(1973), Underwood (1981) and Minson (1990) that micro minerals concentrations in legumes were lower than in grass. The mean of Cu concentration was slightly higher than the requirement for sheep (7.0 mg kg^{-1} DM) (NRC, 1984). Decreasing Cu concentration of grass and legume forages may occur with advancing maturity, climatic and seasonal changes (Spears, 1994). The mean Se concentration was slightly higher in legume than grass (0.48 vs 0.28 mg kg^{-1} DM). Between the seasons, Se concentration of grass and legume forages slightly higher in rainy season than in dry season and are higher than required in the feed for ruminants (0.2 mg/kg DM) as recommended by NRC (1984).

According to Underwood and Suttle (1999), increasing soil water can have a negative influence on soil trace mineral especially Se. In contrast, the tendency for the lower mineral content of grass and legume forages in dry season is probably a reflection of the influence of rainfall. Several studies (Evitayani *et al.*, 2004, Fujihara *et al.*, 1992, Master *et al.*, 1992, and Prabowo *et al.*, 1991) have reported that seasonal fluctuations in micro mineral composition persisted in grazing pasture. Results of the present study also showed that Fe (rainy and dryseasons) of forages were not deficient. However, Zn was deficient in *A. mangium*; Mn was deficient in *C. pubescens, L. leucocephala* and *A. mangium*; Cu was deficient in *A. compressus, P. purpuphoides, P. maximum, C. mucunoides* and *A. mangium* and Se was deficient in *A. compressus*, respectively. While in dry season, Zn was deficient in seven species except for *A. compressus*; Mn was deficient in *C. pubescens, L. leucocephala* and *A. mangium*;

Cu was deficient in seven forage species except for *C. pubescens* and Se was deficient in *C. mucunoides*, respectively. However, deficiency of Zn in grass and legume were 33.3% and 100%; deficiency of Cu was 100% in grass and 62.5% in legume; deficiency of Mn was 75% in legume and 16.7% in grass, and deficiency of Se was 50% in legume. McDowell (1976, 1985) reported that of Zn, Cu, Mn and Se were the most severe mineral limitation to grazing livestock in tropical countries especially in Indonesia; while individual evaluation of samples based on Fe requirements of 50 mg/kg DM indicated that none of grass and legume forages were deficient in Fe. The zero incidence of Fe deficiency in grass and legume forages in both rainy and dry seasons was also obtained by Prabowo *et al.* (1991).

Mineral proportion of forages in Neutral Detergent Fiber (NDF)

The micro mineral proportion of grass and legume forages in NDF is shown in Table 2. Both seasons and species significantly ($P<0.05$) affected Zn, Fe, Mn, Cu and Se. In rainy season, the highest proportion of Zn in NDF of grass was 26.1 % (*A. compressus)* and 51.3 % (*P. maximum*), Fe varied from 29.8 (*P. purpuphoides*) to 60.1 % (*A. compressus*); Mn from 1.3 (*A. compressus*) to 2.8 % (*P. purpuphoides*); Cu from 7.0 (*P. purpuphoides*) to 20.5 % (*A. compressus*) and Se ranged from 12.9 (*A. compressus*) to 25.2 % (*P. maximum*), respectively. In dry season, proportion of Zn in NDF was relatively higher than in rainy season. Proportion of Zn associated in NDF ranged from 37.1 (*P. purpuphoides*) to 54.2 % (*P. maximum*), Fe from 33.2 (*P. purpuphoides*) to 79.1 % (*A. compressus*), Mn from 1.9 (*A. compressus*) to 3.3 % (*P. maximum*), Cu