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Guidelines for Making Decisions in Roadside Brush and Tree Control
Michigan State University Extension Service
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DECISIONS IN MANAGING vegetation on rights-of-way of county road systems involve not only the county government and the motorist, but also adjacent landowners, drain commissions, utilities and the general public. Such decisions must be guided by available information.

Information is available on safety, engineering, costs, proper application of herbicides, etc., but information concerning public attitudes and desires and relative advantages and disadvantages of alternative methods is often lacking. Such information is essential in making the best possible management decisions for all concerned groups.

In order to provide additional information and guidance, the Natural Resources Commission of the Michigan Department of Natural Resources (DNR) requested Harry Doehne, Office of Policy Development, DNR, to assemble a committee representing appropriate interest groups. The committee's objective was to create guidelines to assist county road commissions in deciding how to manage vegetation along rights-of-way. Interest groups represented on the committee included the DNR, the Department of Highways and Transportation, the Department of Agriculture, utilities, drain commissions, chemical companies, environmental and conservation organizations, commerce organizations, public service organizations and the Michigan State University Cooperative Extension Service.

The following guidelines created by that group provide some of the additional information needed by those who make the decisions and by those who are affected by them and thus influence the decision-making process.

THREE GUIDELINES

1. *Vegetation control along _____ County roads should be limited to trimming or cutting through the existing ditch line to a level no more than 2 feet higher than the top of the fore slope, except when in the judgement of the forester the cutting limits need to be extended farther. Nothing will be cut beyond the existing ditch unless it clearly represents a hazard to traffic. If the far edge of the ditch is not easily definable, guideline number two (2) is to be followed.*
2. *Where there is not a well-defined ditch line, the cutting should be kept to a maximum of ten (10) feet from the traveled or metaled portion of the road. Any cutting beyond 10 feet should be limited to removal of obviously dead, diseased, or dangerous growth as determined by the forester.*
3. *Broadcast application of herbicides for brush and tree control should not be used. No chemical harmful to water life will be used in such a manner that allows it to enter a roadside ditch, stream, pond, lake or wetland in a concentration that could be harmful to the plant and animal life. See table on page 2.*

The above guidelines are not intended to preclude a utility's right to maintain its lines.

Relative Environmental Hazard of Some Herbicides Commonly Used on Rights-Of-Way*

The more code letters in the medium and high categories, the greater the environmental hazard; the more code letters in the low category, the less the environmental hazard. See footnotes for explanation of code letters.**

Herbicide	Relative Environmental Hazard		
	High	Medium	Low
2, 4, 5-T	j	a, b, e, f, g, h, i	
Picloram	b, e, g	d, h, j	a, c, f
Organic arsenicals (i.e. DSMA, MSMA, MAMA, Cacodylic acid)	e, j	b, c, d, g	a, f
Amitrole-T	b, h	e, g	a, f, i
Silvex	j	b, d, e, g	a, c, f
Paraquat	j	a, c, h	b
2, 4-D esters		a, b, g, i	e, f
Diquat		a, b, d, f	e
2, 4-amines		a, b, i	e, f, g
Dicamba		e, g	a, b, d, f
Dalapon + TCA		e	a, b, f, h, i
Dalapon		e	a, b, f, h, i
Ammate		g	a, b, d, e, f
Krenite			a, b, c, d, h

*NOTE: Many of the herbicides listed above are *not* registered for use on ditchbanks or in areas where runoff may occur in or alongside a road right-of-way. Check the label restrictions carefully before selecting an herbicide for use. It is a violation of federal and state laws to use a herbicide in a manner inconsistent with its labelled uses. Data compiled by Tom Rohrer, MDNR.

**If a code letter does not appear for a particular compound it means that no information on that parameter is available, or conflicting data have been reported.

a = Acute mammal LD50 (lethal dose) to any test animal:
High = < 5 mg/kg;
Medium = 5-500 mg/kg;
Low = > 500 mg/kg

b = Acute fish LC50 (lethal concentration 96 hours) for any species tested:

High = < 1 mg/liter;
Medium = 1-10 mg/liter;
Low = > 10 mg/liter

c = Acute bird LD50 (lethal dose):

High = < 5 mg/kg;
Medium = 5-500 mg/kg;
Low = > 500 mg/kg

d = Acute invertebrate (spineless animals) LD50 (48-96 hrs.):

High = < 1 mg/l;
Medium = 1-10 mg/l;
Low = > 10 mg/l

e = Persistence in the environment (greater than 10% remaining of the parent compound or hazardous degradation product):

High = > 9 months;
Medium = 3 to 9 months;
Low = < 3 months

f = Signal word on package assigned by EPA:

High = poison or danger;
Medium = warning;
Low = caution

g = Phytotoxicity (poisonous to plants) to nontarget plant species:

High = broad spectrum herbicide;
Medium = several classes of plant types susceptible;
Low = limited to one group of plants

h = Carcinogenicity (causing cancer) of parent compound or major degradation product:

High = proven animal carcinogen;
Medium = some positive species, some negative, suspected carcinogens;
Low = no carcinogenic activity induced

i = Mutagenicity (causing genetic change) of parent compound or major degradation product:

High = mutagenic in more than one species;
Medium = 1 species positive;
Low = negative

j = Teratogenicity (causing birth defects) of parent compound or major degradation product:

High = positive in vertebrate;
Medium = positive in lower organism;
Low = negative