

# Summary

An experiment undertaken at EMBRAPA/Gado de Leite in Coronel Pacheco, Minas Gerais, Brazil, sought to identify elephant grass cultivars capable of producing high forage yields on a red-yellow Latosol (Oxisol) under low available nitrogen. A randomized block experiment design was used with 49 cultivars and three replications. No nitrogen fertilizer was applied over the 4-year experimental period. Five harvests were performed during year 1, four during years 2 and 3, and three during year 4. Dry matter yield and total nitrogen in plant canopies were measured at each harvest. Cultivar Mineiro x 23A presented the highest dry matter yield, but showed low stability ( $\sigma_{di}^2 > 0$ ). It also presented a stable total-N yield. Overall, those cultivars presenting the lowest dry matter yields showed good stability. Cultivars Mineiro, Taiwan A-25, Merker Pinda, Merker Comum, and Gramafante presented both good dry matter yields and stability. These cultivars, together with cv. Mineiro x 23A, BAG 02, P241 Piracicaba, and Cana D'África, could play an important role in future work on nitrogen economy for elephant grass.