

IN THESE DAYS, when the cost of everything appears to be rising, it is interesting that frequently the cost of roadside maintenance is actually going down. This is due to the use of herbicides to control or eradicate woody plants and weeds found along so many highways. However, highly vocal elements of our population are screaming that much roadside spraying, especially in scenic areas, results in an ugly and unkempt-appearing roadside. They claim that if conservation groups and similar organizations had control of this work, a much more satisfactory appearance would result.

Interference by outsiders who are not familiar with the entire problem *might* give better results but the opposite can also happen. Complicated procedures or an emphasis on proficiency in botany or ecology, such as is frequently advocated, will certainly increase the cost of the work. There is no need to invite this interference. Instead, we need to develop a greater interest in *public relations*. When the public understands what we are doing, resistance to roadside spraying will not disappear, but it will surely be reduced.

Today, according to government figures, there are about 66 million automobiles. Within 12 years (by 1976), there will be about 100 million automobiles on our roads. These figures do not include trucks. With a larger number of automobiles, more people (there will be about 230 million of us within 12 years), and a greater amount of leisure, the use of our scenic highways will probably double.

What, really, is the matter

How to Answer the Critics of Roadside Spraying

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with roadside spraying? In certain areas, but certainly not in all areas, sprayed roadsides actually confirm the claim that "we are making a dirty, brown, dying-looking mess along the sides of our roads." There is hardly a financial reason for the poor work done along some roadsides. Chemicals and procedures in use today are so well understood that there is little reason for making technical blunders. There is really only one reason left—the frame of mind of the persons working in this field. They must truly desire to enhance *both* the usefulness and the appearance of rights-of-way.

We must keep in mind that a spray applicator may become a victim of circumstances. He may be required to do work that he knows will cause public resentment. However, even when it is not the applicator's fault, the net result could be adverse legislation which would produce such strict control that the market for

roadside spraying would surely decrease. Roadside appearance and the future of roadside spray maintenance are closely tied together. It is to the advantage of all that quality standards be set high and that every effort to meet these standards be made.

We ourselves must not forget, and we should remind the public, that more than an attractive appearance is involved in roadside maintenance.

Highway Engineering Factors

The three major factors which must be considered by the highway engineer are:

Safety—In spite of conservationists, the primary concern when roadside maintenance is performed is *safety*. Spraying, which helps remove woody plants and high weeds on curves, permits the motorist to drive more safely. When woody plants and high weeds are eradicated from the roadside by spraying, animals or birds move farther away from the road edge and can be more quickly seen when they dart across the road in front of a motorist.

Good Housekeeping — Roadsides must be kept neat and free of pop bottles, beer cans, and other trash thrown on the roadside by motorists. This is already a serious and expensive problem and is due to become worse.

When criticism of roadside spraying is heard, we should ask

When contract applicators or rights-of-way supervisors have to spray roadsides or utility lines, public clamor frequently begins to interfere with their progress. This article by well-known expert Ashbaugh tells how to keep the public informed about the advantages of chemical spraying, and outlines, step-by-step, procedures which help applicators avoid both unsightly appearance of roadsides, and the resulting ill will which sometimes is aroused among the populace.



Fred Ashbaugh

the roadside should be in grass. In mountainous areas, the roadside should be in grasses, ferns, or low-growing plants. Only shrubs that grow less than 2' high should be permitted on roadsides. Higher growing shrubs should be located as far from the road as possible.

"Programming" Spray Projects

Roadside spraying should be programmed with the greatest care. What does "programming" mean? It means the planning, scheduling, and required procedures that are necessary to produce satisfactory roadsides. All this must be done at a reasonable cost.

Certain general principles should be considered whenever roadside work is being programmed. The most important of these are:

1. The primary reason for building roads is for transportation.
2. The safety of the users of the road should have first consideration.
3. The roadsides should, whenever possible, show good housekeeping.
4. During all roadside maintenance work, the appearance of the road should never be forgotten.
5. Only properly trained men

our critics if they are doing anything about trash and litter.

Attractive Roadside Appearance—Chemical spraying, when properly done, is the best and most economical means of improving the appearance of roadsides.

The idea of permitting brush and weeds to grow at random over a roadside is not practical or economical. It does not result in roadsides of the best appearance.

To create a roadside which permits the greatest safety for the motorist, the greatest protection for birds and animals, and the most attractive appearance,



Flowering shrubs (azaleas) and ferns on a roadside right-of-way that has been chemically sprayed twice demonstrate how a pleasant appearance can be retained after a spray program. Electric line is crossing road at this point.



Dead brush along roads for as long as three years (as is the case here) causes public resentment. Man in background is holding a six-foot-high marker.

should be permitted on roadside spray crews.

6. The cost of roadside maintenance must be kept within reasonable limits.

Every person involved in any way with roadside spraying should also keep the following rules in mind at all times:

1. *Taxpayers*, not government, supply the funds to enable us to spray roadsides.
2. Within 12 years, there will be about five automobiles using our roads where now there are three.
3. The most modern chemicals and techniques will be used in roadside maintenance.
4. Indifference, carelessness, and lack of training on the part of workmen will not be tolerated.
5. The procedures used to spray roadsides shall be designed to improve the scenic values of the area.
6. No woody plants over 5' high shall be sprayed.
7. Indiscriminate spraying of ferns, wild flowers, and low-growing shrubs shall not be permitted.

8 Safeguards

The following procedure is how one electric utility solves this problem. This procedure is designed to give the best balance



Ironically, the public will complain about appearance of sprayed brush but not about rubbish, author Ashbaugh says. This actually occurred among residents along this road!

between cost, efficiency, and favorable roadside appearance.

1. A careful survey and study is made in all areas where roadside spraying is planned. The procedures specified will depend upon the importance of the roadside from a scenic standpoint as well as the present roadside vegetation.

2. Close cooperation with the state highway department is always maintained.

3. Careful and detailed specifications which leave little possibility for error are written. The electric utility sees that copies of the specification are made available to all workmen.

4. The public and adjoining property owners are informed by leaflets, etc., why the spraying is being done and what the final result will be. Recommendations that the public withhold its decision until the program is completed are constantly made by both spray applicator and the company.

5. Close supervision of the work must be constantly provided by the spray applicator to eliminate careless or slipshod work.

6. The electric company actually checks the training of the workmen and the suitability of the equipment before a spray crew is permitted to begin work.

7. Woody plants over 5' high are never sprayed. Instead, such brush is cut first. When careless work is found, the spray applicator is required to return and do the necessary remedial work to bring the roadside to first class condition.

8. The electric utility is constantly talking to garden clubs, service clubs, and conservation groups explaining company interest in conservation and beautification of the community.

Much of the antagonistic attitude shown by the public is because we do not take time to inform them about what we are doing. When the public understands that the final roadside will be more beautiful after spraying, will be safer for motorists, and that the taxpayer dollar required is less than maintenance by any other method, they will be more willing to accept a temporary brown-out.

Reference cited—ORRRC Study Report 23 "Projections to the Years 1976 and 2000: Economic Growth, Population, Labor Force and Leisure, and Transportation."

Colorado State Lists Results of 1963 Herbicide Tests

Several new herbicides were tested by Colorado State University extension service and experiment station personnel last year. Some of the chemicals have been approved for Colorado conditions, Eugene Heikes, CSU Extension Weed Specialist, says.

Summaries of several of the newer materials tested in Colorado by experiment station and extension service personnel are as follows:

Dicamba (2-methoxy-3, 6-dichlorobenzoic acid). This material, trademarked as Banvel-D, is a broad-spectrum herbicide with some selectivity for use in certain crops. In Colorado, it has been studied for control of some of the harder-to-kill broadleaf lawn weeds. Heikes indicates that the university needs to observe this herbicide for another year before recommending it in Colorado.

Fenac (2,3,6-trichlorophenylacetic acid is recommended for the

control of deep-rooted perennial noxious weeds. It acts primarily through the soil and the root zone of plants. Fenac has given seasonal control of annual weed species such as Russian thistle, puncture vine, and kochia when applied prior to time of germination.

Dacamine is an oil-soluble, water-emulsifiable amine salt formulation of 2,4-D and/or 2,4,5-T. Amine formulations of 2,4-D have been used for many years to control weeds.

Principal advantage of Dacamine is that it can be used in an oil carrier. This is particularly desirable for aerial applications.

Tritac-D (2,3,6-trichlorobenzoyloxypropionol). This product is recommended by the manufacturer for eradication of bindweed, Canada thistle, and other deep-rooted perennial weeds. It is formulated for spray application and registered for use on noncrop land.

It is nonselective in action, may be toxic to all types of vegetation, and may render the treated area totally or partially unproductive for one or more years.

Tordon (4-amino-3,5,6-trichloropicolinic acid). This material is a systemic in plants and is readily absorbed by leaves and roots. It has been marketed on a limited basis in parts of the Midwest for the control of several brush species.

Bandane (trade name of a herbicide for the control of crabgrass) is a preemergence material that has been tested in Colorado and has given good results when applied to lawn or turf at 10.7 lbs. per 1,000 sq. ft.

Timing of application is important, Heikes reminds turfmen. For spring treatments apply in April or early May before any crabgrass germinates. It can also be applied in the fall after Nov. 20.

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