

Summary

A study was conducted in a commercial farm located at El Laberinto area, Zulia state, Venezuela (10° 32' N, 72° 12' W); in a sandy loam Alfisol with pH 5.2; 970.7 mm and 28 °C mean annual rainfall and temperature, respectively) to evaluate the effect of deferring the utilization period of a *Panicum maximum* + *Leucaena leucocephala* association on the dry matter production (DM), crude protein (CP) content, in vitro digestibility of the organic matter (IVDMO). A complete randomized block design with three replications was used to four treatments (days after a uniformity cutting on October 16); $T_1 = 42$ (November 27); $T_2 = 84$ (January 15); $T_3 = 112$ (February 15); and $T_4 = 140$ (March 15). The average DM production (t/ha) increased ($P \leq 0.01$) as the deferral period increased until February 15 ($T_1 = 12.3$; $T_2 = 17.19$, and $T_3 = 17.88$) with no significant increase thereafter ($T_4 = 18.16$). The PC and digestibility of organic matter decreased ($P \leq 0.01$) with increasing the deferral period in both species; however, T_3 (7.9 and 2.1 t/ha) and T_4 (8.02 and 2.13 t/ha) produced a greater ($P \leq 0.01$) quantity of IVDMO and CP than T_2 (7.09 and 2.02 t/ha) and T_1 (3.02 and 0.86), respectively. Also, it was found that leucaena produced a greater ($P \leq 0.01$) quantity of digestible organic matter and CP than guinea grass in all treatment.