Dairy farming is an activity that provides the small rural farmer the opportunity to earn income in small areas of land. The perennial pastures represent a source for a cheap and nutritious diet for the animals. The correct management of perennial pastures can be the key to sustainability in the dairy business, resulting in the preservation or recovery of the balance of a pasture system, starting with the pursuit of production with low costs and good pasture production per unit area. The correct choice of fertilizer is of great importance to ensure the continuous production of pasture both in quantity and in quality. The aim of this study was to evaluate the dry matter production of perennial pasture consisting of Tifton 85 (Cynodon spp) under different nutrient sources on a typical dystrophic Red Latosol, presents in a region where the climate is characterized as humid-mesothermic with a hot summer, Cfa according to Köppen, with an average annual rainfall of 2039 mm, well distributed throughout the year and average annual temperatures around 18 °C, varying monthly from 14.1 to 23 °C. The treatments consisted of three nutrient sources: 1) organic manure, a base of chicken bedding (average values of reference NPK (02/03/02), 2) organic manure + mineral - organic mineral, with application of 606 kg ha⁻¹ (04/10/10) Formula, aiming to adjust the same amounts of NPK supplied by mineral fertilizer and, 3) Mineral. The experimental design was a randomized blocks with nine replications. We collected five samples of each pasture treatment for determination of the average. After cutting the pasture of Tifton 85, the samples were subjected to weighing for determination of wet weight and then taken to the drying oven (temperature 65 °C for 72 hours) to determine dry matter production. The statistical analysis was performed with SAS for Windows computer system (SAS) and the results submitted to the Tukey test at 5%. The highest dry matter yield (kg ha⁻¹) was obtained in treatments with fertilization with biofertilizer, this differing treatment received organic fertilizer, however, did not differ from mineral fertilizer treatment. Thus, the organomineral fertilization is the alternative that is being studied, in which the fertilizer is combined in organic form with mineral fertilizer, so that there are different times of nutrient availability during the pasture cycle production.

Key words: diet, mineral, organic, organic-mineral.