



British White Cattle Association of America e-News

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Reminders:

1. The International Tattoo Year Code for 2021 is "J".

The BWCAA Oklahoma Region Is Organizing

The Oklahoma Region representative designate John Martin of Norman, OK has submitted the application for setting up the Oklahoma Region. According to John, their region has an aggressive agenda of planned events including attending cattle producers' conferences and several youth training activities. They also plan to be involved in getting some British White cattle into the 2021 Oklahoma Youth Expo and the Oklahoma State Fair. They meet digitally once a month.

More Info on Chute Scoring

In the last newsletter, ([Special Edition, November 2020](#)), a section focused on "Squeeze Chute Tips". Building on that theme, following is a link to an [eight minute training video about scoring docility of cattle](#) held in a squeeze chute. The researchers producing the video discovered that even people with many years of experience handling cattle became more precise at scoring docility after watching the 8 minute video. There is a place on the BWCAA registration certificate to report a chute score. It is located in the lower left hand corner labeled "Additional Information".

What do your cows/bulls weigh?

Should you care?

The British White Cattle Association of America offers a "grading up" or "breeding up" program as most or all members know. To quote the "Breeders Reference Guide" it was instituted "in an endeavor to provide individual breeders with a means of better serving their customers within certain geographical areas, and as an economical method for new breeders to build a registered herd..." Approximately 10%, on average, of the new registrations each year are half bloods. Some of these half bloods are planned crosses and some are accidents, perhaps when a neighbor's bull jumps the fence. (It happened to this writer several years ago when a shipment of British White semen failed to arrive at the Artificial Inseminator's place in time for

our synchronized herd of females to be bred, resulting in a crop of Red Angus X British White calves the next spring. This herd still has some of those female half bloods. They average 1340 pounds. Their progeny (3/4 bloods) average 1236 pounds. We have a way to go to reach our goal of a 1,000 – 1,100 pound average cow herd of registered British Whites.) Breeders should be aware of the possible unwanted traits of the other breed before making the cross.

Without weighing one's cows, or calves at birth and at weaning, how is one to know where their breeding decisions are taking them? The old saying goes, "You don't know what you've got unless you measure it".

Many of our breeders fail to report birth weights, weaning weights, yearling weights or mature weights, hip height, and other metrics when registering their animals. (This writer is not guilt-free in this matter). It is often difficult without a scale on the farm. However, an inexpensive digital scale with load cells for attaching under a squeeze chute can be purchased for less than \$200. During a trip to a vet for vaccinations or bull testing, etc., or if your vet has mobile scales, it only takes a few minutes to record some data. It just takes planning.

We encourage breeders, that when registering heifers; take the initiative to submit data on steers (at no cost) as well. This provides data on the heifers' "contemporaries" and makes the information on the registration certificate more accurate and meaningful. Include the steers' data on the same application as the heifers, but under the column "register yes/no" check the "no" box. If you are selling bulls and/or semen, data on both female and male offspring will show up on the bull's registration certificate for years to come as their progeny are registered. Breeders can submit new data to be added to the production records of their cows and bulls at any time. When the association becomes large enough to institute a genomic data base for the computation of EPD's, this data will be of utmost importance.

Efficient Cows

There is an ongoing discussion among cow/calf producers and agricultural economists about the most efficient cow size. Successful commercial cow/calf producers know that feedstuffs are the primary input cost of their operations. Cows consume about 2% of their body weight per day in dry matter, thus a 1400 pound cow will consume 28 pounds/day. A 1000 pound cow will consume about 20 pound/day, 30% less than the 1400 pound cow. But does that mean she is more efficient?

When looking for a good definition of an efficient cow, things get complicated. The literature contains some interesting thoughts on the subject:

- Different cattle are efficient in different environments and production systems.
- Overall efficiency of a cattle production system is a combination of biological efficiency (feed consumed/beef produced) and economic efficiency (\$ spent/\$ returned).
- On the ranch, an efficient cow calves at 2 years of age, calves every year for at least 6 years, always calves unassisted, and is an easy keeper on the available forage on the

ranch. These cattle are represented primarily by British breeds (Angus, Shorthorn, British White).

- Preferred feedlot cattle generally have higher birth weights, and from cows that reach puberty at an older age. In the feedlot they develop marbling more slowly but gain weight faster and result in heavier carcasses. These cattle are most represented by the Continental breeds (Charolais, Limousin, Simmental). In Nebraska feedlots, crossbreeds of British X Continental make up the majority of feeder cattle.
- The packers, who operate on a small margin, and also who have the lowest investment per calf, want cattle that stay healthy and can be pushed to gain rapidly on concentrates. These are usually large framed, heavier muscled cattle. Packers are driving the trend of larger, heavier cattle.

Thus a cow-calf producer that selects solely for smaller framed cattle on the assumption that they are more biologically efficient may find their cattle heavily discounted in the marketplace, which would decrease the economic efficiency of their operation.

Quoting Johnson, et.al, "In one of the most comprehensive experiments conducted on cow efficiency, researchers at the USDA Meat Animal Research Center (MARC) studied the biological efficiency of nine different breeds of cattle over a range of feed energy intakes. Ranking for efficiency among the breeds, three British and six Continental, depended on feed intake. At lower feed energy intake, the MARC researchers found that breeds that were more moderate in genetic potential for growth and milk production (Angus, Red Poll and Pinzgauer) were more efficient because of their higher conception rates. This clearly underscores the overriding importance of reproduction in a discussion about efficiency. At lower energy intakes, and because of their greater maintenance requirements, the breeds with greater growth and milk potentials had less energy to commit to reproduction. However, at high energy intakes, the Continental breeds with greater genetic potential for milk production and growth were more efficient than the British breeds because they were able to reproduce and the extra available energy was converted to milk, resulting in heavier calves. At high energy intakes those breeds with lower genetic potential for growth and milk production could not convert the additional energy into milk and therefore the cows themselves, rather than their calves, got fatter, essentially an unproductive use of energy." Thus, matching growth and milk production to the feed resources is the key to creating efficient cows.

This became apparent to North Dakota researchers at Dickenson Research and Extension Center where they began breeding larger heifers with Aberdeen/Lowline bulls and moving toward smaller cattle for calving ease. They then had two herds of related cows. A "beef" herd that averaged 1400 lbs. and a "range" herd that averaged 1000 lbs. at maturity.

The researchers ran a math experiment comparing the range herd to the beef herd based on the production records of each. If an equivalent weight of cows of the two herds was placed on similar pasture, (that is, 30% more 1000 lb. cows than 1400 lb. cows) and the weight of weaned calves was compared, what would be the result? Data showed that 1000 lb cows weaned calves at an average weight of 535 pounds compared to the 1400 pound beef cows at 640 pounds.

Doing the math, if there were 100 calves @ 640 pounds harvested from the beef group (or 64,000 pounds) and 130 calves @ 535 pounds harvested from the range group (69,550 pounds), the advantage of the smaller range cows was 5,500 marketable pounds.

- Many producers follow the rule that an efficient cow is one that will wean 50% of her own weight. But this has been shown to be faulty when trying to use this metric for culling or selection of efficient cows. This is because that ratio (weaned calf wt. /cow wt.) is dependent on many different factors. Even cows on the same feed in the same environment will differ in feed intake, milk production, age (first-calf heifer vs. mature cow) sex of the calf (heifer vs. steer) body condition score, and environmental stress.
- Thus, most research now shows that improving cow herd efficiency through culling is ineffective compared to prudent bull selection. To quote Johnson again, "For the majority of cow calf producers in the nation, the most efficient cow is the one with the highest milk potential that can, without reducing the % of weaned calves, repeatedly produce a calf by **bulls with the growth and carcass characteristics valued most in the marketplace**".

Where do we find bulls like that? Our association does not compute EPD's. We must rely on data supplied by the bull marketer and consult the Registration certificates. This stresses the importance of taking production data on your herd and reporting that data to the breed association.

Sources: "Smaller cows are more productive and profitable", Kris Ringwall, Online at <https://onpasture.com/2017/09/25/smaller-cows-are-more-productive-and-profitable/>.

"Understanding cow size and efficiency", Jennifer Johnson, Barry Dunn, and J.D. Radakovich, Proceedings 2010 Beef Improvement Conference Annual Ranch Symposium and Annual Meeting, pp 62-70.

"Beef Cow Size, Efficiency and Profit", Scott Greiner, Virginia Tech Extension, Livestock Update, April 2009. Online at https://www.pubs.ext.vt.edu/news/livestock/old/aps-200904_Greiner.html.