

the nuts are removed and consequently less calcium. This probably accounts for the higher response to calcium on the harvested peanuts.

Lupine yields showing the effect of lime are presented in Table 24. Lime gave a highly significant increase in the yield of lupine on both the continuous peanut plots and the 2-year rotations, but little or none on the continuous corn plots and 3-year rotations.

The response of oats to lime in various rotations is shown in Table 25. Lime gave a small but usually not significant increase in the yield of oats for green manure and a 4-bushel increase in yield of oats for grain.

HARVESTING VERSUS HOGGING-OFF PEANUTS

This experiment was a comparison of 2 systems of management with continuous peanuts. One system was hogging-off; the other was harvesting both nuts and hay, and following with lupine. Peanuts were fertilized with 400 pounds of 2-10-4 fertilizer the first 3 years and 500 pounds per acre of 2-10-8 fertilizer the last 7 years. Yields of the hogged-off peanut plots were determined by harvesting the peanuts from small measured areas from each plot before they were hogged-off. Lupine received 300 pounds of 0-14-10 per acre for each of the 10 years.

Yields of peanuts are shown in Table 26. Continuous peanuts harvested and followed by lupine for green manure made about the same 10-year average yield as continuous peanuts hogged-off.

Hogging-off peanuts removes from the soil only the gain in the hogs. Many of the plant nutrients are returned. In harvesting peanuts the vines, part of the roots and the nuts are taken off, which reduces the soil fertility more than hogging-off does. In this experiment the lupine plus the fertilizer it received apparently compensated for this difference, so the yields were the same.

APPLYING FERTILIZER TO PRESENT VERSUS PRECEDING CROP

The experiment contained 4 treatments arranged in a randomized block design with 4 replications on a 3-year rotation. The same 3-year rotation was used as in the lime and fertility experiment. Similar to these experiments, all crops received