



Fig. 1. Ladino clover and orchard grass are well adapted to the Piedmont and Mountain counties of North Carolina.

Ladino Clover—Italian Gift to North Carolina Pastures

By Roy L. Lovvorn

Agronomy Department, North Carolina State College, Raleigh, North Carolina

LADINO clover is the greatest forage crop to hit North Carolina since the introduction of the annual lespedezas in the middle twenties, and its spread over the State has been much more rapid than that of lespedeza. This clover is now being grown in every county; and although no data are available as to the total acreage, it is probably at least 100,000 acres. All of this has been accomplished within the past few years and most of the rapid increase has been within the past three years.

Ladino seems to be well adapted to North Carolina conditions since we do not have the winter injury of the North

nor the summer injury of the deep South. It is now growing on most of the soils of the State. Our experiments have demonstrated that it is more productive, grows more uniformly throughout the season, is drought tolerant, and recovers faster following a temporary drought than common white clover. Unlike white clover, Ladino production has been dependable from year to year during the short time it has been grown.

Although spring seedings are possible, fall seedings are more successful and result in grazing the following spring, often by April 1. Seedings made



Fig. 2. Ladino clover and tall fescue on the Animal Husbandry Farm of the North Carolina State College. This area was grazed until December 22 in 1947.

in September 1947 had produced nearly one ton of forage per acre by April 15, 1948. Grazing can begin in March on established stands. E. W. Faires obtained approximately 200 cow-grazing days or the total digestible nutrients of 70 bushels of corn at the Coastal Plain Station, Willard, during 1947 from a Ladino clover-Dallis grass pasture as compared to only one half that yield from a similarly treated pasture in which the Ladino was omitted.

In another experiment on the State College farm last year Ladino clover and tall fescue were grazed until December 22. This late grazing was accomplished, however, by removing the cattle during the late summer and allowing the clover and grass to accumu-

TABLE I.—NUTRIENT REMOVAL FIRST YEAR AFTER SEEDING

	Pounds per Acre			
	N	P ₂ O ₅	K ₂ O	CaO
Ladino...	131.2	28.4	117.2	67.0
Alfalfa...	149.8	28.9	99.5	77.8

late. In this experiment, conducted in cooperation with Professors E. H. Hostetler and J. C. Pierce of the Animal Industry Department, the same paddock produced 70 pounds of beef per acre between April 20 and May 18, 1948.

Ladino clover has revolutionized our pasture fertilization program. Former recommendations of 300 pounds of 0-14-7 annually are no longer adequate. For maximum performance the crop must be fertilized like alfalfa because its nutrient removal is equal to alfalfa as is shown in Table I.

Extensive studies in which the nutritional requirements of Ladino clover are being studied along with those of alfalfa and big trefoil are now under way. In the meantime 1 to 2 tons of lime and 800 to 1,000 pounds of 2-12-12 fertilizer are being used at seeding, followed by annual applications of 300 to 500 pounds of 0-9-27, 0-10-20, or 0-12-12.

Standard companion grasses in North Carolina have been orchard for the western half of the State and Dallis grass for the eastern half. Orchard grass and Ladino clover grow well together, but since Dallis grass is spring

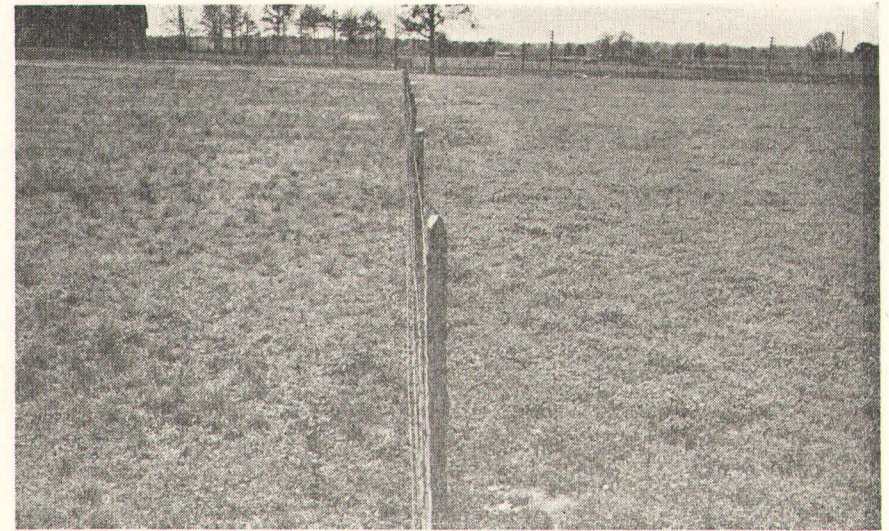


Fig. 3. Left: Carpet grass pasture. Right: Carpet grass pasture that has been renovated with Ladino clover produced total digestible nutrients equivalent to 72 bushels of corn in 1947. Coastal Plain Experiment Station, Willard, N. C.

seeded, it leaves much to be desired as a companion grass for Ladino clover.

More recently tall fescue has shown promise as a Ladino clover associate, and experiments are now under way in which this combination will be evaluated. The low palatability rating usually given to tall fescue farther north does not seem to apply here. It is at least as palatable as Dallis grass. Others have considered tall fescue too aggressive. However, since in some experiments at the North Carolina Station we have had some difficulty maintaining orchard grass in Ladino clover, the aggressiveness of tall fescue may be an advantage under our conditions.

Ladino clover was grown experimentally in North Carolina in the middle thirties but because of mismanagement was not at first successful. We learned the hard way that it must not be grazed in the same manner as white clover or lespedeza, and must be fertilized more liberally. Experiments are now in progress at this institution in

which seeding mixtures of (a) Ladino clover-orchard grass (b) Ladino clover-tall fescue, and (c) orchard-redtop-white clover-lespedeza are being grazed with dairy heifers under four systems of pasture management. These systems consist of (1) continuous-moderate grazing, (2) rotational-moderate, (3) rotational—with the peak growth being converted into hay, and (4) rotational-heavy grazing.

Ladino pastures have the advantage of being used for hay or silage during seasons of lush growth. Since Ladino maintains a succulent type of growth over a long growing period it is an excellent grazing crop not only for dairy and beef cattle but also for poultry and hogs.

Two pounds of this new clover seeded with 12 pounds of orchard or 10 pounds of tall fescue will produce for the North Carolina dairyman the best pasture he ever had, provided it is adequately fertilized and properly managed.

Reprinted from

BETTER CROPS WITH PLANT FOOD MAGAZINE

Distributed by

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1155 16th Street, N. W.

Washington 6, D. C.

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