Selecting a chemical cultivator, simazine at 10 to 40 pounds active per acre will sterilize soil where there is no problem of deep-rooted perennials. Simazine tends, because of its lack of solubility, to remain near the surface, killing annual weeds as they germinate. When weedkilling oils are added to simazine or atrazine, only 5 to 15 pounds of active ingredient need be applied for control. Generally two treatments, one month apart in early summer, will suffice.

Atrazine, 2-chloro-4-(ethylamino)-6-(isopropylamino)-s-triazine, bears the same relationship to simazine as monuron does to diuron. Atrazine is more soluble than simazine, but both are applied at the same rates for soil sterilization.

Time to Apply

Generally, a good time to apply soil sterilants is before the weeds mature. The spring and fall are both good times to prevent weed growth. Application and complete soil coverage are easier without interference of full-grown weeds. Cooler temperatures are less conducive to bacterial action in the soil and therefore enhance the residual of an herbicide. But heavy snow and rain may leach the chemical away, so winter precipitation must be considered when choosing an overwinter herbicide.

Since soil sterilants are usually applied to relatively large areas, power equipment is considered the most economical. Either manually directed hoses or fixed booms are the most efficient for applying pelletized herbicides.

Nature of the chemical, time of year, soil type, temperature, the kind of weeds, and the size of the job will all help determine whether spray or dry preparations should be used.