Assessment of Mineral Elements of Some Range Species in Contrast of Livestock Requirements

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Introduction Range management is dependent on progressive scientific capability on livestock feeding . Adequate intake of forage by grazing animals is essential in meeting of feed requirements . Matching animal requirements for minerals to available supply from a base diet forms the basis for designing appropriate supplementation programs . Unlike other nutrients , minerals can not be synthesized by animals , therefore animals must acquire adequate amounts of required elements from their environment (Karn *et al* . 2003) .

Materials and methods For investigation of fluctuations in minerals (Cu , Fe , Zn , Mg , Mn , K , Na , Ca , P) of range forage in two phonological stages (full flowering and seeding) , five important species that prepare the most part of forage intake of sheep were chosen in lorestan province , which include : *Agropyron tauri* , *Agropyron trichophorum* , *Bromus tomentellus* , *Festuca ovina* & *Hordeum bulbosum* . Samples were collected randomly and analysed after drying to determine minerals content (AOAC1990) and compared with sheep requirements to mineral elements (NRC 1985) .

Results and discussion Results showed that none of experimental species had deficiency of Ca , Mg and K . The amounts of Fe , Mn and Cu were more than sheep requirements , but less than tolerance threshold , and Na , Zn and P amounts were than requirements . Sheep requirement to Na is of little importance due to salt stone usage by livestock farmers . Deficiency of P is of more importance and should be compensated through another way .

Conclusions It seems that if grazing system could be managed in a way that adequate nutrient concentrations are maintained for longer periods of time , yearly supplemental needs may be reduced while overall production is increased .

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