

# Summary

Lime and the micronutrients molybdenum (Mo) and cobalt (Co) were applied to perennial soybean cv. Tinaroo (*Neonotonia wightii*), cultivated in alic Red Dark Latosol, to evaluate their effects on nodulation, nitrogen fixation, growth, and chemical composition. Lime was applied, with and without Mo or Co, at three rates: zero, enough to raise the base saturation index of the soil to 35%, and again for a 70% index. The 12 treatments were arranged in a complete random block design with four replications in pots.

The lime raised pH and decreased  $H^+ + Al^{3+}$ , thus increasing exchangeable Ca and Mg and the soil base saturation percentage. The lime also significantly increased DM production of shoots, roots, and the whole plant; the total N in the plant, and nodulation. Mo applications favorably affected total N accumulated in the soybean and, by benefiting nitrogen fixation, increased DM production even by the first cut.

The lime also caused significant variations in the plant's mineral composition. It favored Mo absorption, but decreased Co absorption. Mo and Co applications significantly increased the plant's contents of these micronutrients.