



The Herbicide Market

CUSTOM APPLICATION

Editor's Note: Diamond Shamrock has been a leading innovator in the turf chemical business. Their herbicide, Dacthal, was one of the first selective preemergent herbicides used for the control of crabgrass and poa annua—labeled nearly fourteen years ago.

With the addition of other herbicides and Daconil 2787 fungicide, Diamond Shamrock has adopted a total market strategy when considering the turf market. This concept includes not only the golf course and recreational areas, but a major effort has been made by Diamond to offer products to the turf custom applicator.

One of the men at Diamond responsible for this marketing approach, and their entire turf product line, is Wayne Carruth. Wayne is 33 years old, a graduate of Mississippi State University, and has been turf products manager for 2½ years. In a recent interview, Carruth gave us his views on custom application and where he thinks this trend is headed.

WTT: How does the custom application in turf compare to the agricultural applicators?

Carruth: Custom application is an

established and sought after service in all agricultural areas of the United States. Economics and techniques have changed in agriculture to the point that a midwest farmer may hire a local custom applicator with a Hahn Hi-Boy to spray a post-emergent weed killer on his corn. A western rancher may hire an applicator with a converted World War II B-17 to spray range land. Both men getting the job done quicker, cheaper and, possibly, better than they could have done it themselves. On the other hand, custom application in the turf industry has trailed agriculture. The home owner and industrialists are slowly adopting custom application but few golf courses are utilizing it.

WTT: Why are golf courses slow to adopt custom application?

Carruth: There are only a few applicators offering this service to the golf courses.

WTT: Do custom applicators specialize, or does a lawn applicator also spray industrial areas?

Carruth: Some applicators cover

both, but I usually divide turf applicators into two groups — those that specialize in lawns and those that specialize in industrial weed control and bare ground — however, I feel they both have a tremendous potential for growth.

WTT: Is this potential equal?

Carruth: Not totally, but it really depends on the area of the country you are referring to. The industrial applicator has been around the longest. Factories, schools, apartment complexes, and even drive-in movies have a need for weed control or sterilization — but no knowledge of what chemicals to use, or how to apply them. The custom applicator can complete these jobs effectively and economically because he has the equipment and the knowledge. What's more, he doesn't endanger the environment because he knows which chemical to use and at the correct rate. Let's face it . . . he won't use any more than he needs to, because his costs increase if he over-applies.

The custom lawn applicator, however, has the biggest market potential. There are millions of acres in lawns across the nation, and the average home owner doesn't really know how to care for his lawn. Not only that, but he doesn't want to spend the time required to maintain good turf.

WTT: Do lawn applicators offer essentially the same service?

Carruth: No—some offer a complete program of fertilization, weed and insect control, while others offer only a partial program of spring fertilization and crabgrass control. In my opinion, it's the applicator that offers the total program that will have the greatest success. If a home owner cares enough about his lawn to buy a custom program, he wants it to look good all season, not just in the spring.

WTT: Why has the home owner waited until now to adopt custom application for his lawn?

Carruth: Again I'll have to say, the service hasn't been offered
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GOLF COURSES

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range from \$20.00 per acre up to \$55.00 or so per acre, per treatment, depending upon many factors. Those costing most per acre per treatment are usually regarded as least expensive in the long run. This is because (a) they have several times the residual control, thus requiring far fewer applications, (b) they control all major annual weedgrasses, not just one or two, and (c) they usually are the safest on the desirable grass, being the only ones actually registered and labelled.

Caution must be observed in using any preemergence weedgrass control. It should not be applied at all if the turf cover is mostly annual weedgrasses. The residual soil effect will prevent germination of any grass seeds planted during the working life of the product after application, including seeds of the desirable bluegrasses, bentgrasses, etc.

Where a fairway contains more than 25% *Poa annua*, best control would be via a new approach, such as with Po-San (Mallinckrodt) which, when sprayed on fairways (not watered in) kills no grass — not even existing mature *Poa* — and produces no preemergence effect or harmful soil residues. It simply stunts the existing poa and prevents its production of seedheads. Thus desirable grasses fill in. The poa crop the following year is prevented. After a few years the poa population is down to where preemergence materials may be used safely.

As to broadleaf weeds, these are normally best eliminated by post-emergence applications of one or more of the many herbicides marketed for years, such as 2, 4-D, 2-4-5-T, MCPP, dicamba and others. Recently, superintendents are using a 3-way synergistic combinations of 2,4-D, MCPP and dicamba marketed as Trex-San (Mallinckrodt) and Trimec (Gordon). These latter are so effective that the manufacturers assert, "We have yet to find a broadleaf weed that Trex-San won't control." A single treatment, properly applied, will safely control most broadleaf weeds from any fine turf, and at the same time destroy the seed-producing capacity of these weeds, thus greatly reducing the likelihood of a serious infestation the ensuing year.

Further, a Trex-San or Trimec application is inexpensive — about \$4.50 to \$5.00 per acre. These materials are systemically absorbed through weed leaves, and thus should

not be watered in. One application controls all emerged weed plants. A second application is not needed until weed seeds germinate and produce new plants.

Figuring a single preemergence treatment in early spring and another in fall, along with roughly two applications per year of a post-emergence broad-spectrum broadleaf herbicide, the turf manager can readily devise his own program to eliminate weeds and weedgrasses, and calculate his "per application per acre" cost. Above all, he's sure his costs over the first few years will greatly diminish during succeeding years. As the weedgrasses and broadleaf plants are eradicated and replaced by fine turf, fewer weeds will have the opportunity to invade desirable turf areas. Thus, less frequent weed control applications are needed resulting in lower weed control costs. It is axiomatic that the best weed control is a strong stand of healthy turfgrass.

The golf course weed control market is nationwide. However, it is more strongly concentrated in the major population centers, because the number of golf courses tends to relate to such factors as numbers of people in the area, general affluence (or lack of it) of those people, and so on. Weather, too, determines not only golf course concentration, but often golf course quality and length of playing season.

In the more affluent Northeastern states, for example, there may be an 18-hole equivalent course for every 11 or 12 thousand people, whereas in some of the less affluent southern states there might be only one course for every 35 or 40 thousand people.

Further, the ravages of winter in northern states may limit the length of the playing season to two or three months per year, while courses in the milder climates of the south will be in play year-round.

This should be kept in mind in assessing market sizes and characteristics to determine weed and weedgrass control opportunities.

EQUIPMENT

Weed control application equipment should normally be of the boom type, with adequate pressure to drive the spray solution into the turf. Boom sprayers in this usage are particularly important. They produce little or no drift, which is characteristic of the high pressure gun sprayers. Of course, for spreadable granular types of weed control chemicals, the drop-type spreader is

considered best for uniformity and accuracy. Centrifugal types may offset these features with broader coverage and greater speed of application.

Preemergence control applications are usually made in early spring and/or early fall, so that actual marketing of preemergence chemicals precedes these periods by several months. Postemergence chemicals for broadleaf control, on the other hand, are used over a longer season — often throughout the year (depending upon the area). Postemergence chemical marketing begins well before the active weed-growing season and extends throughout the season.

For an excellent picture of the place of herbicides and other turf chemicals in golf course turf maintenance, turf managers should obtain, from WEEDS TREES AND TURF magazine, its significant survey on turf chemicals usages which this important journal published in 1969. It is well worth reading and careful study. □

CUSTOM APPLICATION

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until the last four to five years. In many areas, it still isn't available. Also, people are devoting more time to recreation and they simply would rather play golf than fool with their lawn. Let's face it . . . when the average home owner does take a stab at growing turf, a great number either streak, burn, or don't get enough product on to do the proper job.

WTT: You mentioned that this business was increasing. How do you measure this increase?

Carruth: My best yardstick is Diamond's sales to turf custom applicators. In the past two years, our sales of Dacthal to this market has doubled. If it weren't for shortages in liquid fertilizer, our sales would probably double again in 1974.

WTT: Is there any one goal you feel a lawn applicator should adopt?

Carruth: Definitely. Give your customers a good-looking lawn all season long. The home owner doesn't know or care what you do to his lawn. His real concern is what his lawn looks like. □