# Mineral Solubility of Forages in Sumatra

**Armina Fariani**

Faculty of Agriculture, Sriwijaya University-Palembang, Indonesia

**Abstract**

This experiment was conducted to determine macro mineral solubility of the forages harvested in South Sumatra, Indonesia during dry and rainy seasons. The species of forages evaluated was the same as reported in the previous study. The mineral solubility was determined by *in situ* nylon bag technique through incubation of the forages samples in the rumen at 0, 24 and 72 hr. Results of the experiment showed that solubility of Ca, P, Mg and S significantly affected by species and season ($p<0.05$). Minerals solubility increased as increasing period of incubation from 0 to 72 hr. At 0 hr incubation (water solubility), P and Mn were the most soluble minerals, while in legumes the highest water solubility was found for Mg. Conversely, Ca was solubilized lower than the other observed minerals. Among species of forages, *P. purpuphoides* (grass) and *L. leucocephala* (legume) contained highly water soluble minerals compared to the other species. Data on 72 hr incubation period (actual solubility) showed that P was the most soluble minerals in grass followed by Ca, S and Mg. However, the highest mineral solubility in legumes was occurred in Ca, followed by Mg, S and P. Consistent with mineral concentration, among the forages evaluated *P. purpuphoides* (grass) and *L. leucocephala* (legume) had higher mineral solubility compared to the other species.

***Key Words*** : Rumen solubility, macro mineral, rainy and dry seasons

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