

The wide variation of micro mineral proportion in ADF residue in the present study shows that the rate of affinity of these elements with lingo cellulosic materials differed each other (Edwards et al., 1977, Ibrahim et al., 1990, Kincaid and Cronrath, 1983, McDowell, 1985, and Emmanuele and Staples, 1990). The average of Zn proportion in ADF of grass (3.4 %) and legume (3.9 %) in the present study was similar with the result of Ibrahim *et al.*, (1990) who indicated that 3 % of Zn remained in ADF fraction of *Gliricidia*. The highest proportion elements in ADF were found in Fe and Se (37.1 and 38.6 % for grass) and 35.3 and 34.4 % for legume. Similar result was reported by Ibrahim *et al.*, (1990) and Serra *et al.*, (1996). In general, grass contained higher proportion of micro mineral in NDF than legume reflecting a higher trapped of the elements into lignocellulose.

Conclusion

From the above results, it could be concluded that nutritive value of forages in South Sumatra assessed by distribution of micro mineral either in intact forages or in fiber fractions (NDF and ADF) greatly varied between species and seasons. In rainy season, the concentration of Fe and Se was above the requirement of the ruminants, while in dry season some of the forages were deficient for these elements. A high content of cell wall constituent (NDF and ADF) has been associated with the attachment of more minerals into the cell wall. However, most of the micro mineral elements were found in the cell contents and should be available to the ruminants.

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