Pasture fertilizer treatments were begun in 1929 on Coxville sandy loam and continued through the 1932 growing season. Four clippings were made in 1930 on August 8, September 4, October 1, and October 27. Eleven clippings were made during the 1932 season. The first clipping was on May 26 and the last on October 13. Chemical analyses were made of each of the clippings from the unlimed and limed sections of six of the pasture plats receiving various treatments. These six plats received the equivalent of 600 pounds of the following: 0--0--0, 0--12--0, 0--12--6, 6--0--6, 6--12--0, and 6--12--6.

The results of these analyses are included in Tables 1 to 4. In Table 1 all the analyses on the plats receiving no fertilizer and the plat receiving 600 pounds of 6--12--6 in 1930 are included. It is observed that on the unlimed plat there is an increase in the potassium, phosphorus, and sulfur content from the use of the 6--12--6 fertilizer. On the limed plat there was an increase in the manganese, phosphorus and sulfur content.

In Tables 2a and 2b are included the analyses of the 1932 clippings. The application of the 6--12--6 fertilizer on the unlimed plat increased the potassium, manganese, phosphorus and sulfur content of the grass clippings. On the limed plat there was a larger amount of manganese and phosphorus in the clippings.

The data in Table 3 include the average analyses of the four clippings from the unlimed and the eleven clippings for 1932. It is noted that there is more manganese in the clippings for 1932 than in those for 1930. This may be due to the fact that the clippings were made late in the season in 1930, whereas in 1932 the first clipping was in May.

The iron content of the carpet grass is relatively low in all the samples. It might be expected as the available iron content in this soil type is often relatively low, particularly on the poorly-drained phase.

All the minerals are relatively low in the unfertilized pastures in the lower section of the state. The mineral content is often too low for adequate nutrition of animals.

The carpet grass is relatively high in sodium. The sodium content is greater than any other metallic element with the exception of potassium.

It is observed that there is a relation between the relative strength of the metallic ions and the mineral content of the carpet grass clippings. The stronger ions are apparently selectively absorbed by the grass. Liming increased both the calcium and magnesium content of the carpet grass. The addition of superphosphate also increased the calcium content of the grass. The phosphorus content of the grass was markedly increased by the addition of phosphorus.