The use of vetch as a green manuring crop is becoming rather common in some sections of Alabama. The legume is fall planted, usually in cotton or corn middles, and plowed under the following spring before planting cotton or corn. In order to secure the best results with the crop, it is essential to know when the vetch should be planted in the fall and when it should be plowed under in the spring. This paper gives the results of three experiments on the time of planting and turning vetch for cotton and corn. All experiments were on Norfolk sandy loam at Auburn.

EXPERIMENT I

In experiment 1, monantha vetch, hairy vetch, and Austrian winter peas were planted on four different dates. On each planting date five plats were planted so that cuttings might be made at five different times in the spring. All plats were \( \frac{1}{500} \) acre and were in duplicate. The legumes were inoculated by the soil method and fertilized in the drill with basic slag at the rate of 600 pounds per acre. The seeding was at the rate of 20 pounds per acre for monantha and hairy vetch and 45 pounds per acre for Austrian peas.

In the spring the plats were cut by hand. The green weight, dry weight, and nitrogen content were determined. Tables 1 and 2 give the data obtained. These data show that the September 30th seeding produced the largest crop regardless of the cutting date. As the date of planting was delayed the crop produced was smaller. The data also show that in most cases the later cuttings gave the largest yields. Where this was not true the decreases were small and were due to shedding of leaves or insect injury. The increase in yield resulting from delayed cutting was not sufficient to compensate for the decrease in growth as a result of late planting. It is evident that by early planting a very good growth may be secured by the middle of March so that the crop may be turned under for either cotton or corn. The early planted legumes contained from 34.8 to 65.2 pounds of nitrogen per acre in their tops on March 10. As subsequent results will show, that amount of nitrogen in vetch will...