KUDZU PRODUCTION WITH SPECIAL REFERENCE TO
INFLUENCE OF FREQUENCY OF CUTTING ON YIELDS
AND FORMATION OF ROOT RESERVES

W. H. PIERRE AND F. E. BERTRAM

One of the promising perennial hay and forage crops for the southern states in kudzu, a leguminous vine native to Japan. Its culture seems especially well suited to poor or rough, uncultivated soils where a perennial hay crop is desired, since it grows rapidly even on poor soils. Due to its rather recent introduction into this country, many questions regarding its culture remain to be answered. Some of the most important questions are the best methods for securing a stand and the frequency and time of cutting as affecting yields and permanency of stand.

Observations made during the past ten or more years at the Alabama Agricultural Experiment Station indicated that heavy grazing or frequent and late cuttings may be detrimental to both stand and yield. These questions were believed to be related to the reserve food storage in the roots, for such correlations between frequency of cutting, yields, and the storage materials in the roots of other perennial crops have been obtained in recent years by various investigators. Investigators at the Wisconsin (1, 3, 5), Missouri (8, 9), and Kansas (7) experiment stations have done some outstanding work in this respect. It is not the purpose of the writers to review the literature here, for good reviews have been made by Leukel (3), Albert (1), and Salmon, et al. (7).

The purposes of this investigation were as follows: (a) To determine the effect of the number of cutting treatments on the yield of tops and the size and composition of the roots of kudzu; (b) to study the formation of reserve carbohydrates and nitrogen in the roots during the growing season, and the effects of late cuttings on this reserve; and (c) to determine the effect of planting roots containing various amounts of storage material on the percentage of such plants that live and on the rapidity of new growth.

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2 Associate Soil Chemist and Assistant in Agronomy, respectively. The writers wish to express their appreciation to Director M. J. Funchess for the suggestion of this problem and for the helpful suggestions given during the progress of the investigation.
3 Reference by number is to "Literature Cited," p. 1101.