

Preconditioning provides profit potential, health benefits in the feedyard

Good managers are preconditioning their calves for the feedlot from the time the calves are born. Castrating, dehorning and giving the proper vaccinations are important ways to get the calves off to a good start and are part of the preconditioning regimen.

Colorado State University Golden Plains Area Extension Livestock Agent Chris Shelley says preconditioning is a simple way of adding value to a producer's calf crop. He stresses that preconditioning isn't a matter of doing A, B and C but developing a well thought-out preconditioning program based on the rancher's own management style that will enhance his reputation and increase the value of his calf crop.

Options

Shelley discussed three examples of programs ranchers can use to precondition calves before they are sold to a feedlot.

In program A, the calves would be bunk-broke, drinking from a trough, castrated, dehorned and healed, weaned a minimum of 45 days, Beef Quality Assurance (BQA) certified, vaccinated, have a program-specific eartag and be consuming minerals.

In program B, the calves would be home-raised, castrated, dehorned and healed, weaned a minimum of 45 days, BQA certified, vaccinated and have a program-specific eartag.

Calves in program C would be home-raised, weaned 45 days, vaccinated and treated for parasites.

"More buyers are interested in preconditioned calves and are willing to pay a premium for them," Shelley says.

Considerations

"However, preconditioning is not right for everyone, and is not the right thing to do every year," he notes.

For an example, according to current market data, a 450-pound steer calf would cost the same as a 750-pound steer calf right

now because of the price slide, Shelley says.

"Ranchers considering preconditioning their calves will want to consider their marketing goals and market weight and plan ahead," he emphasized.

At a minimum, most ranchers would agree calves should be dehorned, castrated and vaccinated at branding to help get them off to a good start.

"Calves that aren't dehorned are not as valuable as those that are dehorned because there are a lot of calves fighting in the feedyard, and injuries could easily occur," Shelley says.

Also, calves that are preconditioned should be weaned for a minimum of 45 days.

It allows the calf a chance to build up more antibodies to fight off disease after the calf receives vaccinations at weaning. The calf also passes through the stress of weaning in an environment it is adapted to.

By the time the calf enters the feed yard, it should be on an upward cycle for growth and weight gain.

Disease challenges

According to research conducted by Colorado State University, death loss in feedlot cattle shows an upward trend, and the majority of those deaths are related to Bovine Respiratory Disease (BRD). Calves that are weaned when they are sold to the feedlot are more susceptible to disease because they are exposed to other calves from all parts of the country.

Shelley says BRD complications are particularly watched because if the calf gets sick early in life, it will still be affected down the road.

"These calves have a decreased average daily gain over the first 67 days, as well as decreased hot carcass weight, dressing percentage, actual carcass value, adjusted fat thickness and yield grade," he says. "These factors can make the

difference in whether or not a feed yard makes money on a rancher's cattle."

Cost of treatment

Cost to treat sickness is also a profitability issue for feeders.

"They want to keep the cost to treat sickness as low as possible, so it is really important how many times that animal is treated," he continues.

Shelley estimates a one-time treatment at \$40.64, two treatments at \$58.35 and three or more treatments at a whopping \$291.93, which takes all the profit out of feeding that calf.

"Benjamin Franklin's saying, 'An ounce of prevention is worth a pound of cure' certainly applies here," Shelley expresses.

Preconditioning may become a bargaining tool

for cow/calf producers in the future.

"It may be an opportunity for producers and feeders to both make money and benefit from keeping those calves healthy," he says.

Feedlot perspectives

According to a recent USDA survey, the majority of feedlots believe preconditioning is extremely to somewhat effective in preventing death loss.

Shelley says 67.2 percent think that weaning calves four weeks prior to arrival is extremely or very effective in reducing sickness or death loss.

Sixty-seven percent also think adaptation to the feed bunk, respiratory vaccines two weeks prior to weaning and dehorning and castration four weeks prior to shipping is extremely or very effective in reducing

"More buyers are interested in preconditioned calves and are willing to pay a premium for them." – Chris Shelley, Colorado State University Extension

sickness or death loss.

Studies conducted on preconditioned calves show healthier calves in the feedlot and less mortality. Because of this, 70 percent of large feeders and 54.6 percent of smaller feedlots consider preconditioning information important.

In fact, many feedlots have high tech computer systems that monitor how each rancher's calves perform. If a group of calves performs poorly in the feedlot, the feedlot buyer may be less likely to bid on those calves in the future.

Risk

Preconditioning ulti-

mately transfers some of the risk from the feedlot to the producer, Shelley says.

"Economics is the real driver of our decisions. We have to look at whether preconditioning will make us money or not. We have extra expense in vaccinating, labor and feed for those calves over an extra 45 days," he points out. "However, we should have more weight to sell at the end of those 45 days. But does it pay?"

Gayle Smith is a correspondent for the Wyoming Livestock Roundup. Send comments on this article to roundup@wylr.net.

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Vaccine recommendations

Colorado State University Golden Plains Area Extension Livestock Agent Chris Shelley recommends that producers establish a preconditioning program that works for their operation. However, he also notes that several steps are recommended.

First, branding should take place at three months of age. At that time, Shelley recommends that calves receive a seven-way Clostridial vaccination, as well as a respiratory vaccine. He recommends a protection against Infectious Bovine Rhinotracheitis (IBR), Bovine Viral Diarrhea (BVD), Bovine Respiratory Syncytial Virus (BRSV) and Bovine Parainfluenza-3 Virus (P13).

Those same vaccinations should be given again at pre-weaning, and the respiratory vaccine should be boosted at weaning.

Shelley notes that producers should work with their veterinarian during the process to ensure the appropriate vaccinations are selected.

Gender-specific breeding may be the next big leap in beef breeding technology

Riverton – “Early adapters who are willing to take risks often reap the highest benefits,” stated UW Extension Educator Chance Marshall at Fremont County Farm and Ranch Days in Riverton on Feb. 12.

“Because of the risk-takers, we have seen vast improvements in productivity and efficiency over the past 75 years,” he said.

History

In the 1930s, progressive cattlemen began to use artificial insemination (AI), using nearby proven sires without turning out the bull.

“In the 1950s, progress was accelerated with the availability of frozen semen that could be stored. Now it didn’t have to come from the neighbor’s bull, it could come from across the country and be used at a later date,” explained Marshall.

By the 1970s, estrous synchronization allowed producers to manage cows together in a common time frame, and by the 1980s embryo transfer technology was available as well.

“In hindsight, it looks like an easy change, but it was risky, and there was the fear of the unknown,” he noted.

In 2003, the commercialization of sexed semen was initialized, allowing producers to purchase semen that would produce a majority of male or female calves.

“The early use of sexed semen began in 2004, so it has only been around for about 10 years,” Marshall stated.

Procedure

Semen samples are collected from bulls, similar to regular AI procedures and then sorted using a process called flow spectrometry.

“X chromosomes are

three to four percent larger than Y chromosomes,” Marshall explained.

The sample is stained with a fluorescent dye, which glows brighter in the larger chromosomes.

“Semen is sent through the flow spectrometer under pressure,” he stated. “A laser is used to measure the intensity of the glow.”

The sample is sorted at nearly 90 percent accuracy, although only about 70 percent of the sample is unharmed in the process.

“Only 35 percent of the original sample is male and 35 percent is female,” Marshall noted, expressing concern for increased costs in processing.

He has seen an increase in sexed semen sires available in the seedstock industry and is optimistic about improvements in technology.

“When it started a decade ago, we were only

getting about 30 percent of the sample oriented correctly to go through the system. Now with specialized orientation nozzles, we have gone from 30 percent to 70 percent in a decade. That’s a major improvement,” he said

Potential

The dairy industry has already seen the potential of sexed semen, breeding for more valuable female progeny.

“The dairy industry has been gaining information and making technological improvements for the last decade, prepping its use in the beef industry,” he continued.

Currently, the beef industry is still unsure about the feasibility of sexed semen, but Marshall believes that the risk takers will seek out its potential.

“If we are in the business of retaining and marketing replacement heifers, we could use X-sorted semen,” he commented.

Ranchers could produce more females, expanding their operations more quickly and marketing for replacement calves.

“From another perspective, we could use Y-sorted semen to get more steers, which are heavier and worth more at

“From another perspective, we could use Y-sorted semen to get more steers, which are heavier and worth more at weaning.” – Chance Marshall, UW Extension

weaning,” he added.

A higher count of steer calves could also be more valuable to some producers when they load the truck.

“Producers who have less than 200 cows have trouble making complete loads of steer calves, but we could breed for steers and gain the premiums,” he said.

Other possibilities

Another advantage that Marshall foresees in the beef industry is the use of sexed semen in first-calf heifers.

“There is a lot of research that shows heifers that give birth to heifer calves have less calving difficulty and decreased losses,” noted Marshall.

By using Y-sorted semen from a calving ease bull in first calf heifers, the technology could be used to get faster breed back, less dystocia, a decreased post-partum interval and a better chance for that heifer to breed back her second year.

“That increases her chance to have good longevity,” he stated.

For bulls, Y-sorted semen has the potential for producers to gain faster progress in improved sires.

“Bull semen could be used to create the next genetic curve-bending sires,” Marshall commented.

Currently, Y-sorted semen from Charolais bulls is popular with owners of black cows, who are using the cross to produce steers.

“These smoky steers have more pounds and gain faster in the feedlot,” he explained.

Continued efforts

Marshall believes that more research is needed and that sexed semen is still a gamble in the beef industry for now.

“I think this will become a more common practice in the future,” he said. “It may be a good present-day opportunity for producers to increase profits and get massive improvements in genetic potential of U.S. beef herds.”

Natasha Wheeler is editor of the Wyoming Livestock Roundup and can be contacted at natasha@wylr.net.

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-0.9	53	28	93	1305	108	76

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Lot 305 2-19-14													
BW	WW	Milk	YW	ADG	Rat	WDA	YR	365	IND	SC	Eff	REA	IMF
-1.6	49	27	86	3.13	103	3.15	99	1152	100	40.0	95	120	110

Lot 306 2-9-14													
BW	WW	Milk	YW	ADG	Rat	WDA	YR	365	IND	SC	Eff	REA	IMF
-1.0	50	28	90	3.18	104	2.94	96	1118	102	34.0	104	104	110

Lot 308 2-12-14													
BW	WW	Milk	YW	ADG	Rat	WDA	YR	365	IND	SC	Eff	REA	IMF
-1.1	51	24	94	2.73	90	2.77	93	1084	93	37.5	92	118	120

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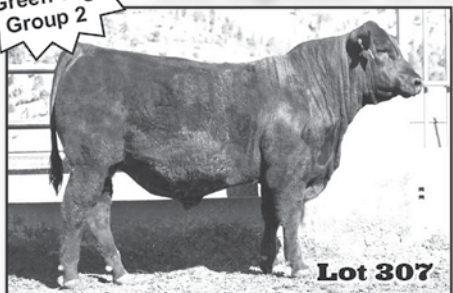
ADG	Rat	WDA	YR	IND	SC	REA
3.89	128	3.22	104	112	36.0	107
BW	WW	Milk	YW	365	Eff	IMF
-0.5	50	29	85	1215	106	89

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#4 WDA
#7 ADG
Green Tag
Group 2

CCC Capitalist 4248



2-16-14

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ADG	Rat	WDA	YR	IND	SC	REA
3.40	112	3.00	94	101	35.0	103
BW	WW	Milk	YW	365	Eff	IMF
-2.4	48	27	87	1098	98	106

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Out of a Predestined daughter with Leachman Right Time on the bottom
Dam 4 NR 100

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LOT 245 AB-LVS CAPITALIST 4507

1-11-14 • by Connealy Capitalist 028

ADG	Rat	WDA	YR	IND	SC	REA
4.01	126	3.39	108	113	37.0	116
BW	WW	Milk	YW	365	Eff	%IMF
1.7	66	27	117	1285	114	102

Grandam 9 NR 106 • 8 YR 106

Top 10% for WW, YW, SC, RE, \$W, \$F and \$B



#4 ADG
White Tag
Group 1

LOT 247 ABEGGLEN CASH 4528

1-27-14 • by Barstow Cash

ADG	Rat	WDA	YR	IND	SC
3.60	113	3.39	106	107	37.0
BW	WW	Milk	YW	365	Eff
2.3	59	24	106	1258	115

Out of a Dateline X Right Time daughter
Dam 6 NR 103 • 4 YR 105



HD 50K

Lot 246 • 1-26-14 • Sire: Connealy Consensus 7229

ADG 3.33 • Rat 105 • WDA 3.23 • YR 103 • 365 1230 • IND 103 • Eff 103



LOT 243 SMA CAPITALIST 4523

1-25-14 • by Connealy Capitalist 028
Consigned by Snowy Mountain Angus
Judith Gap, MT

ADG	Rat	WDA	YR	IND	SC
3.45	109	3.05	97	99	34.5
BW	WW	Milk	YW	365	Eff
1.2	59	24	98	1149	94

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Feuz discusses how DNA technology is becoming relevant to beef producers

Riverton – “Early on, DNA was a lot more about marketing than it was about value to the commercial producer,” stated Bridger Feuz, UW livestock marketing specialist, on Feb. 12 at Fremont County Farm and Ranch Days in Riverton.

That trend is changing, and DNA technology is becoming more useful in the beef industry as producers learn more about how to apply genetics to breeding programs.

Marketing

“We have gotten a little bit duped by some marketing, so we have to be careful,” Feuz cautioned.

Using a bull catalogue as an example, he highlighted the language describing two different polled, black bulls.

“One is advertised as double polled, double black and purebred,” he stated. “The other one is homozygous polled, homozygous black and purebred.”

Homozygous indicates that a genetic test confirmed pure genetics for polled and black traits in the bull.

“Double means that both parents are black, and both parents are polled, but they may, or may not, be carriers of red

genes,” explained Feuz.

Although some sellers may not go to the trouble of genetic testing, the alternative descriptions in the same catalogue should be a red flag for buyers looking for certain genetics in their herds.

Tracking

Referring to his work on sequencing the bovine genome, Feuz said, “We had articles written about our company that said we were going to create Frankenstein animals, but that is not what DNA is used for. It’s about tracking traits.”

Parentage, for example, is one trait that producers may be interested in when investigating high birth weights or genetic defects in calves.

“Parentage is determined by exclusion,” he noted.

There are 11 markers for parentage in the bovine genome and 13 markers in humans, but the technology works the same way.

“When we look at a calf’s first set of markers, we know that one gene has to come from the dam and one gene has to come from the sire,” he stated.

By comparing the calf’s profile to those of its potential sires, unrelated bulls can be elim-

inated when markers do not match up.

“We have to have all of the bulls in that DNA profile to properly identify the sire,” he added.

Producers who hold back one of their bulls to save money on testing may skew the results since that bull’s profile can not be used for comparison.

“Sometimes we have bulls that are full siblings or half siblings or some that are part Hereford,” he noted. “Herefords are hard to tell apart because they had some pretty narrow genetics for awhile.”

Reproduced profiles

In some cases, seedstock producers have been interested in the DNA profile of bulls that they can’t obtain a sample for.

“If we have enough DNA from samples from his calves and their moms, we can usually recreate a profile from that bull,” commented Feuz.

It typically takes about five calves and their dams to provide enough samples to recreate a genetic map for a bull.

“Also, if a producer retains ownership all the way until they get carcass feedback, we can match those carcasses that bring a premium back to the sire,” he added.

Accuracy

DNA technology is

also improving the accuracy of EPDs.

“If we have two siblings and we are trying to buy one, they are going to have almost identical EPDs,” stated Feuz.

Genetic profiles can highlight some of the differences between the two animals.

“Look at human brothers and sisters. We know that they are not going to turn out identical, but they are full siblings, too,” described Feuz.

When producers combine DNA information with EPDs and ownership records, the accuracy of expected traits becomes much greater.

Collecting samples

“It only takes two or three follicles of a hair to put in a reaction to do a DNA test,” he stated.

Collecting hair samples is currently the most common procedure for

“A hair sample is the easiest collection for us to do, but it also the easiest to screw up.” – Bridger Feuz, University of Wyoming

producers.

“It is the easiest collection for us to do, but it also the easiest to screw up,” he warned.

Hair often sticks to clothing or gloves, so producers must be extra cautious when they are collecting samples not to cross-contaminate them.

“For me, blood smears are the best method,” commented Feuz.

The military uses the same technology, with samples that are still viable after staying at room temperature for 20 years.

“We can take the sample, forget about it on the dash of the truck and still have a good sample to send to the lab,” he explained.

Effective costs

Feuz also mentioned that testing is relatively cost effective, especially if it can help determine fatal genetic problems.

If problems can be prevented in the future, Feuz noted that the test may be worthwhile.

“If we have five dead calves, the testing is probably worth it,” he said.

Although he warned producers to be cautious and not get caught up in the marketing, Feuz stated, “We can really start to use DNA technology as a breeding tool and make decisions using it.”

Natasha Wheeler is editor of the Wyoming Livestock Roundup and can be contacted at natasha@wylr.net.

RED ANGUS CALVING EASE DELUXE



Lot 788

1-2-14 Sire: Brown JYJ Redemption Y1334

AAHR Redemption 426B

ADG	Rat.	WDA	YR	IND	SC
3.47	113	2.80	99	104	38.0
BW	WW	Milk	YW	365	Eff
-4.1	63	18	106	1110	102

Out of a Messmer Packer daughter
MPPA 101.6 • 1 NR 104
REA 14.3 • Rat. 113

AAHR Stetson 4012B

ADG	Rat.	WDA	YR	IND	SC
3.60	115	3.02	99	102	38.0
BW	WW	Milk	YW	365	Eff
-1.4	64	22	109	1135	90

Out of an 5L Tradesman daughter
MPPA 103.1 • 2 NR 106 • 1 YR 103
IMF Rat. 102



Lot 789

1-25-14 Sire: GMRA Stetson 2240

Also Selling

Lot	Birth	Sire	BW	WW	Milk	YW	365	IND	SC	Eff
785	2-11-14	Brown JYJ Redemption Y1334	-3.1	67	20	114	1091	98	35.0	91
786	1-18-14	Brown JYJ Redemption Y1334	-4.1	58	21	103	1033	98	34.0	103
787	1-16-14	Brown JYJ Redemption Y1334	-4.3	64	21	111	1042	97	35.0	97
790	2-17-14	C-T Grand Statement 1025	-0.3	62	21	95	1054	96	35.0	91

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The Sons



Lot 285

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ADG	Rat	WDA	YR	IND	SC	REA
3.28	103	3.70	117	110	40.0	121
BW	WW	Milk	YW	365	Eff	IMF
1.1	74	26	127	1378	101	102



Lot 286

CSG Maximizer 13G • 2-15-14

ADG	Rat	WDA	YR	IND	SC	REA
3.08	97	3.52	109	101	37.0	125
BW	WW	Milk	YW	365	Eff	IMF
1.3	80	21	139	1295	94	101



Lot 289

CSG Maximizer 15G • 2-20-14

ADG	Rat	WDA	YR	IND	SC	REA
3.37	106	3.70	115	112	39.0	115
BW	WW	Milk	YW	365	Eff	IMF
-0.2	77	28	124	1357	113	86



Lot 290

CSG Maximizer 21G • 3-1-14

ADG	Rat	WDA	YR	IND	SC	REA
3.10	97	3.49	109	105	36.0	109
BW	WW	Milk	YW	365	Eff	IMF
-0.1	72	23	123	1283	104	107

#10 Eff

Lot	Birth	Sire	ADG	Rat	WDA	YR	365	Eff	IND	SC
282	1-3-14	SAV Heartland 1287	3.39	107	3.38	108	1290	120	109	39.0
287	2-1-14	SAV Heartland 1287	3.50	110	3.47	108	1288	106	106	40.0
288	1-15-14	SAV Heartland 1287	3.12	98	3.26	104	1224	111	103	38.0

** 7 Bulls Avg. 115 REA Ratio; 110 YR; 107 EFF Rat; 107 MBT Ind

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Conformation, skeletal structure remain important in bull selections

With an increasing focus on genetics and expected progeny differences (EPDs) in selecting for bulls, John Paterson, National Cattlemen's Beef Association executive director of education, said, "Even high performance bulls are only as good as their structural soundness."

"Bulls represent a significant investment in the future of the herd, both in monetary terms and in the future performance of retained genetics," he continued. "That makes a sound skeletal structure critically important."

Paterson noted that cattle producers must pay attention to the skeletal structure of bulls in selecting replacements to ensure that they are able to perform as expected.

Structural challenges

"There are numerous causes of lameness in bulls, and certain elements of conformation are heritable," Paterson continued.

The result of many of these structural faults is an increased susceptibility towards lameness.

"Common foot and leg problems that have a hereditary basis include corkscrew claw defect, interdigital fibromas or corns, weak pasterns, post-leggedness and sickle hocks," Paterson explained.

Routine examination

Brian Cumming of

New South Wales Government in Australia authored a paper titled, "Bull Soundness - Structural," in which he detailed one approach that producers can use to assess the structure of bulls.

"To understand all aspects of the bull's structure and be able to compare one animal to the next, it is wise to adhere to a routine examination," Cumming wrote.

He suggested starting an examination with the head, neck, brisket, shoulders, front legs and feet.

Next, Cumming encouraged producers to view along the underside of the bulls to the sheath, testicles, back legs and feet. The visual examination should be concluded by following up to the pin bones and hips of the bull, along the topline and back to the shoulders and neck.

"The bull should be viewed from the side, from the front and from behind," Cumming said. "He should be allowed to walk out and again be viewed from the side, from the front and from behind to confirm any suspicions of poor leg structure."

From the front

Beginning with the head, Cumming encouraged producers to make sure the bull's head is in reasonable proportion to the rest of the body to avoid calving problems.

Additionally, he said eyes should be free from cancer and well set into the head to reduce exposure. Pigment around the eye will also reduce susceptibility to cancer.

The neck should also be held high and of good length, said Cumming.

"A bull which holds his head and neck low may in fact be straight in the shoulder," he said. "This affects the bull's gait and mobility."

Shoulders and feet

Cumming further noted that straight front shoulders are likely to be indicative of straight hind legs, which is a serious fault in conformation.

In the front shoulders, Cumming noted that a natural slope of 45 to 60 degrees is acceptable for bulls.

"A beast whose shoulder blade is tipped forward, or straight-shouldered, has less angle at the shoulder joint and elbow joint," he explained. "This reduces the shock-absorbing ability of these front joints."

At the same time, a straight-shouldered bull will often walk with a short, choppy gait.

Legs

The front legs should also be straight.

"On a structurally sound animal, a vertical line may be drawn from the point of the shoulder to the middle of the

claw," Cumming continued. "As the knee joints carry more than half of the bull's body weight, deviations from this line may cause excessive wearing of these joints."

Watch for knock-kneed and bow-legged animals to ensure the longevity of the bull, as well as his ability to move freely during the breeding season.

Additionally, in looking at the feet of the bull, the pastern joint should be correctly angled. Too much angle or too straight a leg can lead to instability and increased chance of breakdown.

"Post-legged cattle are prone to arthritis in the hips and other joints," Cumming said, adding that damage to ligaments is also possible. "Sickle hocks leads to overstepping and long, overgrown claws and lameness."

To the back

Similar to the front legs, the structure of the hind legs and feet is highly important.

"The structure of the hind legs is similar to that of the front legs," Cumming said. "Again, there are well-defined angles in the joints at the hip, stifle, hock and pastern joints. These angles are critical, particularly during serving when large amounts of stress are placed on these joints."

Paterson also noted that the structural correctness of the hind legs and feet is par-

"Many producers fail to realize that although a bull with a conformation defect of the feet or legs may get by for two or three years, the more serious danger is that the defect will be passed onto offspring." - John Paterson, National Cattlemen's Beef Association

ticularly important because of the added pressure during the act of mating.

"Clearly, any unsoundness in this region will drastically interfere with breeding ability," Paterson said.

"If these joints don't have enough angulation, they become swollen and painful, leading eventually to their breakdown," Cumming added.

"A structurally correct bull, when walking, will place his hind foot in exactly the mark left by his front foot," he added.

Wide-reaching impacts

"Many producers fail to realize that although a bull with a conformation defect of the feet or legs may get by for two or three years, the more serious danger is that the defect will be passed onto offspring," Paterson commented.

Offspring of the bull may possess the heritable conformational traits, leading to reduced longevity, increased labor in herd management and elevated veterinary expenses.

"Replacement heifers carrying conformational defects will propagate these problems in the cowherd," he emphasized.

While many cattlemen and women are strong in their abilities to evaluate the structural soundness of livestock, Paterson noted that it is increasingly critical that bull buyers be proficient in analyzing both conformation and pedigree when making purchases.

"The cost in both financial and genetic terms has become too great to ignore," Paterson commented. "Mistakes can take a long time to overcome in today's cattle business."

Information in this article came from the "National Cattlemen" magazine and can be found at beefusa.org. To view Cumming's paper, visit nsw.gov.au/agriculture/livestock/beef/breeding/bulls/structural-soundness.

Saige Albert is managing editor of the Wyoming Livestock Roundup and can be reached at saige@wylr.net.

3 Outstanding Red Angus

Selling 2 Mulberry Sons including #3 WDA Yellow Tag

California Dreamin



#3 WDA Yellow Tag

LOT 800

3-6-14 Sire: Red Fine Line Mulberry 26P

ADG	RAT	WDA	YR	IND	SC	Eff	REA
3.43	110	3.56	113	109	38.0	109	113
BW	WW	Milk	YW	205	365	RFI	IMF
0.5	64	21	104	823	1295	-2.31	85

Out of a tremendous cow 11 NR 103 • 9 YR 104 • MPPA 103.0

California Dreamin is a full brother to the bull we sold in Denver at the Red Angus Mile High Classic that brought \$10,000.

ALSO SELLING

Lot 798 2-2-14 by Webr Doc Holliday 2N
ADG: 2.81 Rat: 91 WDA: 2.85 YR: 93 365: 1045 IND: 98 SC: 34.0 Eff: 110

Lot 799 3-6-14 by Red Fine Line Mulberry 26P
ADG: 3.32 Rat: 108 WDA: 3.01 YR: 98 365: 1096 IND: 102 SC: 34.0 Eff: 99

Bulls at the Ranch for Sale

Radiant Reds

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4 Powerful Angus Bulls

JMacholan Movin' Up 184 UPWA



Lot 232

1-10-14 Sire: Sitz Upward 307R

ADG	Rat	WDA	YR	IND	SC
3.45	109	3.34	104	107	40.0
BW	WW	Milk	YW	365	EFF
5.6	63	26	114	1237	104

Ranks in the top 5% for WW and YW
Dam 2 NR 103 • 2 YR 103

JMacholan Energizer 914 EXCI



Lot 235

1-14-14 Sire: Basin Excitement

ADG	Rat	WDA	YR	IND	SC
3.72	117	3.17	104	107	33.0
BW	WW	Milk	YW	365	EFF
0.4	70	25	121	1232	104

Dam 1 NR 104 • 1 YR 103
\$B 116.19

KMacholan Ultrasonic 394A PO



Lot 236

1-21-14 Sire: SAV Potential 0205

ADG	Rat	WDA	YR	IND	SC
3.84	121	3.53	109	111	40.5
BW	WW	Milk	YW	365	EFF
3.6	59	33	109	1291	107

He is a flush mate to last year's junior member scholarship high-performing bull.

JMacholan Right Turn 884 RA



Lot 234

1-11-14 Sire: Connealy Right Answer 746

ADG	Rat	WDA	YR	IND	SC
3.29	104	3.04	100	104	37.0
BW	WW	Milk	YW	365	EFF
3.0	56	29	104	1189	111

Dam is a great-uddered first calf heifer

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Evolving technologies affect the use of ultrasound technology in the beef industry

Designed to standardize ultrasound protocols, certify lab and field technicians and standardize ultrasound equipment, the Ultrasound Guidelines Council (UGC) was established by the U.S. Beef Breeds Council.

"We have 16 breed associations that are members of UGC and pay dues," explains UGC Executive Director Mike Tess.

UGC also has three labs in the United States, including International Livestock Image Analysis in Arkansas, UltraInsights in Missouri and The Cup Lab in Iowa.

"It is all about data quality. Our job is to be the guardian of data quality for ultrasound in the beef industry," notes Tess.

Carcass data

Ultrasound is used to evaluate carcass quality, contributing to accuracy of expected progeny differences (EPDs).

"One of the things that has made ultrasound work

so well is that we have had economic incentives to increase carcass quality," he comments.

The American Angus Association released the first genomic enhanced EPDs in 2009, and ultrasound has played an integral role in the data.

"We can feel proud that ultrasound has been the primary contributor to the improvement in carcass quality in U.S. breeds to date," he states.

The technology has been an accurate, practical and economical tool for measuring carcass quality, according to Tess.

"The premiums associated with high-quality carcasses are very real," he explains, adding that those premiums have pulled more high-quality carcasses into the supply system.

UGC, he adds, serves a valuable role by using science-based tools and standardized procedures.

"Both lab and field

technicians need to be certified, as well as the systems themselves, and that is critical to the image and reputation of UGC," he says.

DNA technology

Tess would like to see more research applied to improving the technology.

"There is not a lot of money being spent in America to improve ultrasound in beef cattle and discover ways to make it more accurate than it already is," he comments.

One of the biggest challenges that UGC faces is the rapid evolution of DNA technology to determine carcass traits.

"There are millions of dollars being spent on DNA technology for a variety of applications. The accuracy will improve, and it has improved a lot," notes Tess.

Combining technologies may be a solution in the future of beef evaluation.

"Continued collection of ultrasound data is necessary to validate, refine and

improve DNA measurements," he explains.

Evolving technology

Breed associations are facing challenges as technology evolves around carcass quality and other trait measurements.

"It's not easy for them to capture and apply all of the changes that are out there, and it is expensive," Tess says.

Costs associated with delivery of dynamic technology are high, and the introduction of new processes take a lot of time.

"Research funding for beef cattle is heavily weighted toward basic research from the federal government side," he notes as another challenge for the associations. "The kind of service that the breeds used to get from the land-grant universities in this country is not of the same quality that it used to be."

Associations want to stay relevant in the market, promoting the positive qual-

ities of their breeds.

"Continuing to serve their breeders and help their breeders stay competitive will always be at the forefront of what breed associations worry about," states Tess.

Labs and techs

The challenges that labs face include the introduction of new ultrasound systems.

"The burden of testing, calibrating and certifying new ultrasound systems has fallen on our laboratories," explains Tess.

Competition from DNA and other new technologies pose a challenge as well.

"Some of the labs are expanding into other species, which may be a way to make their business more profitable and more sustainable," he notes.

Costs associated with changing technologies also affect ultrasound technicians, who have to keep up with equipment trends.

"That is why it takes

so many animals per year to break even," he comments, adding that variable expenses such as fuel and lodging are also increasing.

Many technicians have also explored using their ultrasound skills with other species or other applications.


"UGC is focused on genetic evaluation, but there are certainly other uses of ultrasound," Tess says.

Despite challenges, Tess is excited about using fresh vision to move the council forward.

"Ultrasound continues to serve an important role in genetic evaluation and genetic improvement," he says.

Mike Tess spoke to the members of the UGC in August 2014. The web recording can be found at vimeo.com/105042300.

Natasha Wheeler is editor of the Wyoming Livestock Roundup and can be contacted at natasha@wylr.net.



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LOT 505




WTR 7207 Rita's Icon 428
Off Test • WWR • YWR
1393# 109 105
ADG 4.54 for a Whopping 149 ratio!
RFI 2.71 • Eff Ratio 105
MBT Index 117 (Top 10 - Tied 9th - 670 Bulls)
Calving Ease: BW -0.1 • Top 15% • BW 75#
\$B CW WW YW Milk
Top 30% Top 25% Top 15% Top 10% Top 2%

1-10-14 Sire: Sitz Icon 1054


WTR 3153 Bull Durham 418

LOT 502



WTR 3153 Bull Durham 420


LOT 504



Flush Brothers by Sitz New Design 458N

WTR 9403 USA Bandolier 419

LOT 503



Pathfinder dam who also produced our '305' herd bull from 2013-14 IBEP test.

Also Selling:

Lot	Birth	Sire	ADG	RAT	WDA	YR	365	IND	SC	EFF
500	1-1-14	Sitz Tebow 11860	3.46	114	2.65	89	1041	99	35.0	98
501	1-4-14	Thomas Powder River 9053	3.40	110	2.96	95	1108	102	38.0	99
506	1-11-14	Baldridge Waylon W34	2.86	92	2.98	97	1122	100	38.0	102
507	1-23-14	Sitz Tebow 11860	2.98	96	2.82	94	1097	98	40.0	96
509	2-5-14	CCA Uno 049	3.28	105	3.06	96	1118	104	39.0	100
511	2-8-14	Connealy Imprint 8317	3.36	108	3.17	100	1163	104	37.0	95

Pathfinder Dam 7 NR 108 • 4 YR 107

4 NR 108
3 YR 107

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Both have a Midland Index of 109! 9 bulls average ADG Rat 110, YR 107, MBT Index 108

SPA AWESOME 4116

LOT 547




3-24-14 Sire: "Awesome"

ADG	Rat	WDA	YR	IND	SC
3.36	110	3.42	107	109	34.0
BW	WW	Milk	YW	365	Eff
0.6	56	27	94	1253	106

A 3/4 brother to Lot 546. Dam 3 NR 111

SPA AWESOME 4020

LOT 546




2-14-14 Sire: "Awesome"

ADG	Rat	WDA	YR	IND	SC
3.57	117	3.31	109	109	37.0
BW	WW	Milk	YW	365	Eff
0.1	52	30	98	1275	99

Out of a LCC New Standard daughter
4 NR 115 • 1 YR 108

SPA SUBSTANCE 4005

LOT 542




2-9-14 Sire: EXAR Substance 1986 B

ADG	Rat	WDA	YR	IND	SC
3.85	126	3.44	118	117	36.0
BW	WW	Milk	YW	365	Eff
0.6	67	31	109	1383	112

Power and pounds in a stylish package
Dam 1 NR 113 • Grandam 4 NR 107 • 2 YR 107

SPA CONTROL 463

LOT 537



1-29-14 Sire: Leachman Control G335Y SPA

ADG	Rat	WDA	YR	IND	SC
3.45	113	3.23	109	105	36.0
BW	WW	Milk	YW	365	Eff
1.2	64	29	101	1272	86

Dam 2 NR 117 • 1 YR 112 • 2 BR 97 • 2 IMF 111

ALSO SELLING:

Lot 536 • 1-16-14
Sire: Rito 12E7 of 5F56 Rito 5M2
ADG: 3.32 Rat: 109 WDA: 2.86 YR: 102
365: 1189 IND: 104 SC: 39.5 Eff: 101


Lot 538 • 1-30-14
Sire: Leachman Control G335Y SPA
ADG: 2.86 Rat: 94 WDA: 3.09 YR: 103
365: 1205 IND: 106 SC: 37.0 Eff: 118

Lot 545 • 2-12-14
Sire: Connealy IF 4925 8513
ADG: 3.28 Rat: 105 WDA: 3.13 YR: 103
365: 1199 IND: 104 SC: 37.0 Eff: 96

Lot 548 • 2-18-14
Sire: Leachman Control G335Y SPA
ADG: 3.47 Rat: 114 WDA: 3.19 YR: 106
365: 1239 IND: 108 SC: 35.0 Eff: 97

SPA CREDENCE 480

LOT 540



2-4-14 Sire: RB Credence 16

ADG	Rat	WDA	YR	IND	SC
3.22	106	3.17	106	108	37.0
BW	WW	Milk	YW	365	Eff
-0.2	64	27	109	1237	115

Dam 4 NR 103 • 2 YR 106
A powerful pedigree! Sire is an own son of
RB Lady Standard 305-890 cow who is the
preeminent spread and growth cow in the breed.

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Selection indexes help producers determine economic values for sires

“Selection indexes are designed to predict profit,” explained Dan Moser of the American Angus Association during a recent National Cattlemen’s Beef Association webinar. “This technique allows us to weigh those things that are economically important and help us identify the most profitable animals in our operation.”

The relatively new selection indexes for economic values weigh a variety of other expected progeny differences (EPDs) in such a way that allows producers insight to the most profitable animals.

Each breed association has its own indexes that were developed to help producers in making their bull selections.

Angus examples

For the American Angus Association (AAA), Moser noted that several indexes are available.

“We offer three terminal indexes,” Moser explained, noting that Beef Value (SB) is a value assigning the differences assuming the progeny will be sold as fed cattle. “SB weighs things like feedlot performance, rate of gain and feed efficiency.”

Higher SB values are awarded to those sires with genetic advantages for lower feed intake.

Another value – Feedlot Value (\$F) – is similar and is expressed in dollars per head.

“\$F is the expected average difference in future progeny performance for post-weaning merit compared to progeny of other sires,” Moser said. “\$F basically rewards feedlot performance and assumes the cattle are being sold in live weight on a cash market, as opposed to a value-based grid.”

The final terminal index is Grid Value (\$G), which focuses on grid premiums.

“These are the premiums we would get from higher quality grades,” he continued. “\$G is focused on marbling, as well as those factors that influence carcass yield grade like ribeye area and carcass fat.”

Maternal indexes

AAA also incorporates several maternal indexes.

Weaned Calf Value (\$W) is the index that Moser said fits most production circumstances that many ranchers who use Angus bulls in the commercial herd would find useful.

“\$W defines profit differences between sires,” he said. “It assigns differences in progeny due to pre-weaning performance, and it incorporates traits like weaning weight, milk

and calving ease.”

Cow Energy Value (\$EN) looks at the cow costs that are projected from different lines of genetics.

“This value is expressed in dollars of savings, so higher values represent higher savings,” Moser said. “A lot of commercial producers use \$EN particularly in those environments where they have limited resources.”

The index includes values like cow size and milk production.

Hereford Association

At the American Hereford Association (AHA), Jack Ward, AHA chief operating officer, noted that there are several indexes that provide economic figures.

“The Baldy Maternal Index (BMIS) is a real, true multiple-trait index,” he said. “It is used to maximize profit for a cow/calf producer using Hereford bulls in a crossbreeding program who wants to retain ownership of the calves through the feedlot and market steers on a Certified Hereford Beef grid.”

Under that index, calving ease is important, as females will be retained, but the ability of calves to grow quickly is also important, so weaning weight is emphasized.

“We also don’t want

our cow size to be too big,” Ward said. “Milk production has negative weight in the equation because the production of too much milk is tough and requires more inputs.”

Additionally, the index includes ribeye and quality grade, as well as fertility factors.

AHA also has an index for Brahman-influenced in cattle that is similar to the Baldy Maternal Index, replacing the Angus influence of the herd with *Bos indicus* influence. The index is called the Brahman Influence Index (BIIS) and emphasizes fertility.

“Scrotal circumference is a big driver in that index, and calving ease isn’t so important because the Brahman-based cow doesn’t have a much trouble with that stage,” Ward continued.

Terminal

The final AHA index is a terminal index known as Certified Hereford Beef (CHBS) index.

“We wouldn’t be retaining any females with this index, and we would use it in a crossbreeding system,” Ward said. “We want these cattle to be born easy, and we want them to grow at all stages of production.”

The resulting cattle sold off sires with good CHB values would be raised and sold to a feedlot, with no

“As cattle producers, we are good at selecting for biological traits, and we are comfortable with it, but how do we select for profit?” – Wade Shafer, American Simmental Association

females retained. As a result the maternal traits are not emphasized.

Simmental breed

American Simmental Association CEO Wade Shafer noted that the American Simmental Association uses two indexes – an All Purpose Index (API) and a Terminal Index (TI).

“Both of these indexes are for a fully-integrated system,” he said. “We developed these indexes in collaboration with USDA, and the economic aspects are largely derived from CattleFax models.”

API targets those systems that are looking to keep replacement females and sell the steers and cull heifers into the feedlot.

The index looks at the average performance of progeny of Simmental bulls used on the entire Angus cowherd.

“This index looks at everything the sire would impact for replacement females,” Shafer explained.

“It also includes value for the rest of the animals – the steers and cull heifers – that would be sold into

the feedlot.”

“TI, as we would expect, involves sending all of the progeny to a feedlot to be sold,” Shafer continued.

This index also assumes Simmental bulls will be mated to mature Angus cows, and it includes growth and carcass information only, since all progeny are to be marketed in the system.

“We feel that these two indexes cover a good share of the commercial producers who are using Simmental bulls,” Shafer said.

“As cattle producers, we are good at selecting for biological traits, and we are comfortable with it,” Shafer continued. “But how do we select for profit? We aren’t used to that, and these indexes can help.”

More information on each of these indexes can be found at the breed association websites, Angus.org, Hereford.org and Simmental.org.

Saige Albert is managing editor of the Wyoming Livestock Roundup and can be reached at saige@wylr.net.

ANGUS & GELBIEH BULLS

FEATURING:

- #4 ADG ANGUS GREEN TAG GROUP 1 - LOT 197
- #6 ADG GELBIEH - LOT 1062 &
- #2 ADG GELBIEH SIRE GROUP



1-17-14 by EXAR Complete 1887B

Lot 197 Smit Summit Complete 1423

ADG	RAT	WDA	YR	IND	SC
3.98	125	3.14	104	111	38.0
BW	WW	Milk	YW	365	EFF
1.4	58	29	100	1230	110

Dam 2 NR 103 • 1 YR 101
Grandam 6 NR 103

Lot 1062 SGS Smit Focus Power 409B

ADG	RAT	WDA	YR	IND	SC
3.69	115	3.24	98	105	43.0
BW	WW	Milk	YW	365	EFF
-0.6	62	27	97	1170	105

50% Black Polled out of outstanding cow 1 NR 103



1-28-14 by VNAR In Focus 7326

Lot	Birth	Sire	ADG	RAT	WDA	YR	365	EFF	IND	SC
186	1-24-14	SAV Brilliance 8077	3.10	99	2.92	95	1117	103	99	39.0
187	2-6-14	SAV Brilliance 8077	3.33	105	2.94	92	1085	103	100	33.0
*189	2-7-14	Coleman Missing Link 9246	3.57	112	3.43	107	1268	117	110	38.0
192	1-18-14	EXAR Complete 1887B	2.92	92	3.08	101	1197	92	98	36.0
193	1-28-14	EXAR Complete 1887B	3.49	110	3.22	100	1180	99	104	41.0
194	1-28-14	EXAR Complete 1887B	3.17	100	3.22	103	1218	93	100	36.0
1060	2-28-14	VNAR In Focus 7326	3.29	102	3.27	99	1179	106	102	37.0
1061	1-14-14	JRI Secret Treasure 213X45	3.28	102	3.07	94	1125	93	97	37.0
1063	2-17-14	VNAR In Focus 7326	3.06	95	3.13	94	1122	98	98	37.0

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HAF Chisum A394



An outstanding 1-25-14 son of S Chisum 6175 out of a tremendous Pathfinder Mytty In Focus daughter 4 NR 107

ADG	RAT	WDA	YR	IND	SC	REA	REA Rat
4.44	140	3.61	111	122	40.0	14.0	115
BW	WW	Milk	YW	Birth	205	365	Eff
2.9	63	21	106	81	758	1321	125

HAF Chisum 1424

ADG	RAT	WDA	YR	IND	SC
3.49	110	3.06	104	104	38.0
BW	WW	Milk	YW	365	Eff
1.2	62	22	105	1224	94

Out of an N Bar Prime Time first calf heifer. His grandam is a Traveler 004 cow from Dr. Burleigh Anderson's Meadow Mist herd.



12-23-13 by S Chisum 6175

EPDs for both bulls are enhanced by genomic testing.



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