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Weed Control on Highway Shoulders, Fence Rows, and Ditchbanks

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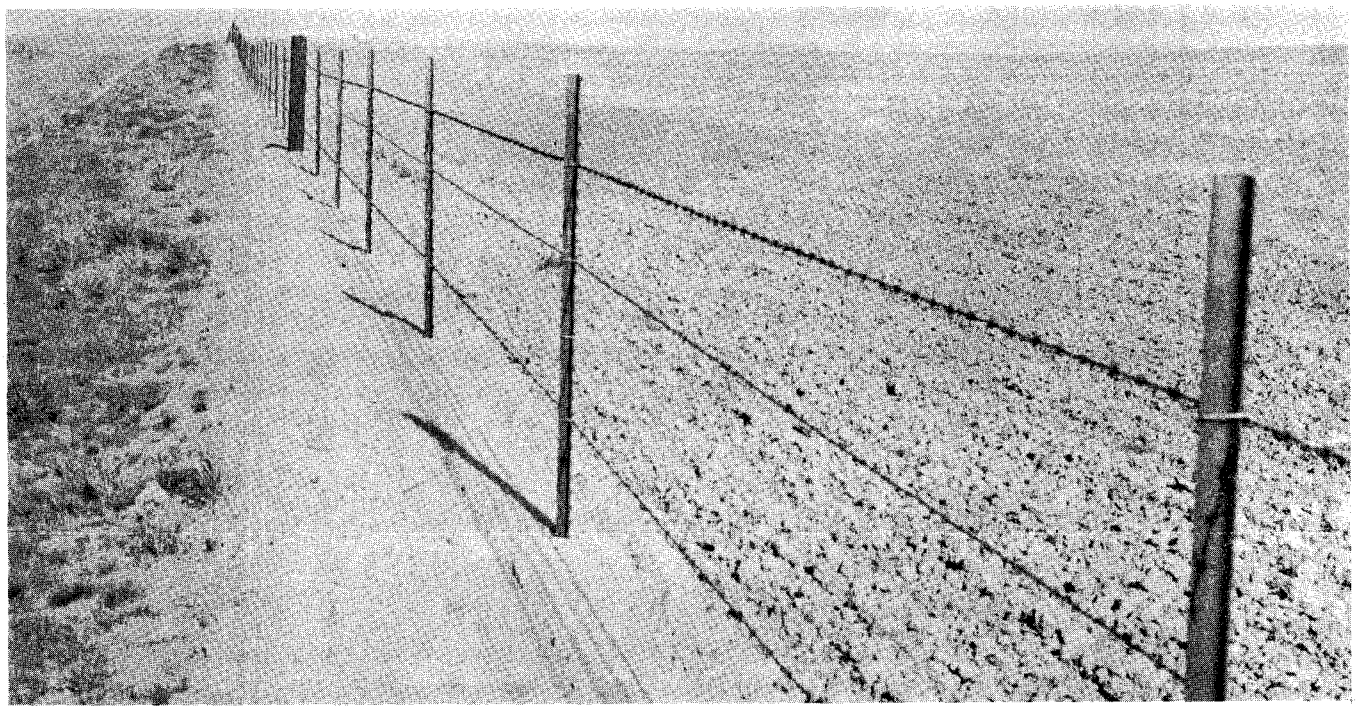
Road shoulders, fence rows, and ditchbanks are commonly covered with various kinds of weeds. Weeds are especially troublesome on these sites. They contribute to the spread of plant diseases; harbor insects and rodents; add to the cost of maintaining roads, fences, and ditches; and are a source of weed seeds that contaminate cropland and rangeland.

All kinds of weeds find a home in fence rows and on road shoulders. Some are annuals; others perennials. Some are grassy type plants; others are so-called broadleaf plants. Some have seed which germinates with the first fall moisture; seeds of others have delayed germination until the following spring and summer. Good weed control with this wide range of plants requires careful selection of the chemical, as well as the time of application.



Fence row in Gilliam County sprayed with 4 pounds of atrazine per acre in November 1960.
(Picture taken July 1961.)

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Perennial weeds are easily controlled in the seedling stage of growth. After they become established, specific chemicals are needed for control. These chemicals are usually applied at heavy rates. Special leaflets are available on the control of common perennial weeds.

The final goal in weed control in fence rows and on ditch lands and highway shoulders is the establishment of low growing perennial grasses. Perennial grasses can be seeded on these sites after annual plants have been controlled.

CHEMICALS TO USE

The most effective seedling weed control has been obtained by mixing 4 pounds of atrazine (3.6 pounds of active chemical) and 2 pounds of amitrole [Weedazol or Amino Triazole] (1 pound of active chemical). The atrazine remains active on the soil surface, killing germinating weed seeds. The amitrole kills the weeds that are growing at the time of application. Karmex, Telvar, or simazine can be substituted for atrazine. Research studies show atrazine to be slightly better under most soil and climatic conditions. Amitrole T (liquid form of amitrole) [Cytrol, Amitrole T] can be used to replace the regular amitrole. Use 1 pound (2 quarts) for each acre treated.

For hard-to-kill summer germinating seeds, such as sandbur and puncture vine, the rate of atrazine should be increased to 6 pounds (4.8 pounds active chemical) per acre. The amitrole rate does not need to be changed. November or December are the best months for application for the control of most weeds in eastern Oregon. February, March, and April are the most effective months in western Oregon.

Soil residual toxicity can be maintained longer in the summer by applying sprays in March and April. This is important in the control of late germinating weeds seeds, such as sandbur and puncture vine.

Application of 4 to 6 pounds per acre of simazine, atrazine, Karmex, or Telvar does not give complete weed control for more than one year. Annual applications are needed for complete control.

Not more than 3 pounds as purchased per acre of atrazine, simazine, Karmex, or Telvar should be used where there are desired perennial grasses growing in the area, or where perennial grasses are to be seeded within a year after spraying.

Wettable powders such as atrazine, simazine, Karmex, and Telvar require good agitation for even coverage. Mechanical agitation is preferred over hydraulic agitation.

SUMMER WEED CONTROL

Weeds can be controlled in areas where soil sterilization is not wanted. Dalapon or amitrole plus ester of 2,4-D are effective chemicals for summer application. For control with amitrole, use 10 pounds of 50% commercial amitrole or 2 gallons (4 pounds) of amitrole T. When using dalapon, use 10 pounds of 85% dalapon. Many weeds not controlled with amitrole or dalapon are killed by addition of 2,4-D.

The sprays can be applied with 20 to 100 gallons of water per acre. The lower rates are effective when boom type sprayers are used for application. Higher rates are needed for hand nozzles. Commercial mixtures of dalapon with Silvex (Garlon) may be used at the rate of 5 gallons per acre per 100 gallons of water.

Treatment should be applied in the spring after most of the weeds have germinated, but prior to the blossoming of the weeds to be controlled. It may be necessary to make retreatments one or more times during the year. Precautions should be taken to avoid drift of the chemicals to susceptible crops.

The cost of controlling weeds along fences, roads, and ditches is comparatively small. An acre is an area 8 feet wide and 1 mile long. The area in fence rows and ditches on the average farm comprises very few acres of land.