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# Mineral characterization of sabiá (*Mimosa caesalpiniifolia Benth.*) in a native Caatinga area in Petrolina, PE

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The sabiá (*Mimosa caesalpiniiifolia Benth.*) is a forage native to Northeast Brazil, consumed by small ruminants during the rainy season and also used as hay during periods of scarcity in the Brazilian Semiarid region. Due to the limited information regarding its mineral content, this study aimed to characterize the levels of macro and microminerals in sabiá. The experiment was conducted at the Caatinga Experimental Field and the native Caatinga area of Embrapa Semiarid in Petrolina-PE, where plant samples of leaves and branches of sabiá with a maximum diameter of 5 mm were collected. The materials were pre-dried in a forced air circulation oven at temperatures between 55 and 60 ºC until a constant weight was reached. Subsequently, they were ground in a Willey knife mill with a 1 mm sieve and stored in labeled plastic containers. The mineral contents were determined as follows: boron (B) through azomethine H colorimetry; phosphorus (P) and sulfur (S) with metavanadate colorimetry and barium sulfate turbidimetry, respectively; nitrogen (N) using the Kjeldahl method; sodium (Na) and potassium (K) by flame photometry; and calcium (Ca), magnesium (Mg), copper (Cu), iron (Fe), manganese (Mn), and zinc (Zn) by atomic absorption spectrophotometry. The average results from four collection repetitions were calculated and expressed in $g.kg^{-1}$ for macrominerals and $mg.kg^{-1}$ for microminerals. The concentrations of macrominerals followed the descending order: N, Ca, K, Mg, P, S, and Na. N had concentrations of 20.87 $g.kg^{-1}$, demonstrating its potential in providing nitrogenous compounds. Ca and K were the second and third most concentrated macrominerals, with 14.19 $g.kg^{-1}$ and 12.26 $g.kg^{-1}$, respectively. Mg and P had levels of 2.12 $g.kg^{-1}$ and 1.15 $g.kg^{-1}$, respectively. S and Na had concentrations below 1.00 $g.kg^{-1}$, with S at 0.47 $g.kg^{-1}$ and Na at 0.11 $g.kg^{-1}$. The highest micromineral concentrations followed this order: B, Mn, Fe, Zn, and Cu. B was the most concentrated micromineral (136.5 $mg.kg^{-1}$), followed by Mn and Fe with intermediate levels of 85.59 $mg.kg^{-1}$ and 72.46 $mg.kg^{-1}$, respectively. Zn and Cu) had lower concentrations of 15.10 $mg.kg^{-1}$ and 5.01 $mg.kg^{-1}$, respectively. Sabiá demonstrates a good concentration of macro and microminerals for small ruminant feed. However, due to the fact that some requirements are not fully met, it is necessary to adopt strategies to meet the mineral demands.
**Keywords: calcium, Semiarid, small ruminants, zinc.**

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