

Summary

Pastures of *Melinis minutiflora* and *Brachiaria decumbens* were submitted to different stocking rates at the National Dairy Cattle Research Center in Coronel Pacheco (Minas Gerais, Brazil) between June 1983 and May 1984. The Center is located at 414 m.a.s.l., 27° 33' S and 43° 06' W, with an average temperature of 28 °C and average rainfall of 1,581 mm. Stocking rates in *M. minutiflora* pastures were 0.4, 0.6, 0.8, and 1.0 AU/ha; and in *B. decumbens* pastures, 0.8, 1.0, 1.2, and 1.4 AU/ha. Two crossbred dairy animals, with an initial live weight of 120 kg each, were used to adjust the stocking rates in variable areas.

After 344 days of evaluation, *B. decumbens* pastures produced more DM (5.84 t/ha) and maintained a greater soil coverage (96%) than *M. minutiflora* pastures (5.05 t/ha; 82%). Throughout the evaluation period, liveweight gain of animals was higher on *B. decumbens* pastures than on *M. minutiflora* pastures. Higher liveweight gains per area were obtained at the stocking rate of 1 AU/ha.