TRICHLOROACETATE (TCA) FOR BERMUDAGRASS AND JOHNSONGRASS CONTROL

(Abstract of mimeographed release by W. C. Elder, Assistant Agronomist (Weeds), Oklahoma A. & M. College, Stillwater, Okla.)

TCA at rates of 50, 100, 150 and 200 pounds of active ingredient per acre produced almost complete kills on Bermudagrass under favorable soil moisture and weather conditions. Unsatisfactory kills resulted in August, 1947, when it was extremely dry and hot, and in May and June, 1948, when heavy rainfall evidently leached the chemical out of the soil. Twenty-five pounds to the acre was effective against annual grasses such as sandburs, crabgrass and foxtails. Costs for treatments ran between $50 and $60 an acre. The paper suggests that TCA may effectively prevent Bermudagrass from spreading into flower beds and gardens from the lawn areas. It further suggests that TCA should be applied on moist soils followed by minimum rainfall, and that July, August and September (when there is moisture) is best for controlling Bermudagrass. The Bermudagrass should be 1 to 2 inches high at the time of treatment. The author suggests for controlling Bermudagrass 1/2 pound to 2/3 pound of TCA active ingredient in 1/2 gallon to 1 gallon of water, sprayed uniformly over 1 square rod (16 1/2 x 16 1/2 feet). For annual grasses 1/8 pound to 1/4 pound is suggested.

Precautions include: (1) avoid contact with skin as it may cause the skin to peel off the hands, (2) it may be corrosive to spray equipment, (3) it is not effective on perennial broad-leafed weeds, (4) do not treat soil where tree or shrub roots are growing, (5) TCA is not supposed to be poisonous or inflammable but be sure to follow directions on containers, (6) soil must be moist but TCA leaches rapidly with excessive moisture, (7) retreatment may be necessary for Johnsongrass and Bermudagrass, (8) much more experimental work is necessary before all the possibilities, limitations and best methods of using this new chemical can be established.

(Editor's Note: TCA is being investigated at Beltsville, Md., for its possibility in controlling crabgrass in turf along with many other chemicals.)

Stability of 2, 4-D Stored with Mixed Fertilizer

(Abstract of article by Paul C. Marth, John O. Hardesty and John W. Mitchell in Agricultural Chemicals, Vol. 4, No. 5, May, 1949)

This article cites figures showing that 600 pounds of fertilizer containing from 1 1/2 pounds to 3 pounds to the acre of 2,4-D killed many lawn weeds and at the same time caused the grasses to increase in growth as the result of the nourishing action of the fertilizer and the significant reduction in weed competition. Lots of fertilizer and 2,4-D were stored under various temperature and moisture conditions for periods of one month, three months and 10 months. After storage they were applied to turf composed mainly of Kentucky bluegrass, redtop and Chewings fescue heavily infested with buckhorn, with appreciable quantities of field sorrel, black medic and white clover.

Materials applied on July 19 during hot, dry weather severely injured the grasses. Applications made in the fall and again in the spring produced excellent effects on the grass accompanied by almost 100 per cent weed control. It was found that the potency of the 2,4-D had not been reduced after 10 months of storage. Control plots treated only with fertilizer showed an average of 51.6 per cent weeds by weight in the clippings. Plots treated with the same fertilizer, with 3 pounds of 2,4-D to the acre added, after 10 months' storage showed 1.1 per cent weed content.