

Keller's Broken Heart Ranch Internship:

March-June 2012

By:

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May, 2013

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Introduction:

The Keller's Broken Heart Ranch is a purebred Simmental operation located about forty-five minutes from Bismarck, North Dakota. It is owned and operated by the Keller family and has been in the family for the past three generations, beginning as a dairy farm run by grandparents, Eugene and Helen Keller. Currently, it is run by Dwight Keller and his oldest son, Luke, with help from his wife Susan and two younger children, Jake and Tessa. During this internship the ranch was home to some three hundred mother cows and their calves, in addition to the replacement heifers and clean up bulls kept on site. The Keller family has no full time employees; instead they rely on the help of family and international exchange programs where students from other countries gain agricultural experience by working on a functional cattle ranch. During my time there, there were two other employees beside myself; Slava, an exchange student from the Ukraine, was there until April and they later hired a local boy named Landon to fill in for Slava after he left. In addition to ranching, the Kellers grow their own alfalfa, corn, and oats with the majority of their harvest being put aside to feed their livestock through the winter. In a good year about five percent of their income may come from selling excess corn but the majority comes from selling their cattle, either as purebred stock or beef animals. Their ranch encompasses about 3300 acres in total with about 2000-3000 acres of additional leased property consisting of farm land and additional pastures for cattle.

Purpose:

The purpose of this internship was for me to gain experience working in the cow calf industry and to observe the workings of a functioning cattle ranch as compared to my experiences working at Cal Poly.

Expectations:

I went into this internship fairly confident in my skills working with and around beef cattle, I expected that the work was going to be hard and that it would push me to my physical limits but that it would also be rewarding. Mainly I believed that I would be focusing my efforts on the well-being of the mother cows and calves and that that would be my primary duty throughout this internship. I also believed that the experience I gained working for both Aaron and Mike Hall would benefit me as I worked beside the Keller family during their calving season.

Work Experience:

My primary job while on the ranch was to check cows at six am every morning. Upon arriving, I agreed to take the morning shift while the family covered most night checks as this worked best for everyone. On weekends, Susan generally took this shift so I could sleep in a little longer. Morning checks entailed driving down to the heifer lot and checking the heifers for new babies or animals in labor, then heading to the cow lot and doing the same (for a majority of the internship, this was done in the dark). I would then return to the house until around seven or seven thirty when Dwight, Luke, and I would leave to go do chores. My chores consisted of feeding the bottle calves; feeding, watering and re-bedding the pens for the heifers before feeding, watering, and re-bedding the pens for the cows in the calving barn. At this time we would also doctor any sick calves in the barns or milk out mastitis cows/ cows that were producing too much milk for their calves. Once this was done, Dwight or Luke and I would go out and tag any calves from the previous night then they would be moved into the calf pasture or heifer barn respectively. If the heifer barn was full, we would trailer the cows and their calves across the ranch to the heifer pull barn where they stayed until there were enough to take out to pasture. During the heaviest part of the calving season, tagging normally occurred about three

times a day. There was usually an hour break around noon for lunch; during the time that Dwight, Luke, and Jake began planting, it was my responsibility to prepare and deliver lunch to them in the field. After lunch I would need to go check the cows and heifers again and then do anything Dwight told me or instructions that Susan had left. This could be anything from mowing the lawn and caring for the additional house on the property, to taking salt and mineral out to all the cows, to unpacking things for the vet clinic or cleaning the vet clinic. Sometimes, we would have calves to graft onto cows that had lost their babies and I would be in charge of skinning the dead calf, which I usually did before lunch, and grafting one of my bottle calves onto the cow. Another job Dwight had for me was picking up baling twine from the hay fields on both properties, or running to the other property to check the bulls and make sure they had not torn down fences. Between all of this, there would be another two or three cattle checks before heading up to the house for dinner. As the season progressed from calving into AI, in the mornings we would bring the horses in, saddle them up and go sort out animals that needed to be bred that morning or that night. This was a fun activity and would take most of the morning as we sorted pairs, pulled out heifers, and got them bred. Breeding fell predominantly to Luke while Dwight sometimes stepped in and I helped out where I could. On weekends, Susan would be home and I would normally find myself helping her with her chores in between checking the cows. These involved gardening as well as ranch work such as semen testing and veterinary procedures.

Observations:

This internship was so far outside the scope of anything I could have ever imagined. I went in expecting to deal primarily with the cows and calves but I was fully immersed in ranch work and ranch life. Everyone on the property was expected to pull their weight all day, every

day and there were no such things as days off or sick days. It really gave me a new appreciation for how difficult it is to run a ranch, how much time and labor really go into making a profit and ensuring there is a calf crop the next year. Prior to taking this internship, I wanted to own my own cow/ calf or seed stock company but I soon came to the realization that I am not physically able to handle the demands of the business. The three months I was in North Dakota were amazing but they were also a constant struggle to prove myself and not hold anyone else back as I muddled my way through daily activities.

Some observations I had about the ranch in general were that they do not practice a rotational grazing system. A majority of the time the cattle were placed in designated fields or lots (i.e. the calving pasture, AI pasture, heifer/ cow pasture) and only moved as they ran out of feed or not at all. Also, the cows were supplemented silage on a daily basis while on pasture so that they could stay in the same area for longer. After calving and AI had finished, all the cows and heifers were broken up into groups and scattered over the property with one or two bulls per group. I noticed that while this system seems to be easier on the rancher, it beats up the land a little more and probably would not be optimal for a place like the central coast, especially since it seems to rely on feed reserves put up by the rancher. One of the big things I noticed, in regards to sanitation, was that in the heifer and calving barns nothing was ever removed until the end of the season, it was just bedded over. For example, things like urine, feces, and placenta were not removed from the pens or the barn in general, just covered up every morning when the pens were re-bedded. This seemed like a very unsanitary practice to me but overall did not seem to cause any additional illnesses in the calves, presumably because they only spent a short amount of time in the environment. Additionally, the Kellers had no exact head count on their main cow herd. While Dwight and Luke seemed to know every cow by sight and number, neither could tell me

how many animals they had on their property, just that it was somewhere between three hundred and four hundred. Prior to my arrival, they had majorly down sized their heard, but even with this information I found it odd that they had no idea how many animals they had under their care at any given time. In relation to this, the calving records they kept were not the best. Often things became sloppy when animals died and calves had to be grafted onto other cows so that it was nearly impossible to track how many births, deaths, still births, twins, and total births had occurred on the ranch. The only way to keep track was to try and remember which Dwight and Luke seemed adept at but was rather confusing for someone who did not know the cows as well as they did.

Another thing I noticed was that no one seemed to listen to the on-site veterinarian. Susan Keller, the state vet of North Dakota, and would often be called in to consult on animals or perform surgeries but her advice, recommendations, and directions were rarely followed. Dwight and Luke largely discounted her opinions and treatment plans in favor of their own. Personally, I felt it was great to be able to shadow her on the ranch and learn from her while assisting with procedures that would not normally occur on large commercial operations of this nature.

Conclusion:

In conclusion, this internship was one of the best and most beneficial things I have ever done to further my knowledge during my college career. I learned so much from the family as a whole and it really opened my eyes to what it means to be a commercial/ purebred rancher, not just within the industry but from a livelihood perspective. While it was difficult at times on all levels: physically, mentally, and emotionally, I would definitely recommend this internship to anyone who thinks they are interested in the cow/ calf business that does not come from a ranching background. As far as advice for people considering this internship, be prepared to

work harder than you ever have and do not take it personally when your experience and know how is discounted or questioned. A person considering this internship will need to be able to work as part of a team and communicate effectively but also be able to take initiative and learn on their own.

1. What was the dystocia rate and why?

The dystocia rate for the ranch was about six percent. There were about twenty births out of three hundred plus that required assistance either because the calf was in the wrong position, the cow wasn't dilated, or there were complications due to twinning.

2. If the dystocia rate was too high, what did management do to cause it? If low, what are they doing correctly? How does management contribute to the problem/ solution?

Dystocia rate was about normal for an operation of this size. The biggest contributor to dystocia rate seemed to be twinning. As the rate of twinning in Simmentals is high, this created an increase in the dystocia rate, especially in heifers. All twins born to heifers had to be pulled or required a C-section. While management responds quickly in the event of a dystocia, not all problems are caught in time, resulting in the death of one or more calves. This could possibly be fixed by adding other genetics to the herd, but that would go against trying to raise purebred Simmental cattle. The most likely solution for the problem is to get rid of animals, especially heifers, who can't handle the demand of twinning.

3. What effects did weather have on illness rate, what illnesses were seen, and how did management respond?

Weather seemed to have some effect on illness rate in regards to pneumonia within the calves. There were seven affected calves, symptoms mainly appearing when the weather fluctuates between wet and cold and hot. Some of these cases became chronic and ongoing, requiring several treatments with little overall improvement. In these cases, the calves were treated for several days to weeks in the barn before being turned out on pasture. Other illnesses encountered were mastitis, E. coli, coccidiosis, clostridium, hardware, scours, bleeding ulcers, bone cancer, and enterotoxemia. Management responded with drug therapy over the course of several days to a few weeks after symptoms were noted. In extreme cases, the vet on site performed necessary surgeries in an attempt to correct the problems with varying degrees of success.

4. Out of the assisted births, how many lived or died and why? How did management contribute? (pulled too early/ late/ illness after the fact)

As stated previously there were about twenty births in total that required assistance, sixteen times out of twenty the calf or calves were delivered safely and without incident or further complication. Four times, the calves were still born or died shortly after birth due to poor management, untimely assistance, or further complications unforeseeable by management. One cow became hip locked with her calf during delivery and when management attempted to assist, got up and ran away, causing the calf to suffocate before it could be pulled free. One heifer had a set of dead twins because they were not in proper position and she was not accurately identified as being in labor. The last cow also had twins, but after the first was pulled in pasture, the second one was not delivered in a

timely manner and couldn't be saved. One calf that was born backwards and assisted did require treatment for pneumonia as it inhaled uterine fluid before it could be pulled from the cow, but it survived.

5. What expectations did I have going in? (area, work load, people, elements) What is the reality? If I were hiring someone for this job, what would I look for?

Area: I expected the area I'd be working in to be out in the middle of nowhere.

Work Load: I expected the workload to be heavy but I expected to mainly assist with calving and AI work.

People: I expected the people to be hard working professionals who I could learn from and who would respect me and my skills.

Elements: I expected it to be a cold hard place where I'd have to contend heavily with the weather.

Area: The area of the main ranch is beautiful, and fairly isolated. Even in Mandan, there isn't a lot to do but the ranch is about forty-five minutes from Bismarck. The main house is a beautiful two-story log cabin, which truly provides a haven after the workday is done.

Work Load: Working here has been an experience. I have done so many things beyond calving, most of it busy work. Everyone is expected to pull their weight on a daily basis doing whatever needs to be done; there are no days off and no sick days.

People: The Keller family as a whole is wonderful, but they are far from professional.

Luke and Dwight don't have time to teach new skills and would rather finish a job themselves than teach another person what to do. They can be condescending and rude at times, disrespecting another person's skills and abilities. The only way to gain respect at this job is to earn it from the ground up. Susan and Tess are both wonderful, helpful people that are easy to get along with and be around, while Jake is mostly quiet and keeps to himself but is also very nice and respectful.

Elements: While I knew the weather was going to be cold coming in, I was not prepared for just how cold it could get. Even without snow, the weather can get terrible. The wind is constant and miserable, while the humidity can be unbearable when the weather finally does get warm. I was very glad to get back to California weather.

If I were looking for someone to take this job, I'd pick someone who will give their all to see this ranch succeed and be profitable. This person must be able to work and learn independently while still being able to function as part of a team. They must have good communication skills and be able to adapt well, common sense is also a must. They must also be prepared to take criticism and not let things go to heart while still learning from mistakes and bad experiences.

6. How is using selected sires working towards improving the breed and creating new EPD goals?

The selected AI sires and herd bulls are believed to be animals that will strengthen the Simmental breed and positively compliment the cows within the herd. These animals all possess qualities that make them desirable genetic investments. For example, AI sires

such as Substance lend their strengths as curve benders to their offspring, creating calves that have low birth weight and high growth. By matching this bull to a high milking cow, the hope is to produce a small calf that grows rapidly and weans heavy. By matching the Simmental cows with Angus bulls, the ranch is hoping that the breeds will complement each other and produce superior offspring with high growth, excellent marbling and tenderness. The most superior offspring of this year's calf crop will go to the bull and heifer sale next spring, where their advanced genetics will be marketed to other purebred and commercial breeders. By selling these superior genetics and searching out desirable bulls, the Kellers are working to advance the breed and its EPD goals.

7. What is the docility level of the animals and could this be improved through breeding? If they are too high headed, why?

The docility of the cattle is comparable to other breeds. While there are some high-headed cattle, others are very tame in comparison. Most of the wild cattle tended to be first calf heifers. This can be attributed to both genetics and the fact that they are less socialized and being worked in barns in close proximity to humans for the first time. The animals that were excessively unmanageable were written down for sale after weaning. Unfortunately, if these animals produce exceptional calves, they are retained and their genetics propagated. Also, one bull that will be used on heifers this year was pointed out as having a hostile temperament but because he's a good bull, his genetics will be passed on.

8. Compare this year to past years. (animal health/ dystocia rate/ breed improvement)

Compared to past years, this year definitely had some advantages and drawbacks. Animal health both benefitted and suffered as a result of the mild winter. While there was no death loss from freezing, illnesses such as clostridia and E. coli were more prevalent in the calves, appearing earlier in the calving season. Dystocia rate was about on par with other years, but the lack of snow made assisting in these cases easier on management which resulted in more live calves. As far as breed improvement goes, it will be hard to tell what these calves are made of until the sale next year rolls around. However, last year's calves did exceptionally well in the March sale. Semen from their high selling bull was even used to breed cows in the main herd this year. One key difference between years that I noticed was the amount of open cows that were preg-checked pregnant. This year, there were about twenty head that came up open during calving. The vet on the property attributed this to an abortive virus carried by coyotes, which are common in the area.

9. What diseases were encountered in the main cowherd, how were they treated, how did management respond and how did the diseases differ from those found in California?

The main issue encountered within the main cowherd was mastitis in cows close to calving. These cases were treated with penicillin; Dimethyl Sulfoxide (DMSO) gel rubbed on the udder, and cephalosporin injections into the infected quarters. The

mastitis encountered in the cows does not differ from mastitis found in California. Some cows were also treated for hardware disease with penicillin and a magnet.

10. Does the ranch raise their own replacement heifers? If so, what are the benefits and drawbacks? If they receive replacement heifers, where from and why? What is the stock turnover rate in a normal year?

The ranch raises their own replacement animals. They invest time and money into a considerable amount of genetic improvement within their herd, ensuring that their replacement animals are moving the breed forward. The drawbacks to this are the cost of raising these animals when they may not produce profit when it comes time to breed them. Occasionally, outstanding cows are obtained from other breeders, but this is very rare. Due to a death in the family, the herd was excessively culled this past year, but in a normal year, the first cows to go are those with chronic medical issues, open cows, and then old cows. The general age of the cows before they are sold to market is around eight or nine years old.

11. Does the ranch keep bulls on the property? Where do they get them from and what qualities do they have that are beneficial to the breed? What is the turnover rate on the bulls?

The ranch does keep a mixture of herd bulls and spare bulls on the property. The main herd bulls are either raised by the ranch or bought from other pure bred breeders. These bulls have a variety of different qualities that make them good bulls. For example, the favorite bull on the property is U060, a bull the Kellers raised themselves. This bull has an extreme amount of muscle and growth, producing nicely muscled calves that are deep in the rib and have high weaning weights. Another example is a bull the Kellers bought this year from another breeder, even though he is a yearling bull, his EPDs and genetics indicate that he has good calving ease and low birth weights, thus making him a good bull to breed heifers. The oldest bull on the property is around ten years old, which is extreme but due to the fact the Kellers run a closed herd and there is no risk of trich, bull turn over depends entirely on how long the bull remains fertile and able to breed cows without the herd becoming inbred.

From: kbhr@westriv.com [<mailto:kbhr@westriv.com>]
Sent: Tuesday, December 06, 2011 9:31 PM
To: 'Michael Hall'
Subject: RE: Referred by Leoma Wells

Mike,

We just might be interested in the March to June timeframe also. Do you know if she has any experience with livestock? Would she willing and able to ride a horse and help pull a calf if needed? We provide room and board, but are wondering what type of payment is expected?

Susan & Dwight

From: Michael Hall [<mailto:mhall@calpoly.edu>]
Sent: Tuesday, December 06, 2011 10:37 AM
To: kbhr@westriv.com
Subject: Re: Referred by Leoma Wells

Susan & Dwight,

Thanks for your note and I do have a girl that would like to get more experience with calving and ranching. We are on the quarter system so the timeframe that you mentioned would be rather long. Would you have any opportunities from March to June? I believe it is too late for her to try leaving in January.

Let me know if something like this would work.

Thank you.

Mike

Michael H. Hall
Beef Cattle Specialist
Animal Science Department
Cal Poly State University
San Luis Obispo, CA 93407
office: 805-756-2685
cell: 805-748-4717
fax: 805-756-5069

----- Original Message -----

From: kbhr@westriv.com
To: mhall@calpoly.edu
Sent: Tue, 06 Dec 2011 08:17:19 -0800 (PST)
Subject: Referred by Leoma Wells

Dr. Hall,

Leoma Wells, with the ASA, referred us to you. She said you were her beef advisor at one time.

We have a purebred Simmental ranch and are looking for a student who would like some ranch and calving experience. The time period we are looking at would be [January 1 st](#) to [June 1 st](#) 2012. Please give any interested students our phone number if they have questions.

Also, if you know of any other universities that have externship programs please let us know.

Thank you,
Susan and Dwight Keller

701-445-7350

701-471-5215