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be ready to roll with a NU nes sod harvester

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NU nes Slab Sod Harvester . . .

lifts, cuts, and conveys slabbed sod to loading platform. Handlers can load directly on to pallet as tractor moves.

- With a NU nes Sod Harvester and three men you can lift, cut, roll and palletize up to 1200 square yards of sod per hour.
- The harvester, developed at Cal-Turf Farms in California, is designed to handle any length of rolled or slabbed sod.
- Field grading of sod is done by the tractor operator, who has clear visibility at all times.
- Hydraulic controls permit quick and easy adjustment for all conditions.
- The sod harvester travels alongside, never on the turf, during harvesting and can pick up and roll sod at any time your tractor can operate in your field.
- Sod can be cut with any type of sod cutter. The long ribbons can then be lifted and cut to any desired length from 24" to 90", size depending on thickness of sod.
- Loaded pallets can be spotted for later field removal and be clear of the next harvest run. If direct truck loading is desired, a conveyor extension is available.
- The basic power train is a Ford LLG-2110 wheel tractor. The sod harvester can travel at speeds up to 17 MPH for quick transportation between plots.
- The efficiency of this all-mechanical operation has been proven on Cal-Turf Farms in Patterson, California, and it can solve the problem of quick and economical harvesting of sod for all turf farmers.

For more information please contact:

THE JOHN NUNES MECHANICAL HARVESTING CO.
2006 Loquat Avenue, Patterson, California 95363, Phone (209) 892-6311



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WEEDS TREES and TURF

December 1968

Volume 7, No. 12

FORMERLY WEEDS AND TURF

The Cover

This December cover of WEEDS TREES AND TURF magazine illustrates the variety of equipment available to the non-crop

horticultural industry. Aerial devices such as these offer tremendous latitude and variety in selection. This is only one type of equipment listed in the WTT 1969 Suppliers Guide and Equipment Directory which begins on page 12.

The cover scene is from the demonstration field day of the International Shade Tree Conference at the Morton Arboretum near Chicago this past summer.



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Chronister Heads Harvest Publishing Company

Hugh Chronister, general manager and a director of Harvest Publishing Co., has been elected president and treasurer of the firm, succeeding James Milholland, Jr., who continues as chairman of Harvest. Milholland has become a vice president of Harcourt, Brace & World, Inc., which owns Harvest, and will direct all of the Company's periodical publishing activities.

Harcourt has restructured a large part of its periodical publishing operation through the creation of a subsidiary, Harbrace Publications, Inc. Milholland is president of Harbrace. Harvest publishes five farm magazines and two business periodicals, including Weeds Trees and Turf.

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A \$3 Billion Business

Commercial weed, tree, and turf operations are a \$3 billion business in this country today. Further, they are being expanded.

WEEDS TREES AND TURF magazine editors have just completed a survey study of operators in the non-crop horticultural field. Based on accepted research sampling methods, the study clearly establishes the scope of the vegetation care and control industry. The \$3 billion figure represents the total gross volume of business by 30,000 operators who read WTT.

Generally, 1968 has been a good year with operators reporting a 14 percent net profit margin. Some 75 percent of those answering say they expect an even better year in 1969.

The non-crop areas of weed, tree and turf care and control constitute an important segment of our economy. The study indicates it will grow even more as more and more homeowners and industries turn to professionals for this type of service work. In the study, more than half of those reporting said that homeowner service contracts were the fastest growing segment of their individual businesses.

Looking ahead to 1969, and specifically at some of the major categories in the industry, we see many of the same problems which ushered in the previous year.

Namely, these concern pesticide applicators. This important group faces certain restrictive legislation and desperately needs a national organization to channel their efforts effectively. We are among the first to realize the need to protect the citizenry. But we also realize the impracticability of some proposed legislation. Perhaps the best start should be more state pesticide applicator associations.

Sod producers also are part of a growing industry in the field. They will shortly hold their second national annual convention. This group while making great strides during its first two years still has a long way to go. More growers need to join the association and help further their own business operations.

Turf and tree areas of the business are well organized and their state and national organizations are serving them well. These organizations have done an excellent job in providing forums for ironing out mutual problems of legislation, labor shortages, rising costs, and general management. The new year offers the first opportunity for other groups to do likewise.

WEEDS TREES AND TURF is the national monthly magazine of urban/industrial vegetation maintenance, including turf management, weed and brush control, and tree care. Readers include "contract applicators," arborists, nurserymen, sod growers, and supervisory personnel with highway departments, railways, utilities, golf courses, and similar areas where vegetation must be enhanced or controlled.



Introducing McCulloch's new Power Mac 6. The world's lightest chain saw. It weighs only 6½ pounds.*

Here's a chain saw you can lift easily with your little finger. A saw so light, so compact it's not much bigger than an electric knife. Notice how the "Master Grip" handle is located directly over the center of gravity? That means you can use just one hand to move the Power Mac 6 safely and easily between cuts. The grip is padded for comfort and all controls are grouped underneath just a finger's reach away. Squeeze the trigger and the light-weight magnesium-aluminum engine delivers more cut-

ting power than most chain saws weighing twice as much. You can cut enough firewood in an hour to last all winter. Zip through an 8-inch log in 6 seconds. Fell trees up to 2 feet in diameter. Use it to clear land, prune limbs, even build small buildings. The Power Mac 6 is big news. And there's lots more news from McCulloch this year, including the amazing "Quiet Line"—with the "Sound Silencer" muffler that reduces noise impulses up to 75%.† Ask your McCulloch dealer. He's in the Yellow Pages.

*weight less bar and chain †Compared to standard cavity-type mufflers.

McCulloch

6101 West Century Blvd., Los Angeles, Calif. 90045

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WEEDS TREES AND TURF magazine's

1969 Business Forecast

VEGETATION care and control businesses continue to grow. A poll of WEEDS TREES AND TURF magazine readers reflects optimism among operators of service type businesses in the non-crop horticultural field.

As a rule, operators expect their business to increase in 1969. Three-fourths of the first 200 returning WTT business forecast questionnaires were optimistic. Another 22.7 percent look for their business to stay about the same. Less than 3 percent expect a decrease this coming year in their volume of business.

This thinking by WTT readers is closely aligned with that

of economic forecasts for the nation as a whole. Now that the election is over and the Nixon administration is due to take office, economists are flooding news media with outlook material which reflects their thinking regarding the effect of the new administration on business.

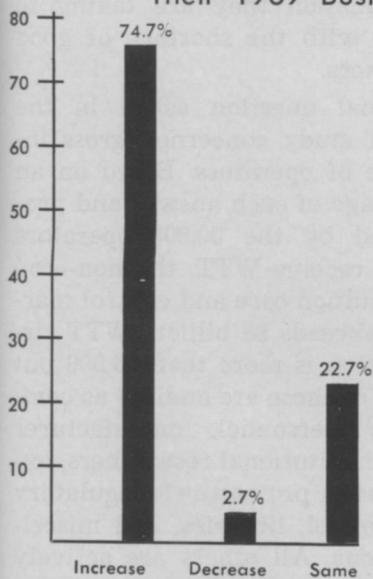
In short, the information boils down to what might be termed cautious optimism. Economic forecasters believe business will generally be more friendly with the Nixon group than has been true of the previous administration. They expect some slowing down of inflation, but not enough to completely stem the profit squeeze which businesses

have been feeling as a result of rising costs.

Business may suffer a slow-down, especially during the expected period early in the year when the surcharge tax bite coupled with recent tight money takes its full effect. A slow-down in defense spending is also a distinct possibility if the Viet Nam war slackens or comes to a halt. However, economists feel the general feeling of relief at the war's end will serve to boost the economy. Some stock brokers expect such an event would trigger an upsurge in the stock market. Economists also expect that housing starts would increase even more than expected and the general business upturn would boost the economy rather than foretell any significant recession.

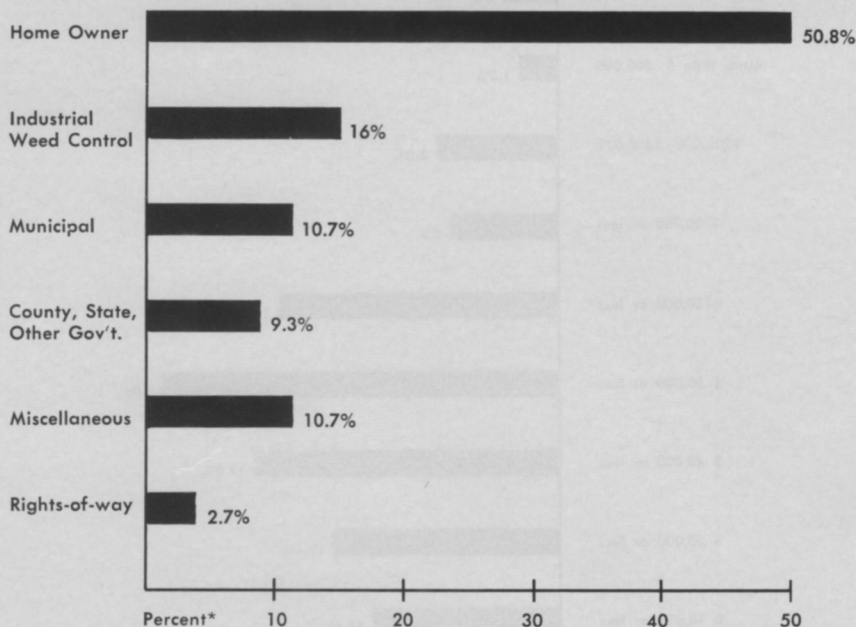
In general, the economists predict an increase of almost 6 percent in total spending in the U.S. Consumer incomes are expected to be up well over 5 percent. Home building and construction industries are also expecting an increased pace of between 5- and 6 percent. A sum-

Table 1. How Vegetation Care and Control Operators Forecast Their 1969 Business



* Percentage of non-crop horticultural operators reporting.

Table 2. Service Contracts in the non-crop horticultural field showing most rapid growth



* Percentage of vegetation care and control operators who reported these as fastest growing type of service contract.

mary of the collective thinking of economists is that 1969 bodes well for business. Big problem will continue to be inflation and the increased costs of doing business.

Net Profit Margins:

In the WTT survey, readers who operate businesses were asked to estimate their profits for this past year. Practically all reported being in the black, the average being a 14 percent net profit margin. Reports varied greatly, however, ranging from a number of 5 percent lows to 50 percent. This range which was more general than expected would indicate that service charges vary considerably in the industry. Many operators apparently have not increased their service call charges to cover down shop time or the increased costs which they must carry in doing business. Another possibility for the difference in profits might be competition for con-

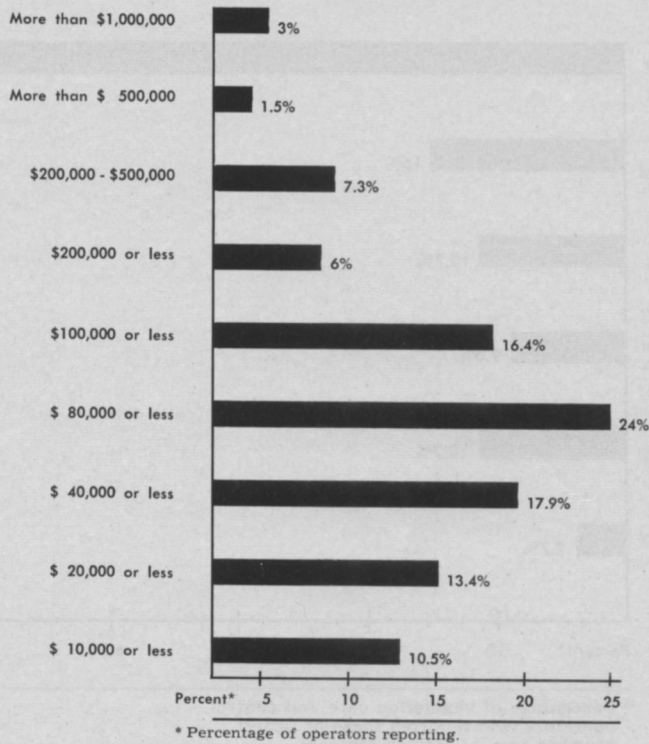
tracts. Generally, most operators who commented on business indicated that more business was available than they were equipped to handle.

The Industry Today:

A number of types of service are growing in popularity. More than half, 50.6 percent, of the operators reported that home owner service contracts were the fastest growing segments of their business. Sixteen percent reported that their industrial weed control business was showing the greatest increase. Government work such as municipal contracts (10.7 percent) and county, state, and federal contracts (9.3 percent) was indicated as showing most growth by one in every five operators. About 3 percent indicated that utility rights-of-way business was the fastest growing, and 10 percent listed miscellaneous types of contract work as pushing ahead.

Based on this random sample

Table 3. Gross Income for 1968 Reported By Operators Participating In WTT Business Forecast Survey



of WTT readers, 61.3 percent (about 18,000 businesses on a projected basis) gain half their business income from contract pesticide application. Tree care operators get only about one-third (34 percent) of their gross income from tree maintenance and planting. Big end of their business is contract application of pesticides.

Almost 6 percent of all operators are doing some type of aquatic weed control work. Of those working in the area of aquatic weed control, 16 percent of their total gross income is derived from this source. A whopping 34 percent said they planned to move into some new phase of the non-crop horticultural field in 1969. Among the new fields listed most often were irrigation installation, aquatic weed control, retail nursery stock and turf supplies, custom spraying, fertilizer application, equipment rental, and landscaping. Listed less often and somewhat unique were homeowner fence installation, dry rot and

fungus control, stump removal, and aerial seeding and fertilizing.

More Chemicals:

Pesticides will be used even more in 1969 in the non-crop field. The average dollar value to be spent next year by WTT readers will average \$6840 per operator. Based on the 30,000 WTT readers who make some use of pesticides, this projects to an astounding \$205,200,000. Almost 75 percent of those reporting said this would be more than they used in 1968. Only 9 percent said they would use less, the balance planning to about match their '68 purchases.

To apply these chemicals, operators in the business will make major purchases of vehicles and equipment. More than 60 percent said they plan to expand. One in every three operators plans to add more employees and one in every four will add more equipment as part of expansion plans.

Among those responding to the survey, three of every four will buy some type of truck, and one of every six plans to buy a car as a part of their business operation. Most significant is the fact that the group reporting indicated that they will, on a nationwide basis, purchase 1500 fixed wing planes or helicopters for aerial spray applications. Total expenditures for vehicles and aircraft will approach \$140 million in 1969 based on WTT survey answers.

Further purchases will include spray equipment, tractors, mowers, irrigation systems, tree spades, stump machines, power rakes, tillers, chain saws, golf course equipment, and a variety of other types used in the non-crop horticultural field. Operators plan to spend an average of \$2300 per business on these items. Projected to all WTT operators, size of business expenditures for these items in 1969 will exceed \$69 million.

Generally, operators expect a good year in 1969. Several commented on the increased costs of doing business, but at the same time a number of these are planning to expand during the coming year. Besides increasing costs, operators stressed the problem of recruiting labor and steps such as equipment and automation they are taking to cope with the shortage of good workers.

Final question asked in the WTT study concerned gross income of operators. Based on an average of each answer and projected by the 30,000 operators who receive WTT, the non-crop vegetation care and control market exceeds \$3 billion. WTT circulation is more than 35,000 but 5000 of these are audited as company personnel, manufacturer and institutional researchers, extension personnel, regulatory personnel, libraries, and miscellaneous. All others are actively engaged in the non-crop vegetation care and control field.



Stull Chemical Company's bifluid spray system is demonstrated by Marvin L. Kolberg of Stull. Kolberg is using the John Bean Roto-Mist unit for benefit of spraymen attending the Texas A & M sponsored Industrial Weed control Conference.

Texas Industrial Weed Conference Report

In-House Vs. Custom Contracts

IN TERMS of business volume, industrial weed control is big business. Not only is it a growing segment of the industry, it is probably the fastest growing nationwide.

Non-crop weed control has always been a major operation, but in time past it has largely been done one way or another by a company's own work crews.

Today, the picture is different. Companies in many cases find it pays to hire a custom contractor to assume responsibility for this area of company operations. Other companies still feel they can do the job with in-plant help and equipment.

The pluses and minuses of contracting weed control work or of using company help were discussed at length at the recent In-

dustrial Weed Control Conference at Texas A & M University, College Station, Texas.

Dr. C. V. Wootan of Texas Transportation Institute at the University listed the advantages and disadvantages of each system. "Whether you use the services of a contractor or your own forces for weed control," he said, "depends on conditions existing in your individual company."

In favor of a company using a contract applicator for weed control, Dr. Wootan listed three big advantages. These are: (1) Known cost, since a good contract operation will be done at a given price. It may not be more expensive, but it will be known, and Wootan believes this is a distinct advantage to a company; (2) No company resources are re-

quired. Neither company labor nor equipment is committed to the operation; and (3) Proper scheduling. A good contract operation permits work to be done at the proper time without affecting the company's regular operations. Since a contractor may be able to provide the service with less disruption to the company's own operation, the contract may prove lower in cost.

Disadvantages

There are also disadvantages to the system of using a contract operation. Dr. Wootan listed five as follows: (1) A contractor may not be quality conscious. This naturally depends on the contractor but is extremely important to the company; (2) Scheduling may be difficult for the



Dr. Wayne G. McCully, left, chairman of the Industrial Weed Control Conference, and with the Texas A & M Range Science Department, visits during field demonstration with George D. Bucher, John Bean regional sales manager at Denton, Tex., center, and Victor M. Jouffray, John Bean district sales manager at San Antonio, Tex.

contractor; (3) Contract costs may be high. Despite the fact that all costs must be paid and thus included in a contract, it may prove lower in cost than the company's own cost; (4) Company image may not be favorably reflected by the contractor. This is important since outsiders usually consider anyone working on company property to be a company employee; and (5) Contract performance is a factor. The possibility of non-performance is the risk which companies assume when they contract for work. Though legally binding, before the problem is resolved the season may be long past when the work can be done.

Dr. Wootan also listed the pros and cons of using in-house labor and equipment to handle the weed control operation. In favor of the in-plant system, he listed such factors as: (1) Use of company labor. This is feasible when underemployment of the company force coincides with the

weed control work season; (2) Close quality control. When company help is used, the firm has control over the quality of work performed; (3) Improved control over scheduling. A company can do the job exactly when needed, even though its own

Servis Flex rotary cutter is demonstrated by Al Scifres, Servis Equipment Company, Dallas, Tex., during field event.



regular company work schedule may be disrupted.

In-House Minuses

Disadvantages of using the in-plant system were also listed as follows by Wootan: (1) Capital is required. A company has to tie up capital which might better be used in the company's primary business activity; (2) Extra labor is required. Except for very small weed control operations, extra labor must be added to the work force. This may create the problem of unneeded labor during the off-season; (3) Supervision. An in-house labor force must be properly supervised to be effective and this requires more supervisory personnel or increased work load on that already available; (4) Extra plant cost. Warehouse and storage space is needed for machinery and chemicals; and (5) Extra overhead cost. Any activity which increases labor, equipment and supplies creates overhead. Such an operation must pay for its portion of purchasing, payroll, accounting, utility, and management costs.

In making the decision as to choice of in-plant or contractor,

(Continued on page 42)