SEED PRODUCTION AND MOISTURE CONTENT OF LADINO CLOVER, *Trifolium repens* L., TREATED WITH ENDOTHAL

Interest in Ladino clover seed production in Wisconsin is sustained because of the importance of Ladino clover in recommended forage crop mixtures. Harvesting Ladino clover seed under Wisconsin conditions, however, presents a difficult problem.

Under the conventional method, the windrows often remain in the field for 10 days to 2 weeks for drying. During that period, adverse weather may cause considerable loss in seed yield. This note presents results of an experiment conducted at Madison, Wis., to determine the effect of time of harvest on seed production, and (2) to test the use of a desiccating chemical to facilitate harvesting.

The Ladino clover used in this study was established in 1951 on a Miami silt loam soil of rather uniform topography. The clover had been clipped back in the spring to a uniform height of 3 to 4 inches. Experimental plots were 30 by 50 feet in size and a randomized complete block design was used.

Endothal was applied at 40 pounds pressure to different plots at concentrations ranging from 2 through 6 quarts per acre on July 29 and on August 25, 1952. One application of 4 quarts per acre was also applied on Aug. 11.

Samples for seed yield and moisture determination were taken at 1-, 3-, and 5-day intervals following each treatment. The samples were hand clipped from square yard areas, and four samples were taken at random from each treatment at each interval. These were dried, threshed by a scarifier, cleaned on a Clipper fanning mill, and further cleaned on an electrical air blower machine. The yield of cleaned seed was calculated in pounds per acre. The moisture content of the treated plants was calculated as the percent of the untreated.

The average yields of Ladino clover seed in pounds per acre at 1-, 3-, and 5-day intervals of harvesting after spraying on July 29 and Aug. 25 for sprayed versus unsprayed plots are shown in table 1.

In all comparisons, the average yield of seed for those plots harvested after the late date of spraying was more than that for plots harvested following the earlier date. This difference was highly significant.

The number of flowers formed was considerably greater during the warm, dry, sunny month of August than during July. Soil moisture was more abundant in July and vegetative growth predominated over flower formation. The

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2 One gallon of the formulation used contained 2/3 pound of technical disodium 3, 6 endoxohexahydrophthalate. 3 1/3 pounds of ammonium sulfate, 1 ounce of "activator" and water.