

KEEP YOUR MULE DEER



UNDERSTANDING MULE DEER AND WINTER FEEDING

Overview

Wild animal starvation is a natural event. Unlike most human populations, virtually all wild animal populations experience significant and dramatic population fluctuations. Humans are compassionate but our limited knowledge and resistance to accept Mother Nature's ways, compel us to "assist" mule deer with winter-feeding programs. Unfortunately, winter-feeding is a complex matter involving numerous issues to be considered before determining a course of action.

Background

Supplemental winter-feeding programs, despite broad social appeal and acceptance, are expensive, can negatively affect mule deer behavior and biology, and save very few deer. Inadequate habitat and severe winter weather with heavy snow accumulation and cold temperatures are the ultimate cause of most winter feeding programs. Prior to initiating winter-feeding, the potential for long-term benefits to mule deer as well as habitat conditions needs to be critically evaluated.

Biology

Several unique aspects of mule deer biology complicate the potential for successful winter-feeding. Unlike elk, mule deer are highly selective foragers due to their specialized digestive system. As "ruminants", mule deer rely on a very complex stomach system to aid in digestion. Ruminants use bacteria to aid in the digestion of their food. Specific types of bacteria are required for specific foods. Because the digestive system can't adapt quickly enough, supplementally fed mule deer die with full stomachs. This is especially true when starving mule deer are fed hay.

Behavior

Animal behavior may also be affected by winter-feeding efforts. Behaviors important to mule deer survival include learned behaviors, such as foraging and migratory habits and are critical to the long-term sustainability of a population. Winter-feeding has the potential to disrupt both. As mule deer learn locations of feeding stations, they continue to visit these sites, sharing this information with each successive year's offspring. As each generation becomes more reliant on artificial foods, they become less familiar with natural foraging areas. Additionally, if feeding continues, they may fail to recognize the need for migration. Fear of humans is another learned behavior important for survival that is often lost during feeding operations.

Disease and Predators

Winter-feeding programs generate artificially high animal densities at feeding sites. This provides an ideal opportunity for the transmission of diseases and/or parasites. Winter-feeding in areas highly populated by humans may create conflicts by attracting predators.

Competition

Mule deer compete with one another when food is scarce. Consequently, the healthiest deer, such as dominant does, exclude the truly “needy” individuals (usually fawns) from food. By placing a resource in a localized area, competition is increased and some deer get no food, while others gorge themselves and get too much. Too much of a “good” thing can jeopardize their survival due to complications from dietary shock.

Sociology

Both proponents and opponents of winter-feeding have the deer’s best interest in mind. However, even well designed and executed winter feeding programs fail to significantly increase the chance of mule deer survival. Given winter feeding saves few deer from starvation, we must consider the biological cost to the habitat, and cost to mule deer in the long-term. We must focus on the sustainability of the mule deer population for generations to come – not just one winter.

Another problem resulting from the initiation of feeding by private citizens, is the desire to continue feeding at times of the year mule deer don’t “need” it but will choose to stay. This further complicates the concerns outlined above and may ultimately kill deer. Uncoordinated feeding efforts result in dozens of different foods being fed, while deer migratory habits, foraging behavior, and fear of humans is negatively affected. Feeding can attract deer into landscaped yards and high traffic areas causing ornamental vegetation damage and vehicle accidents. People who feed deer often do not understand the issue of availability and condition of natural habitats. They believe supplemental feeding can adequately meet mule deer nutritional needs. Feeding programs have repeatedly shown mule deer will often starve to death with full stomachs.

Conclusions - Government agencies in the Western United States have conducted supplemental feeding of wildlife for about 100 years. Some programs, for example elk on the National Elk Refuge, are successful – though there are social and biological costs of that program too. For mule deer, feeding has a limited nutritional benefit often negated by undesirable even catastrophic behavioral and biological effects. Of course we all have wildlife’s best interest in mind. But, we must ensure we understand the biology of the animals we’re concerned about so our actions are truly beneficial to them. This is often the point of debate as society considers winter-feeding mule deer. Our conventional wisdom, experience, and professional consensus is clear - feeding mule deer violates the most basic principle of population regulation within natural systems and is unsuccessful. At best, winter feeding programs for mule deer are only successful in making people who are compassionate about wildlife feel better.