

**2021 TJSSA State Futurity  
Genetic Evaluation Quiz  
Junior Division**

*You have 60 minutes to complete this quiz. Questions 31 through 35 are tiebreaker questions. Further ties will be broken by order of finish.*  
**For each question, choose the best answer.**

1. What does EPD stand for?
  - a. Estimated Pedigree Data
  - b. Evaluated Performance Details
  - c. Economic & Profit Direction
  - d. Expected Progeny Difference
  
2. High EPD accuracies can be achieved through:
  - a. genomic testing
  - b. progeny reports
  - c. ultrasound data
  - d. All of the above
  
3. According to Beef Improvement Federation (BIF) standards, when should you weigh a newborn calf?
  - a. Within 2 hours of birth
  - b. Within 12 hours of birth
  - c. Within 24 hours of birth
  - d. Within 48 hours of birth
  
4. SimAngus™ Cow 622 has a CW EPD of 41.9. SimAngus™ Cow 715 has a CW EPD of 34.8. Based on this information, which of the following statements is definitely true?
  - a. You should expect Cow 622 to produce offspring with heavier actual carcass weights, on average.
  - b. You should expect Cow 622 to produce offspring with heavier adjusted weaning weights, on average.
  - c. You should expect Cow 622 to produce offspring with better USDA Yield Grades, on average.
  - d. All of the above.
  - e. None of the above. Terminal EPDs only apply to sires.
  
5. Research done by \_\_\_\_\_ allows breeders to compare EPDs across breeds.
  - a. International Genetic Solutions (IGS)
  - b. American Simmental Association (ASA)
  - c. US Meat Animal Research Center (USMARC)
  - d. Beef Improvement Federation (BIF)
  
6. Which of the following phenotypes is reported to ASA the most?
  - a. Weaning Weight
  - b. Mature Cow Weight
  - c. Docility Score
  - d. Birth Weight
  
7. What ASA program focuses on gathering genotype information on all the females within individual herds, in order to improve genomic evaluations and increase genetic progress?
  - a. Cow Herd Roundup (CHR)
  - b. Total Herd Enrollment (THE)
  - c. Progress Through Performance (PTP)
  - d. HerdBuilder (HB)
  
8. Which of the following is the least likely to experience dramatic change in its EPDs and indexes?
  - a. An animal with EPDs that are closest to breed average
  - b. An animal that has been genomic tested
  - c. An animal with high EPD accuracies
  - d. An animal whose calves have the best ratios in their contemporary groups
  
9. In what situation should a breeder definitely place more emphasis on EPDs for his mating decisions?
  - a. He wants his cows to produce more black calves.
  - b. He wants to reduce the birth weights of his calves.
  - c. He wants to sell more show heifers to local 4-H and FFA members.
  - d. Some of his cows are potential genetic defect carriers, and he doesn't want their calves to be affected.

**For questions 10 through 19, refer to the following sires. Information on these bulls can be found on the last sheet of your quiz.**

- A. Double Bar D Annuity 635F
  - B. GSC GCCO Dew North 102C
  - C. SAS Copperhead G354
  - D. THSF Lover Boy B33
  - E. WHF/JS/CCS Double Up G365
10. Which bull should you expect to produce offspring with the heaviest 205-day weights, on average?
11. Which bull is also registered with the Canadian Simmental Association?
12. Which bull should you expect to produce daughters with the highest percentage of unassisted births as first-calf heifers?
13. Which bull is the most likely to be tested for the diluter gene?
14. How many of these bulls are better than breed average for direct Calving Ease?
- a. 1
  - b. 2
  - c. 3
  - d. 4
  - e. 5
15. What is the paternal grandsire of Bull A?
- a. W/C Bankroll 811D
  - b. JF American Pride 0987X
  - c. CNS Dream On L186
  - d. CCR Wide Range 9005A
  - e. W/C Loaded Up 1119Y
16. What is the possible change of Bull E's CE EPD?
- a. 4.6
  - b. 4.0
  - c. 4.1
  - d. 16.0
  - e. Not enough information is available.
17. True or False: Bull E likely needed to be DNA tested to determine that he is homozygous black and homozygous polled.
- a. True
  - b. False
18. Which of the following statements about Bull B and Bull C is true?
- a. Bull B likely has more progeny reported to ASA.
  - b. Bull C should produce a higher percentage of daughters that remain in the herd until at least 6 years of age.
  - c. Both bulls should sire offspring with more USDA Yield Grade 1 carcasses than breed average.
  - d. All of the above are true.
  - e. Only A and B are true.
19. Within Contemporary Group 4, five bull calves sired by Bull A have an average WW ratio of 94. Bull D sired three bulls in the same contemporary group. What would you expect of their WW ratios?
- a. The bull calves sired by Bull D should have a lower average WW ratio.
  - b. The bull calves sired by Bull D should have a higher average WW ratio.
  - c. The bull calves sired by Bull D should have a similar average WW ratio.
  - d. None of the above. A contemporary group cannot contain multiple sire groups.
  - e. None of the above. A contemporary group must contain equal numbers of calves for each sire.
20. A 3/4 Simmental 1/4 Angus heifer is bred to a 1/2 Simmental 1/2 Angus calving ease bull. What will be the breed composition of the resulting calf?
- a. 1/2 SM 1/2 AN
  - b. 5/8 AN 5/8 SM
  - c. 5/8 SM 3/8 AN
  - d. 3/4 SM 1/4 AN

21. Purebred Bull X has a BW EPD of 1.5. Purebred Bull Y has a BW EPD of -1.5. Based on this information, which of the following is definitely true?
- Bull X should sire heavier calves at birth, on average.
  - Bull Y should sire heavier calves at birth, on average.
  - Bull X should produce a higher percentage of unassisted births.
  - Bull Y should produce a higher percentage of unassisted births.

For questions 22 through 27, use the graphic below.

ASA #: 3402630 Registered		<b>WBF SUCCESS F153</b> Black (Heterozygous Black) Polled (Homozygous Polled)										Tattoo: F153 Both Ears							
Single Birth Bull				PB SM			PQB GE			TraitTrac (Check available results)									
Owner:		034804 - WILDBERRY FARMS					Birth Date:		2018-03-25										
Breeder:		034804 - WILDBERRY FARMS					Original Issue:		2018-05-07										
BOLT - 2021-04-27																			
	CE	Brth	Wean	Year	ADG	MCE	Milk	MWW	Stay	Doc	CW	YG	Marb	BF	REA	Shr	API	TI	
EPD	13.7	0.7	81.1	121.5	0.25	4.4	29.7	70.2	15.3	11.3	31.8	-0.44	0.47	-0.097	0.90	-0.40	154.0	90.7	
PC	±4.13	±1.2	±7.5	±12.08	±0.013	±6	±9.88	±8.83	±5.25	±3.25	±9.84	±0.13	±0.159	±0.025	±0.237	±0.24			
ACC	0.47	0.60	0.54	0.53	0.53	0.24	0.17	0.27	0.26	0.35	0.49	0.37	0.39	0.38	0.45	0.04			
%	15	30	35	35	40	75	10	15	65	50	40	45	4	40	45	20	10	10	
Pedigree  Color  HPS																			
	PVFS RUBY MADDEN 126Y																2578617		
	RUBY SWC MADDEN D665																3134710	B	PP
	SWC RUBY YETT1 143Y																2587614	BB	PP
	<b>WBF SUCCESS F153</b>																<b>3402630</b>	<b>BH</b>	<b>PP</b>
	GW-WBF SUBSTANCE 820Y																2605922	BB	PP
	WBF JACKIE C643																2972911	B	P
	WBF JACKIE S427																2365518		P

22. If you breed your favorite red cow to this bull, what is the likelihood that she will have a red calf?
- 100%
  - 75%
  - 50%
  - 25%
  - 0%
23. This bull ranks in the 10<sup>th</sup> Percentile for API. What does this mean?
- His API is likely to change by as much as 10%.
  - His API is likely to change by as much as 90%.
  - His API is better than 10% of the breed.
  - His API is better than 90% of the breed.
24. True or False: This bull has been qualified through DNA to both his sire and dam.
- True
  - False
25. Which of the following EPDs for this bull is the least likely to change significantly?
- Marbling
  - Milk
  - Maternal Calving Ease
  - Birth Weight
26. Compared to breed average, you would expect this bull to produce offspring that are:
- lighter at weaning
  - heavier at weaning
  - similar in weight at weaning
  - Not enough information is available.
27. This bull's first calves were born in 2020. What year-letter is included in their tattoos?
- F
  - G
  - H
  - I

28. SimAngus™ Bull G365 has a Marbling EPD of 0.26. SimAngus™ Bull F88 has a Marbling EPD of 0.56. Based on this information, which of the following statements is definitely true?
- Bull G365 should produce offspring with a higher percentage of USDA Yield Grade 1 carcasses.
  - Bull F88 should produce offspring with a higher percentage of USDA Yield Grade 1 carcasses.
  - Bull G365 should produce offspring with a higher percentage of USDA Prime carcasses.
  - Bull F88 should produce offspring with a higher percentage of USDA Prime carcasses.
29. Which EPD evaluates the percentage of unassisted births in an animal's first-calving daughters?
- CE
  - CED
  - MCE
  - STAY
30. A commercial breeder is turning out her heterozygous black herd sire with a group of 33 open females. 9 of these females are homozygous black, 20 are heterozygous black, and 4 are red. Assuming 100% conception and all single births (no twins), how many black calves should the producer expect to have?
- 19
  - 26
  - 29
  - 31

## TIEBREAKER QUESTIONS

Questions 31 through 35 are tiebreaker questions only.

31. What is the minimum DNA testing requirement when registering ET calves for which you are not the breeder or co-breeder?
- Cow Herd Roundup 50K (CHR50K)
  - GeneSeek® Genomic Profiler - High Density (GGP-HD)
  - Parent Verification (PV)
  - Parent Verification (PV) + Genetic Defect Testing
32. In what year was the first Simmental Sire Summary published?
- 1971
  - 1981
  - 1991
  - 2001
33. *Refer to the bulls you used for questions 10 through 19.*  
On a per cow basis, how much more valuable is Bull D than Bull A when used in a program that retains select replacement heifers and all other calves are fed out and sold on grade and yield?
- \$22.00
  - \$29.00
  - \$35.70
  - \$57.70
34. Your Purebred Simmental donor dam has a Stayability EPD of 17.7. Based on the information available to you, you can determine that she ranks in the \_\_\_\_\_ for this trait.
- Top 10%
  - Top 30%
  - Top 50%
  - Top 70%
35. When an animal is first registered with ASA, it is given \_\_\_\_\_ until the next BOLT-based genetic evaluation is completed and official EPDs can be calculated.
- Estimated Breeding Values
  - planning mating EPDs
  - estimated EPDs
  - interim EPDs

ASA #: 3542861

Registered

CANSM - 1249222

### DOUBLE BAR D ANNUITY 635F

Black (Heterozygous Black)

Polled (Homozygous Polled)

Tattoo: RLD 635F

Right Ear

Single Birth Bull

PB SM

PQS GE

TraitTrac

(Check available results)

Owner: 344688 - HIGH RIDGE FARMS/BOUCHARD LIVESTOCK

Birth Date: 2018-03-22

Breeder: 309941 - DOUBLE BAR D RANCH

Original Issue: 2019-03-13

BOLT - 2021-04-27

EPD	CE	Brth	Wean	Year	ADG	MCE	Milk	MWW	Stay	Doc	CW	YG	Marb	BF	REA	Shr	API	TI
12.4	2.6	68.6	96.8	0.18	7.7	25.2	59.4	16.3	7.0	34.3	-0.43	0.03	-0.101	0.89	-0.21	120.2	68.7	
±4.21	±1.5	±8.8	±13.88	±0.015	±5.85	±9.76	±8.71	±5.25	±3.3	±10.42	±0.13	±0.153	±0.025	±0.237	±0.247			
ACC	0.46	0.50	0.46	0.46	0.26	0.18	0.28	0.26	0.34	0.46	0.36	0.41	0.37	0.45	0.01			
%	30	70	80	90	20	35	65	50	95	30	50	75	20	50	99	70	90	

Pedigree

Color HPS

W/C LOADED UP 1119Y	CANSM - 1199413	2654155	BH	PP
W/C BANKROLL 811D	CANSM - 1217569	3187005	BH	PP
MISS WERNING KP 8543U		2446017	B	
DOUBLE BAR D ANNUITY 635F	CANSM - 1249222	3542861	BH	PP
JF AMERICAN PRIDE 0987X	CANSM - 1124288	2573743	B	P
DOUBLE BAR D PAYTON 425B	CANSM - 1127052	(3542860)	B	P
DOUBLE BAR D PAYTON 658Z	CANSM - 1114471	(3542859)	BH	P

ASA #: 3141837

Registered

### GSC GCCO DEW NORTH 102C

Black (Homozygous Black)

Polled (Homozygous Polled)

Tattoo: 102C

Left Ear

Frozen Embryo Bull

PB SM

PQB GE

TraitTrac

(Check available results)

Owner: 255562 - GLACIER CATTLE CO

Birth Date: 2015-09-10

Breeder: 324327 - COLE WHISMAN/GERDES SHOW CATTLE

Original Issue: 2016-08-30

BOLT - 2021-04-27

EPD	CE	Brth	Wean	Year	ADG	MCE	Milk	MWW	Stay	Doc	CW	YG	Marb	BF	REA	Shr	API	TI
15.0	0.1	89.5	120.6	0.19	7.7	19.0	63.7	9.6	10.5	30.9	-0.50	-0.05	-0.095	1.09	-0.44	117.6	82.0	
±2.65	±0.57	±5.05	±8.74	±0.01	±4.74	±8.57	±7.38	±4.62	±3.55	±7.72	±0.11	±0.133	±0.02	±0.189	±0.198			
ACC	0.66	0.81	0.69	0.66	0.40	0.28	0.39	0.35	0.29	0.60	0.46	0.49	0.49	0.56	0.21			
%	10	20	10	35	85	20	85	40	99	60	45	15	95	40	15	10	75	25

Pedigree

Color HPS

CNS DREAM ON L186	CANSM - 632589	2144976		PP
HTP/SVF DURACELL T52		2392068	BB	
HTP SVF HONEYDEW		2140238		P
GSC GCCO DEW NORTH 102C		3141837	BB	PP
WELSHS DEW IT RIGHT067T		2403649	BB	PP
WELSH'S SCARLET 161Z		2685388	B	P
WELSHS ROXIE 103W		2510264	BH	P

ASA #: 3620331

Registered

### SAS COPPERHEAD G354

Red

Polled (Homozygous Polled)

Tattoo: G354

Left Ear

Single Birth Bull

PB SM

PQB GE

TraitTrac

(Check available results)

Owner: 166320 - ROBERT & DEANNE YOUNG

Birth Date: 2019-02-10

Breeder: 040241 - SPRINGERS ARABIANS & SIMM

Original Issue: 2019-10-08

BOLT - 2021-04-27

EPD	CE	Brth	Wean	Year	ADG	MCE	Milk	MWW	Stay	Doc	CW	YG	Marb	BF	REA	Shr	API	TI
9.0	1.9	88.5	130.1	0.26	3.6	31.7	75.9	17.7	9.9	12.5	-0.47	0.07	-0.075	0.93	-0.34	131.1	83.2	
±4.06	±1.29	±8.8	±13.62	±0.015	±5.85	±9.4	±8.59	±5.18	±3.25	±10.23	±0.13	±0.153	±0.026	±0.237	±0.24			
ACC	0.48	0.57	0.46	0.47	0.47	0.26	0.21	0.29	0.27	0.35	0.47	0.37	0.41	0.36	0.45	0.04		
%	75	55	15	20	35	90	5	4	30	70	99	30	65	80	40	50	40	25

Pedigree

Color HPS

NCB COBRA 47Y	CANSM - 755730	2966133	B	P
ERIXON BITTEN 203A	CANSM - 1115825	2966135	B	P
BMD MISS BLK ICE DANCER	CANSM - 766465	(2966134)	B	P
SAS COPPERHEAD G354		3620331	R	PP
R PLUS RELOAD 2006Z	CANSM - 775135	2794997		PP
SAS MISS ARAPHAOE B354		2958847	B	PP
SAS STARLIGHT Z354		2642610	B	PP

**ASA #: 2983443**  
Registered

**THSF LOVER BOY B33**  
Black (Heterozygous Black)  
Polled (Homozygous Polled)

**Tattoo: B33**  
Left Ear

Frozen Embryo Bull

PB SM

PQB GE

**TraitTrac**  
(Check available results)

**Owner:** 001090 - YARDLEY CATTLE CO  
**Breeder:** 213984 - HADDEN SIMMENTAL

**Birth Date:** 2014-10-16  
**Original Issue:** 2015-06-16

BOLT - 2021-04-27

	CE	Brth	Wean	Year	ADG	MCE	Milk	MWW	Stay	Doc	CW	YG	Marb	BF	REA	Shr	API	TI
EPD	15.3	-1.0	82.4	115.8	0.21	9.0	17.8	59.0	15.6	13.3	24.7	-0.40	0.43	-0.067	0.93	-0.40	155.9	90.7
PC	±2.65	±0.51	±3.75	±6.68	±0.007	±4.66	±7.62	±6.41	±4.62	±3.15	±6.75	±0.11	±0.133	±0.021	±0.185	±0.2		
ACC	0.66	0.83	0.77	0.74	0.74	0.41	0.36	0.47	0.35	0.37	0.65	0.46	0.49	0.47	0.57	0.20		
%	10	10	30	45	75	10	95	65	60	25	70	65	5	95	40	20	10	10

Pedigree

			Color	HPS
	CNS DREAM ON L186	CANSM - 632589	2144976	PP
	HTP/SVF DURACELL T52		2392068	BB
	HTP SVF HONEYDEW		2140238	P
<b>THSF LOVER BOY B33</b>			<b>2983443</b>	<b>BH PP</b>
	SVF/NJC BUILT RIGHT N48	CANSM - 687147	2225381	B PP
	RP/MP RIGHT TO LOVE 015U		2434417	
	PCC QUEENS VALENTINE R9		2293348	P

**ASA #: 3658592**  
Registered

**WHF/JS/CCS DOUBLE UP G365**  
Black (Homozygous Black)  
Polled (Homozygous Polled)

**Tattoo: G365**  
Left Ear

Frozen Embryo Bull

PB SM

PQB GE

**TraitTrac**  
(Check available results)

**Owner:** 004561 - ALLEN DVM, HENRY E  
**Breeder:** 311500 - STEENHOEK, CHESNEY

**Birth Date:** 2019-04-08  
**Original Issue:** 2020-10-29

BOLT - 2021-04-27

	CE	Brth	Wean	Year	ADG	MCE	Milk	MWW	Stay	Doc	CW	YG	Marb	BF	REA	Shr	API	TI
EPD	16.0	-1.3	68.9	87.2	0.11	8.1	22.4	56.8	12.9	11.3	6.4	-0.47	-0.07	-0.070	0.90		118.0	70.8
PC	±4.6	±1.62	±8.8	±14.14	±0.015	±6.08	±10.12	±9.2	±5.04	±3.55	±10.23	±0.13	±0.148	±0.025	±0.241	±		
ACC	0.41	0.46	0.46	0.45	0.45	0.23	0.15	0.24	0.29	0.29	0.47	0.36	0.43	0.37	0.44			
%	4	10	80	99	99	15	60	75	90	50	99	30	95	95	45		75	80

Pedigree

			Color	HPS
	W/C EXECUTIVE ORDER 8543B		2900283	BH PP
	W/C DOUBLE DOWN 5014E		3336150	BB PP
	W/C MISS WERNING 5014C		3211676	BB PP
<b>WHF/JS/CCS DOUBLE UP G365</b>			<b>3658592</b>	<b>BB PP</b>
	CCR WIDE RANGE 9005A		2725666	BB PP
	WHF SUMMER 365C		3118556	BB PP
	WHF ANDIE 365A		2860142	BB PP