



Marketing Update



CERTIFIED RED ANGUS

Pro-Cow

by Ron Bolze, Commercial Marketing Director and Greg Comstock, RAAA Marketing Programs Coordinator

Great Cowherds

The Red Angus breed has been well blessed with great cowherds during its 54 year history. These cowherds have made tremendous contributions to both the Red Angus seedstock and commercial industries. Many of these

cowherds have been the result of a lifetime of adherence to disciplined breeding principles. Obviously, these great cowherds have achieved their level of recognition as a result of unwavering genetic infusion. In addition, ruthless culling has had an equally important impact. In short, great cowherds are the result of genetic selection plus ruthless culling. In the words of the late Tom Lasater, founder of the Beefmaster breed, "Ruthless culling may occasionally result in losing a good one, however, you will get rid of every bad one." As a result, inferior individuals are culled and no longer have an opportunity to make a genetic contribution to further generations. Likewise, the inferior individuals are no longer competing with the superior cattle in the same environment for, sometimes, limited forage resources.

Numerous obvious reasons exist for culling females from a herd including:

1) Fertility- failure to breed with reproductive pressure (45-60 day breeding seasons). Great cowherds receive some form of reproductive pressure wherein a few females fall out. Long breeding seasons and/or over supplementation resulting in 100% pregnancy rates do not allow identification of those individuals

that can get it done under lower input environments.

2) Udder quality- cows requiring human intervention to get a calf nursing due to poor udder quality greatly increase labor requirements

3) Feet -foot issues greatly reduce cow longevity particularly in extensive grazing conditions. Many foot issues are assumed to be environmentally induced; however, evidence exists that some foot issues may be genetically transmitted. Culling foot issues avoids genetic transmission.

4) Fleshing ability -particularly important in lower input environments. Many profit minded commercial producers insist that females can lay down adequate body fat reserves when forage availability is plentiful to be used when forage resources may be in limited supply. In other words, the cows will fluctuate in body condition at various times of the year. If increases in body condition are timed appropriately, subsequent reproduction can be enhanced, as cows increasing in weight and body condition score tend to be more fertile. Research data would suggest that a BCS 4 female on a positive plane of nutrition is more fertile than a BCS 6 female losing weight.

5) Disposition -beyond the obvious human safety issues, calmer cattle tend to grow faster and USDA quality grade higher.

6) Longevity-cows remaining in the herd longer reduce the expensive



heifer development cost. Research has shown that commercial females become profitable at six years of age. There are reasons why individual cows remain in the herd until an old age. These factors are taken into account in the RAAA Stayability EPD.

Another area of potential culling that is receiving greater attention is "environmental fit". Environment fit involves matching the genetics to the environment as opposed to matching the environment to the genetics. What's the difference? First the profitability equation:

$$\text{Commercial Cow Calf Profitability} = \text{Value of Output} - \text{Costs of Input}$$

Matching the Environment to the Genetics

Traditionally, the approach that many producers have taken is to provide the amount of nutrition necessary to make the desired cattle function adequately (matching the environment to the genetics). In other words, as breeders selected to increase growth, milk and carcass merit, they have inadvertently bred in greater need for additional supplementation. This made sense when the increased value of production exceeded the added feed cost. However, in the

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new era of drastically higher input costs (grain, fuel, land values, lease rates, etc.), they often outweigh the increased value of outputs.

Matching the Genetics to the Environment

Environmental fit is allowing the environment to help identify the right genetics that can function on what the environment can provide without excessive supplementation. Environmental fit involves allowing the environment to select the parents of successive generations through reproductive pressure and minimal supplementation.

Genetic Selection to Reduce Costs of Production

What about the genetic input contribution to great cowherds. Fortunately, commercial users of Red Angus genetics are blessed with the most accurately genetically described cattle of any data base worldwide due to the implementation of Total Herd Reporting since 1995. Many of the original RAAA Core policies speak to this concept, however, perhaps best addressed in Core Policy # 8:

The role of the Association is to objectively describe reproduction, growth, maintenance and carcass merit utilizing the fewest EPDs possible to achieve this purpose. The concept of Economically Important Traits guides this process.

Users of Red Angus genetics (seedstock and commercial) can use the maintenance and reproductive EPDs to reduce the costs of production.

Cows Eat Money

Genetic selection for lower Maintenance Energy (ME) EPD helps ensure environmental fit. The ME EPD predicts differences in energy requirements of mature daughters of an individual and is expressed in Mega-calories per month. Differences in Maintenance Energy requirements can easily translate into differences in feed required to maintain body weight. Cattle run in different environments, and each varies in available feedstuffs. When cattle have higher maintenance energy requirements than their environment will support, producers basically have 3 options:

- 1) supplement feed
- 2) decrease stocking rate
- 3) accept decreased body condition scores which can adversely affect reproductive performance

Select for ME EPD in conjunction with optimal revenue trait EPDs to ensure feed costs don't get out of line with selection for greater performance and production. Single trait selection for ME ignores revenue, thus ignoring profit.

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Profit Starts at Reproduction

Research has shown that reproduction has four to ten times the economic impact of carcass traits. Red Angus is the only breed that completely describes cowherd reproduction from birth through profitable lifespan. Profitable reproduction can be boiled down to these four Economically Important Traits:

Calving Ease Direct (CED) - predicts the probability of calves being born unassisted out of two year old heifers. Selection on actual BW is flawed. It is influenced by non-genetic factors such as last trimester nutrition and weather. The CED EPD includes variation in BW plus influential genetic factors such as gestation length, calf shape, etc. Producers want and need live calves, born unassisted. Red Angus CED EPD is the best predictor of calving ease.

Heifer Pregnancy (HPG) - predicts the probability of heifers conceiving to calve at two years of age. Many breeds offer genetic predictions of yearling bull scrotal circumference as an indicator of age of puberty. While puberty is a prerequisite, many factors influence pregnancy rate. Red Angus HPG EPD offers a tool which selects directly for what is economically relevant to ranchers-pregnant heifers.

Calving Ease Maternal (CEM) -predicts the probability of a given animal's daughters calving unassisted at two years of age. Replacement heifers need to calve on their own to reduce labor requirements. Red Angus CEM EPD offers the industry's most reliable prediction to address this concern. It includes not only the predisposition for a female to calve unassisted, but also her contribution to her calf's traits (BW, calf shape, etc.) that make it more likely to be born unassisted.

Stayability (STAY)- predicts the probability that a bull's daughters will remain in the herd until six years of age. Research has shown the breakeven point on replacement heifers is five to six years of age due to expensive heifer development costs. Females that fail to stay in the herd that long are losing money, and they also contribute to a higher rate of replacement females that producers must retain instead of being cash cropped.

In summary, allowing the environment to help ruthlessly cull the cowherd, coupled with diligent genetic selection using Red Angus maintenance and reproductive EPDs will aspire many Red Angus cowherds to greatness and profitability. ■