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Recent progress in exploring the essentiality of the ultratrace element rubidium to the nutrition of animals and man

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Abstract:
Rubidium-poor nutrition with 280 μg Rb/kg diet DM reduced feed intake, pre- and postnatal growth rate and conception rate of goats significantly. The most important finding was the extremely high abortion rate (> 80%) of rubidium-deficient goats. Goats with abortion had a progesterone level of only 7% of the normal amount. The plasma estradiol level in aborting goats ranged from 37 to 280 nmol/l. The normative requirement of goats, and animals in general, might reach < 400 μg/kg feed dry matter (DM). Rubidium (Rb) deficiency is not to be expected in humans. None of the 70 female and 70 male subjects investigated ingested less than 400 μg Rb/day. Thus, the rubidium requirement of humans - if it should exist - might be rated as < 400 μg/day.

Key words: rubidium, essentiality for animals, geological influences, intake by man, foodstuffs

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