

In on-farm trials in Kenya, a total of 18 lactating cows were fed for 3 months on various types of fodder, pasture and concentrate in zero-grazing, semi zero-grazing and grazing systems of smallholder milk production. Overall, daily intake of calcium, phosphorus, magnesium and sodium averaged 46.7 ± 14.9 , 32.2 ± 12.9 , 31.2 ± 10.9 and 16.9 ± 7.3 g, respectively. The results showed that the diets were deficient in Ca for heavy and high-producing cows, but adequate for low-producing cows. Intake of P for most cows was below the requirement because forage, which was the major source of all elements, had a low P content. High contents of Mg in fodder and pasture ensured that the intake of this mineral was above the requirement. The diets were slightly deficient in Na for heavier and higher yielding cows. It was suggested that increasing the amount of fodder in the diets could prevent mineral deficiency.