Solving the Drift Problem

Chemical drift problems have limited the number of operating days for most highway spray crews. New additives are extending operational time and insuring on-target spray.

SEVERE WIND and drift problems have long plagued highway spraying crews, who must not only battle Mother Nature's breezes, but must contend with winds generated by passing traffic as well.

In an effort to help reduce these drift problems, the Tennessee Highway Department last year conducted an evaluation of a drift inhibiting additive for their median and roadside spraying operations. And they report successful and unexpected benefits.

"Drift control is a problem that has always been with us," says Ned Crenshaw, regional landscape superintendent for the Tennessee Highway Department. "Drift has been a significant factor in reducing the number of days we can operate each year because of stiff breezes, and it's also caused a potential safety problem from chemicals being blown onto passing vehicles and onto nearby property.

"So we decided to do something about it."

"Tests were conducted with Lo-Drift, an Amchem product, which was mixed and applied with both herbicides and insecticides.

"We found that we were not only able to control drift, but were able to spray on more windy days when we normally couldn't have," says Crenshaw. "This meant we could get more spraying done in a year's time," he adds.

Crenshaw said that changes in weather previously limited some of their spraying operations, but that the use of a drift inhibitor has extended their operational time by several days.

"We have always wanted to make a grand slam on thistles with 2,4-D during the spring when they are most vulnerable," he says. "But during that time of year the wind is hard and the number of days we could spray was limited." He says with the help of a drift additive his crews were able to apply more 2,4-D this year during that important spring season.

One of the biggest problems of roadside spraying cited by Crenshaw, is hitting target areas with their chemicals.

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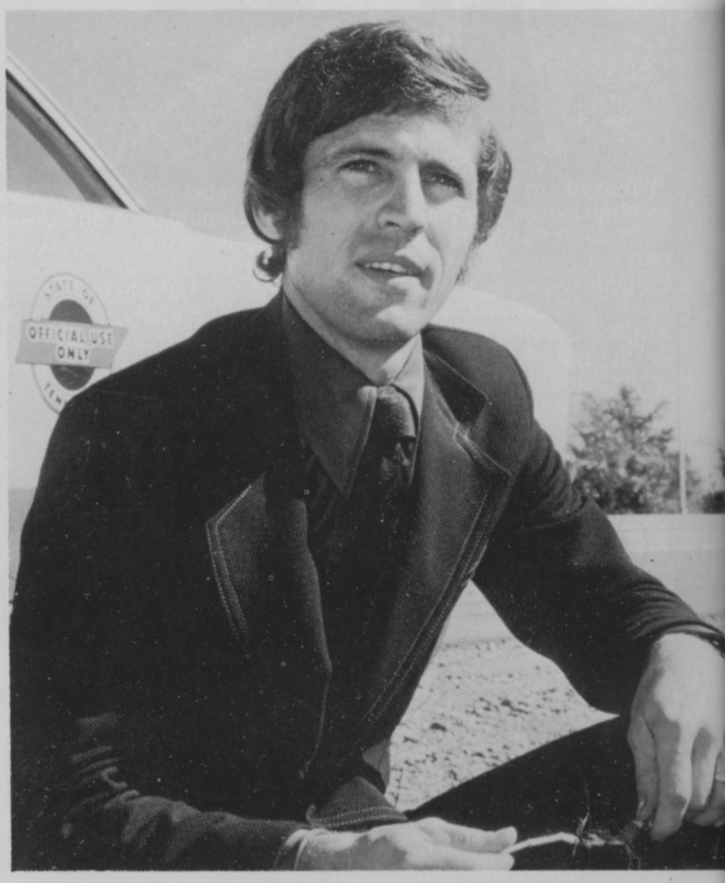

Ned Crenshaw, regional landscape superintendent for the Tennessee Highway Dept., says a drift inhibitor allowed his crews to spray roadsides and medians more accurately, without having to worry about drift.

There's a trend back to low-cost three-wheelers for some types of work. Here a groundsman at Oakmont Country Club in Glendale, California pulls a long hose from one job site to another.

WHEELS *(from page 22)*

price they have some conveniences such as electric starter, automatic shift torque converter, disc brakes, high flotation tires and a 10 cubic foot bed. Optional are: reverse transmission, dump bed, larger tires, and lights. Also available are: an LP conversion model, extra seat and turn signals. Top speed is 18 miles per hour. The manufacturer is HMC, Inc. in Torrance, California.

Grounds bosses react with interest to the life cycle value analysis technique now being applied in so much government buying. It pinpoints the true annual cost of a product by adding up the original cost, plus service and maintenance costs, and then dividing the total by the number of expected years of service. There was general agreement that the life cycle value of the new type of low-cost three-wheeler utility carts worked out about as follows:

$900 original cost divided into

5 years expected life of cart	$180 per year
Oil and gas (heavy use) @ 60¢ per day for a 6-day week	180 per year
Engine replaced once ($125 into 5 years)	25 per year
Maintenance and service	70 per year
Complete cost per year for heavy use	$455

A life cycle cost per year for the more expensive three wheelers, said users, would vary substantially according to the make of cart. There was general agreement that it would average just a few hundred dollars more than for the above low-cost carts. Over a five year period this adds up and warrants including some low-cost carts in a vehicle pool.

Larger savings, of course, come when any type of cart carries a man (and tools) who otherwise would walk or be chauffered; then labor savings could well run over a thousand dollars per year per cart. □

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"When we are spraying along roadsides, we have wind movements created by traffic flow. A passing truck will create enough wind to knock over "men working" signs, or blow the hat off a man working along the side of a shoulder," says Crenshaw. "We would lose a lot of chemical from our target area because of this, and a drift inhibitor helps minimize this problem," he adds.

Crenshaw says his crews are getting a better kill on weeds with a drift inhibitor included with the sprays. "We are spraying the same amount of chemical, but we are doing a better job because we are getting more chemical on the target area," he explains.

"Another surprise we didn't expect is that we also seem to get a better kill with our herbicides after a rain with a drift additive included," says Crenshaw. "The herbicides tend to stick to the plants better."

Crenshaw said that if it would rain in the afternoon after his crews had been out spraying all morning, most of the work had been wasted. The chemicals would wash off the plants. "But since we have been using a drift additive, rain hasn't seemed to affect us any," he says.

The biggest value of adding something to control drift is the extra margin of safety, says Crenshaw. "You can put the chemicals where you want them in spite of winds when we normally wouldn't have been working."

"Before we began using Lo-Drift, we would not spray anything when the wind had reached six mph. But with the additive we can spray in winds of 10 to 12 mph," he explains.

Crenshaw says there were many spraying operations that they couldn't do because of drift. "We never sprayed along roadsides where there was a danger of harming a farmer's crop with chemical drift. Once this year we accidently sprayed along a man's tomato patch with 2,4-5T where just the fumes from the product will kill tomatoes. But we had included a drift additive with the spray and we did not harm the tomatoes at all," he reported.

(Editor's Note: Amchem does not recommend spraying at high wind velocities.) □