Effect of Grazing Management on Beef Gains from White Clover-Grass Pastures in Central Alabama

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EXTENSIVE fertilizer tests with white clover, *Trifolium repens*, in combination with various summer grasses had shown as early as 1934 (8) that this clover could be grown successfully in permanent pasture sods in most of the major soil provinces of Alabama.

White clover has long been recognized as the most important perennial legume in pastures in the northeastern part of the United States and in Canada, as well as in other countries with cool-humid climates. In the sub-tropical climate of the Gulf States, however, this plant tended to act more as an annual than a true perennial, particularly on sandy soils. This was a distinct disadvantage, since the growth of clover was delayed each spring when the new crop had to come from seedlings.

From observations of white clover-grass pastures in various sections of the state, it appeared that the method of grazing of white clover might be an important factor in determining its behavior, thereby affecting the amount of high protein pasturage obtained. It appeared logical that management might be very important on areas where many of the plants died each summer and the following year’s growth depended to a large extent on a seed crop and new seedlings each spring.

GENERAL OBJECTIVE

A grazing experiment in which beef gains by brood cows and calves were used to measure the effects of different systems of grazing on white clover survival was started on the Animal Husbandry section of the Alabama Agricultural Experiment Station, Auburn, in the fall of 1941. One of the major objectives of the study was to determine the effect of controlled grazing on the production of a seed crop by white clover, as it was assumed that under heavy grazing this legume would not mature sufficient seed to maintain a stand. Also it was desired to find out what effect rotated and controlled grazing had on the survival of this clover as a true perennial plant under the climatic and soil conditions prevailing in this area.

SYSTEMS OF GRAZING STUDIED

The four methods of grazing that were employed on the white clover-grass bottom land pastures were: