The average increasing was 7.3 and 11.1 percentage units for grass and legume. The DM disappearance of grass at 24 hr incubation varied from 18.5 % (*A. compressus*) to 30.2 % (P. *maximum*). The DM disappearance of legumes at 24 hr incubation ranged from 33.3 (*C. pubescens* and *L. leucocephala*) to 44.2 % (*C. mucunoides*. Similarly, mineral disappearance of the forages at 24 hr incubation was higher than in 0 hr incubation period. The average Ca disappearance of grass was 25.1 %, with the highest value was occurred in *P. maximum* (40.2 %). For legumes, the average Ca disappearance was 34.0 % with the highest value was occurred in *L. leucocephala* (60.3 %). The average of P disappearance of forages was higher

56.8 % for grass and 64.4 % for legumes. Disappearance of Mg in grass 35.5 % and while in legume was 50.1 %, respectively. Moreover, the average S disappearance of grass was 42 %; while for legumes the value was 43.3 %.

As shown in Table 2, the trend of ruminal solubility of macro mineral at 24 hr incubation period in grass during rainy and dry seasons was : P > S > Mg > Ca; while in the legumes the ranking was : Mg > P > S > Ca, respectively. This finding agreed with the result reported by Ledoux and Martz (1991) in temperate forages including silage and with result of van Eys and Reid[15] that P was more soluble than Mg in fescue and red clover herbage

Dry matter and macro mineral disappearance of forages at 72 hr incubation

Dry matter and macro mineral disappearance of forages at 72 hr incubation are shown in Table 3. It is clear that DM and macro mineral disappearance of the forages at 72 hr incubation was higher compared to 24 hr incubation.

The average DM Disappearance of grass was 59.7%, with the highest value was occurred in *P. purpuphoides* (68 %). In legumes, the average DM disappearance was 69.8%, with the highest value was occurred in *L. leucocephala* (72.4 %). Data on mineral solubility showed that the average Ca disappearance of grass was 67.3 % with the highest value was occurred in *P. purpuphoides* (77.4 %). The average disappearance of P and Mg in grass was 67.3 with the highest values were observed in *P. purpuphoides* (85.5 %), respectively. Furthermore, the average S disappearance of grass was 57.7 % with the highest value was 65.7 % in *P. purpuphoides*.

In general, disappearance of DM and macro mineral were higher in legumes than in grass. The average DM disappearance of legumes at 72 hr incubation period was 69.8 % with the highest value was occurred in *L. leucocephala* (72.4 %).