

Balancing Novel and Proven Applications for Female Selection.

Cattle must first fit the environment, period!

- Before we can evaluate any female selection criteria we must first ensure that our selection pool is suited to our environment. I am unaware of an instance where it is cost effective to change our environment to suit our cattle.
- A few ways to make sure that you are selecting from the proper genetic pool:

1. Raise your own replacement heifers out of your herd that has proven to work in your system/environment.
 - This method can be expensive you have to look at it as a long term investment and requires that you have the facilities to properly develop and care for these heifers.

2. Purchase bred heifers:

Ideally you would buy your replacement heifers from a single ranch/source and one who you have the ability to evaluate their cow herd for traits that you want in your herd that will fit your environment. In most cases from your general region and from a ranch who manages the cows as you do.

- Now that we have identified that our cattle will work in our environment we can sort them on other traits:

EPD's

If you are raising registered stock EPD's just may be your most valuable tool assuming you are still only selecting from the pool of cattle that we have determined to be suited to your environment. Should you be raising commercial cattle I still use EPD's of the sire of my replacement heifers when at all possible to help me with any and all selections.

EPD's

- **Optimum NOT Maximum**
- It has been a common misconception that higher EPD's in some categories are always better. I completely disagree with that thought process in most cases there is an optimum EPD based off of your management practices and resources.

Indexes

- Indexes are great most all of them have one purpose or another, as far as replacement heifer selection goes I have a few indexes that I am partial to within the breeds that I am associated with. The good thing about using the right index is that you are evaluating a blend of useful traits. As long as the index has been calculated properly this helps to make sure your not weighted too heavy in one direction (single trait selection).

Phenotype

- Selecting on phenotype is what most people do and is still beneficial. Most would agree that if you pick the larger heifers in any given calf crop that you would get most of the older heifers and in turn get a high percentage bred within your breeding season and get a fare amount of heifers out of some of the better mothers in the herd. This method works for some and has been used for years.

Phenotype

- I would have to caution the use of size being the only sort on a set of replacement heifers. I myself still use phenotype in my selection process but for me I tend to stay away from extremes and look for quality. If at all possible I will evaluate the dam's phenotype along with any and all production records.

Docility

- The older I get the higher docility ranks in my selection process of replacement heifers. I also truly believe that docility should be way to the top of the list for any seed-stock producer. If you the seed-stock supplier breed genetically quite bulls and commercial producers use them our docility problems begin to disappear.

Docility

- I also believe that if you handle your cattle properly from the start day in and day out that we can take care of some of what some people would consider a docility problem.
 - In a nut shell if you have cattle that don't fit into your handling system without causing a problem, they need to go somewhere else.

Carcass Ultrasound

- I like the thought of ultra sounding our heifers however I currently do not practice this in our commercial operation, as a seed-stock producer with the few registered breeds we run we do all bull calves and no heifers for now but that's not too say we won't do it at some point in the future. The data collected is most useful to me in the form of contemporary group ratios or in an EPD on registered stock.

DNA

- DNA is another tool that really works well to identify some useful traits as you sort a set of heifers. I personally have not used any of the newer commercial heifer tests but we are not apposed to it should we feel confident that it will work on our genetic base. As far as registered stock it works well to improve the accuracies of young animals EPD's. I have used on high end bulls and females in our registered cattle and will continue to do so.

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- It is of my opinion that after we first identify that our cattle will work in our environment.
- We have all the tools to help us put selection pressure on our replacement heifers to ensure that we continue to advance in all facets of the beef industry going forward using a balanced approach.