An overlooked hit to your bottom line?

Some people love them and others hate them. Chances are if you are in livestock production, the latter is true. Prairie dogs present a challenge for all landowners, not just livestock producers, in terms of land values, neighbor relations, and public health. A proactive management strategy is important to prevent prairie dogs from causing long-term damage.

An overview of the prairie dog can help landowners plan management strategies. Five species of prairie dogs inhabit very specific geographic regions. The black-tailed prairie dog has the largest range covering most of the Great Plains including eastern Wyoming and Nebraska. White-tailed prairie dogs are also found in Wyoming, yet mostly in the central and southwest regions. The remaining three species are Gunnison, Utah, and Mexican prairie dogs which are not usually found in Wyoming.

Family and communication structures of prairie dogs are quite extensive and complex. Their burrows can be 3-14 feet deep and 10-100 feet long containing several chambers such as a listening chamber, nursery, toilet, and sleeping chamber. Family units are called coteries which consist of one or two males, several females and their offspring. Coteries are grouped into wards and wards then make up a colony or town. Average litter size is 3-4 pups which are born in April to May. Black-tailed prairie dogs typically live 3-5 years in the wild, yet about half of pups which emerge from their natal burrow survive the first year of life.

In the lens of livestock production, prairie dogs can compete with livestock for forage and impact weight gain. Dietary overlap between prairie dogs and cattle in a short-grass prairie (typical of this region) is about 64%. Western wheatgrass, buffalo grass and grama grasses are favorites for both species. However, dietary overlap doesn’t necessarily imply a direct competition. When one species is negatively impacted due to the presence of another species, competition is occurring. Determining direct competition between prairie dogs and cattle is dependent on several factors such as geographical area, vegetation type, season, and year. Typically, competition is higher in areas with low biomass production since resources are already limited and stressed. One study conducted in South Dakota estimated competition between the cattle and prairie dogs at 4-7%.

If calculating competition isn’t difficult enough, the impact of that competition presents even more challenges. In 2006, research completed by Derner et al. determined mean seasonal cattle weight was 6% greater in pastures which were not colonized by prairie dogs compared to pastures with prairie dogs. Further, the gain of cattle was decreased when the area of pasture colonized increased. For example, a pasture with 20% of the area covered in prairie dogs, weight gains were 5.5% lower than pastures without prairie dogs. Cattle weights decreased by 14% when prairie dogs covered 60% of the pasture area compared to pastures without prairie dogs. While these figures are specific to this study, it illustrates the general trend of the negative impacts prairie dogs can have on cattle production.

With the ability to reproduce and colonize quickly, a proactive approach to prairie dog management is essential. There are several control methods available including exclusion, shooting, toxicants, and fumigants. Tall vegetation can hinder new colonization as prairie dogs prefer short vegetation to scout for predators. Overgrazed pastures may provide an enticing location for a new colony. Toxicants include zinc phosphide bait (ZP AG® oats) and anticoagulants (Kaput-D® and Rozol®). Aluminum phosphide tablets (Fumitoxin® and Phostoxin®) and gas cartridges are examples of fumigant control. These products have very specific application requirements which are detailed on the legally-binding product label. While eradicating the prairie dog may not be feasible, it is important to have a control strategy to keep their populations manageable. Cooperating with neighbors regarding control methods and timing of application will ensure more effective control. For more information and potential cost-share opportunities, contact your local weed and pest control office or Goshen County Weed and Pest at: (307) 532-3713, gocoweeds@embarqmail.com, or <https://www.facebook.com/gocoweeds>.