

Summary

The response of forages to mycorrhizal inoculation and to different P application rates when grown in a dystrophic dark red Latosol, obtained from the Campos das Vertentes region of Minas Gerais, Brasil, was evaluated under greenhouse conditions in Lavras. A completely randomized statistical design was used, arranged in a 3 x 5 factorial scheme with four repetitions, for a total of 15 different treatments. These treatments consisted of mycorrhizal inoculation (natural soil, soil without mycorrhizas, and soil inoculated with *Glomus etunicatum*) and five P application rates (0, 50, 100, 200, and 300 mg/kg soil), applied to forage species *Brachiaria brizantha*, *Stylosanthes guianensis*, and *B. brizantha* + *S. guianensis*. Two cuttings of aerial parts of plants were performed. Plant accumulation of P, K, Ca, and Mg in the DM of aerial parts was analyzed. Results showed that increasing P application rates significantly increased accumulation of P, K, Ca and Mg in DM of aerial parts. These results were evidenced by the presence of mycorrhizal fungi, to a greater or lesser extent, depending on the forage species studied, mainly in the case of intermediate phosphate fertilization rates.