

EFFECT OF DIFFERENT SOURCES OF SULPHUR ON MINERAL  
COMPOSITION OF PUERARIA PHAEOLOIDES  
AND ON SOIL PARAMETERS

W.A.R. Nishantha Fernando and N. Yogaratnam  
Rubber Research Institute, Agalawatte.

Pueraria phaseoloides is the most common ground cover grown under Hevea in Sri Lanka. The nutrition of this cover plant has some effect on that of Hevea.

A pot experiment was conducted using P. phaseoloides grown on soils collected from Bartonfield area in order to study the effect of different S-sources on this plant.

The sources of sulphur used were Sulphate of ammonia, Kieserite, Commercial Epsom Salt and Elemental Sulphur. At the end of the experimental period of three months all plant parts and soils were analysed for N, P, K, Ca, Mg, S, pH and organic C.

This study revealed that, although the soil - S content showed a significantly higher values when applied in elemental form than in sulphate form, the plant - S content was found to be higher with the sulphate form. The higher leaf - P content due to the application of S containing fertilizers suggests a positive synergism between S and P. The higherst leaf - K content was shown when elemental S was applied. Application of Mg containing S - fertilizers showed a lowering of leaf - K content confirming the positive antagonism between K and Mg.

Commercial Epsom Salt appeared to be more efficient than kiesertite in increasing the Mg content of soil and Pueraria leaves. Mg deficiency was observed in some pots which received Ammonium Sulphate. The soil - Ca level was highest with the addition of elemental S, which brought about the lowest soil pH and organic C.