



## *Critical mass*

*By Steve Suther*

It takes so many plants to make a stand, cows to make a herd and drops to make a rain. Before turning that herd out to pasture, you look for enough plant mass to support their grazing. If you're watching a couple of bred heifers for a month, you might as well be watching 20 or 30.

These examples relate to what I like to call "critical mass," or enough to make a difference. I don't use the term in a precise way, just kind of adapted from two fields.

In nuclear physics, that tipping point is the divide between sustaining a chain reaction and fizzling out. In sociodynamics, it's the threshold number of people in a group that can make something happen by their exchange of ideas.

There's always water vapor in the air, but you don't notice it unless it is either practically devoid and uncomfortably dry, or getting closer to moderately abundant and rain.

A few people may not be able to create a movement or a brand, and their efforts could fizzle out. But with just the right dynamics, they can spark an exchange of ideas that leads to something with sustained power.

Back to the farm or ranch, with a given stocking rate and climate, a certain amount of land supports a cowherd large enough to justify facilities, lead you to try new marketing alternative and care about profitability. If you try to do too much with poor planning or management, your enterprise can go "supercritical." Or that could refer to what folks are saying down at the feed store.

Once you arrive at a threshold or realized goal that brings the change you were hoping for, good things should keep happening as long as you can manage the dynamics.

The beef industry pursued a quest for critical mass in the area of adding value to underutilized cuts. When meat scientists pulled the *teres major* muscle out of the chuck and realized how good it was, that alone would not bring about the cascade of added value to end meats that we have today.

It took a producer-funded and sustained effort in locating other cuts worth fabricating from the chuck. That made it profitable for packers to change the way they process beef and pass some of that back to the ranch.

Maybe you picked up on the unusual terminology I used to discuss humidity, a comparison to marbling in beef. Above the Choice/Select border, you find just enough to deliver a pretty good steak, most of the time. As you try beef with lower marbling scores like “practically devoid,” you notice something missing: flavor. At that level, beef demand can fizzle out.

When it reaches a critical mass in the mid- to upper Choice grade, the marbling and tenderness that comes with it sustains a consistently great eating experience for millions of consumers.

Quality grade in U.S. beef has been on the rise for the last few years, and studies show demand for it has been increasing, at the expense of Select and lower quality beef.

Cattle genetics have improved, getting near that critical point in many herds where a whole new world opens up. It isn't just about adding more land and cows or even pounds of beef. Herd managers have read the market signals and the bull catalogs and chosen bulls that add predictable marbling to their herds, which now produce 80%, 90%, even 100% Choice or better beef. Increasingly, they participate in ownership, data feedback and premiums.

And the market wants more, judging by the recent \$50-per-hundredweight spread between Prime and Select beef.

When premium Choice was only 15% of the mix, and Prime 1.5%, they could be ignored. At double that ratio, the quality movement has reached a tipping point and long-term profitability could spread through the beef industry like a cascading chain reaction.

Next time in *Black Ink*<sup>®</sup> Miranda Reiman will look at the link between happiness and great beef. Questions? Call toll-free at 877-241-0717 or e-mail [steve@certifiedangusbeef.com](mailto:steve@certifiedangusbeef.com).

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