

Summary

In the Brazilian Cerrados, most pastures consist of *Brachiaria* spp. In recent years, the productivity of these pastures has declined. Research is in progress at the Cerrados Agricultural Research Center (CPAC-EMBRAPA), (15° 35' south 47° 42' west) to study the technical and economic viability of several renovation strategies for *Brachiaria* pastures, including the introduction of legumes (*Calopogonium mucunoides*, *Stylosanthes capitata*, and *S. macrocephala*), tillage, and fertilization and planting of annual crops (maize BR-201, sorghum BR-300, and rice cv. Cuiabano).

The DM production of two forage harvests, 115 and 164 days after the above treatments, indicate that tillage only affects pasture productivity when accompanied with lime and fertilizer, reaching 105% and 44% increases compared to disking alone and to the control, respectively. The introduction of legumes in the pasture was more successful when associated with sorghum or rice than with maize. However, pasture renovation and legume introduction together with maize were the most economically attractive options.