Feed Efficiency…

How We Got It All Wrong

Defining and measuring feed efficiency is something I have always struggled with. It’s definitely not as easy as science wants it to be. Science wants to break everything down into understandable bits and pieces. Unfortunately, that won’t work in the real world. The real world is made up of wholes with thousands of interactive pieces.

Before we continue, we need to understand that all beef animals fall into two basic categories. Some animals are destined to end up on the dinner table, while others are working in a cowherd to produce more beef animals. Ironically, success in both categories is dependent on the same thing — storing up energy in the form of fat. Beef does not provide an enjoyable eating experience until it has stored up enough fat to grade Choice or Prime. A cow is incapable of getting bred until she has stored up enough fat to come into estrous.

All beef animals must meet their maintenance requirements before any weight gain can take place. After the maintenance requirements have been met, nutrients will first be allocated to skeletal and muscle growth. After those needs have been taken care of, nutrients are made available for milk production in lactating animals. Fat deposition, which is by far the most important, cannot take place until all other needs have been met. A pound of fat requires 2.5 times more energy than a pound of muscle. Therefore, it takes substantially more pounds of feed to produce a pound of fat than it takes to produce a pound of muscle or bone.

You cannot assume the animal that gains the most is the most efficient because you don’t know how much feed was required to achieve those gains. Therefore, the beef industry came up with ways to determine how much feed is required to produce a pound of gain. On the surface, this seems like the ideal way to measure feed efficiency. In reality, though, feed to gain ratios have done nothing but create taller and taller animals that are leaner and leaner. Animals that do the best in these tests are gaining pounds of skeleton and muscle — not fat. It takes much, much less feed to produce skeleton and muscle than it does to produce fat.

I’m sure you have heard of seedstock producers who use residual feed intake (RFI) tests to determine the so-called “feed efficiency” of the bulls they sell. More and more are purchasing the expensive GrowSafe equipment required for this test. RFI tests are slightly better than feed to gain ratios because they take into account the size of the animal being tested. Even so, they still heavily favor tall, hard-keeping animals. Moderate-framed, early-maturing animals that have the propensity for fat deposition will never be able to compete with tall, late-maturing, hard-keeping animals in an RFI feed-efficiency test.

In the name of feed efficiency… the beef industry has inadvertently created tall, lean cattle that take longer and longer to finish and are difficult to get bred. This has been going on for the past 40 years — and it continues to get worse every year. I don’t know why so many seemingly intelligent members of the status quo herd are unable to see what is going on. I suspect they are afraid to think or to look outside the box they have put themselves in.

~ Kit Pharo