

CASTLE ROCK BISON HERD – AMERICAN BISON (Bison bison)

The Castle Rock Bison herd, named for the geologic feature of their home range, have unique genetics from Yellowstone, Wind Cave, and Wichita Mountain herds. The bison are considered a foundation herd for their unique genetics.

History of the American bison

Bison are the national mammal of the United States, the only native 'cattle' to North America. Although National Park Service biologists estimate a historic population of 'tens of millions', American bison were nearly hunted to extinction by the end of the 1800's with estimated fewer than 600 animals left in the US. By 1902 the Yellowstone herd was about 2 dozen animals. The NPS bought 21 animals to add to the Yellowstone herd to try and rebuild the herd.

History of the Castle Rock Bison

Bison came to Vermejo Park Ranch in the 1920's from Yellowstone with their home range initially in what is now part of the Valle Vidal Unit of the Carson National Forest, once part of the Vermejo Park Ranch. The bison were later moved to Castle Rock Park and the area has been the center of their home range since the move. Thirteen additional Yellowstone bison from Philmont Scout Ranch were added to the herd in the 1950's and six additional bulls from the Maxwell Herd in Kansas were added in the 1980's. Since the 1980's, the Castle Rock Herd has been closed to outside genetics. The herd has most of the unique alleles present in Yellowstone National Park bison, 99 shared alleles and 16 unique to the Castle Rock herd. The herd has genes from 3 of the 6 foundation bison herds in pre-European settlement in North American (pre-1850) making it one of the few privately held "foundation genetic herds".

Biology

Bison are the largest land mammal in North America, with mature bulls weighing 1400+ lbs and cows about 900-1000 lbs. Although very large, bison can run up to at least 35 mph and can jump fences. The average lifespan of a bison is 10-20 years. Bison mate in the late summer and calves are born late spring and early summer. Calves are known as 'Rojos' or 'Red Dogs' because of their red coloring at birth. By fall, the calves are a deep brown color. Adult bison wallow or roll in dirt to help shed winter fur and deter insects as well as leave their scent. Bison are ruminants and have four stomachs to help digest the cellulose of the grasses they eat. Bison dung is an important component of nutrient cycling for the shortgrass prairie and upland grasses of Vermejo.

Herd Management

Vermejo works to maintain the unique genetics of the Castle Rock Bison herd while managing the herd to help maintain healthy grassland ecosystems and a balanced landscape carrying capacity. Extensive genetic testing of the herd has shown NO sign of cattle mitochondrial DNA introgression. All bison have cattle introgression in their nuclear DNA, albeit a very small percentage in the Castle Rock herd.

Every winter, Vermejo conducts Bison Works. At Bison Works, calves are given vaccinations and three forms of ID: a visual tag, a metal tag, and a RFID tag. In New Mexico, bison are considered livestock, not wildlife. Heifers and cows are checked for pregnancy. Additionally, bison are sorted for either return to the main herd

or for market. The Castle Rock herd is tested intermittently to ensure that there is not cattle introgression into their DNA. Hair samples from calves are taken and sent to labs for genetic analysis. As of spring 2024, there were 971 bison in the herd (before summer calving).

A bison ear tag can tell you the age of the animal and the Turner property where it was born. Our ear tag designations: V= Vermejo, second letter represents the birth year, and the number is a unique identifier for that year. Example: VW 101 = calf born on Vermejo, birth year 2022, 101st calf weighed and vaccinated during bison works.

Vermejo has large pastures on the shortgrass prairie used primarily for winter grazing. The property above the prairie is not fenced into pastures, allowing bison to move naturally across the landscape. Temporary interior fences are used as soft release pens to familiarize bison with an area. Low-stress livestock handling techniques are used to move bison across the landscape when necessary. Bison use windmills and solar wells as water sources, as well as streams, wetlands, and dirt tanks. Vermejo has over 100 working windmill and solar wells on the property maintained by a water well technician.

The Vermejo Bison department continues to move the herd into new areas of Vermejo to better distribute grazing pressure. Roughly 300 bison are moved to the Costilla watershed for summer grazing. In 2022, for the first time, the bison chose to remain for the entire grazing season, where during previous years, herding was needed to keep the bison in high country. This is a major accomplishment of the bison department staff to establish a new calving home range for the animals.

There are 13 Turner western ranches that are home to bison herds. Developing a market for bison meat was an important component to the conservation of the species. To encourage the growth of bison herds across the US, there needed to be a viable market for bison meat and products. Although the Castle Rock herd is a conservation herd, a portion of the animals from the herd go to Turner On-Ranch-Feeding facilities. The number of bison and wildlife grazers on the property must stay in balance with the forage produced so the herd cannot be allowed to grow beyond Vermejo's carrying capacity. If you are interested in trying bison meat, you can order bison at Vermejo or at Ted's Montanna Grill. Also, you can purchase bison meat both online and at grocery stores. Grassfed bison can be found online through our partners including Force of Nature, Wild Idea Buffalo Co, and Northstar Bison. Grain finished bison can be found at grocery stores under the labels Lone Peak Bison, Marketside Butcher, or Great Range Bison.

Frequently Asked Questions:

- 1. Are bison aggressive?** Bison are not particularly aggressive, but they will protect their offspring and their 'personal space'. Please do not approach bison but watch from a distance. Bison prefer to have a much larger space between themselves and humans compared to most livestock. And remember, they are much faster than they might appear...
- 2. How much does a bison eat in one day?** An adult bison requires about 24 pounds of dry forage per day.
- 3. Do bison have predators on Vermejo?** A bison is a formidable prey and adults are normally not pursued by bear, lion or coyote. Occasionally, a cow bison may have to defend her newborn calf from predators. An older or injured bison may become prey to one of Vermejo's larger predators but it is very uncommon.
- 4. Are bison better than cattle for the land?** Turner Ranches raise bison because they are a native species. Impacts on the landscape or ecosystems are more a matter of balanced carrying capacity and grazing

management than the particular species eating the grass. Vermejo has neighbors that practice good grazing management with cattle to help protect and improve their grassland ecosystems.