

COMMERCIAL CONNECTION

FRAME SCORE & EFFICIENCY

Last spring in my article I outlined my goals of being on forage year around. I stated that it was a new venture for me and I figured the first year I would lack enough forage to pull it off. Well, I didn't but I was close. I fed hay to my mature pregnant ewes from January 20th to March 1st, an average of 2.5 lbs. hay per day. On March 1st I turned them onto a field of fall planted Triticale for three weeks and at that point my Italian rye was ready. They grazed on the rye grass until April 15th lambing. Wow! Lambing on grass in late spring is the "cats' meow". That's an old saying my dad used when something worked like he planned. I lambed 200 ewes in 15 days with less effort than any time in my 30 years of barn lambing half that many ewes. I totally enjoyed going out in the morning after a cup of coffee picking up and tagging 3-6 sets of twins. My biggest problem was the "super moms" that would steal lambs in their hyper pre-lambing mode. Now on to the subject of the day.

FRAME SCORE; Because I'm also in the cattle business I've been aware and conscious of frame scores for some time. While studying the cattle frame growth of over the last 30-35 years I realized that the sheep industry has followed the very same path. We have allowed some one to convince us that bigger is better. After all, isn't that the American way? It started in the show ring and grew from there. The philosophy behind it is that sell weight and not yield and carcass value. The bigger the cow the bigger the calf. The bigger the ewe the bigger the lamb. The only problem is, as we breed for bigger lambs they become growthy but inefficient. It takes substantial more intake to finish a XL sized lamb, and most do not have the ability to finish on grass. To get the XL lambs we must have XL size ewes. These XL ewes become major consumers of feed, and in most cases large quantities of cereal grains and not forage to keep up their body score. I was amazed on a field day at a major university Ag. Dept to find Dorset ewes on abundant grass being feed grain. I also know that if they were not feed grain they would have struggled to recover their working body scores. Frame score and efficiency go hand in hand. It has become apparent in the cattle industry the cows have become too big! There is an aggressive movement to down size. As the Dorset breed has followed the national trend of Frame Creep, we to must ask ourselves, what have we gained?

As I mention in my prelude I wintered my mature pregnant ewes on 2.5lbs. of hay per day. I would challenge any of you breeders of XL sheep to match that intake without your ewe going south on you. I like to evaluate the efficiency and the ease of maintenance of your ewes by their length of recovery time after lactation. Your ewes should recover to a 4-5 body score in 45days on good grass only. If they don't they are inefficient, big consumers, will breed late, single or milk light the next lactation.

The cost to maintain a brood ewe is substantial. In many cases it is the difference between making or not making money. A ewe that will need an intake of 6 lbs. of hay per day vs. a ewe that needs 2.5 lbs. over a 100 day feeding period will cost you \$17.50-\$20.00 more per ewe to maintain. Furthermore the XL framed ewes will have you for lunch when they're lactating. If you have a flock of 10 show sheep you may not feel the pain but if you feeding 2-500 ewes it means \$6-20,000 in additional maintenance feed costs, not counting additional feed while lactating, labor, storage and other costs. The same relationship takes place with the feeding of lambs. Lambs from XL frame ewes

will consume the same percent difference to get to finish, and in most cases the carcass yields will be less.

Over the last thirty years FRAME CREEP has influenced the Dorset breed tremendously. In most cases the XL size sheep cannot work in money making commercial ewe flock operation. But the XL influence is overwhelming, primarily because the show ring breeding where the majority of the registered Dorsets stud rams come still dominates the purebred sales market. In my opinion that there needs to be a line of distinction defining the type of sheep that the breeder produces within the registry. The answer could very well be frame scoring.

PROPOSAL: I would like to see the CDC take a huge leap into the world of frame scoring our sheep. It is the natural and easiest way to decide the differences between (Foundation) production type Dorsets and contemporary XL Dorsets. The registry would signify the difference and the show ring would identify them. There would be a height and frame scores for age increments for both sexes. All sheep would be measured at certified shows and sales along with a separate show similar to the Horned and Polled today. It would simply be a Foundation Polled Dorset Show. If your sheep are over size for the Foundation show even though the sheep was "Foundation" registered you would have to move to the contemporary Dorset show. The time has come to take this bold step. If the idea makes sense to you get a hold of your regional director or a member of the Production Committee and tell them its time has come.

Bruce Ankeny

Commercial Lamb Producer & Dorset Breeder

EXAMPLE

Frame Score Chart based on Shoulder Height

Ewes					Age/months	Ram				
1	2	3	4	5		1	2	3	4	5
18	20	22	22	26	6	19	22	24	26	28
20	22	24	26	28	12	21	23	26	28	30
22	24	26	28	30	18	22	25	27	29	31
23	25	27	29	31	24	23	26	28	30	32

- Frame score above 5 could developed to complete the chart.

DORSET NSIP GENETIC 2003 ANALYSIS REPORTED

by Dr. Dave Notter and Larry Kuehn

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The US National Sheep Improvement Program (NSIP) is pleased to release the results of the July 2003 Dorset genetic analysis. The genetic evaluation reports are similar to those distributed last year. Genetic connections among Dorset flocks continue to improve, but breeders should still exercise caution in comparing EPDs across flocks unless you know that the flocks involved have achieved a reasonable level of connectedness.

The 2003 Dorset NSIP Data: Data were received from six flocks: two from Pennsylvania, and one each from Indiana, Michigan, Ohio, and Virginia. Data reported in 2003 included records on 250 breeding ewes that produced 381 live lambs. The lambs were offspring of 22 Dorset rams. Following editing, valid records were received for

2003 on 267 60-day weaning weights, 94 post weaning (120-day) weights, and 232 litter sizes. The entire NSIP Dorset database now contains valid records on 4,346 60-day weaning weights, 1,314 post weaning (60- to 120-day) gains, and 3,704 litter sizes.

Means for each trait are shown below. Weaning weights were adjusted to a single birth and rearing, adult dam, and ewe lamb basis. Post weaning gains were not adjusted, but male and female lambs were placed in different contemporary groups. Litter sizes were adjusted to an adult ewe basis.

Trait	Mean
60-day adjusted weaning weight	63.4 lb
post weaning (60- to 120-day) gain	.69 lb/day
litter size	1.86 lambs

EPDs were calculated for a total of 7,841 animals, including 2,184 breeding ewes and 443 sires. While most flocks had some level of connectedness with at least one or two other flocks, connections were in most cases limited. This year, 22 animals were inventoried in more than one flock. This number is continuing to increase, indicating the establishment of more direct connections among flocks. However, comparisons between animals from different Dorset flocks should still be made with care.

The EPDs reported for each flock include:

1. The 60-Day Weaning Weight EPD, which provides an estimate of preweaning growth potential.

2. The 120-day Post weaning Weight EPD, which combines information on preweaning and post weaning growth to predict genetic merit for post weaning weight at 120 days.

3. The Maternal Milk EPD, which provides an indication of genetic merit for mothering ability. This EPD primarily reflects genetic differences in ewe milk production potential as realized in her lambs. The maternal milk EPD is expressed in pounds of lamb weaned, not pounds of milk produced. It is derived by evaluating if individual ewes produce lambs that do better or worse

than expected based on the weaning weight EPDs of the parents. Ewes whose lambs grow faster to weaning than predicted are assumed to be better milk producers whereas ewes whose lambs grow more slowly than predicted to weaning are assumed to produce less milk. This relationship between maternal milk EPD and actual milk production has been validated in beef cattle and is assumed to be similar in sheep, although other elements of maternal behavior may also be included in the maternal milk EPD. Selection for high maternal milk EPDs is anticipated to improve milk production and mothering ability in the flock.

4. The Milk plus Growth EPD, which combines information on weaning weight and maternal milk EPDs to provide an index of the total anticipated contribution of an animal's daughters to lamb weaning weight. The milk plus growth EPD is calculated as the sum of the maternal milk EPD plus one half the weaning weight EPD. It recognizes that the genetic contribution of a ewe to the weaning weight of her lambs includes the effects of both her milk production (measured by the maternal milk EPD) and a sample one half of her genes for preweaning growth potential (measured by the weaning weight EPD). Because the milk plus growth EPD is calculated from two other EPDs, a prediction error is not reported for this EPD.

5. The Number Born, or Percent Lamb Crop, EPD, which evaluates genetic potential for prolificacy. This EPD is expressed as numbers of lambs born per 100 ewes lambing. An EPD of +5.0 for percent lamb crop thus indicates that an animal is expected to produce daughters who will have an average of .05 more lambs at each lambing, or 5.0 more lambs per 100 lambings, than an average ewe. Selection on percent lamb crop EPD is expected to increase prolificacy in the flock.

The 2003 Dorset lambing-weaning data were received at the genetic evaluation center on June 25, 2003. The EPD analysis was completed on July 9, giving a processing time of 14 days.

2003 Dorset Sire Summary: The 2003 NSIP Dorset Sire Summary is now available for distribution to breeders and other interested parties. In order to be eligible for the Sire Summary, a ram must have prediction errors of not more than 1.6 pounds for weaning weight, 2.0 pounds for 120-d post weaning weight, or 1.1 pounds for maternal milk. This year's Dorset sire summary contains EPDs for 36 rams. Again, breeders should continue to exercise care in using these results across flocks because of the limited genetic connections.

Many of the rams listed in the sire summary are older animals. Most breeds exclude rams that are be more than 8 years old from their sire summaries, but this restriction would leave only 13 Dorset rams born after July 1, 1995. As the Dorset breed develops a baseline of EPDs on older rams, we will begin limiting the sire summary report to exclude these older rams.

Submitting Data for the Next Lamb Crop: Later this year, each NSIP Dorset breeder will receive a new, preprinted data entry spreadsheet for reporting the next lamb crop. A new version of the data-entry spreadsheet has been released this year. Most changes are minor, but two may be important for Dorset breeders. The changes include:

- *Addition of a lamb livability code of '5' for lambs that die between 2 weeks of age and weaning. This code will allow us to do a better job of tracking lambs that died before weaning and evaluating ewe productivity. This new livability code should be used by all NSIP flocks.

- *A field to record an end-of-breeding season (ram-out) date. We are beginning development of one or more new traits to evaluate performance in accelerated lambing systems. Information on when rams are taken out is critical to evaluating performance in accelerated lambings. Recording of ram-out date is not required, but may be useful for flocks that practice accelerated lambing.

- *A 'percent purebred' field, to be used by breeds such as Katahdin, that have grading-up programs and record crossbred animals.

- *A field to record codon 171 genotypes for scrapie susceptibility. We expect this field will be used mainly by Suffolk breeders, but other breeders may use it if they wish.

If you are not currently enrolled in the NSIP Sheep improvement program with your Dorset flock but are interested in more information please contact our Dorset Breed Coordinator Alan Culham, 5108 E. Howell Rd., Webberville, MI 48892. Phone: (517)521-4870. E-mail: culhamab@aol.com. Website: dornsip@aol.com