,000 sq. ft. is applied.

In October, Kidwell has been planting wheat on any open ground. "It's not meant to be a profit operation, but it can be," he said. The primary reason is to cover bare ground during the winter, reduce soil erosion, provide weed control, and act as a soil builder. The straw is plowed under after the grain is harvested in mid-June.

"In some experimental plots, we've tried sowing the seed with flax, sudangrass, oats and perennial rye," Kidwell said. The hope is to establish a quick cover that will reduce weed competition and provide winter protection from desiccation.

"Flax planted at 10 lbs. per acre looks good," Kidwell reported, "and our December temperatures usually are cold enough to kill it."

Normally, grass fields are sprayed in September or October with a mixture of 2,4-D and Banvel-D at the rate of ¼-lb. of Banvel-D and 1½ lbs. of 2,4-D per acre in water.

When seedlings are about one inch tall, they are sprayed with liquid Parathion to kill aphids.

MOWING — Unless another experiment works out, Kidwell will continue to mow about 2½ to 3 inches height and about every three days during the growing season. In Virginia, that means each square foot of grass gets mowed about 65 times a season! On one field, the grass has been allowed to grow to five to six inches. It will be maintained at that height, then groomed to lower heights just before harvest. If the plan works, the number of mowings will be reduced drastically. Sweeping is done only if clippings build up or if the grass is to be harvested soon after mowing.

IRRIGATION—"We don't water for appearance," said Kidwell, "only for germination, during dry spells and just prior to lifting. We want the grass tough enough to withstand the transplant shock. If it's in a semi-dormant condition, we have less of a heating problem."

A portable field irrigation unit draws water from the Rappahannock River. It is distributed with a mile of trunk and lateral lines.

At the normal end of the day, Kidwell's understatement of the day had come early: "One of my worst problems is just finding the time to manage the business . . . while I still drive a truck occasionally, do a lot of selling, and attend meetings."

At the normal end of the day, he illustrated—climbing aboard a tractor-trailer rig to deliver a load of sod.



This scale has been almost worth its weight in gold, believes Kidwell. It provides an accurate record of sod shipped, and "we don't get any more fines for overloading," he added.