UNDERSTANDING MULE DEER AND WINTER FEEDING
Fact Sheet #2

Starvation of wild animals is part of nature. Virtually all wild animal populations experience significant and dramatic population fluctuations. Human compassion makes people want to help mule deer with winter-feeding programs. Changing nature by 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, at least in part, due to their specialized digestive system. As "ruminants," mule deer rely on a very complex stomach system to aid in digestion. Mule deer use bacteria in their rumen to aid in the digestion of their food. Specific types of bacteria are required for specific types of food, therefore the type of food required for winter feeding of mule deer is highly limited, very specific, and must be properly formulated. Because the digestive system can't adapt quickly enough, supplementally fed mule deer may die with full stomachs. This is especially the situation when starving mule deer are fed alfalfa hay, corn, or other traditional livestock feeds.

BEHAVIOR - Mule deer behavior may also be negatively affected by winter-feeding efforts. Behaviors important to mule deer survival include learned behaviors, such as foraging and migratory habits; both critical to the long-term sustainability of a population. Winter-feeding has the potential to disrupt both winter foraging activities and migratory patterns. 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 food sources, they become less familiar with natural foraging sites and activities. Additionally, mule deer may fail to recognize the need for migration.

DISEASE AND PREDATORS - Winter-feeding programs generate artificially high animal densities at feeding sites. These high densities of animals provide ideal opportunities for the transmission of diseases and parasites. Winter feeding in areas highly populated by humans may create significant liability issues in terms of attracting predatory animals such as mountain lions and domestic dogs.

COMPETITION - Mule deer compete fiercely for food when it is limited. Consequently, the biggest, strongest, healthiest deer, such as dominant does, exclude the truly "needy" individuals (usually fawns) from the food. By placing a resource in a localized area, competition is increased and some deer get little or no food, while others gorge themselves and get too much. Too much of a supposed "good" thing can also jeopardize their survival due to complications from dietary shock.

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SOCIOLOGY - Sitting by and watching mule deer die from starvation is not something most of us are willing to do. Both proponents and opponents of winter feeding believe they have the deer's best interest in mind. However, even well designed and executed winter-feeding programs often fail to significantly increase the chance of mule deer survival. Even if winter feeding could save a few deer from starvation, we must consider the biological cost to the habitat, cost to other species, 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 season. 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 on it, further complicating the concerns outlined above and often providing food sources that may ultimately kill deer. Uncoordinated or casual feeding efforts result in dozens of different foods being fed, while deer migratory habits, foraging behavior, and fear of humans are also negatively affected. Feeding can attract deer into landscaped yards and high traffic areas, causing damage to gardens and increasing vehicle accidents. People who feed deer often ignore the real issue of availability and condition of natural habitats. They believe supplemental feeding, can adequately meet mule deer nutritional needs.

CONCLUSIONS - Government agencies in western North America have conducted supplemental feeding of wildlife for about 100 years. At best, feeding has a limited nutritional benefit, often negated by undesirable, even catastrophic, behavioral and biological effects. Of course, we all have the best interest of wildlife in mind. However, we must ensure we understand the biology of the animals we're concerned about so our actions are truly beneficial. 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. At best, winter feeding for mule deer is only successful in making people who are compassionate about wildlife feel better and seldom are any benefits of winter feeding realized.

Winter feeding of mule deer creates artificially high concentrations of animals, leading to increased risks, including disease transmission and predation.

Winter-fed mule deer often die with full stomachs due to their inability to adapt to rapid changes in type and abundance of feed.

More information on mule deer can be found at www.muledeerworkinggroup.com

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