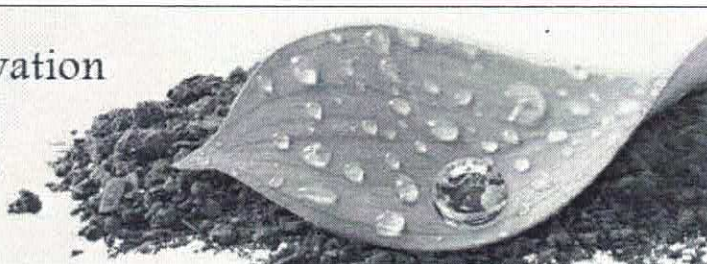


# Water, Food, Energy & Innovation for a Sustainable World

ASA, CSSA, & SSSA International Annual Meetings  
Nov. 3-6, 2013 | Tampa, Florida



American Society of Agronomy | Crop Science Society of America | Soil Science Society of America

**Start** **245-15 Morphological Composition and Herbage Accumulation of *Brachiaria Decumbens* in Silvopastoral System and Monoculture.**

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Tuesday, November 5, 2013  
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The silvopastoral system has been suggested as an alternative to recovery degraded pastures and to intensify animal production in grazing systems. The objective of this study was to evaluate the morphological composition and herbage accumulation of *Brachiaria decumbens* in silvopastoral system (SPS) and monoculture (MON), under continuous stocking grazing of dairy heifers, during two seasons of the year (summer and autumn) and for two years. The experiment was carried out at EMBRAPA Dairy Cattle, Minas Gerais State, Brazil, from December/2011 to June/2012 (184 days) and December/2012 to May/2013 (149 days). The experimental design was a complete randomized block with two treatments and three replications. The pasture traits were estimated based on 10 samples collected in each paddock (1.5 ha), with a frequency of 21 days. The samples were separated into live and dead materials and leaf and stem fractions and dried in forced draught (55°C for 72 hours). The herbage accumulation was estimated by agronomic difference method, using exclusion cages. The data were analyzed as repeated measures in time, using PROC MIXED of SAS®. Means were compared using a probability level of 5%. There was no effect ( $P > 0.05$ ) of system, year and season on herbage accumulation (average of  $1,405 \text{ kg ha}^{-1}$ ). However, the systems were different ( $P < 0.05$ ) for leaf, stem and dead material dry mass. In general, the MON had larger means ( $1,231 \text{ kg ha}^{-1}$  for leaf mass,  $1,821 \text{ kg ha}^{-1}$  for stem mass and  $686 \text{ kg ha}^{-1}$  for dead material) than the SPS ( $706 \text{ kg ha}^{-1}$  for leaf mass,  $1,023 \text{ kg ha}^{-1}$  for stem mass and  $374 \text{ kg ha}^{-1}$  for dead material). Although the moderate shading did not affect the herbage accumulation, which may be attributed to tolerance of *B. decumbens* to shading, the higher leaf dry mass in MON indicate its larger carrying capacity when submitted to grazing. See more from this Division: C06 Forage and Grazinglands  
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