

SheepSense:

an applied research brief

Winter Ewe Management

The Challenge

Sheep ranchers in Wyoming grapple with a substantial challenge in meeting the nutritional needs of their flocks, particularly during winter when 82% of the state's sheep rely on winter range resources. Trace mineral deficiencies, often overlooked, pose economic threats to producers. Current practices indicate insufficient supplementation of complete trace minerals, underscoring the need for enhanced strategies.

Existing literature covers sheep dietary composition and forage nutritional content on winter range. Still, a critical gap persists regarding trace mineral composition. This brief addresses this gap by quantifying mineral concentrations in common winter range forages and assessing rancher supplementation strategies. Research reveals shrubs contain markedly higher mineral concentrations than grasses, providing a crucial source for fulfilling sheep's macro- and micro-mineral requirements.

Analysis

Ewes in diverse rangelands consume various plants, AND shrub species, often overlooked, provide higher crude protein (CP) and minerals than grasses.

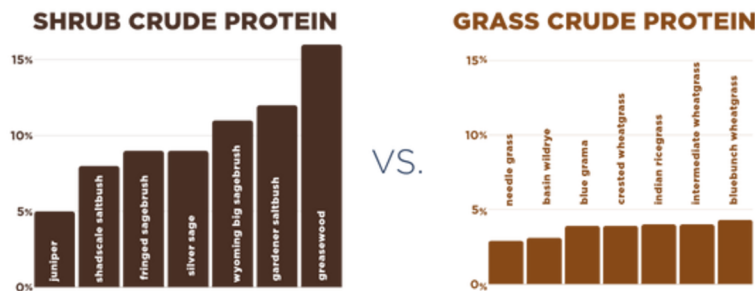
Shrub species contain more calcium, phosphorus, potassium, magnesium, sulfur, sodium, zinc, copper, and manganese than grasses.



The Response

To optimize sheep nutrition, especially during critical production periods, ranchers should consider supplementing trace minerals, particularly selenium and zinc. Shrub-dominated rangelands offer a nutritional advantage due to their higher essential mineral concentrations. Supplementation is particularly crucial during breeding and gestation. Given the potential economic losses from deficiencies, providing a complete trace mineral mix throughout the year is vital. Proper supplementation equips sheep producers to make efficient management decisions based on their specific rangeland community. It also advocates a proactive approach to trace mineral deficiencies.

Ensuring proper ewe nutrition in Wyoming's winter conditions is vital. With snow covering rangelands hindering feed access, a delicate balance between supplementation and substitution strategies is crucial. Supplementation involving high-energy or high-protein feed addresses nutritional gaps during grazing limitations, while substitution provides the baseline material needed in snow-covered areas. Recognizing when to use each strategy and making informed feed choices is imperative for sheep ranchers confronting challenging winter conditions.



Quick Facts:

1/2 LB OF CORN PROVIDES NEARLY 40% OF THE ENERGY REQUIREMENTS FOR A 160-POUND EWES FOR AN ENTIRE DAY

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Source: Mineral element concentrations of common grass and shrub species on sheep winter range in Wyoming: insights for mineral supplementation strategies. Translational Animal Science, 4(Supplement_1), pp.S11-S16.

