

# Texas Know-how Creates Homemade

By PAULINE NEFF

**A** LOT of ingenuity on the part of a Dallas nurseryman has turned a used gasoline tank and a small investment into an all-purpose spraying device. Placed on a two-ton truck, it furnishes him with five different sprays or fertilizers on the job at the turn of a valve.

"Our spray truck is the most profitable piece of equipment in the business not only in the

amount of time saved by spray personnel—but because it looks professional. Its appearance brings us lots of business," said Jack Jones of Southwest Landscape Company.

Total cost was \$5,000 including the \$4,000 paid for the truck. Jones said the total cost could be cut to as low as about \$1,000 by using a secondhand truck.

"I wouldn't take three times

what I paid for it, now," Jones says.

Ten years ago Jones used trailers with individual motors for spraying. This meant he had to go back and forth each time he needed a different spray. And the motors were constantly breaking down.

Then he hit on the idea of using an old gasoline tank for a spraying device. He learned these tanks are built with from two to five compartments—and that oil companies sell the old ones at junk prices. He bought one with five compartments—one 250-gallon, two 200-gallon, one 150-gallon and one 175-gallon compartment. Then he asked a spray expert for advice on how to build a spraying device.

"He said it couldn't be done," said Jones. Undaunted, he set out to prove it could.

After paying \$100 for the used tank, he bought a two-ton truck. Next he bought a Myers Triplex pump for \$650.

"I used a pipe-fitter, a welder, a sand-blaster, a garage mechanic—and it took me 2½ months to finish it," Jones reports. "But when we got through, it worked—and I've never had any trouble with it."

The power take-off was tied onto the truck's jack-shaft by a hanger bearing. The pump was mounted at the back of the cab. Lines are tied in through a system of valves at the back of the truck.

When M. Doster brings Southwest Landscape's spray truck into a neighborhood, other calls for service follow because of the varied maintenance jobs the single rig can perform.



## Spray Rig

The pump can produce from 10 to 1000 pounds of pressure. A mechanic was used to set the rpm's on the truck motor so that the pump works efficiently while the motor idles. The mechanic marked this setting on the carburetor.

Jones uses a 300-foot hose and a Bean pistol-grip gun. With this length hose he doesn't ever have to put the truck in a customer's yard. And when he wishes to change sprays, he simply shuts off one valve and opens another.

Liquids are carried in saddle pockets located on the side of the tank. Power equipment is carried at the rear end of the tank where it can be locked.

Jones fills the compartments with water each night by running hoses into the openings located at the top of the tank. This takes about 30 minutes, though it could be much faster using a fire hydrant. The truck has another valve which may be opened to create a suction and draw up water by closing the other valves at the same time—though Jones doesn't often use this method.

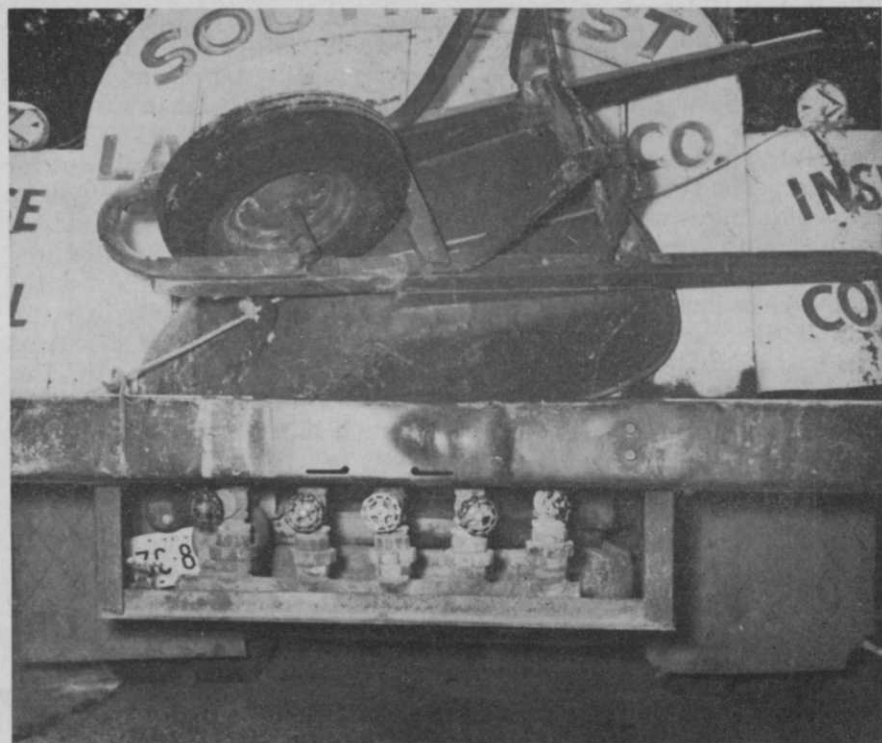
Maintenance costs have been minimal. Basically he keeps the pump oiled and the motor greased. He has the motor overhauled once every two to three years—as opposed to the once-a-month overhauls on the little motors he previously used. The

*(Continued on page 22)*



**A 300-ft. hose allows sprayman Frank Guerrero to spray entire yard without actually putting the truck on customer's lawn.** Guerrero has also been trained to help with tree maintenance jobs.

**Five valves at the back of Southwest Landscape's truck control 5 compartments in the tank.** Tools are carried inside the old tank (note doors).



## Texan Builds Own Rig

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motor consumes about eight or nine gallons of gas daily.

A filtering unit on the end of the tank between the valves and the feeder lines must be cleaned out regularly. Sleeves and washers on the pump have been replaced twice in ten years. Once when an employee failed to drain the lines in the winter time, Jones had to replace the head on the pump because it froze.

### Tank Easy to Keep Up

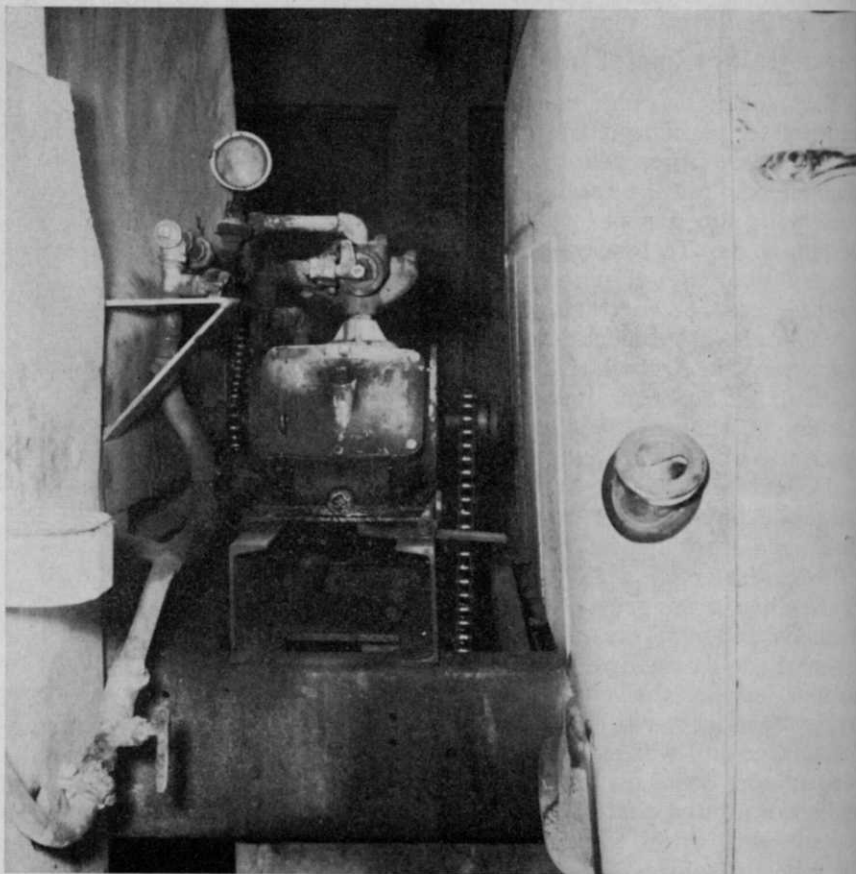
There's no maintenance on the tank interior, either. Jones has used the truck for oil sprays, dormant sprays, insecticides, and fertilizers, though he does not use it for weedkillers for fear of mixing them with other sprays. He never has to clean out the compartments or paint them.

"The tank requires no coatings. I've been using this one ten years—and it was a used tank to begin with. I've never had any trouble with it—though I did buy a new truck three years ago," said Jones.

An agitator operates off the power take-off in the number-one tank. This is used for powder insecticides. The other four tanks have no agitators. As they are used for liquids which stay in suspension, agitators are not required. Spray personnel simply mix these liquids by inserting the spray gun into the compartment. This may be done several times while the work is in progress if necessary.

Jones has found that when a compartment is almost empty, he must let the last 10 gallons run out on the street rather than use them. That is because materials from other compartments may be sucked into the hose as the tank becomes empty.

M. Doster is manager of the lawn service for Southwest Landscape. The truck provides him with a piece of equipment that can be used as an all-purpose tree and lawn service. Spray employees are trained to



Pump is located in open space between truck cab and the tank.

do tree surgery as well as spray and fertilize. Thus when a customer calls Southwest Landscape, he knows he can get the full range of lawn service done quickly and efficiently.

By using the powerful pump, Doster can provide customers with a unique service—subsurface irrigation and fertilization of trees. This is done by forcing liquid fertilizer at 400 pounds of pressure through a special fitting which may be attached to the hose. The fitting is a 1½-inch pipe with split ends which may be plunged for about a yard's depth into the ground.

Special Dallas lawn problems have been case borers in pecans, web worms, girdle beetles, cut worms, chinch bugs, and lawn fungus. Doster can and does take care of them all with one trip.

### Complete Lawn Job in One Trip

Using the spray truck he can spray an entire 100 by 200-foot lot with fertilizer in 15 minutes. He turns a valve and can spray all shrubbery, including the tall-

est trees, in another 20 to 25 minutes. Thus his crew can complete the whole job—surgery, spraying, and fertilizing—in one trip.

Sometimes Southwest Landscape has completed a job so fast that the customer doesn't believe everything has been sprayed. At times Jones has had to add a pound of lime to the spray solution to leave proof on shrubbery that he has completed the job.

In training employees to use the truck, Jones says it is important to make them "valve-conscious." Valves and compartments are both numbered so that employees won't make mistakes. Originally, Jones put a different coloring in each compartment so that employees could immediately tell the difference. Employees must be cautioned to let the last ten gallons of a mixture drain out to avoid mixing with another spray. Sometimes an employee may leave a valve half on and cause a spray burn.

Jones has used a water meter to indicate the amount of spray

consumed, but this has not been too successful except in liquid mixtures. Use of the meter with powder mixtures required frequent and time-consuming cleaning of the meter. Jones used the meter only for a year until employees learned to estimate the amount of liquid they had used.

Red lettering on the white truck advertises the full range of lawn and tree care provided by Southwest Landscape.

"The size of the truck and the signs on it attract attention of other customers in a neighborhood—and this attention has paid for our investment through added contracts," Jones says. "This truck looks like we're properly equipped to do the whole job—and using it, we are."

### Stockbridge to Help Fill Need For Greens Superintendents

Increase in construction of new golf courses and retirement of competent superintendents has created a shortage of golf course superintendents.

To meet this need the University of Massachusetts has created the Stockbridge School of Agriculture. Incorporated into the University's College of Agriculture, Stockbridge offers a highly specialized faculty, a well-rounded curriculum, on-the-job training, and practical extra-curricular activities, all contributing to the training of qualified golf course superintendents.

According to Joseph Troll, turf instructor in the plant and soil sciences department of the University, the faculty teaches at three levels—graduate, undergraduate, and Stockbridge. This permits a larger, more specialized faculty than would be the case if Stockbridge were not located on the university campus.

"Stockbridge is considered a technical school and not a vocational school," Troll says. He also notes that "because of the school's high standards and the curricula offered, credits granted may be used toward a four-year program at many universities."

### Water-Powered Valve Used in John Bean Sprinkling System

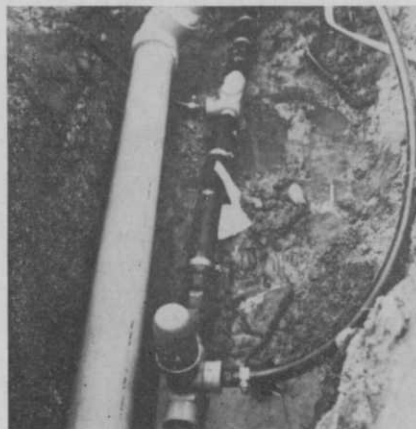
The new Sequa-Matic valve, powered by the force of water in a John Bean sprinkling system, eliminates the need for solenoid valves to control water distribution in circuit-by-circuit systems, John Bean Div., FMC Corp. says.

One electrically-operated solenoid valve and the required number of Sequa-Matic valves, make possible a simple, low-cost and completely automatic lawn and garden sprinkling system. The new valve is designed to operate with varying water pressures, Bean reports.

The Sequa-Matic installation consists of one solenoid valve, a timer, and the required number of Sequa-Matic valves. One Sequa-Matic valve serves two circuits, two serve three circuits, etc.

The timer may be set for the day or days of the week sprinkling will occur, and the length of time each separate circuit will operate. Sprinkling time for each area may be regulated according to need. The timer feeds this information to the single solenoid valve, which is opened and closed by the timer.

The solenoid valve releases the flow of water to the sprinkling system with the first Sequa-Matic valve directing water to the first circuit. After the first circuit has sprinkled the pre-selected length of time, the solenoid valve, signaled by the timer, interrupts the flow of water for a few seconds. The



Using the Sequa-Matic valve in a circuit-by-circuit sprinkling system requires the use of only one solenoid valve for the entire system, John Bean says.

first Sequa-Matic valve, reacting to the lack of water pressure, closes its sprinkling circuit, automatically opening the line to the second circuit. This process is continued until all circuits have performed.

The Sequa-Matic valve will work with all types of sprinkler heads, is adaptable to most sprinkling systems, and can be installed with either metal or plastic pipe, the company says. Complete details will be sent to those who write John Bean Div., FMC Corp., Lansing 9, Mich., or San Jose, Calif.

### Oregon Weedmen Meet Nov. 5-6

Plans are nearly complete for the annual Oregon Weed Conference, set for Nov. 5-6 at Salem's Merion Hotel. Topics on this year's agenda range all the way from aquatics to turf, from forest land weed control to cereal crop weed problems.

A record crowd is expected, according to publicity chairman Ronald L. Collins.

"Weed Control in Horticultural Crops" is on tap as a panel discussion, with Clackamas County Agent Bob Smith as moderator.

A panel on "Industrial Applications of Weed Control" will be chaired by contract applicator Earl Parker. The group discussion of forest land weed control, with Columbia County Agent Don Wolrod, will follow.

Four individual lectures on current weed science topics are planned by a quartet of Oregon State University staffers. In the lineup are: Dr. Norm Goetze (Turfweeds); Dr. Bill Furtick (General Weed Control); Dr. Arnold Appleby (Weed Control in Cereal Crops); and Dr. Carl Bond (Weed Control in Fish Ponds).

How to control weeds in Oregon's important grass seed crops will be USDA expert Orvid Lee's topic. Program will be wound up by a panel on new products from industry, with Miller Products Company's Keith Sime holding the gavel. More information is available from Collins at 1387 N.E. Arrowwood Dr., Hillsboro, Oregon 97123.