COW/CALF CORNER

The Newsletter

From the Oklahoma Cooperative Extension Service

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Cow Slaughter Continues Above Last Year

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Total beef production for the year to date is down 1.3 percent and total slaughter is down 2.1 percent compared to the same period last year. Both beef production and slaughter have been larger in recent weeks and the year to date total is down less than expected. A significant part of larger than expected total slaughter is the result of increased cow slaughter. Year to date slaughter of steers, heifers and bulls are all down from last year. Only cow slaughter is up; 1.2 percent so far this year. Several factors are at work including unexpected beef herd liquidation and structural change in the North American dairy industry.

The closure of a major cow slaughter plant in Quebec, Canada last year has impacted U.S. cow slaughter and cattle and beef trade flows between the U.S. and Canada. A significant part of the 4.4 percent increase in dairy cow slaughter this year is likely due to increased imports of Canadian dairy cows. Previously these cows were slaughtered in Canada and much of the processing beef shipped to the U.S. Though the data are incomplete, there are indications that the flow of processing beef, i.e., trimming for ground beef, has reversed with Canada now deficit in processing beef. The incomplete nature of trade and domestic slaughter data make it difficult to assess what is happening to the U.S. dairy cow herd but it is clear that this structural change must be considered otherwise it would be easy to draw incorrect conclusions about changes in the U.S. dairy cow herd.

After five weeks of year over year increases, beef cow slaughter in the U.S. is only down 2.1 percent for the year to date. Unexpected beef herd liquidation is implied by the fact that beef cow slaughter has been up nearly 14 percent year over year for the last five weeks. It appears that winter has been just too much for some producers. Hay is extremely expensive and in short supply and apparently beyond the reach of some producers recently. With improvement in drought conditions in many regions recently, warm weather and the beginning of forage growth should result in beef cow slaughter falling sharply in the coming weeks. However, the damage may be done as far as herd inventory goes. Larger than expected beef cow slaughter so far this year, combined with indications that more heifers may have entered feedlots this spring (probably the result of the same liquidation) may have already erased any chances of avoiding additional beef cow herd liquidation this year. Beef cow slaughter rates the next few weeks and the mid-year heifer on feed inventory may provide some clues about herd inventory changes but complete data will not be available until next year.

Realistic Expectations for Estrous Synchronization and AI Programs

Glenn Selk, Oklahoma State University Extension Cattle Reproduction Specialist

Producers that are wanting to improve the genetic makeup of their beef herds very often turn to artificial insemination (AI) as a tool to accomplish that goal. Many times, these producers have very high expectations as they begin the first season of artificial breeding. Perhaps they have heard other producers tell of situations where “near-perfect” pregnancy rates resulted from THEIR artificial insemination program. Everyone wants to get every cow or heifer bred as they start the labor and expense of an AI program. However, the rules of biology do not often allow for 100% pregnancy rates in most situations.

First of all it is important to understand several terms.

Estrous response rate: the percentage of cows found to be cycling in response to an estrus synchronization protocol. In other words, if we put 100 cows through the working chute and

give them estrous synchronization drugs, and only 80 of those cows responded to the estrous synchronization products, then we have an "estrous response rate" of 80 percent. Perhaps some of the cows were not "ready" because they were later calving or they were in poorer body condition. If we are breeding only after they are detected in heat, then only 80 of the original 100 cows would be bred to AI. The effects of the drought may have an impact on the body condition of cows going in to the estrous synchronization protocols and adversely impact the percentage of cows responding to the synchronization products.

Conception rate: the percentage of the cows that were actually inseminated that were palpated and found to be pregnant 60 or more days later. In other words, of the 80 cows in the above example, that were found in heat and inseminated, IF we later found that 70 percent of those "settled" or became pregnant, we would have found 56 cows pregnant.

Pregnancy rate: the percentage of cows that were initially started on the estrous synchronization protocol that actually became pregnant. In the above example, 56 of the original 100 cows became pregnant to the AI program resulting in a pregnancy rate of 56%.

Therefore, the **Estrous response rate** X **Conception rate** = **Pregnancy rate**.

In this example: **80% Estrous response** X **70% Conception** = **56% Pregnant.** The above example is hypothetical, yet very much close to the expected outcome of a successful synchronization and AI program. If heat detection is incorporated as part of the system, then it becomes another very important part of the equation.

Below is a brief summary of just a few of the many trials conducted to study synchronization methods. As you look at this table, observe that similar results occur within the same study (or ranch). There is more difference expressed between operations than between the synchronization methods chosen. *Note that most pregnancy rates vary between 35 and 60%.*

Pregnancy rates (%) in five different beef and dairy studies using three different methods of synchronization

Study	2000 Kansas Study	1999 Minnesota Study	1999 Colorado Study	1999 Kansas Study	1995 Florida Study
Number of cattle	240	471	124	588	346
Method A		37%	58%	56%	
Method B	58%	35%	47%	46%	50%
Method C	58%			52%	

These research trials were conducted under typical farm or ranch conditions with experienced insemination technicians. They give producers a realistic look at what to expect from synchronization and AI programs. Of course some operations will have better results and some

will have more disappointing outcomes. We hope everyone has 100 percent pregnancy rates this year and every year, **BUT*, lets also be realistic*.**