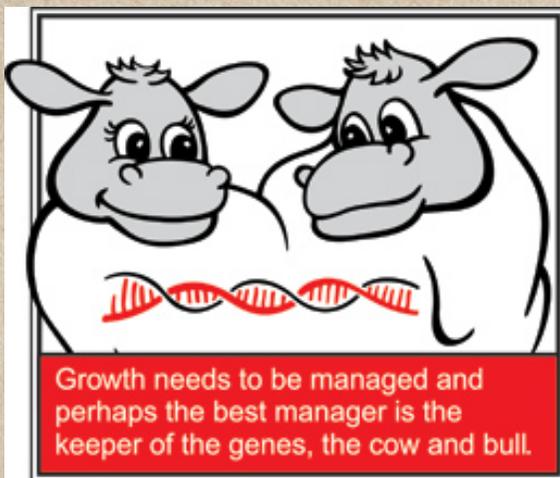




BeefTalk 608: Birth Weight in the Eyes of a Chicken

SUPPORTING MATERIALS



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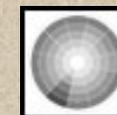
The question of birth weight is always a good topic during calving. More precisely, birth weight involving calving replacement heifers or first-calf heifers. Generally, older cows have few calving problems.

The challenge with younger cattle rests with proper heifer development and sire selection in the world of high-growth beef cattle. It may seem inappropriate to some, but the poultry world is a fascinating one. Believe it or not, the poultry industry has many of the same issues as beef.

When it comes to meat and egg production, there is a reason that the poultry industry is a tough competitor with beef. There is no need to go into the details because no one would deny that feed efficiency and growth are the foundation of



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the broiler industry. However, the broiler industry has to start somewhere. That somewhere is the egg, just like the beef business starts with an egg.

Once fertilized, the egg in both industries continues to grow until a marketable product is achieved. In the broiler, by two months all the biological processes have ceased because the broiler has been harvested. In the beef world, a couple of years may pass before harvest. In either case, growth and feed efficiency are critical to the success of the business.

What is interesting to ponder is how the poultry world has modified the chicken to become what it is today. The starting line is the same for broilers or egg producers. In other words, all chicks, at least to the naked eye, are similar when they hatch. Why? Well, hens need to produce eggs and eggs need to be laid without assistance.

Breeding systems assure that the genetics of the broiler are expressed after they hatch, not before. Otherwise, the chick would be doomed to death if confined to the same space as a slow-growing chick during the first 21 days of its productive life.

Perhaps in the world of beef production, the same question is relevant. Breeding systems should be designed to make sure that the calf, in its first 283 days of life, does not outgrow its shell, which is the uterus. However, before one discusses birth weight, growth in its raw, unregulated form needs to be appreciated.

The broiler industry has selected post-birth growth to be a function of the ability to consume nutrient-dense feedstuffs at a rate that will assure an efficient, profitable product at harvest. In fact, most broilers would have very little function outside of their designed life expectancy, even to the point of what are called “flip-overs,” which are birds that outgrow their own biological systems and succumb.

Their ability to survive is regulated by management, monitoring nutrient input to keep flip-overs to a minimum. Designed genetics, growth, products and recipes are used to please the human palate. The poultry industry does not have birthing difficulty. Chicks control growth in the shell. Not until the chick hatches does the all-out, predesigned broiler chick kick in and grow at all biological costs to reach a marketable weight.

Some hatcheries even have warning messages, such as “do not continuously feed these chicks because mortality will go up.” Producers realize that the chick no longer has the capacity to determine for itself when it should quit eating, so they need to manage the chicks accordingly.

Now back to the beef cow. We still have considerable discussion about birth weight. There are very real reasons to accelerate growth in cattle. Much like chickens, genetically predesigned steers that assure maximum feed efficiency and lean growth are desired, along with the palatability of the harvested product.

Should the beef industry be able to regulate prebirth growth just like the broiler industry? Small calves or, at least average calves at birth, are very possible and so is the increased capacity to grow post-birth. Chicken or cattle DNA utilize the same biological processes and respond the same to selection.

Although they evolved from distinctly different organisms, both respond to the impact of natural and man-made selection. Genetic or breeding systems are not unique to the poultry industry. The same genes or at least similar genes are present.

Birth weight is manageable in cattle and, with today’s vast amount of data, there is very little reason to have cattle birthing problems. The real answer is in developing breeding systems, utilizing the right type of bulls on the right type cows, and even having a different system for the heifers to aid in lowering calving difficulty and increasing the productive life span as the heifers mature.

If the poultry industry can do it, so can the beef industry. However, let’s all hope that we avoid flip-over steers. Growth is great but needs to be managed.

Perhaps the best manager is the keeper of the genes.

May you find all your ear tags.

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