LADINO clover, a variety of the large type of white clover (*Trifolium repens* L.), has become well established as a pasture legume in the humid Northeastern United States and Great Lakes area in the last two decades (4). Investigators are generally agreed that this legume is most productive the year after seeding and is usually less productive in the second year. Its productivity during the third and subsequent years varies considerably, being good in some years and poor in others.

Fertilizer use, choice of associated species, and proper grazing management to permit adequate carbohydrate storage and natural reseeding are among the most important practices recommended to prolong the productivity of this legume over a period of several years (1, 2, 3, 4, 5, 7).

Thinning of the stand is immediately evident when the tap roots of non-vegetatively propagated legumes like alfalfa (*Medicago sativa*) and red clover (*Trifolium pratense*) die. However, when the tap root of a stoloniferous legume like Ladino clover dies, the thinning indicative of a poorer stand is not immediately evident. The surviving stolons continue to grow and produce leaves after the tap root is dead. Such stolons have a fibrous root system incapable of deep soil penetration for high forage production in dry seasons.

Investigators cited above recognize that cold temperature injury to stolons is important in reducing the vigor of the Ladino clover plant. None of these studies, however, showed when the tap root died in the life history of this legume. It has been reported that there were no living tap roots of the original plants in a field of Ladino clover in September after the second pasture year.

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1 Tap Root Survival of Ladino Clover
Fred E. Westbrooks and Milo B. Tesar

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2 Contribution from the Department of Farm Crops, Michigan Agr. Exp. Sta., East Lansing, Mich. Journal article 1739. The results are part of the material submitted by the senior author in partial fulfillment of the requirements for the Ph.D. degree of Michigan State College. Received March 7, 1955.

3 Assistant Professor in Agronomy, Tennessee A. and I. State University, Nashville, formerly graduate student in the Department of Farm Crops, and Associate Professor of Farm Crops, Michigan State University, respectively.

4 Tesar, Milo B. Panel discussion on pasture irrigation. Abstracts, 1950 annual meeting, American Society of Agronomy.