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John N. Price

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HOW DO RESOURCES INFLUENCE TIME OF CALVING
“WHY WE CALVE EARLY”

John N. Price
Price Ranch
Deer Trail, Colorado

INTRODUCTION

When I was asked to give this presentation on “WHY WE CALVE EARLY” I said this is easy “because it works for us.” Now that I sit down and think about why it works I find myself going over five generations of inspirations, frustrations, work, sleepless nights, and determination to understand why “IT WORKS FOR US”.

The Price Ranch is a family operation that has been in the family for five generations. The present day Prices consist of my father Richard Price, stepmother Lylamae, wife and best friend Pam, three children John R., Shannon and Angela and two excellent full time employees.

When CSU first approached me about this presentation I was excited at the prospect of explaining to you all the academic reasons of why we calve early. Economics, breeding, weaning weights, 205 day averages etc, etc. And all those things are important, but when I sat down and really thought about it, it wasn't some smart cow man, it wasn't some academia that came up with the most basic reason of why we calve early. In fact it was a woman who come up with the idea. It was Mother Nature. It's that basic. It has just taken some smart cow men to work around her and with her.

Geography

After reviewing all the reasons why we calve early, the most profound one was our geography and climate. The ranch is basically divided geographically into summer and winter operations. Our headquarters and winter operation is situated along the east and middle Bijou creeks. Both of these tree lined creeks are primarily dry providing excellent protection in the winter but damaging floods in the summer. These lonesome creeks are the biggest contributors of why we have set up the operation the way we have. It has taken the observation of five generations to understand the benefits and the dangers of these two creeks.

Our summer operation is approximately four miles east, as the crow flies, from our headquarters. This chain of pastures are based along the Muddy Creek. This creek bottom is flat and open with live water throughout, producing early grasses and an over abundance of excellent grass through the middle of October, in a normal year. However, this openness offers little protection against winter blizzards and drifting snows. In other words it is not fit for man nor beast during the winter months.

Now that I have given Mother Nature her credit I would like to explain how we have tailored our operation around these elements. This is where the smart cow man comes in.

Yearly Operation

In a period of eighteen weeks, beginning January 15th and ending June 1st we must have calved out 600 head, completed a 30 day AI program, branded all the calves and moved all pairs to our summer pastures. Let me start with the beginning of calving.

Around the second week of January we bring all our mature cows, approximately 500 head, to the main calving shed which sits on the banks of the East Bijou. Our first calf heifers are kept separate on a section of ground, with their own calving shed near the headquarters. This way their special nutritional and calving requirements are met. Because the majority of the herd is at the main calving shed I am going to concentrate on the operation down there.

The shed is surrounded by two sections of pasture. All the cows are put on the west side of the shed. We sort through these cows and cut out the heavies. The heavies are then put into a set of corrals that are adjoin to the shed. One corral is for cows that will calve in approximately a weeks time. The second corral is for cows that will calve within three days. At all times there is about 160 head in these corrals, 80 per corral. Through our entire calving season we rotate the cows from the west pasture to the corrals and then to the shed.

When a cow begins to calve she is put into the shed and watched through the entire process. Our shed is manned 24 hours a day. This type of confinement calving is very labor intensive but can be very cost effective. For example this past calving season we had a 100 percent calf crop.

The usefulness of the shed is twofold. Not only does it allow the cows to be observed 24 hours a day but it also produces an optimal environment for the new born calf. The new born calf is immediately vaccinated, and identified with ear tag and if the calf has not suckled within one hour of birth it is hand suckled. And above all else the minimum temperature the calf is born into is 30 degrees. This type of climate control, produced entirely by the cattle's own body heat, is essential to getting a calf up on it's feet and sucking.

After the pair has spent a 24 hour period in the shed and the cow has cleaned they are turned out in a small pen on the south side of the shed. Once again the pair spends another 24 hour period being observed to insure that sucking is continuing, the bonding has solidified and the health of both animals is good.

If all is well then the pair is turned out to a pasture that borders the east side of the shed. This pasture is where the East Bijou Creek provides the most protection. The pairs in this pasture are checked on a daily basis to ensure that the health and nutritional needs of both the cows and calves are being met.

The peak of our calving season is the middle of February. By the end of February we are three quarters of the way done. The advantage this brings is the weather. February is traditionally a mild month with the least amount of average snowfall and most consistent temperature than other winter months.

Once there are 200 pairs in this pasture, selection for our AI program begins. The selection criteria for our AI program is younger cows, with older calves, and a good progeny history. The cows who go into the AI program are moved one mile south to a pasture where they will stay until summer pasture. We usually move these cows in three or four groups to alleviate crowding at the shed pasture and to get the AI cow on a nutritional program that will help ensure conception. When we finish with our selection there will be approximately 250 cows eligible for the AI program.

By calving early it enables us to have an AI program from April 15th through May 15th without many interruptions. If we bred later it would conflict with other work commitments. We value our AI program because of the genetic base it has given our herd. Through genetics we have been able to design our herd's output to match what the feeders want and give us a calf that will fit in our program. Besides the 250 mature cows on the creek we have an average of 95 replacement heifers who are also artificially inseminated. The 250 cows who remain at the calving shed are naturally serviced beginning on April 15th.

Beside the cattle operation we have a farming operation which produces one third of our cash flow, plus an abundance of after feed. In most years this feed is in the form of volunteer wheat. This is a crucial time for the ranch. All through the AI program we have also begun our maintenance on haying and farming equipment.

On the 15th of May our AI program has ended. The next two weeks are busy with completing fence repair on our summer pasture, branding 600 head, moving and splitting pairs into the summer pasture, and beginning hay and farm operations.

The summer months, June through mid-September, we spend farming 1500 acres of summer fallow, harvesting 1500 acres of wheat and putting up three cuttings on 160 acres of irrigated alfalfa, planting and putting up 200 acres of hy-bred Sudan grass and bailing approximately 160 acres of natural grass hay.

With the onset of fall we are finishing our haying operation and begin to plant the winter wheat crop. Simultaneously we are starting our fall cow work. All calves are vaccinated two weeks prior to weaning. Weaning begins October 15th. At this time all cows are pregnancy checked and the culling decisions are made.

All the calves are then brought over to the winter operation. This is when we begin backgrounding these calves. The heifers and steers are separated. The heifers are moved to the pasture we utilize for our AI program and the steers stay on the west side of the main calving shed. The calves are then started on grain and free choice pasture. When the grass is depleted, or snow cover dictates, hay is supplemented.

The mature cows are still over east on summer pasture until approximately mid-November. At this time they are brought to a fresh pasture north of the calving shed. These two and one half sections are bordered by the Bijou creek. This is where the cows stay until it is

time to move them to the calving shed. The nutritional regime is free choice grass supplemented with high protein range cubes and hay, as weather necessitates.

Economic Influences

After exploring our operational factors and natural resources lets examine the economic influences. There are four major ingredients of our economic reasons as why we calve early. They are labor, health factors of the cattle, pounds of beef produced and marketing of the calf crop.

Labor is utilized more efficiently by calving early. November through March would be a slack time for our ranch. With two full time employees we must justify keeping them year round. November through January we use these employees for feeding the calves we are backgrounding and regular maintenance that must be performed to prepare the ranch for calving. January through March these employees take a night shift at the calving shed. By utilizing our labor year round we achieve an additional value. These two employees gain knowledge of our operation over the years. This enables them to work without much supervision, bring ideas and thoughts on how the task can be simplified and save us the time in looking for and training seasonal help.

As in any operation, the health of the cattle is a big influence. We have found our cows and calves can withstand small swings in temperature much better than diversified weather patterns. This is why we have chosen February for the majority of our calves to be born. February offers consistent temperatures and normally very little snow fall. Compare this to April and May when a newborn calf can be subjected to three day blizzards or drizzling rain, sub zero temperatures to highs of 70 or 75 degrees.

The next economic consideration is how we can produce the maximum pounds of beef for the least amount of cost. By calving early this enables us to have the calves to summer pasture when they are big enough to take full advantage of the cows peak lactation production. The cows reach maximum production because grass is at it's peak in strength. With the calf big enough to consume all the cow's milk and benefit from it's ability to eat green grass we are getting the most cost effective pounds of gain. We do not have to supplement with costly grains and proteins.

The last economic component is marketing the calf crop. By calving early we produce a larger calf at market time. Regardless of when we choose to sell, at weaning time or at the beginning of January, as we do, our calves weigh more. Over the last ten years we have managed to bring, on the average, 110 pound heavier calves to the market place. This gives us a marketing edge with feeders. The larger calves acclimate to a feedlot setting with less health problems. By backgrounding our calves they go onto a feeders program at a faster pace.

As in every operation, our goal is to bring the most amount of beef to market with the least amount of cost. And with every operation we are faced with fixed cost, something we have very little control over. By calving early we have managed to set up an operation by cutting the variable cost, something we do have control over, without sacrificing our herd's health. We cut our death loss by calving in February and March in a confinement setting. We utilize our summer

grass much more efficiently by having the calves on it when they are at the age to take full advantage of it. And last but not the most important, we end up with more pounds of beef to sell to the feeders which adds to our bottom line.

In summary, costs and prices have not been discussed because these can vary between operations and regions. Every operation is an entity in itself and efficiency and cost effectiveness is attained through individual analysis.

I only hope I have given you some thoughts on how to maximize your profits by looking at the big picture and managing your resources to their fullest extent.

We have been fortunate in working with the Integrated Resource Management Team of CSU. These individuals have given us a view of the big picture that has had tremendous impact on our operation. We would like to extend a thank you to the entire team, with special thanks to Dr. Ken Odde, Dr. Norm Dalsted and Dr. Garth Boyd.