

Livestock Guardian Dog Case Study

Balch LP—Chadwick Ranch, Sutton County



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This research project was funded by the Texas Sheep & Goat Predator Management Board

and the National Sheep Industry Improvement Center .

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John Duke & Word Hudson, Sutton County

Ranch Scenario -

The ranch is approximately 3000 acres and is in Sutton County off Juno highway. The ranch has new fencing on 75% of the property and is a mix of rocky brush covered hills and low areas with brush and open space. Four pastures range in size from 600-700 acres. Brush work is being done on the ranch as time and funding are available. The ranch maintains herds of 220 Dorper sheep, 250 meat goats and 20 cattle. The owners do not live on the ranch but are at the location to check livestock several times a week. Cellular service is poor in the area which required the use of a LoRa cellular tracking system to monitor the movement of the dogs. The LoRa system uses a base station or gateway that transfers the tracker data to a cellular tower. This allows for more frequent updates and a lower overall cost.

Overall Management Plan -

Overall management plans for the ranch include replacing the rest of the fencing on the ranch, decreasing the cattle herd while increasing the sheep herd over the next few years. Once the deer population recovers from the 2019 Anthrax outbreak in the area a hunting lease will be started for additional ranch income. Ewes typically lamb each spring on the ranch. Lambs are pulled off the ranch at approximately 50lbs and placed on feed for several weeks. Ewe lambs are sold as replacements and ram lambs are sold to a local auction yard. The dogs are kenneled during this time to protect them from being snared or trapped. Dogs are fed using a central feeding station near a water source for livestock. The dogs are supplemented with kibble when seen in the field.

General Observations -

The ranch received two female dogs for the NSIC project. One dog was pure Akbash and the other was an Akbash x Great Pyrenees x Anatolian Shepherd cross. GPS tracker data showed that the dogs were often separated but did cross paths from time to time. Producers observed that the dogs came together when signs of predators were found on fence lines. The crossbred dog was once observed to be approximately ½ mile from the herd protecting a ewe with newborn triplets. The pure Akbash dog was also observed once outside of the ranch boundary and away from the sheep protecting a lamb that had crossed the fence while its mother was frantically pacing the fence line. The dogs often crossed the south fence line and traveled to a neighbor's ranch during the evening hours. Based on travel speed they were believed to be chasing a predator. Dogs are also rotated out for rest for two weeks in a kennel to regain weight every 8-10 weeks.



LGD Bonding Protocol:

All puppies were purchased from breeders across Texas for this project at 8 weeks of age. This ranch received one dog. The dog was bonded with sheep in a bonding pen from 8 weeks of age until the dog was 6 months old. At 6 months of age the pup was moved to a small trap until she was 10 months of age. The dogs pens gradually increased in size over time and the number of animals were increased as well. The animals were also rotated out during the bonding period. The dog was well socialized during the bonding period.

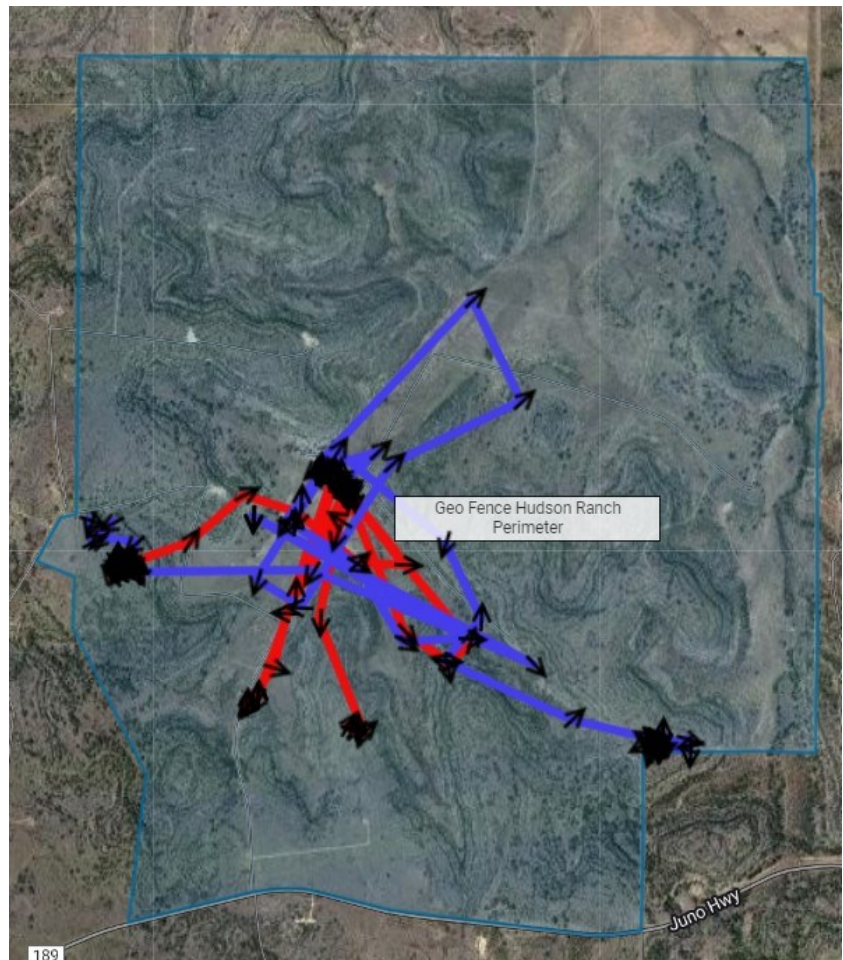
The other dog the ranch received was bonded by AgriLife personnel for 30 days in a 60x60 enclosure and then moved to a 1 acre pen until it was 6 months old. At 6 months of age the dog was released into a 100 acre pasture with more livestock and other pups until it was 10 months old. The dog was bonded in a pen without hot wire as a pair and received socialization, leash training, tether training and truck rides each week. Livestock were rotated in the pens every three weeks. All dogs were tracked until they were 18 months of age.

LGD Movement -

Based on GPS data the dogs are constantly patrolling the pastures they are located in. Dogs are often found on the perimeter of the pastures at night but with the sheep the next morning and throughout the day. During the warmer months the dogs tend to separate with the different bunches of sheep while tending to be together during the winter months when sheep are being fed. Once the dogs were able to establish a territory, movement to the south across the highway slowed from weekly to about once a month. Only one of the dogs had to be picked up once when they had left the ranch location.

Predation -

The main predators on the ranch are feral hogs and coyotes. No predation has been seen on livestock since the dogs were placed on the ranch.



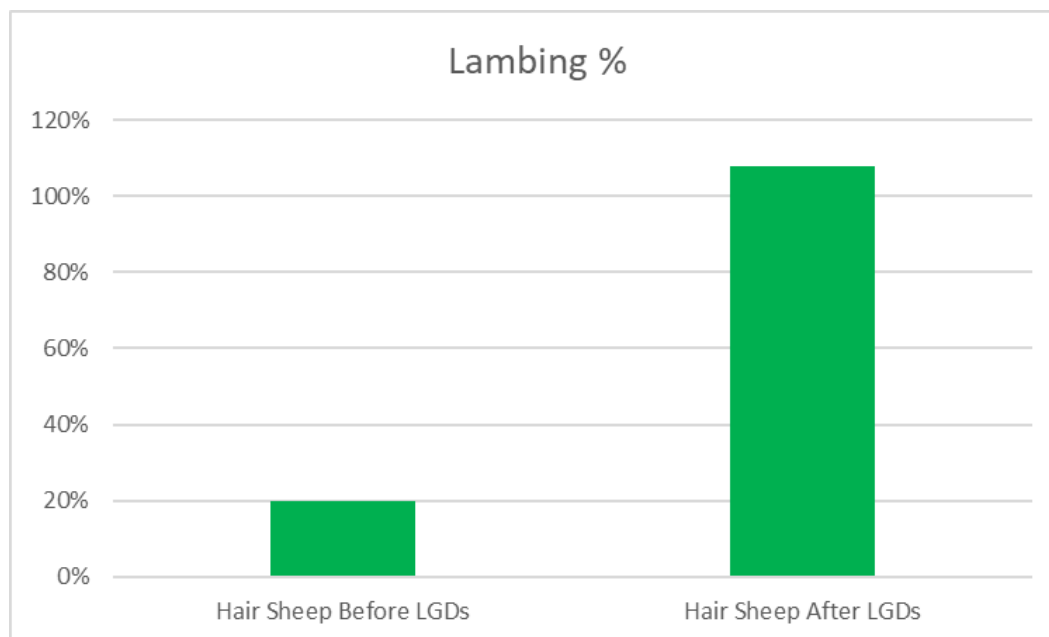
Lamb Crop Information and Herd Size -

Before LGDs – October 2022

A lamb crop of less than 20% was achieved on 220 Dorper ewes before the dogs were introduced to the ranch.

After LGDs— June 2023

After the introduction of dogs to the ranch the herd achieved over 108% lamb crop with and estimated 20% of the lambs still on the ewes.



Q&A – Word Hudson

What were the most positive benefits of the program?

The most positive thing about the program was getting to train good dogs with help from AgriLife personnel and increasing our lamb crop to make the operation profitable.

What was the greatest challenge with the program?

The biggest challenge is keeping the dogs adequately fed. They are constantly moving, and we have a hard time keeping them in proper body condition. Also keeping them from chasing predators and patrolling across the highway to the south of the ranch.

What are your future ranch plans related to LGDs?

We plan to add more sheep to the ranch and more dogs. We will need dogs that are compatible with the two great dogs we have. We are also going to expand the use of dogs on our family ranch as the older generation accepts the use of them.

What would you have done differently?

We would not have used bred ewes in the bonding pen that would be lambing before the dogs are released from the pen. The Akbash dog we bonded killed two lambs from rough play that were born in the pen.