B37 STUDIES ON THE DEFICIENCY OF SIX ESSENTIAL PLANT NUTRIENTS ON WINGED BEAN *(Psophocarpus tetragonolobus)* (L)

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An experiment was conducted to observe deficiency symptoms of six macronutrient

elements (N, P, K, Ca, Mg, and S) on winged bean *(Psophocarpus tetragonolobus)* (L). Six pre-germinated winged bean seeds of variety S.L.S. 40 were planted in plastic pots filled with 2.5 kg acid-washed river sand. Each pot was supplied with sufficient moisture for growth of seedlings, and treated with an appropriate mixture of inorganic salts to supply all essential elements except the one meant to be deficient.

The first deficiency symptom to be observed was that of sulphur at the six week stage of growth. This was followed by calcium and potassium and then by magnesium. Nitrogen deficiency was the last to be observed. To confirm the deficiencies observed, normal and affected plants were analysed.

Of the elements tested, sulphur is likely to be the most critical, while nitrogen is likely to be the least critical element for the establishment and growth of this variety of winged bean.