

2
1
1

Soil Sterilants for Complete Vegetative Control

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Soil sterilants are used for spot treatment of deep-rooted perennial weeds, for woody plant eradication and for complete vegetative control in parking lots, storage areas, etc. By spot treatment it is inferred that the area involved is not greater than one-fourth acre and preferably smaller.

Action of this group of herbicides affects plants only—herbaceous and woody. Sterilants do not affect seeds or micro organisms in the soil. Cost makes it prohibitive to use most sterilants on large areas for perennial weed control.

Soil sterilants are surface applied but must have rainfall or moisture to effectively penetrate the soil for activation. These herbicides can be applied any time of year when the soil is not frozen. Results are generally most readily observed when applied in spring just as the growing season begins. A dense vegetative growth on the soil surface makes uniform application difficult.

Certain preemergents generally used on row crops applied at high rates can be used as effective soil sterilants. Also certain herbicides originally used as sterilants can be used at low rates as preemergents in row crop production. Banvel, fenuron and diuron are examples.

Treated areas may be bare for two or more years depending upon various factors. Duration of toxic residues in the soil is dependent upon herbicide solubility, rate of application, soil type and amounts of precipitation. Obviously as higher rates are applied control of vegetative growth becomes more complete and longer lasting. Higher rates generally are used in low, moist areas while lower rates may be as effective in high, dry locations. Treatments selected for a given site should fit into plans for future use of the area.

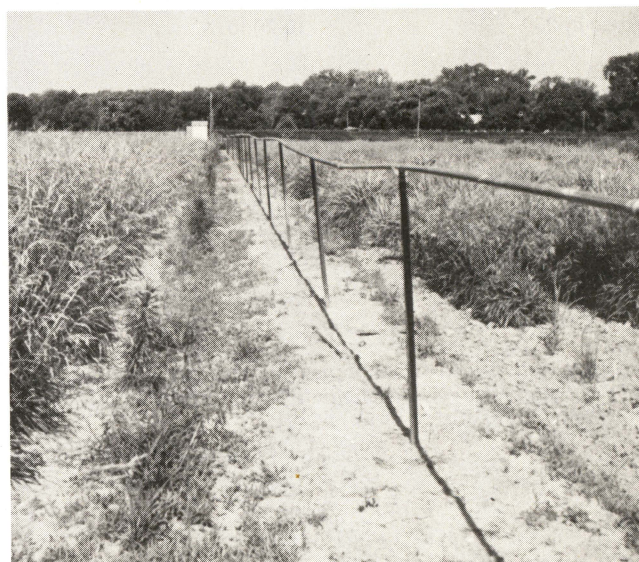
Soil sterilants that kill all vegetative growth in a treated area do not provide permanent control. This is especially true for herbaceous weeds because seeds in the soil will continue to germinate for a period of many years and the infestation will be re-established when the chemical residues disappear. Woody plants killed by herbicides do not re-establish in as short a time. For continued vegetative control repeat applications are necessary.

Most soil sterilants are *not cleared* for use on *cropland* or in *pasture* areas. Read the label carefully before making an application.

(List of Soil Sterilant Herbicides on back page)



Railbed treated with a soil sterilant.



Irrigation line above an 18-inch-band application.

SOIL STERILANT HERBICIDES

Sterilant	Rate	Remarks	Formulator
Atlacide	8-16 lb./sq. rd.	Less flammable than sodium chlorate	Pensault
Banvel	See label	Several formulations & combinations available	Velsicol
Benzac 1281	10-20 lb./A.	Good control of deep-rooted perennials	Amchem
Borate-Chlorate Mix.	10-12 lb./sq. rd.	Borate reduces fire hazard	U.S. Borax
Borocil IV	12-24 lb./sq. rd.	Bromacil-borate mixture	U.S. Borax
Fenac	3-6 lb./A	Several formulations & combinations available	Amchem
Hyvar X	7-12 lb./A. (80 W)	Various formulations & combinations available	DuPont
Karmex	20-60 lb./A. (80 W)	Available as W.P. or granule	DuPont
Krovar	See Label	Combination of Bromacil Diuron	DuPont
Lorox	See Label	Preemergent for corn & soybeans at light rate	DuPont
Monobor-Chlorate	2-8 lb./sq. rd.	Reduced fire hazard	U.S. Borax
Paramitol	See Label	Available in various combinations & formulations	Ciba-Geigy
Spike	2-20 lb./A.	Formulated as 80% W.P. or 20% pellet	Elanco
Tandex	4-8 lb./A.	Available as 80% W.P. or 4% & 10% granule	FMC Corp.
Telvar	See Label	Available as granule or wettable powder	DuPont
Tordon	See Label	Several Combinations & formulations available	Dow
Trysben 200	10-20 lb./A.	Can be used in mixes with 2,4-D & Dalapon	DuPont
Urab	0.5-1.01 lb./sq. rd.	Fenuron-TCA combination	Allied Chem.
Ureabor	See Label	Borate + Monuron mixture	U.S. Borax

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