Providing diets that are moist or that preserve intracellular integrity is important to dilution of the urine. Elevated dietary protein at the expense of carbohydrates can play a big part in this strategy.

Formulators should also pay special attention to reducing overall mineral content (ash) and to meeting, but not substantially exceeding, the mineral requirements for calcium, phosphorus, sodium, potassium and magnesium.

Selection of the right mineral ingredients to acidify (chlorides, sulfates, phosphates and mineral acids) and/or alkalinize (carbonates, oxides and weak organic acids) the urine to the target pH is all important. Unfortunately, this process remains an exercise in trial and error as empirical equations do not provide an accurate means to achieve this goal.

The importance of mineral balance in urinary tract health is not well known. Mineral salts are not only of concern as components of uroliths but also in their effects on urinary pH and their potential to affect water intake and urinary excretion of magnesium and phosphorus in laboratory cats. Exp. Anim. 44:29-35.


References


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