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## BeefTalk: Economic Greats - 93 Percent of Cow's Weight Harvested

The economics of the cow-calf business involve three very important economic drivers.

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As I was reviewing Cow Herd Appraisal Performance Software (CHAPS) records recently, cow Y1002's record popped up.

Because of the weight of her calves at harvest (93 percent of her weight), she is one of the economic greats of the Dickinson Research Extension Center's herd.

Y1002's dam is half-Red Angus and half-Angus, and Y1002 was sired by an Aberdeen bull called Cadet Quartermaster. I would call Y1002 a frame score 3, 1,100-pound cow. Her weight has averaged 1,069 in the fall, but as she ages, she will put on some weight.

Y1002 has weaned a calf every year. Her 2015 calf (C5132), born on a late spring day, May 26, comes to mind as representing what I would expect out of a commercial cow. The sire of C5132 was not known because the center group mates and Y1002 was exposed to three bulls in her particular 2014 breeding pasture: 3280, an Angus bull, and two Red Angus bulls, A042 and A079.

Calf C5132 was 80 pounds at birth and 582 pounds at weaning, boasted 2.6 pounds of average daily gain and was 43 inches at the hip (frame score 4.9) on Dec. 3, 2015. C5132 was representative of his contemporaries. As with most calves, to the visual eye, he was just a calf but slightly on the small side.

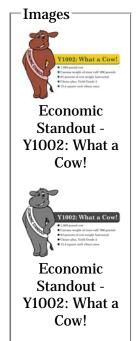
Once neutered, C5132 went to the winter backgrounding lot, where he was targeted to gain 1.5 pounds a day on roughage, and was summered in 2016 on grass, crop aftermath and other forages. On Dec. 13, 2016, C5132 weighed 1,195 pounds and went to the feed yard, arriving at 1,104 pounds after shrinkage.

At the feed yard, C5132 gained 4.8 pounds per day, reaching 1,673 pounds on harvest day, April 18, 2017 (683 days of age). C5132 had a hot carcass weight of 996 pounds, .4 inch of back fat and 15.4 square inches of rib eye, with a 2.8 yield grade and average Choice quality grade. Recall the earlier statistics and ponder.

Remember, C5132 was frame score 4.9 at weaning, and his mother, Y1002, averaged 1,069 pounds in body weight. Now ponder, and ponder a lot. I would be proud to look across the pasture at a whole herd of cows that resemble Y1002.

The economics of the cow-calf business involve three very important economic drivers. Economic driver No. 1: calving cows in sync with grass. Y1002 bred and calved on grass. Upon rebreeding, she foraged through late fall and early winter with limited harvested feed because her third trimester didn't start until late February.

The delay in the consumption of harvested feed potentially shaves a third of the winter feed costs or more in



cases where a producer is finely tuning winter grazing operations. The mid-December weaning puts calves into the backgrounding facilities, where gain may be minimized, but they stay vigorous and healthy.

Following winter, C5132 and his contemporaries were turned out on cool-season spring grass, a grazing banquet. This is the same grass type on which C5132 started life.

Keep in mind, the mother cows again were across the hill grazing and calving on their own cool-season pastures. As summer progresses into fall, properly designed grazing strategies will funnel the cows to more crop residue and the yearlings to fall cover crops, standing corn and other higher protein forages.

Here's an important point: As 2016 came to a close, Y1002's bull calf (D6001) weaned at 576 pounds, with 2.1 pounds of average daily gain and a frame score of 4.8. This was as C5132 was ready to load on the truck going to the feed yard.

This is time to ponder and ponder some more. While the DREC was providing for Y1002 and her 2016 calf, the ranch had added 613 pounds to C5132 (her 2015 calf).

Back to the economic drivers. Economic driver No. 2: the importance of monitoring cow weight. In this case, one cow is marketing a calf each year, but the second year does not have the costs of the cow's pregnancy. This is interesting to note.

Y1002 is a 1,069-pound cow, exceeding 1,100 at maturity, and averages 538 pounds of calf at weaning, with the potential to market 1,200-pound yearlings. Sure, heavier cows could produce these calves, but then the extra cow weight is simply a burden and expense to the operation.

Economic driver No. 3: the bull. Cow Y1002 is not a large, robust, muscular cow, but the bulls that sire her calves have those traits. The bull she mated with helped produce 996 pounds of carcass on the rail at .4 inch of back fat and 15.4 square inches of rib eye, with a 2.8 yield grade and average Choice quality grade. That is 93 percent of the cow's weight harvested.

Who decides all this? The producer does by constructing the fences, planting in the soil, partitioning the grass and determining the level of production and financial rewards sought. So, I just had to ponder and smile as Y1002's records were reviewed. Unfortunately, Y1002 only produced bull calves, all steered, but commercial wonders.

When producers ponder the future, they have no need to question the futility of agriculture. Opportunity abounds. The challenges are us and our willingness to think, plan and achieve.

May you find all your ear tags.

For more information, contact your local NDSU Extension Service agent (https://www.ag.ndsu.edu /extension/directory) or Ringwall at the Dickinson Research Extension Center, 1041 State Ave., Dickinson, ND 58601; 701-456-1103; or kris.ringwall@ndsu.edu.

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