

Sample Beef Sire Summary Quiz 1

Sire No.	Expected Progeny Differences			
	Birth Weight	Weaning Weight	Yearling Weight	Maternal Milk
1	-3.0 (.83)	24 (.82)	45 (.80)	12 (.80)
2	7.2 (.98)	40 (.91)	96 (.90)	-7 (.89)
3	2.2 (.84)	45 (.87)	84 (.82)	10 (.77)
4	0.2 (.13)	42 (.11)	80 (.10)	24 (.11)

Note — Numbers in parentheses represent the "accuracy" values associated with these EPDs. Accuracy values range from 0 to 1, and the accuracy or reliability of EPDs improve (come closer to 1) as additional data becomes available. Data sources for young bulls include their pedigree and own performance. Data sources for proven sires includes the performance of all their progeny.

Questions: Unless the question is directly associated with differences in accuracy values, please disregard differences in accuracy for this exercise. Accuracy values are typically NOT provided in judging competitions; they are presented here for teaching and educational purposes only.

1. _____ Which sire should produce the lightest weight calves at birth?
2. _____ Which sire will likely cause the most calving difficulties because of heavy calves at birth?
3. _____ True/False: On average, calves of Sire 3 should be 5 lbs lighter at birth than calves of Sire 2.
4. _____ Which sire should produce the heaviest calves at weaning?
5. _____ Which sire should produce the heaviest calves when marketed at one year of age?
6. _____ Which sire should produce the fastest growing feedlot cattle?
7. _____ Which sire should produce the heaviest milking replacement daughters?
8. _____ True/False: Female daughters of Sire 4 should produce 12 pounds more milk than female daughters of Sire 1. (Clue - check your definition for "maternal milk").
9. _____ Which bull's EPD values should have the greatest reliability?
10. _____ Which bull is most likely the youngest? (Clue - Young bulls may not have any progeny)

Sample Beef Sire Summary Quiz 1 - KEY & Explanations

Sire No.	Expected Progeny Differences			
	Birth Weight	Weaning Weight	Yearling Weight	Maternal Milk
1	-3.0 (.83)	24 (.82)	45 (.80)	12 (.80)
2	7.2 (.98)	40 (.91)	96 (.90)	-7 (.89)
3	2.2 (.84)	45 (.87)	84 (.82)	10 (.77)
4	0.2 (.13)	42 (.11)	80 (.10)	24 (.11)

Note — Numbers in parentheses represent the "accuracy" values associated with these EPDs. Accuracy values range from 0 to 1, and the accuracy or reliability of EPDs improve (come closer to 1) as additional data becomes available. Data sources for young bulls include their pedigree and own performance. Data sources for proven sires includes the performance of all their progeny.

Questions: Unless the question is directly associated with differences in accuracy values, please disregard differences in accuracy for this exercise. Accuracy values are typically NOT provided in judging competitions; they are presented here for teaching and educational purposes only.

- 1 Which sire should produce the lightest weight calves at birth? *Sire 1 has the lowest birth weight EPD.*
- 2 Which sire will likely cause the most calving difficulties because of heavy calves at birth? *Sire 2 has the highest Birth Weight EPD value at 7.2 (this is extremely large)*
- True True/False: On average, calves of Sire 3 should be 5 lbs lighter at birth than calves of Sire 2. *Sire 2 = 7.2 lbs, Sire 3 = 2.2 lbs. The difference is 5 lbs.*
- 3 Which sire should produce the heaviest calves at weaning? *Sire 3 has the highest weaning weight EPD.*
- 2 Which sire should produce the heaviest calves when marketed at one year of age? *Sire 2 has the greatest yearling weight EPD (+96)*
- 2 Which sire should produce the fastest growing feedlot cattle? *Yearling weight is often considered indicative of feedlot performance, and Sire 2 has the greatest yearling weight EPD (+96). He also has the greatest spread between his weaning and yearling weight EPDs indicating more growth, post-weaning.*
- 4 Which sire should produce the heaviest milking replacement daughters? *Sire 4 has the highest maternal milk EPD (+24)*
- False True/False: Female daughters of Sire 4 should produce 12 pounds more milk than female daughters of Sire 1. (Clue - check your definition for "maternal milk"). *Although the difference in maternal milk EPD values is 12, the maternal milk EPD is measured in pounds of CALF, not milk.*
- 2 Which bull's EPD values should have the greatest reliability? *Sire 2 has the greatest accuracy values and thus the greatest reliability.*
- 4 Which bull is most likely the youngest? (Clue - Young bulls may not have any progeny) *Sire 4 has the lowest accuracy. Thus, he probably has few, if any, progeny and would most likely be the youngest bull.*

Sample Beef Sire Summary Quiz 2

Sire No.	Expected Progeny Differences							
	BW	WW	YW	MM	SC	Marb	REA	\$Beef
1	2.2	32	65	19	+.42	.21	.72	40.54
2	0.4	35	77	29	+.56	.70	.59	50.53
3	2.9	39	80	21	+.12	.64	.47	47.48
4	4.5	40	87	20	+.38	.57	.48	46.53
Breed Avg	2.3	38	71	19	+.33	.12	.20	30.16

BW = Birth Weight, WW = Weaning Weight, YW = Yearling Weight, MM = Maternal Milk, SC = Scrotal Circumference, Marb = Marbling, REA = Ribeye Area

Questions

- _____ Which is the sire of choice for usage on smaller 1st-calf heifers?
- _____ Which sire should produce the heaviest milking daughters?
- _____ Which sire would be expected to produce the fastest growing feedlot progeny?
- _____ Which sire is most likely to cause problems with dystocia
- _____ Which sire's daughters will likely have the greatest energy requirements for lactation?
- _____ If your herd is below average for muscle, which sire should provide the greatest improvement in muscle mass of your market-bound progeny?
- _____ Which sire should provide your market-bound progeny with the greatest opportunity of receiving premiums for higher quality grades?
- _____ True/False: Sire 2 should produce daughters that produce 10 lbs more milk daily, during lactation, than daughters of Sire 1, on average.
- _____ Combining feedlot performance with carcass merit, which bull provides the greatest potential increase in profitability to your operation?
- _____ From which sire should replacement heifers NOT be selected if one wishes to maximize reproductive efficiency?

Sample Beef Sire Summary Quiz 2 - Key & Explanations

Sire No.	Expected Progeny Differences							
	BW	WW	YW	MM	SC	Marb	REA	\$Beef
1	2.2	32	65	19	+0.42	.21	.72	40.54
2	0.4	35	77	29	+0.56	.70	.59	50.53
3	2.9	39	80	21	+0.12	.64	.47	47.48
4	4.5	40	87	20	+0.38	.57	.48	46.53
Breed Avg	2.3	38	71	19	+0.33	.12	.20	30.16

BW = Birth Weight, WW = Weaning Weight, YW = Yearling Weight, MM = Maternal Milk, SC = Scrotal Circumference, Marb = Marbling, REA = Ribeye Area

Questions

- 2 Which is the sire of choice for usage on smaller 1st-calf heifers?
Sire 2 has the lowest birth weight EPD (0.4).
- 2 Which sire should produce the heaviest milking daughters?
Sire 2 has the highest maternal milk EPD (29).
- 4 Which sire would be expected to produce the fastest growing feedlot progeny? *Not only does Sire 4 have highest yearling weight EPD (+87), he also has greatest spread from weaning to yearling (40 to 87; an increase of 47).*
- 4 Which sire is most likely to cause problems with dystocia? *Sire 4 has the highest birth weight EPD (4.5).*
- 2 Which sire's daughters will likely have the greatest energy requirements for lactation? *Production of milk requires a lot of energy; Sire 2 has the highest maternal milk EPD (29).*
- 1 If your herd is below average for muscle, which sire should provide the greatest improvement in muscle mass of your market-bound progeny? *Sire 1 has the largest ribeye area EPD; thus he should produce the heaviest muscled calves.*
- 2 Which sire should provide your market-bound progeny with the greatest opportunity of receiving premiums for higher quality grades? *For young cattle, marbling is the most important factor associated with quality grades. Sire 2 has the greatest marbling EPD (0.70).*
- False True/False: Sire 2 should produce daughters that produce 10 lbs more milk daily, during lactation, than daughters of Sire 1, on average. *Maternal milk is measured in lbs of calf, not lbs of milk.*
- 2 Combining feedlot performance with carcass merit, which bull provides the greatest potential increase in profitability to your operation? *Sire 2 has the highest \$Beef Value (\$50.53).*
- 3 From which sire should replacement heifers NOT be selected if one wishes to maximize reproductive efficiency? *Scrotal Circumference is highly correlated with reproductive performance not only in the bulls, but in their female progeny as well. Sire 3 (+0.12) is significantly lower than all other bulls on the list, and he is below average.*

Sample Beef Sire Summary Quiz 3

Sire No.	EPDs and Economic Indexes												
	BW	CE	MCE	WW	MM	YW	Days	SC	STAY	REA	MARB	CV	FM
1	-4.7	115	109	24	10	39	-1.6	0.6	3	-0.11	-0.02	-38.65	-21.32
2	1.0	109	112	44	15	72	6.1	0.9	6	0.15	0.04	23.92	1.14
3	6.2	93	105	51	7	89	3.8	0.4	0	0.06	-0.03	6.58	17.21
4	2.1	108	108	48	20	104	0.4	1.6	18	0.20	-0.02	20.42	34.63
Breed Avg	1.3	105	104	41	17	74	3.8	0.4	5	0.09	-0.07	3.68	7.78

BW = Birth Weight, CE = Calving Ease, MCE = Maternal Calving Ease, WW = Weaning Weight, MM = Maternal Milk
 YW = Yearling Weight, Days = Days to Finish, SC = Scrotal Circumference, STAY = Stayability,
 REA = Ribeye Area, MARB = Marbling, CV = Carcass Value, FM = Feedlot Merit

- _____ Which bull's daughters have the greatest probability of remaining in the herd for at least six years?
- _____ True/False: The bull who should propagate the lowest birth weight calves should also sire daughters who have the greatest percentage of unassisted births.
- _____ True/False: The bull with the most desirable Feedlot Merit index should generate market-bound progeny who achieve a market-ready compositional endpoint ($\frac{1}{2}$ in fat cover) with the fewest days on feed.
- _____ Which sire should produce calves with the most pre-weaning direct growth potential? The weaning weight EPD may be used as a predictor of direct growth to weaning.
- _____ Compared to the average bull of the breed, how many of these bulls should generate progeny who produce carcasses with at least slightly greater marbling scores?
- _____ Which bull is most suitable for usage on small-framed heifers initiating the lowest percentage of calves who need assistance at birth?
- _____ Which of these bulls would you expect to be the smallest framed?
- _____ Which bull's progeny should have a carcass premium advantage when sold on a value-based grid?
- _____ Which bull should be used only on mature cows?
- _____ Which bull's daughters would you expect to have the highest nutritional requirements?

Sample Beef Sire Summary Quiz 3 - Key & Explanations

Sire No.	EPDs and Economic Indexes												
	BW	CE	MCE	WW	MM	YW	Days	SC	STAY	REA	MARB	CV	FM
1	-4.7	115	109	24	10	39	-1.6	0.6	3	-0.11	-0.02	-38.65	-21.32
2	1.0	109	112	44	15	72	6.1	0.9	6	0.15	0.04	23.92	1.14
3	6.2	93	105	51	7	89	3.8	0.4	0	0.06	-0.03	6.58	17.21
4	2.1	108	108	48	20	104	0.4	1.6	18	0.20	-0.02	20.42	34.63
Breed Avg	1.3	105	104	41	17	74	3.8	0.4	5	0.09	-0.07	3.68	7.78

BW = Birth Weight, CE = Calving Ease, MCE = Maternal Calving Ease, WW = Weaning Weight, MM = Maternal Milk
 YW = Yearling Weight, Days = Days to Finish, SC = Scrotal Circumference, STAY = Stayability,
 REA = Ribeye Area, MARB = Marbling, CV = Carcass Value, FM = Feedlot Merit

- 4 Which bull's daughters have the greatest probability of remaining in the herd for at least six years?
Sire 4 has the most desirable stayability value (18).
- False True/False: The bull who should propagate the lowest birth weight calves should also sire daughters who have the greatest percentage of unassisted births. *False. Sire 1 may have the lowest birth weight EPD (-4.7), but Sire 2 has the most desirable maternal calving ease EPD (112).*
- False True/False: The bull with the most desirable Feedlot Merit index should generate market-bound progeny who achieve a market-ready compositional endpoint ($\frac{1}{2}$ in fat cover) with the fewest days on feed. *False. The bull with the most desirable FM (Sire 4; \$34.63) does not have the most desirable days to finish EPD. On average, progeny of Sire 1 should reach market readiness 2 days sooner than progeny of Sire 4.*
- 3 Which sire should produce calves with the most pre-weaning direct growth potential? The weaning weight EPD may be used as a predictor of direct growth to weaning. *While Sire 3 may have a low milk value, he still has the highest WW EPD (51).*
- 4 Compared to the average bull of the breed, how many of these bulls should generate progeny who produce carcasses with at least slightly greater marbling scores? *4 - That's right, all 4 of the bulls have marbling EPD values that are above average, even if 3 of them are still negative.*
- 1 Which bull is most suitable for usage on small-framed heifers initiating the lowest percentage of calves who need assistance at birth? *Sire 1 is a calving ease bull with -4.7 BW EPD and 115 direct CE EPD.*
- 1 Which of these bulls would you expect to be the smallest framed? *While no EPD listed is a direct indicator of frame size, Sire 1 has the lowest (lightest) WW and YW EPDs. Also, his offspring require fewer days to reach a fat-constant endpoint of $\frac{1}{2}$ inch. This implies his offspring deposit fat earlier and at lighter weights than offspring of other bulls. To do so, they are likely smaller-framed.*
- 2 Which bull's progeny should have a carcass premium advantage when sold on a value-based grid? *Sire 2 has the greatest Carcass Value index, supported by his most desirable REA and MARB EPDs.*
- 3 Which bull should be used only on mature cows? *Sire 3 has an exceptionally large BW EPD (6.2), and his direct calving ease EPD indicates that 12% more of his calves require assistance than the average bull of this breed (93 vs. 105)!*
- 4 Which bull's daughters would you expect to have the highest nutritional requirements? *The two significant factors that affect nutritional requirements of the cow herd are cow size and milk production. Based upon the yearling weight EPD (104), Sire 4 will likely sire the heaviest weight offspring at 1 year of age, and they should be the heaviest milking (MM EPD = 20).*

Sample Beef Sire Summary Quiz 4

Sire No.	EPDs and Economic Indexes												
	BW	CE	MCE	WW	YW	MM	STAY	CW	REA	YG	MARB	TI	API
1	-3.0	15.1	4.9	34.8	55.8	13.0	21.6	-9.2	0.35	-0.15	0.38	77	144
2	2.7	-0.1	6.6	39.8	66.1	6.1	13.2	5.5	0.14	-0.06	0.16	64	87
3	2.1	5.0	4.3	43.6	84.2	0.8	18.3	15.9	-0.03	0.15	0.24	70	112
4	4.3	9.8	7.2	46.7	77.9	-0.7	15.5	14.8	0.32	0.08	0.30	71	111
Breed Avg	0.9	7.0	3.0	32.2	58.2	3.8	18.0	-1.5	0.10	0.00	0.15	63	106

BW = Birth Weight, CE = Calving Ease, MCE = Maternal Calving Ease, WW = Weaning Weight, YW = Yearling Weight, MM = Maternal Milk, STAY = Stayability, CW = Carcass Weight, REA = Ribeye Area, YG = Yield Grade, MARB = Marbling, TI = Terminal Index, API = All-Purpose Index

Questions:

- _____ If the market-bound progeny are sold on a value-based grid, which bull should most effectively optimize both quality and yield grades?
- _____ Which bull would appear to sire calves who may have the most direct incidence of dystocia?
- _____ Which bull would likely inject the most post-weaning growth into his market-bound progeny?
- _____ Which bull's daughters are least likely to be culled from the cowherd because they're open upon conclusion of the breeding season?
- _____ Assuming similar frame sizes and appropriate body types, which sire's daughters should be the lowest maintenance requiring the least amount of feed to maintain appropriate body condition?
- _____ Which sire's daughters should have the fewest calving difficulties?
- _____ Which sire would most likely facilitate reduction of carcass weights?
- _____ Which bull would likely sire the lightest muscled offspring?
- _____ Although not listed, which sire should have the highest calculated maternal weaning weight?
- _____ Which sire appears to be the most functional for usage in a variety of different situations or scenarios?

Sample Beef Sire Summary Quiz 4 - Key & Explanations

Sire No.	EPDs and Economic Indexes												
	BW	CE	MCE	WW	YW	MM	STAY	CW	REA	YG	MARB	TI	API
1	-3.0	15.1	4.9	34.8	55.8	13.0	21.6	-9.2	0.35	-0.15	0.38	77	144
2	2.7	-0.1	6.6	39.8	66.1	6.1	13.2	5.5	0.14	-0.06	0.16	64	87
3	2.1	5.0	4.3	43.6	84.2	0.8	18.3	15.9	-0.03	0.15	0.24	70	112
4	4.3	9.8	7.2	46.7	77.9	-0.7	15.5	14.8	0.32	0.08	0.30	71	111
Breed Avg	0.9	7.0	3.0	32.2	58.2	3.8	18.0	-1.5	0.10	0.00	0.15	63	106

BW = Birth Weight, CE = Calving Ease, MCE = Maternal Calving Ease, WW = Weaning Weight, YW = Yearling Weight, MM = Maternal Milk, STAY = Stayability, CW = Carcass Weight, REA = Ribeye Area, YG = Yield Grade, MARB = Marbling, TI = Terminal Index, API = All-Purpose Index

Questions:

- 1 If the market-bound progeny are sold on a value-based grid, which bull should most effectively optimize both quality and yield grades? *A lower numerical yield grade is more desirable; Sire 1 is -0.15. For quality grade, marbling is the most important factor for feedlot cattle, and Sire 1 has the most desirable MARB EPD.*
- 2 Which bull would appear to sire calves who may have the most direct incidence of dystocia? *Although Sire 4 has the highest BW EPD of 4.3, the calving ease EPD is a better predictor of such issues because it incorporates birth weight plus other related information. Sire 2's -0.1 direct calving ease EPD is negative and significantly below breed average.*
- 3 Which bull would likely inject the most post-weaning growth into his market-bound progeny? *Traditionally, yearling weight has been associated with post-weaning or feedlot growth and performance. Sire 3 has the greatest YW EPD (84.2). This conclusion is also supported by an evaluation of the terminal indexes. The TI evaluates sires on the basis of their offspring being placed on feed and sold grade and yield. Consequently, it incorporates growth performance and carcass merit. Of those sires with a minimum 70 TI, Sire 3 has the poorest carcass numbers. It is likely that greater growth performance of his offspring compensates for their less desirable carcass numbers.*
- 1 Which bull's daughters are least likely to be culled from the cowherd because they're open upon conclusion of the breeding season? *Stayability represents the percentage of daughters that will remain in the cowherd for at least 6 years, and since the #1 reason for cows to be culled is rebreeding failure, it is also an indicator of reproductive longevity. Sire 1 has the greatest STAY value (21.6).*
- 4 Assuming similar frame sizes and appropriate body types, which sire's daughters should be the lowest maintenance requiring the least amount of feed to maintain appropriate body condition? *The two major factors affecting maintenance requirements of cows is body size (assumed to be similar) and milk production. Sire 4 should sire daughters who produce the least milk, and therefore have the lowest nutrient requirements.*
- 4 Which sire's daughters should have the fewest calving difficulties? *When the question identifies "daughters", it relates to maternal values. Although Sire 4 has the highest BW EPD, he surprisingly also has the most desirable maternal calving ease EPD (7.2). This implies that Sire 4's daughters will have a higher percentage of UNASSISTED births compared to the other 3 sires. How, given his significantly higher BW EPD? It's possible that his daughters are simply bigger and stronger allowing them to have less difficulty at calving, regardless of the calf size.*
- 1 Which sire would most likely facilitate reduction of carcass weights? *While there is no guarantee, because his numbers must be compared to the current bull used by an operation, a -9.2 CW EPD for Sire 1 is significantly below breed average, and it's the lowest (lightest) of all sires in this list.*
- 3 Which bull would likely sire the lightest muscled offspring? *Sire 3 has the lowest REA (ribeye) EPD (-0.03). The ribeye is an easily measured indicator of overall muscle in the carcass.*

9. 1 Although not listed, which sire should have the highest calculated maternal weaning weight? *Did you remember the formula: $\frac{1}{2} WW + Milk$. Although Sire 1 has the lowest direct WW EPD, because of the milk, he calculates to have the highest maternal weaning weight $(\frac{1}{2})(34.8) + (13) = 30.4$.*
10. 1 Which sire appears to be the most functional for usage in a variety of different situations or scenarios? *Sire 1 has an extremely high API of 144. This is supported by the fact he has good BW and CE numbers for potential usage on heifers, his daughters remain in the herd for an extended period of time (STAY = 21.6), he provides at least average growth, and he has exceptional carcass numbers.*

Sample Beef Sire Summary Quiz 5

Sire No.	Actual BW	BW EPD	Adj WW	WW EPD	YW EPD	MM EPD	Actual SC	SC EPD	Marb EPD	REA EPD	% RP EPD	\$F	\$G
1	101	+3.2	640	37	90	19	37 cm	+40	+54	+30	+17	+32.24	+31.60
2	90	+6.2	670	40	94	22	39 cm	+34	-.07	+72	+85	+32.55	+19.54
3	84	+2.3	590	35	82	14	28 cm	-.17	+16	+27	+14	+26.30	+22.87
4	72	-0.3	570	46	78	32	42 cm	+81	+32	-.04	-.18	+15.62	+18.58
Breed Avg	-----	+2.4	-----	+37	+68	+18	-----	+34	+05	+12	+04	+14.44	+12.70

BW = Birth Weight, WW = Weaning Weight, YW = Yearling Weight, MM = Maternal Milk, SC = Scrotal Circumference, IMF = Intramuscular Fat (marbling), REA = Ribeye Area, %RP = % Retail Product, \$F = \$Feedlot, \$G = \$Grid

Questions

- _____ Which sire would you expect to cause the most calving difficulties?
- _____ Which bull had the greatest individual performance from birth to weaning?
- _____ Which sire would you expect to produce the heaviest calves at weaning, on average?
- _____ Between Sires 3 & 4, which sire would you expect to calculate the highest \$EN (cow energy value)?
Clue: What two factors will have the biggest impact on the amount of food or energy the animal requires?
- _____ Which bull would most likely fail a breeding soundness examination and from which you would NOT want to keep replacement heifers?
- _____ True/False: Because of Sire 1's superior %IMF EPD, you could guarantee that he will increase marbling scores and quality grades of an operation.
- _____ Your cattle average 85% choice (with many already receiving top choice premiums), but nearly 1/3 are severely discounted for producing YG 4 carcasses. Which sire would best compliment your current carcass genetics?
- _____ Which sire would you expect to calculate the highest \$Beef value?
- _____ Which sire should produce the most functional replacement females, if abundant feed is available?
- _____ Which sire's market bound progeny would you expect to be the slowest growing and least efficient (poorest feeding) in the feedlot?

Sample Beef Sire Summary Quiz 5

Sire No.	Actual BW	BW EPD	Adj WW	WW EPD	YW EPD	MM EPD	Actual SC	SC EPD	Marb EPD	REA EPD	% RP EPD	\$F	\$G
1	101	+3.2	640	37	90	19	37 cm	+40	+54	+30	+17	+32.24	+31.60
2	90	+6.2	670	40	94	22	39 cm	+34	-.07	+72	+85	+32.55	+19.54
3	84	+2.3	590	35	82	14	28 cm	-.17	+16	+27	+14	+26.30	+22.87
4	72	-0.3	570	46	78	32	42 cm	+81	+32	-.04	-.18	+15.62	+18.58
Breed Avg	-----	+2.4	-----	+37	+68	+18	-----	+34	+05	+12	+04	+14.44	+12.70

BW = Birth Weight, WW = Weaning Weight, YW = Yearling Weight, MM = Maternal Milk, SC = Scrotal Circumference, IMF = Intramuscular Fat (marbling), REA = Ribeye Area, %RP = % Retail Product, \$F = \$Feedlot, \$G = \$Grid

- 2 Which sire would you expect to cause the most calving difficulties? *Although 1 has the greatest actual BW, the BW EPD is a far better indicator of genetics for BW, the #1 cause of dystocia issues. If available, a CE EPD would be even better than BW.*
- 2 Which bull had the greatest individual performance from birth to weaning? *This is based upon actual performance; 670 WW - 90 BW = 580 lbs.*
- 4 Which sire would you expect to produce the heaviest calves at weaning, on average? *Sire 4 has the greatest WW EPD; again, the EPD is a better indicator of genetic potential than actual performance.*
- 3 Between Sires 3 & 4, which sire would you expect to calculate the highest \$EN (cow energy value)? *Clue: What two factors will have the biggest impact on the amount of food or energy the animal requires? \$EN is expressed as annual dollar savings per cow; higher numbers are more desirable. Sire 3 has the lowest MM EPD, and appears to be one of the two smaller framed based on YW EPD.*
- 3 Which bull would most likely fail a breeding soundness examination and from which you would NOT want to keep replacement heifers? *This one is based on the ACTUAL scrotal circumference; Sire 3 has a 28 cm SC, even at 12 months of age, he fails the BSE. His SC EPD is also the lowest.*
- False True/False: Because of Sire 1's superior Marbling EPD, you could guarantee that he will increase marbling scores and quality grades of an operation. *False, it all depends on how his marbling EPD compares to your current sire's marbling EPD.*
- 2 Your cattle average 85% choice (with many already receiving top choice premiums), but nearly 1/3 are severely discounted for producing YG 4 carcasses. Which sire would best compliment your current carcass genetics? *You've already got good marbling, you need more desirable yield grades; more muscle & less fat. Although Sire 2 may bring your marbling down slightly, he's got the muscle and yield (% retail product) to complement your current genetics.*
- 1 Which sire would you expect to calculate the highest \$Beef value? *\$Beef is effectively a combination of feedlot performance (\$F) and carcass value (\$G); Sire 1 has the highest value for both \$F and \$G; he should calculate with the highest \$B value.*
- 4 Which sire should produce the most functional replacement females, if abundant feed is available? *Provided you have feed to support the high maternal milk EPD, Sire 4's daughters should wean the heaviest calves, and they should be the most reproductively sound based on the high SC EPD.*
- 4 Which sire's market bound progeny will likely be the slowest growing and least efficient in the feedlot? *Sire 4 has the lowest \$F value, which is based on gain & efficiency. He also has the lowest YW EPD and the lowest WW to YW spread (based on EPDs).*