

Tritac: New Weapon for Weed Control

DEEP-ROOTED perennial weeds, which have in the past been resistant to low-cost control measures, face another potent weapon as the result of the development of a unique new chemical.

Called Tritac, the new herbicide is a synthesized organic material, a product of research and another example of science's ability to fashion effective new tools from molecular building blocks. Originally synthesized in the laboratories of Hooker Chemical Corporation of Niagara Falls, N.Y., the product was later proved effective in extensive field tests conducted by Hooker and United States Borax & Chemical Corporation of Los Angeles, Calif.

Chemically known as 2,3,6-trichlorobenzoyloxypropanol, the chemical weedkiller finds its most economical and practical application in the control of perennial weeds considered noxious by agriculture. Although it is designed for spray application, the primary herbicidal effect is through the root systems. Conditions enhancing movement into the soil, such as rainfall and porous soil, substantially increase the speed of weed kill. Volatility studies conducted according to the procedure described in the *Journal of the Association of Official Agricultural Chemists*, Vol. 43, No. 2, 1960, shows Tritac to be nonvolatile.

Tests Show Economical Control Of Herbacious Perennials

In field tests completed over a two-year period by Hooker and U.S. Borax, Tritac was applied in various concentrations on plots established in 15 states. Testing was carried out according to major market-potential areas. Results of the tests indicated that the new product will provide the most economical method yet developed for the chemical control of such deep-rooted herbacious perennial weeds as bindweed, Canada thistle, Russian knapweed, leafy spurge, bur ragweed, and toadflax.

Commercial formulation of Tritac is a 2-pounds-per-gallon emulsifiable concentrate. The organic solvent used in the formulation makes possible the inclusion of

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other organic herbicides where additional weedkilling effects are desired. Tritac-D, a formulation containing 2 pounds per gallon active 2,3,6-trichlorobenzoyloxypropanol and 0.2 pound 2,4-D acid per gallon will be marketed jointly by Hooker and U.S. Borax. This formulation is designed to provide foliar activity on woody plants and to prevent seeding or plant maturity when applications are made during periods of drouth and/or in areas of low rainfall.

Both Tritac-D and Tritac are designed for application in water as a coarse spray with ground equipment using low or moderate pressure. If the spray is mixed thoroughly after dilution, equipment without agitation may be used for application. A minimum of 50 gallons spray solution per acre should be used where ground cover is light. A minimum of 100 gallons spray solution is recommended where ground cover is heavy. Spray volume should be sufficient to provide uniform coverage of soil and foliage.

Effective applications of Tritac and Tritac-D may be made any time when the extent of weed infestation can be determined and when the ground is not frozen, preferably when seasonal rainfall can be expected to carry the chemical into the root zone of the soil. Fall applications are recommended. Spring applications should be made after full emergence of the weeds but before development of dense ground cover.

For control of certain deep-rooted perennial weeds such as field bindweed, Canada thistle, Russian knapweed, leafy spurge, and bur ragweed, the chemical should be applied in amounts of 4 to 8 gallons (8 to 16 pounds) per acre. For small areas, 1 to 2 pints can be mixed with 4 to 5 gallons of water to cover 1,200 square feet. To assure control of such perennials with extensive root systems, the treated area should extend 10 to 15 feet beyond the limits of visible weed growth.

At the recommended rates of application, a wide range of annual and perennial broadleaf weeds, such as ragweed, lettuce, plantain, dandelion, chicory, and bouncing bet may be controlled for a season or longer. Applications are not recommended for control of perennial grasses.

The new chemical is not selective in action and may be toxic to all types of vegetation; it may render the entire treated area totally or partially unproductive for one or more years. Care should be taken to confine the use or application to the particular area intended to be treated and to avoid its contact with lawns, trees, shrubs, crops, and other desirable plants which are not intended to be destroyed or injured. This includes precautions in treating areas which may be underlaid by roots of adjacent valuable growths. Careless application of this material, or washing by water runoff, to areas where desirable plants are growing or which will be used for later planting may result in injury to such plants. Water used to flush equipment should not be drained on or near these sensitive areas.

Tritac produces weed-free areas like the one in the center above, this article claims.

