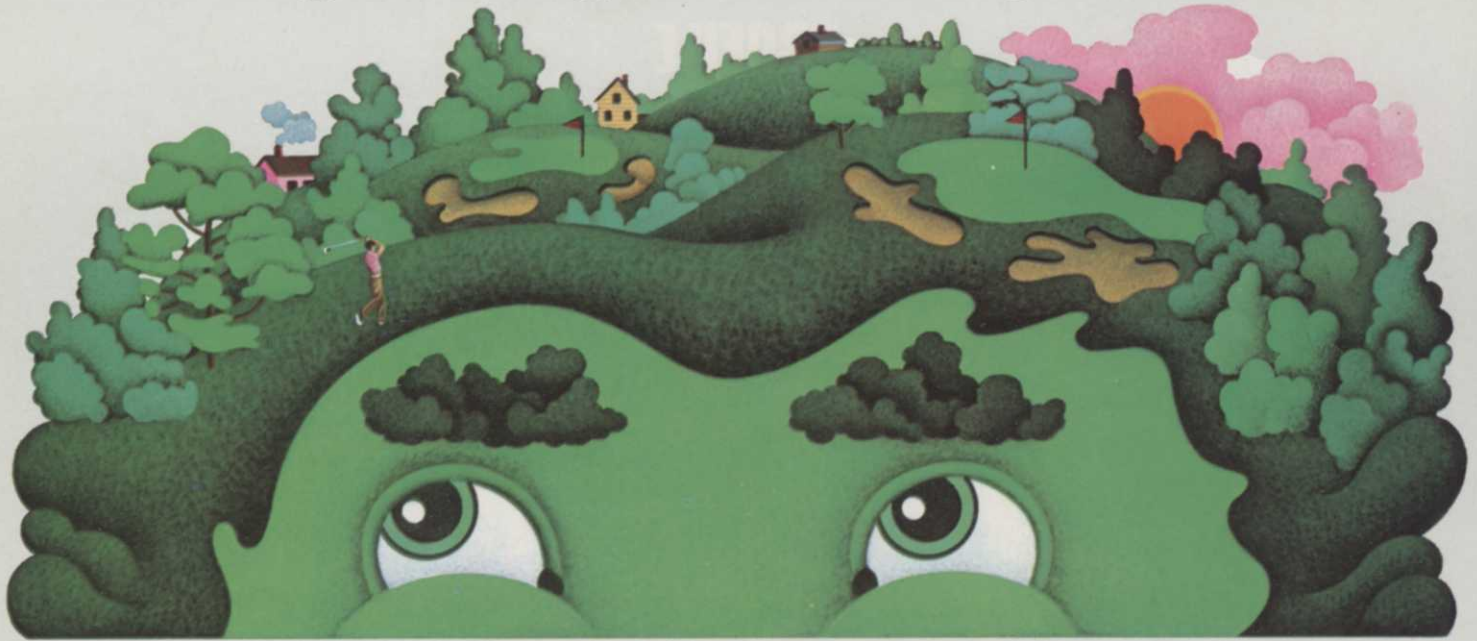


WT&T
PROFILE

THE CONTRACT APPLICATOR MARKET



Roundup®. There's no better grooming aid for unruly turf.

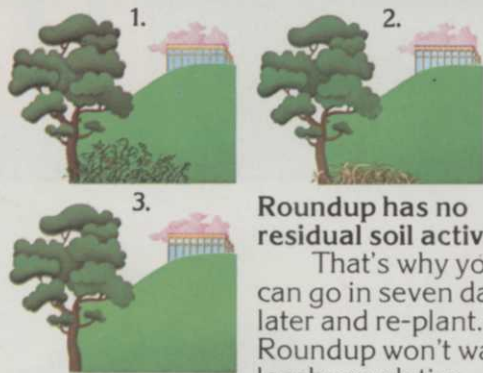


Roundup® belongs in your turf renovation program.

Renovation of a weedy fairway, sod farm or other grassy area used to be a laborious and time-consuming chore, but not any more.

Not with Roundup® herbicide by Monsanto. Because one application of Roundup will control many annual and perennial weeds, yet allow you to proceed with tillage and planting operations as soon as seven days later.

Roundup also makes sense wherever treatments for grounds maintenance are called for. One man with Roundup in a backpack sprayer can replace many of the herbicides and frequent repeat treatments that are often necessary.



Roundup has no residual soil activity.

That's why you can go in seven days later and re-plant. Roundup won't wash, leach or volatilize from the treated area to injure desirable vegetation. Naturally, normal precautions should be observed to avoid spray drift.

Roundup gets to the root of the problem.

Including many of your toughest vegetation problems, like: bluegrass, bermudagrass, quackgrass, bindweed, johnsongrass, fescue and vaseygrass.

Can you afford to let another season go by without Roundup in your turf renovation and grounds maintenance programs? Your local chemical dealer is the one to see for your supply of Roundup herbicide.



"Translocation" is the key.

Roundup is applied to the weed foliage, absorbed through the leaf surface, and "translocated" throughout the entire plant. In this way, Roundup destroys the entire weed, including the roots or rhizomes.



There's never been a herbicide like this before.

Monsanto

WEEDS TREES & TURF SURVEYS THE CONTRACT APPLICATION MARKET

What types of contract chemical application service does your company provide?

Type of application	Percentage performing this type of application
Residential lawns	70
Commercial property	68
Industrial property	56
Municipal	14
Agriculture	13
Utility Rights-of-way	13
Nurseries	13
Golf courses	13
Orchards	11
Tree farms	8
Highway rights-of-way	8
Railroad rights-of-way	7
Sod farms	5

WEEDS TREES & TURF conducted a readership survey of our readers involved in the contract applicator business. Of those readers, 87% were involved in ground application of chemicals. Six percent did aerial application and seven percent were involved in both ground and aerial.

We found that our readers in this category handle approximately 3,000,000 accounts, covering some 380,000,000 acres. The annual gross revenue from contract spray application was projected to be 921,000,000. The median was \$40,000 in a range of answers from \$300-\$10,000,000.

The businesses themselves ranged in age from new to 70 years, with the average age being 17 years.

Most of these businesses have 1-3 employees, however, some employ as many as 200. The average annual salary of these people was \$12,640. This figure was inflated somewhat by single owners of companies, who tended to pay themselves very well. The median salary was \$10,500.

Sixty-eight percent of the employees were company trained. Only 22% of the employees were college

Type of Applicator	Percentage of contractors using that type
Liquid tank spray truck	74
Dry spreader	48
Boom sprayer	23
Mistblower	10
Aerial	10
Hand sprayer	3

WTT SURVEY

trained, with 3% being trained by the state extension service and five percent trained by the owner of the company, himself.

In asking how many full-time employees had passed a state or federal certification test for restricted chemical application, we got answers most often in the range of one to five. There was no pattern to the responses, however. Some com-

panies would have no certified employees, some would have all certified, some had only a fraction certified.

Equipment value was projected to be \$504,000,000 with a range of \$200 to \$4,000,000 worth of equipment owned by any one contractor.

Annual chemical expenditures are projected as \$205,486,000 or roughly 22% of gross revenue. An-

nual equipment expenditure projections could not be made due to a lack of responses to this question. The varied periods of useful life of equipment also made such a projection unreliable.

Survey results were obtained by estimating the contract applicator market at a modest 4,333 firms.

EQUIPMENT	Small Companies		Medium Companies		Large Companies		Total	
	No. Owned	No. Plan To Buy	No. Owned	No. Plan To Buy	No. Owned	No. Plan To Buy	No. Owned	No. Plan To Buy
Fixed Wing Aircraft	—	—	270	60	730	90	1,000	150
Liquid Chemical Applicators	4,360	760	1,600	210	6,600	240	12,560	1,210
Granular Chemical Applicators	3,640	360	1,790	120	1,500	270	6,930	750
Spray Tanks	3,060	1,060	1,640	60	2,240	330	6,940	1,450
Hose Reels	2,670	520	1,450	210	1,900	330	6,020	1,060
Complete Power Unit Sprayer	2,180	240	450	—	2,550	270	5,180	510
Pumps:								
Centrifugal	790	120	2,550	60	1,820	425	5,160	605
Piston	2,940	300	1,200	90	3,120	60	7,260	450
Utility Trucks	2,760	580	700	120	1,490	90	4,950	790
Tractors:								
8-12 H.P.	970	—	490	30	120	—	1,580	—
21-60 H.P.	970	—	180	30	1,360	—	2,510	—

Chemical Supply	Small Company Annual Purchases	Medium Sized Annual Purchases	Large Co.	Total
Dry Fertilizer	\$33,000,000	\$22,700,000	\$ 4,000,000	\$59,700,000
Liquid Fertilizer	8,800,000	3,800,000	6,600,000	19,200,000
Post Emergence Herbicide	13,600,000	5,500,000	36,000,000	55,100,000
Pre-Emergence Herbicide	5,170,000	7,300,000	16,500,000	28,970,000
Insecticide	12,900,000	4,700,000	17,400,000	35,000,000
Systemic Fungicide	350,000	354,000	175,000	879,000
Contact Fungicide	711,000	1,126,000	4,800,000	6,637,000

Small companies are those with an annual gross revenue of up to \$75,000.
 Medium companies are those with an annual gross revenue ranging from \$75,001 up to \$250,000.
 Large companies are those with an annual gross revenue of over \$250,000.

SMITH'S LAWN & TREE INC. RESIDENTIAL, COMMERCIAL CONTRACT APPLICATION

Three years ago, Smith Lawn & Tree Co., Inc., Kansas City, Missouri, was awarded the grounds maintenance contract for everything but the mowing at the Harry S. Truman Library and Museum at nearby Independence, Missouri.

"Not only because it's a big-money contract, we were happy to land this job for several reasons" said Jim McGee, president. "One, a job of this size puts us on our mettle

to perform at peak levels of skill. In gunning for the ultimate in results, we must use the best materials and our best people. Two, it's the kind of prestigious showplace-type grounds maintenance project that is a feather in the cap of any maintenance outfit. You say a lot to a prospect when you tell him that among your jobs is the Truman Library.

"In all phases — lawn, trees and shrubbery — the library job must be first-class," he explained. "Yet the problems are sometimes unreal. For one thing the library is open seven days a week and tourists are constantly strolling the grounds. That means we must exercise care in spraying. We have to spray on a piecemeal program, hitting the areas where there are no crowds when we can.

"In a job like this, as in all others, you follow safe spraying practices, putting materials on the grounds with minimum harm to plants, human beings and animals. We're a safety-oriented company and we've worked hard to earn a reputation for proper spraying."

In a discussion of the Truman Library account, which embraces seeding, spraying, fertilization, aeration and trimming on the 15-acre site, McGee stresses that, in the struggle to get everything ship-shape, sometimes something gets overlooked. His briefings to employees who work the library jobs stress the need to keep on the alert for any special problems, to employ preventive medicine.

But every-now-and-then something slips up and gets even a well-established 32-year-old company in a pickle. What happened at the Truman Library was that one day checking out the trees McGee spotted a heavy infestation of bagworms on a set of 40 foot Locust shade trees in

Jim McGee (left), president, goes over the details of a job with foreman Keith Hubbard. Some landscape design is performed for commercial customers.



SMITH'S LAWN & TREE

the parking lot. To remedy the situation, employees trimmed and pruned the areas in which the bag-worms were attached.

"It's funny, and a source of embarrassment," said Mc'Gee, "but our people were so busy doing a good job trimming and keeping up the shrubbery and grounds they had forgotten to look up. But this is a learning process for our people and you can bet they'll look up from now on and spray before trouble occurs."

You won't find many such incidents in the tenure of the company. With a customer mix that runs about 80% commercial and 20% residential, the firm has enough repeat and referral business to keep the volume on a constantly high plateau. Among the jobs the firm handles year after year are some of the leading companies in mid-America — AT&T, Standard Oil Company, and Fairyland Amusement Park. There are retirement centers, hospitals and a cluster of city and government projects in the hopper.

The firm is strong in the tree removal facet and when a tornado struck Topeka, Kansas, a few years back, Smith's was called upon to tackle some of the toughest tree removal projects created by the tornado.

The business was started by McGee's mother as a lawnmowing specialty operation. Jim joined the firm ten years after it was founded in 1946. The company was incorporated in 1966. Growth shot up and continues to edge upward each year. What started as a \$2,000 annual volume has been parlayed into about a quarter-million dollar business. Jobs range from 5,000 square feet to 25 acres.

McGee feels that the strength of the business is in its do-it-all concept, including crabgrass control, fertilization, and spraying trees and lawns against all types of insect infestations. Among recent customers are a number of home associations where treatments on parkways and islands are a main undertaking.

Tree spraying, trimming, and removal have long been Smith's specialties. The firm's equipment inventory includes a tree mover, stump remover, aerial platform-trailer (a \$75,000 rig), log loaders and 12 trucks ranging from station wagons to 2½-ton vehicles.

For spraying the firm has 50-gal-

lon and a 100-gallon fiberglass Myers tanks operating with gasoline-powered pumps and motors and a 300-gallon tank made by the Kim Manufacturing Company in Kansas City. The latter was custom-made for the firm, is built of aluminum, and builds up to 400 psi. It frequently doubles in brass as a root feeder.

In hand-picking the company's roster of chemical products, McGee says he has one over-riding guideline: Stick with the safest on the market. Included on the agenda are Sevin, Dursban, Dacthal, Dyrene, Dactonate, and Diazinon.

Only four people in the fulltime organization of ten employees are authorized to handle the spraying detail. They are licensed sprayers in the states of Missouri and Kansas. Kansas City sits on the border and licensing in both states is necessary since the firm has customers on both sides of the line. The Kansas licensing laws, according to McGee, are the most rigid and detailed and he thoroughly approves of them.

"In our company," he says, "we go to unusual lengths to follow safe spraying procedures on trees and lawns. It seems to be a tendency of sprayers to over-dose and we work on that problem. Yet I recognize that under-spraying can be a problem, too.

"In this area, we've had to battle the Elm leaf beetle the past four or five years and these are nasty little insects which cause severe defoliation of the trees. Sometimes there is a tendency to jump in and spray these trees with a chemical when merely hosing them down with water will alleviate the situation. The hosing-down treatment also works on aphids sometimes. We'll use it in place of a chemical if we feel it will get the job done."

Keith Hubbard, foreman, whose experience embraces stints with Lawnmaster, Inc., a chemical spray outfit, and managing a store of the Earl May Seed & Nursery for six years, is also a strong advocate of safe spraying practices. He feels it is important to exercise care in measuring the quantity of materials used, in establishing the application rate, and the pressure of the application.

He says: "With our company, it is standard practice to fully inform each customer of the treatment measures we're taking on his lawn, trees

"It is very essential to eliminate any communication gap between us and the customer" . . .

or shrubbery. This applies to both commercial and residential customers. We want them to know exactly what materials we're using, why we selected them, any special problem they entail and, most of all, we want them to understand their role in achieving optimum results. That means making any followups that will help results.

"It is very essential to eliminate any communication gap between us and the customer," he believes. "We try to lay everything possible on the line to the customer. The tendency with some companies is to go out and lay down a spray, take off and then bill the customer. That's it. Sometimes they leave a written message in the mailbox giving brief information on the treatment. We want more than that — we want verbal dialogue so we can answer any questions the customer may have."

A stock of chemicals is purchased in the spring to kick off the season and the remainder is purchased on an as-needed basis for the rest of the year. Though he agrees he could achieve economy in buying by placing large pre-orders, McGee doesn't capitalize on it because he doesn't care to maintain large back-up inventories. The products are bought from four suppliers in Kansas City and any items needed can be delivered within one or two days or picked up in 30 minutes. The products are stored in a dry room with a locked door with warnings to stay out and "Poison" posted on it. "We don't want to experience any problems with fire or break-ins by keeping large stocks of chemicals," McGee said.

Both commercial and residential customers are billed once a month. Though some customers are serviced once a week, only monthly billings are made.

In pricing and estimating jobs, McGee says he simply computes the amount of space involved with the materials and arrives at what he feels is a reasonable fee. In many instances, he is able to eyeball the site and determine whether it runs 5,000 or 10,000 square feet. He points out that the space involved isn't always the key in estimating the price of a commercial job. Whether large equipment, which will permit handling the project more efficiently and quickly, can be moved in is a big determining factor.

Regular attendance of employ-



This 300-gallon spray tank, custom made for the firm by a Kansas City manufacturer, is rigged with motor and pump for 400 pounds of pressure.

...the tough one,
for total vegetation control!

ELANCO



- Less pounds last longer !
- Gets most tough weeds and most brush others leave behind !
- Gets most tenacious vines, brambles and woody plants !
- Is remarkably resistant to leaching and lateral movement !

Acceptability!

For the past several years, SPIKE has been tested in actual field situations with commercial equipment. When applied in accordance with label directions, SPIKE will result in a high level of long lasting total vegetation control.

Test plot demonstrates dramatic result of single application of SPIKE. ▶



Durability!

Commercial field use has demonstrated that at recommended application rates SPIKE remains effective longer than most other products tested, and permits lower application rates in succeeding years. Long-term control prevents regrowth for extended periods of time.

Missouri test plot treated with SPIKE shows residual control 2 years later! ▶



Capability!

Five years of development and more than three years of extensive nationwide on-site testing in non-crop areas have proven SPIKE

highly effective in the control of a wide spectrum of vegetation, including many of the so-called hard-to-control species. SPIKE effectively controls many tough perennials, as well as many woody brush and vine-type species that escape other control products.



Dead common mullein along right-of-way is a dramatic example of SPIKE's effectiveness on tough-to-control species.



Commercially-applied test plot demonstrates SPIKE's ability to eliminate persistent varieties such as Bouncing Bet.

Suitability!

Because of SPIKE's features

- Less pounds last longer
 - Gets most tough to control weeds and brush
 - Gets most tenacious woody vines and brambles
 - Is remarkably resistant to leaching and lateral movement
- .. SPIKE belongs in your total vegetation program.

"Before" and "after" views of the same test plot clearly demonstrate SPIKE's ability to control brush and woody vegetation. ▶



Dependability!

... that's what all of SPIKE'S abilities add up to. SPIKE is a proven total vegetation control product that is truly tough on weeds! What's your tough vegetation control problem? Whatever it is, consider SPIKE an essential weapon in your chemical arsenal. Contact your ELANCO distributor for full details on SPIKE ... the tough one for total vegetation control!

ELANCO

SPIKE is a registered trademark for Elanco Products Tebuthiuron

Circle 103 on free information card

SMITH'S LAWN & TREE

ees at seminars, schools and other symposia designed to further their education is a key element in the McGee success formula. Four members of the organization, including Keith Hubbard, foreman, and Bill McGee, son of the owner, received schooling in arboriculture sponsored by Kansas State University. This qualified them as certified arborists in that state.

Test plotting is one of several services which has enhanced the firm's reputation with both commercial

tial for business in the Kansas City market, says Hubbard, is "fantastic." He added, "It keeps zipping up." The company's ability to perform comprehensive lawn tree and shrubbery care on residential and industrial sites offers a bit of oneupmanship over others in the field, he feels. He points out that the big tree trimming, removal and spraying equipment enables the firm to tackle jobs others lack the capabilities to handle.

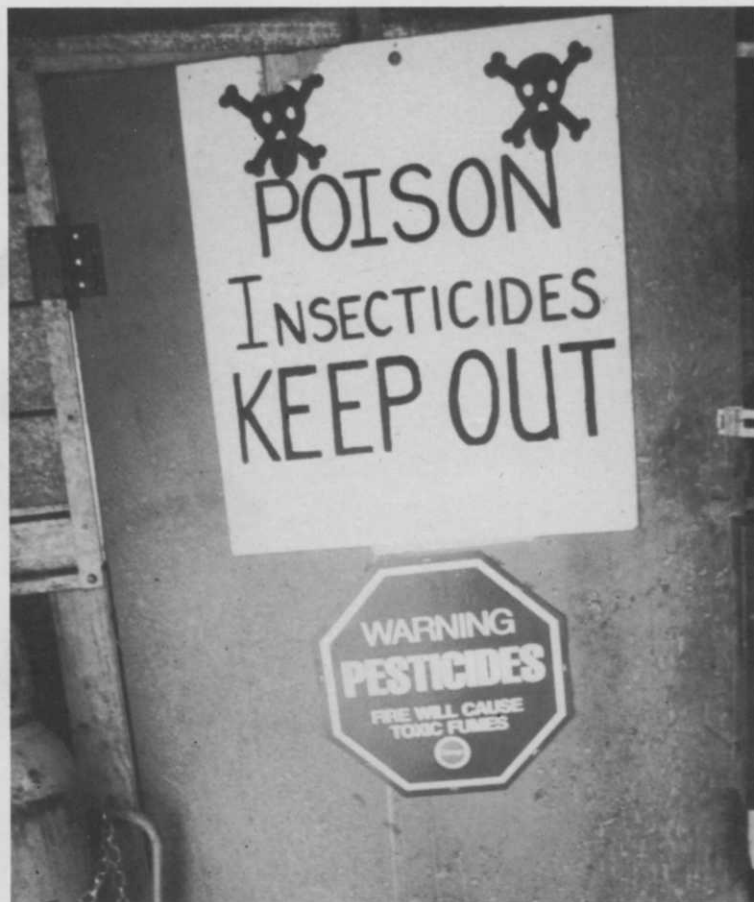
"Word of mouth advertising helps keep the machinery busy for us," he said. "We got a new apartment customer the other day, we did his work and then a few days later recieved a call from another apartment owner who had been referred to us by the first one. A beautiful chain reaction is triggered when you do quality work." "The potential in this area is unlimited," Hubbard says. "We haven't started to scratch the surface."

Problems? One big one looms up prominently, says Hubbard. It centers on a labor situation. It isn't so much the shortage of good help that bothers him, he says, because he feels he could hire top professional people if he could afford to pay them decent wages. The problem he says, focuses on the matter of customer resistance to a level of fees that permit paying salaries to topnotch people.

"This is a hassle," laments the still-young Hubbard. "To stay competitive, we have to price competitively. That seems to mean we can't charge high enough fees to pay for good labor. That means we settle for something a bit under the best and that, in turn, means we have to do one helluva job of training our people. And that sure doesn't make this business any more fun. It's one of the big challenges, buddy, it really is."

The words get around that the firm is equipped with that big aerial platform rig and this leads to calls ranging from rescuing cats from the tops of tall trees to replacing light bulbs in the ceiling of the American Royal Building, one of the city's auditoriums. Answering these calls has made the company many friends.

"You'd be surprised how many city jobs dropped in our laps because we used that big giraffe to replace those light bulbs in the towering ceiling of that building," Hubbard smiles.



Extreme care is exercised in handling all chemicals and the dry room in which they are stored is kept locked and posted to identify contents and eliminate careless handling.

and residential customers, says Hubbard. He's a staunch believer in the value of marking an area off in squares, measuring them carefully, treating each with a different chemical, leaving one square untreated, and then making comparisons of the results obtained. He makes careful notations of the results, takes photographs at various stages and assembles a file on the plotting. It's a routine he follows frequently on both residential and commercial grounds.

A one-word sum-up of the poten-