2018 Iowa FFA Dairy Cattle Evaluation CDE Test

Manchester, Iowa September 8, 2018

Mark the <u>best</u> answer in the proper blank on the scan form.

<u>25 Objective Questions -- 2 pts. Each</u>

1. Predip should be left on the teat ends for at least how many seconds before being completely wiped off?
   a. 15 seconds b. 30 seconds c. 45 seconds d. 60 seconds

2. Which of the following hormones is not directly associated with reproduction?
   a. Progesterone b. Adrenaline c. Estrogen d. Testosterone

3. At birth, which stomach area is the largest in the calf?
   a. Rumen b. Reticulum c. Omasum d. Abomasum

4. Which of the following is a source of non-protein nitrogen?
   a. Urea b. Corn grain c. Soybean meal d. Linseed meal

5. How does a robotic milker find the teats of a cow ready to be milked?
   a. Teat sphincter sensors c. Somatic cell sensors
   b. Lasers or vision cameras d. Milk detection sensors

6. Propionic acid absorbed from the rumen is converted to glucose in which organ of the cow?
   a. Heart b. Large intestine c. Small intestine d. Liver

7. What is the name of milk sugar?
   a. Lactose b. Fructose c. Dextrose d. Sucrose

8. Dystocia refers to:
   a. Energy consumption b. Herd health c. Mastitis d. Calving ease

9. What is the term given to a heifer born twin to a bull?
   a. Metritis b. Displaced abomasum c. Freemartin d. Gomer

10. “UHT” milk is pasteurized at what approximate minimum temperature in degrees Fahrenheit?
   a. 145 degrees b. 161 degrees c. 191 degrees d. 280 degrees

11. A total stimulation time of how many seconds is considered sufficient to initiate milk let-down?
   a. 3 to 5 seconds b. 7 to 9 seconds c. 10 to 12 seconds d. 15 to 17 seconds

12. Fat has how many times as much energy per pound as carbohydrates?
   a. 4.40 b. 2.25 c. 1.25 d. .75

13. In order for effective fermentation to occur in a silage pile, what element must be absent?
a. Oxygen b. Hydrogen c. Carbon d. Nitrogen

14. What is the time period that a cow carries a calf?
a. Parturition b. Rumination c. Gestation d. Lactation

15. The amount of time a cow ruminates or chews her cud can be an indicator of cow health. Healthy cows tend to ruminate how many minutes per day?
a. 600-720 minutes b. 450-550 minutes c. 250-350 minutes d. 60-120 minutes

16. Which of the following is not a behavior used to identify cows in pain?
a. Back position b. Facial expression c. Head position d. Sleeping position

17. What is the main support system holding the udder close to the cow's body wall?
a. Skin & subcutaneous connective tissue c. Medial suspensory ligament
b. Sustentacular apparatus d. Lateral suspensory ligament

18. Until how many hours old will a calf's intestine absorb the disease-fighting ingredients in colostrum?
a. 48 hours b. 24 hours c. 12 hours d. 4 hours

19. Where is oxytocin stored and released?
a. Adrenal gland b. Corpus luteum c. Ovarian follicle d. Pituitary gland

20. Where in the cow's reproductive tract do sperm concentrate and await ovulation?
a. Utero-tubal junction b. Uterus c.Testes d. Vagina

21. Pregnancy can be detected by milk or blood samples or transrectal ultrasound how many days after insemination?
a. 47 days b. 35 days c. 28-30 days d. 10-12 days

22. What is the second most common reason for cows to leave the herd following unspecified reasons, accounting for 19 percent of cows that leave?
a. Reproduction b. Feet and legs c. Mastitis d. Low production

23. What component causes the yellow color in milk from certain breeds of dairy cattle?
a. Beta carotene b. Beta hydroxybutyrate c. Lactose d. Protein

24. Which component in colostrum fed during the first day of life is most critical to the health and survival of the calf?
a. Somatic cells b. Vitamin A c. Vitamin D d. Immunoglobulin

25. In what process is the nucleus removed from an unfertilized oocyte and replaced by a nucleus of another cell?
a. Embryo transfer b. In-vitro fertilization c. Cloning d. Conception

DHIA Questions -- 5 pts each

Refer to the **Appendix A--DHI-202 (both sides)** to answer the following questions.

26. What is the main reason cows left the herd during the last year?

a. Died b. Feet and legs c. Mastitis d. Reproduction

27. What percentage of the cows are in milk during this test period?

a. 73% b. 81% c. 89% d. 91%

28. What is the rolling yearly herd average for milk production during the 8-15-18 test date?

a. 84.9 pounds b. 975 pounds c. 26693 pounds d. 26996 pounds

29. Which lactation period represents the highest number of cows during the 8-15-18 test date?

a. First lactation b. Second lactation c. Third lactation d. Fourth lactation

30. Which month will have the least number of heifers to calve?

a. September b. October c. November d. December

Dairy Management Problems -- 5 pts each

31 What is the cost per pound of ground ear corn if ear corn sells for $3.30/bu(70#/bu) and grinding is .42 per cwt?

a. $.0513 b. $.0552 c. $.0571 d. $.0581

32. You want to make a 15.6% protein ration using 8.0% protein corn and 43.4% protein soybean meal. How many pounds of corn are needed to make a two-ton ration?

a. 3117 lbs b. 3141 lbs c. 3293 lbs d. 3719 lbs

33. What is the percent protein in the the following ration?

	lbs	
Ground shelled corn	900	8.5%
Whole cottonseed	190	25.5%
Haylage	1650	13.7%
Hay	650	21%
Protein Mix	300	41.8%
Minerals	175	0%

a. 15.56% b. 15.86% c. 15.92% d. 16.17%

34. What is the component value of a hundredweight of milk if the farm produces 366,500 pounds of milk with the following:

Components		$Basis Milk Value
Butterfat	4.32%	1.155
Protein	4.11%	1.76
Solids	5.52%	.0312
SCC	250,000	.35

a. $12.74 b. $12.97 c. $13.15 d. $13.71

35. You purchased the following hay at the Rock Valley Hay Auction. Which hay costs the least per pound of protein?

			%protein
Large round 1st cutting Alfalfa	45,380 lbs	$130.00/ton	17.2
Large round 2nd cutting Grass	53,300 lbs	$122.50/ton	14.8
3x3 bales 1st cutting Alfalfa	40,860lbs	$112.50/ton	15.6
Small square Grass mix	14,250 lbs	$142.50/ton	16.4

a. Large round 1st cutting Alfalfa
b. Large round 2nd cutting Grass
c. 3x3 bales 1st cutting Alfalfa
d. Small square Grass mix

Sire Evaluation Questions -- 5 pts each

Refer to **Appendix B (Top 100 TPI Bulls)** to answer the following questions.

36. Which of these bulls has a problem with productive life?
a. J-Mor SS Homer - ET
b. DE-SU 11228 Topsy - ET
c. View-Home Monterey - ET
d. Eldon-Tweed Chops - ET

37. What factor would put View-Home Monterey - ET top of the list?
a. SCS b. PTAT c. PL d. Milk production

38. Which bull has the highest combined fat and protein total?
a. Sandy-Valley Gram - ET
b. Co-op Princeton - ET
c. View-Home Mandate - ET
d. EDG Blackgold - ET

39. If mammary system and feet and legs are important to you, which bull would you NOT use?
a. View-Home Mandate - ET
b. Zimmerman Mogul Butler - ET
c. Sandy- Valley Gram - ET
d. EL1023 Masterful - ET

40. Which trait does not represent the true value of the bull EDG Blackgold - ET?
a. High quality milk
b. High mammary system scores
c. 140 pounds combined fat and protein
d. Lower productive life

Pedigree Questions -- 5 pts each

Refer to **Appendix C** to answer the following questions.

#1	Lot 4	Kruses Carter Fleece
#2	Lot 5	Riedland Carter Freesia
#3	Lot 45	Coredale Winmore Peach Pie
#4	Lot 46	Wapsi-Ana Moon - L Freeme

41. Which heifer lacks production information from her dam?
a. #1 b. #2 c. #3 d. #4

42. Which two heifers have the same sire?
a. #1, #2 b. #2, #3 c. #3, #4 d. #1, #4

43. Which heifer excels in type?

a. #1 b. #2 c. #3 d. #4

44. What is the name of the paternal grand dam of heifer #3?

a. Shen-Val Champ Patsy
b. Top Acres Andre Whisper
c. Mort Legacy Bonanza
d. Coredale Whiskey Peaches

45. What is the tattoo number of heifer #4?

a. 2417 b. 120 c. T9 d. None

46. Phase E -- Pedigree Evaluation

Refer to **Appendix C** (Heifer Pedigrees) to rank the animals based on their pedigree and indicate your ranking on the answer sheet.

#1	Lot 4	Kruses Carter Fleece
#2	Lot 5	Riedland Carter Freesia
#3	Lot 45	Coredale Winmore Peach Pie
#4	Lot 46	Wapsi-Ana Moon - L Freeme

47. Phase F -- Sire Evaluation

You are a Holstein dairy producer who wants cows that have good, well-attached udders, sound feet and legs and a long productive life as these cows do best in your system. Furthermore, you prefer cows with high production and high combined fat and protein. You want to have a few heifers to show. You currently have a large group of breeding age heifers that you would like to breed to the same bull with the hope of being one of the first dairy producers to have several milking daughters on the next "hot" bull. Consequently you want to use one of the following four sires who only have a genomic proof. Using **Appendix D** which sire should be your first, second, third and fourth choice to use on these heifers.

#1 Bourbon #2 Mixer #3 Torque #4 Yoda

48. Phase G -- Culling Class

You milk in a tie-stall barn and want to keep a milking cow in every stall and not have to shift cows in and out to get them all milked. All dry cows are housed elsewhere. You sell high volumes of high quality milk with emphasis on reproductive efficiency. You had a first-calf heifer freshen this morning and you want to cull one of the following four cows to make room for this fresh heifer. Use the attached DHI-103 Cow Pages (**Appendix E**) to place the cows in the order that you would cull them from your herd. The first cow you would cull should be ranked #1 and the last cow you would cull should be ranked #4.

#1 Index 10152 #2 Index 10265 #3 Index 10276 #4 Index 10680

HERD SUMMARY

DHI-202

Test Date	Samples at Lab	Processed
08-15-2018	08-17-2018	08-17-2018

42-77-0074
I O STATE DAIRY
JOE DETRICK

Appendix A

Electronic Meters

Breed	HO	Type Test	DHI-APCS	Assoc.	400	Supv.	97	String	1

Production, Income & Feed Cost Summary

	Daily Average per Cow on Test Day			Rolling Yearly Herd Averages		
Total Cows	378			403.1		
Cows in Milk	Number	%		Number	%	
	343	91		358.8	89	
Milk Lbs (All Cows)	77.0			26996		
Fat Lbs (All Cows)	2.71			975		
Fat %	3.5			3.6		
Protein Lbs (All Cows)	2.30			846		
Protein %	3.0			3.1		
Milk Lbs (Milking Cows)	84.9					
	Milking Cows	All Cows				
Silage	Lbs Consumed			Lbs Consumed		%ENE
Other Succulents or Blended Rations	Lbs Consumed			Lbs Consumed		%ENE
Dry Forage	Lbs Consumed			Lbs Consumed		%ENE
Other Feeds	Lbs Consumed			Lbs Consumed		%ENE
Pasture				Days		%ENE
Concentrates	Lbs Consumed			Lbs Consumed		%ENE
Value of Product $	13.48	12.12		4562		
Cost of Concentrates $						
Total Feed Cost $						
Income Over Feed Cost $						
Feed Cost per CWT Milk $						
Milk Blend Price	Per CWT	% Fat	% Pro	Per CWT	% Fat	% Pro

Reproductive Summary Of Current Breeding Herd

Total Cows Breeding Herd	Voluntary Waiting Period (VWP)	Days to 1st Service
105	50	63

Cows With No Service Dates or Diag. Open				Cows Bred But Not Diag. Preg.			
				Days Open at Last Service			
Open VWP to 100 Days	Open Over 100 Days	Number Diag. Open		Under VWP	VWP to 100 Days	101 to 130 Days	Over 130 Days
28	8	9	Number Cows		20	13	36
27	8	9	% of Breeding Herd		19	12	34

Reproductive Summary Of Total Herd

	Days Open at 1st Service			Avg. Days to 1st Service	Services per Pregnancy		Projected Minimum	
	Number Under VWP	Number VWP to 100	Number Over 100		Preg. Cows	All Cows	Calving Interval	Days Open
1st Lact		116	1	66	2.0	2.6	12.8	109
2nd Lact		81		65	2.2	2.9	12.9	113
3+ Lacts		62		65	2.1	2.9	12.6	105
All Lacts		259	1	66	2.1	2.8	12.8	109
% of All 1st Services		100			Current Actual Calving Interval		12.6	

Service or Heat Interval	
Interval Length	Number Intervals
< 18	9
18 - 24	39
36 - 48	266
Other	44

Services for Past 12 Months			
Service Number	Number Services	Conception Rate	Service Sire Merit $
1st	395	36	+823
2nd	231	34	+825
3rd +	247	34	+817
Total	873	35	+822

Abortions	This Test	Past Year
Actual		1
Apparent	7	26

Birth Summary

Dam's Lact Num	Offspring Born								
	Males		Females		Calving Difficulty Score				
	Alive	Dead	Alive	Dead	1	2	3	4-5	%4-5
1	42	3	129	6	126	23	13	1	1
2+	143	11	120	5	168	24	15	3	1
Total	185	14	249	11	294	47	28	4	1

Cows To Be Milking, Dry, Calving By Month

	Sep	Oct	Nov	Dec	Jan	Feb
* Milking	336	315	313	322	339	323
Dry	43	55	57	55	36	48
Cows to Calve	21	20	26	29	36	19
Heifers to Calve	17	9	18	26	17	14

* Assumes 4.8% per month culling rate.

Yearly Reproductive Summary

Test Date	% Heats Obs.	Conception Rate	Preg Rate	Number Services	Number Confirm Preg	Number Calving	Total Preg Cows
Test Dropped	48	22	11	54	30	44	203
9-20-17	58	36	22	80	9	39	184
10-25-17	56	38	23	82	28	52	181
11-29-17	60	46	32	87	37	46	186
1-10-18	58	28	25	103	44	57	188
2-14-18	62	29	27	99	29	57	175
3-21-18	62	35	33	105	34	49	171
5-02-18	59	38	30	120	49	27	195
6-06-18	68	25	17	93	40	29	203
7-12-18	55			80	30	40	202
8-15-18	55			60	19	56	182
Averages	59	34	25	91	32	45	187
Totals				909		452	

Miscellaneous Herd Information

	Shipped-Test Day Comparison	
	Test Day	Yearly Avg.
Sum of Test Day Wts	28865	29394
Reported Avg. Daily Bulk Tank Wts		
% Deviation		

	Milking Times	Wgh	Spl
1st	12:17pm	Y	N
2nd	7:23pm	Y	N
3rd	3:55am	Y	Y

Remarks:

Cows milked 3 times daily for all or part of this yearly period.

Appendix A

Herd Code	42-77-0074	Test Date	08-15-2018	Breed	HO	String	1

Identification And Genetics (Genetic Data Source: CDCB)

Age Group	Number Animals	Avg. Age (Yr-Mo)	Num. Ident. By Sire	Num. Ident. By Dam	Number ID Changes	No. Animals with Merit $	Average Merit $ Animal	Average Merit $ Sire
0 - 12	262	0-06	262	262		262	+534	+723
13+	160	1-05	160	160		160	+475	+669
Replacements	422	0-10	422	422		422	+511	+702
1st Lact	175	1-10	175	175	1	63	+439	+644
2nd Lact	105	2-11	105	105		105	+389	+604
3+ Lacts	98	4-07	97	96	1	98	+260	+409
All Lacts	378	2-11	377	376	2	266	+354	+572
% Identified (Producing Females)			100	99	No. Heifers Age Over 30 Months			

Herd Merit $ Option
NM

Genetic Profile of Service Sires	A.I. Progeny Tested	A.I. Genomic Tested	All Other A.I. Bulls	Non A.I. Bulls
% of Herd Bred to		87		13
Number of Bulls Used	1	30		
Average Merit $	+692	+825	+0	
Avg. Percentile Rank (Net Merit)	99	96		

DCR Milk
104

Stage Of Lactation Profile

		Stage of Lactation (Days) 1 - 40	41 - 100	101 - 199	200 - 305	306 +	Total or Average
Number Milking	1st Lact	27	22	41	49	16	155
	2nd Lact	10	17	25	34	8	94
	3+ Lacts	16	17	22	24	12	91
	All Lacts	53	56	88	107	36	340
Average Daily Milk	1st Lact	71	84	85	75	60	77
	2nd Lact	101	107	97	79	70	90
	3+ Lacts	95	116	106	79	63	93
	All Lacts	84	101	94	77	63	85
% Fat & Pro	1st Lact % Fat	4.1	3.5	3.3	3.8	4.6	3.8
	1st Lact % Pro	3.1	2.8	3.0	3.1	3.3	3.1
	2nd Lact % Fat	4.1	3.4	3.1	3.8	4.1	3.6
	2nd Lact % Pro	3.1	2.8	3.0	3.1	3.3	3.0
	3+ Lacts % Fat	4.0	3.1	3.0	3.7	4.0	3.5
	3+ Lacts % Pro	3.0	2.8	2.9	3.1	3.3	3.0
	All Lacts % Fat	4.1	3.3	3.2	3.8	4.3	3.6
	All Lacts % Pro	3.1	2.8	3.0	3.1	3.3	3.0
SCC ACT	1st Lact	62	60	372	179	80	190
	2nd Lact	245	289	107	545	195	307
	3+ Lacts	189	482	329	351	1094	413
	All Lacts	154	281	281	338	447	294
SCC ACT >= 200	Number	7	13	14	25	8	67
	Percent	13	23	16	23	22	20

Weighted SCC ACT (Nearest 1,000)

Production By Lactation Summary

	Number of Cows	Avg. Age (Mo)	Peak Milk	Summit Milk	Proj 305 Day ME Milk	Proj 305 Day ME Fat	Proj 305 Day ME Pro	Difference From Herdmates Milk	Difference From Herdmates Fat	Difference From Herdmates Pro	Avg. Body Wt.
1st Lact	175	22	96	91	27252	994	831	+1047	+55	+28	1210
2nd Lact	105	35	120	116	28062	996	851	+1752	+57	+51	1330
3+ Lacts	98	55	129	122	25869	896	790	-272	-42	-7	1460
All Lacts	378	35	111	106	27141	970	826	+926	+31	+26	1310

Somatic Cell Summary

% Cows SCC Score	0,1,2,3	4	5	6	7,8,9
	Below 142,000	142,000 283,000	284,000 565,000	566,000 1.13 M	Over 1.13 M
	84	9	1	2	4
	71	10	8	6	5
	66	3	13	9	9
	75	8	6	5	6

Herd Production Lost From SCC This Test Period			
Milk	6997	Dollars ($)	1126

Dry Cow Profile

Lact.	Number Dry Periods	Avg. Days Dry	Number Dry by Days < 40	40-70	> 70
1					
2	105	59		100	5
3+	98	60	5	82	11
All	203	59	5	182	16

Yearly Summary Of Cows Entered And Left The Herd

	Cows Entered Num.	Cows Entered %	Cows Left Num.	Cows Left %	Number of Cows Left the Herd: Dairy	Low Prod	Repro	Mast	Udder	Feet & Legs	Injury Other	Disease	Died	Not Rptd
1	191	47	66	16	2	10	22	6		4	1		18	3
2			53	13	1	11	19	10	1	1	3		7	
3+	7	2	111	28	1	20	33	16	4	12	7	1	15	2
All	198	49	230	57	4	41	74	32	5	17	11	1	40	5

46	% Left Herd For Involuntary Reasons

Yearly Production And Mastitis Summary

Test Date	Days In Test Period	Number Cows In Herd On Test Day	Test Day Averages (Milking Cows) DIM	Milk	150 Day Milk	Test Period Persist. Index	Test Day Averages (All Cows) % In Milk	Milk	%Fat	%Pro	Rolling Yearly Herd Average Milk	Fat	Pro	Somatic Cell Count Summary % Cows SCC Score 0,1,2,3 Below 142,000	4 142,000 283,000	5 284,000 565,000	6 566,000 1.13 M	7,8,9 Over 1.13 M	Avg. SCC Linear Score	Wt. Avg. Actual SCC	MUN	Number Left Herd Died	Sold
Test Dropped	35	411	192	76.6	85.2	100	86	65.8	3.7	3.1	25373	940	804	71	10	6	4	9	2.6	366	12.1	1	11
9-20-17	35	408	200	74.1	84.3	100	89	66.0	3.7	3.2	25345	939	806	72	9	7	5	8	2.7	326	12.8	6	10
10-25-17	35	407	186	79.9	88.3	107	88	70.4	3.5	3.2	25354	939	807	73	11	5	5	7	2.5	309	10.3	5	19
11-29-17	35	410	174	78.6	85.3	97	87	68.5	3.6	3.3	25365	937	808	79	8	3	4	6	2.3	208	10.9	1	15
1-10-18	42	416	165	80.5	85.3	100	86	69.3	3.6	3.3	25439	937	811	69	9	9	6	7	2.8	279	10.2	4	11
2-14-18	35	422	157	88.8	92.7	109	89	78.8	3.8	3.2	25606	941	817	72	10	7	4	7	2.6	271	8.2	4	16
3-21-18	35	410	159	88.5	91.7	99	93	82.6	3.7	3.1	25814	949	823	72	8	8	4	9	2.6	353	9.5	8	30
5-02-18	42	386	176	92.8	98.1	104	91	84.6	3.3	3.0	26175	955	831	80	8	3	6	3	2.2	162	10.1	4	28
6-06-18	35	375	178	85.8	91.6	95	90	77.1	3.7	3.0	26466	959	836	77	10	5	3	5	2.3	216	11.6	3	17
7-12-18	36	380	178	86.4	93.8	101	88	75.6	3.5	3.0	26693	967	839	72	9	7	5	7	2.7	323	12.3		15
8-15-18	34	378	169	84.9	93.1	102	91	77.0	3.5	3.0	26996	975	846	75	8	6	5	6	2.4	294	11.5	5	29
Averages	36	399	174	84.0	90.4	101	89	75.0	3.6	3.1				74	9	6	5	7	2.5	274	10.7	40	190

Test Period Avg. Milk Lbs	Added	75.8	Dropped	66.8

Top 100 TPI Bulls AUGUST 2018

Appendix B

(Semen Status is ACTIVE or LIMITED with a minimum of 80% traditional US reliability OR 85% Genomic reliability for production and type)

					PRODUCTION						HEALTH				CONFORMATION					
Rank	Name		% RHA	NAAB	PRO	FAT	MILK	FE	%R	SCS	PL	%R	LIV	FI	PTAT	%R	UDC	FLC	BWC	TPI
35	CO-OP RENEGADE-ET	TP TC	99-I	1HO11863	42	82	1168	154	99	3.01	3.5	88	-1.7	2.1	2.81	93	2.09	2.86	0.92	2578G
	RI-VAL-RE RAGER-RED-ET	TP TC	99-I	7HO12344	49	67	1361	144	98	2.78	5.2	86	2.4	2.2	2.45	94	1.77	2.01	0.99	2578G
	S-S-I SUPERSIRE TETRIS-ET	TR TP	99-I	7HO11985	64	94	2166	206	98	2.74	5.7	86	2.9	1.4	0.69	92	0.71	-0.24	-0.13	2578G
	VIEW-HOME MANDATE-ET	TR TP	100-NA	200HO10196	56	92	1738	205	97	2.67	4.4	86	1.6	1.5	1.75	94	1.14	-0.72	-0.87	2578G
39	BRYHILL ALTAHOTSHOT-ET	TR TP	100-NA	11HO11523	44	85	1557	162	96	2.88	5.8	84	3.0	3.3	0.66	87	1.71	0.67	0.25	2576G
40	S-S-I BOOKEM MORGAN-ET	TR TP	99-I	7HO11383	55	67	1635	159	99	2.73	6.3	97	1.8	2.7	1.47	98	1.24	1.02	0.27	2573G
41	MR BOMAZ ALTAMEGLO-ET	TR TP	99-I	11HO11499	62	73	1962	187	98	3.15	6.2	86	2.3	3.6	0.76	87	0.75	1.27	-0.79	2572G
42	OCD RODGERS FRANCHISE-ET	TR TP	100-NA	7HO12601	34	51	824	112	91	2.82	6.0	81	2.1	4.2	1.59	85	2.40	1.81	0.37	2566G
43	OCD JABIR HEISENBERG-ET	TR TP	99-I	7HO12569	34	52	591	93	91	2.71	4.5	82	0.4	4.1	2.61	86	2.17	1.86	2.32	2564G
44	J-MOR SS HOMER-ET	TR TP	100-NA	14HO07489	69	91	2271	200	94	2.83	4.4	84	3.0	0.4	1.08	85	0.86	0.32	0.69	2563G
	ROYLANE BOOKEM BOB 5170-ET	TR TP	99-I	7HO11752	56	71	795	178	99	2.98	2.9	93	-0.3	3.4	1.64	96	1.68	0.74	0.61	2563G
46	S-S-I MOGUL REFLECTOR	TR TP	99-I	7HO12105	72	44	1755	147	99	2.74	5.9	93	-0.3	1.7	1.81	98	1.64	1.21	1.36	2562G
	VIEW-HOME LITTLEROCK-ET	TR TP	100-NA	200HO10195	52	65	1086	182	97	2.72	6.3	86	2.6	3.7	0.89	93	1.34	-0.52	-1.45	2562G
48	APRILDAY EQUINOX 654-ET	TR TP	99-I	14HO07426	36	103	635	188	92	2.61	5.9	84	3.6	1.5	0.92	89	1.34	0.55	0.18	2561G
	DE-SU 11228 TOPSY-ET	TC TY	99-I	29HO16667	64	82	1506	192	99	2.75	3.3	94	0.0	0.1	1.75	96	1.43	1.03	0.79	2561G
50	ZIMMERVIEW MOGUL BUTLER-ET	TR TP	100-NA	7HO12195	64	56	1881	161	99	2.94	5.7	90	0.6	2.5	1.56	95	1.07	1.95	0.04	2557G
51	CO-OP PRINCETON-ET	TP TC	99-I	1HO11881	81	107	2691	247	98	2.81	4.1	86	1.2	-4.2	1.72	90	1.78	0.29	-0.17	2555G
	MR OCD ROBUST DONATELLO-ET	TR TP	100-NA	7HO11525	48	75	1183	184	99	2.87	3.9	98	3.3	3.0	1.11	98	1.34	0.79	-1.32	2555G
53	DE-SU 11236 BALISTO-ET	TC TY	99-I	29HO16714	68	79	939	215	99	2.65	4.4	96	-0.7	-0.4	1.55	99	1.02	1.43	0.12	2554G
54	SANDY-VALLEY GRAM-ET	TR TP	100-NA	200HO09137	31	89	885	164	98	3.08	3.4	86	-0.7	2.7	2.34	92	2.18	2.32	-0.47	2550G
55	SEAGULL-BAY SUPERSIRE-ET	TR TP	100-NA	7HO11351	61	97	1938	204	99	2.82	5.9	99	2.6	0.6	0.86	99	0.68	-0.06	0.22	2548G
56	DE-SU ROOKIE 11057-ET	TR TP	99-I	7HO11708	45	82	1067	177	96	2.69	5.3	87	1.5	1.4	1.70	93	1.52	0.97	-0.33	2547G
57	COASTAL-VIEW MOOKIE-ET	TR TP	100-NA	14HO07328	27	106	49	189	99	2.91	4.1	89	0.4	1.0	1.72	94	2.38	1.37	-0.16	2545G
	EDG BLACKGOLD-ET	TC TY	100-NA	29HO17550	59	81	1438	194	96	3.13	2.7	86	0.8	2.2	1.72	90	1.07	1.64	-0.16	2545G
59	VIEW-HOME MONTEREY-ET	TC TY	99-I	29HO16955	38	51	701	121	99	2.97	3.4	91	1.1	1.7	3.50	99	3.02	1.90	0.44	2544G
60	BACON-HILL MAGUIRE-ET	TR TP	100-NA	7HO12256	56	113	1462	217	98	2.76	2.8	87	0.8	-1.0	1.39	93	0.94	0.65	0.80	2535G
61	S-S-I STERLING TRENTON-ET	TR TP	100-NA	7HO13094	44	77	330	180	98	2.78	6.6	85	3.9	1.2	1.43	90	1.49	1.12	-0.11	2533G
62	S-S-I SUPERSIRE MODESTO-ET	TR TP	99-I	7HO13035	65	55	1757	139	99	2.91	4.9	86	0.5	1.5	1.90	93	1.67	1.35	2.00	2532G
63	S-S-I EPIC MIDNIGHT-ET	TR TP	100-NA	7HO11946	46	52	1065	138	99	2.71	6.9	95	4.3	4.2	0.65	97	1.56	0.31	-0.12	2529G
64	DE-SU 11620 NIRVANA-ET	TC TY	100-NA	29HO16887	72	66	1934	181	99	2.77	3.4	88	-1.2	-0.3	1.73	94	1.94	1.15	0.61	2528G
	KOEPON ALTACORNELL	TR TP	99-I	11HO11440	50	73	1658	156	97	2.86	5.9	85	3.3	1.1	1.52	89	1.95	0.85	0.30	2528G
66	BRYCEHOLME BRODIE-ET	TR TC	100-NA	29HO17726	69	63	2767	165	97	3.05	4.9	86	3.2	1.4	1.55	94	1.28	1.29	-0.15	2526G
67	ELI023 MASTERFUL-ET	TR TP	100-NA	200HO06628	63	74	1622	176	98	2.80	2.6	87	-2.1	0.2	2.15	95	1.67	1.62	0.91	2525G
68	EILDON-TWEED CHOPS-ET	TR TP	100-NA	14HO07337	45	85	996	181	98	3.02	1.2	85	-2.7	1.1	2.32	95	2.72	1.65	-0.24	2522G

#1 Kruses Carter Fleece 68189174

Appendix C

Born: 9/1/17 Tattoo: 120
Abnormalities: Haplotypes:

5th Dam: **KRUSES GK JADE FANTASY VIX ET 789702**
13/01 "4E94" E94 E90 E94 E90 E94 (5/02)
"Superior Brood Cow"
6/02 365d 2x 26400 4.7 1242 3.9 1028
8/05 365d 2x 25700 4.4 1134 3.6 915
All American Spring Yearling Heifer, 1990
All American 4 Yr. Old, 1993
All American Aged Cow, 1995
Grand Champion, Central National, 1993 & 1995
6th Dam: **KRUSES BEAUTICIAN VIXIE *TA 644583**
14/11 "5E" E E E E (3/92)
"Superior Brood Cow"
6/04 357d 2x 18680 4.6 857 3.3 617
All American 2 Year Old, 1980; 3 Year Old, 1981
Grand Champion, Madison, 1980, 1981
7th Dam: **KRUSES STRETCHED VICKIE 607200** "2E"
4/03 317d 2x 17540 4.0 702
Nominated All American 2 Year Old, 1976

Consigned by
Rick Kruse
Earlville, Iowa
563/590-0101

VOELKERS TD CARTER *TM 68119645
Abnormalities: *TM PT DT MT WT Haplotypes: BH1T BH2T
"Not Classified" "Superior Sire"
MACE:
PPR: +111 92%R PTAT: +1.4 95%R (4/18)
PTA: +1183m +38f +28p +196NM$ 97%R
391 daus. avg. 25619 4.0 1037 3.3 843
259 class. daus. avg.:
FS: 84.7 UDC: +1.10 FLC: +0.31

KRUSELAND JEOPARDY FLOURISH 68170503
Abnormalities: Haplotypes:
2/06 "V89" V87 V85 E92 E90 E90 (1/18)
2/01 256d 2x 14265 4.3 610 3.2 426 (RIP)

WEBSTER RIDGE TD ET *TM 193164
"Not Classified" MACE
PPR: +46 96%R PTAT: +0.2 97%R (4/18)
PTA: +15m +13f -6p +197NM$ 98%R

VOELKERS WNDRNT CARABELLA 68101970
4/00 "E90" E92 E91 E90 E91 V88 (1/12)
2/03 364d 2x 20600 4.7 972 3.6 741
3/04 334d 2x 22510 4.2 951 3.3 741
4/05 365d 2x 32300 4.2 1368 3.4 1106

KRUSES LEBRON JEOPARDY (W) 68143267
"Not Classified" GEN
PPR: -35 64%R PTAT: +1.0 69%R (4/18)
PTA: -606m -6f -22p -106NM$ 70%R

KRUSELAND VINTAGE FLOWER 68141086
5/11 "E90" E90 E92 V89 E91 E90 (1/18)
2/05 273d 2x 15420 4.3 656 3.2 501
3/04 292d 2x 17280 4.3 741 3.4 591
4/04 365d 2x 22680 4.5 1019 3.4 767

3rd Dam:
RIEDLAND FLOWER FLORENCE ET 950078
6/02 "2E90" V88 E90 E95 E90 E90 (11/12)
3/03 365d 2x 22550 4.4 998 4.5 778
6/07 361d 2x 21590 4.5 971 3.6 786
4th Dam: **KRUSES JETWAY FLOWER ET 894778**
5/01 "2E90" V89 E92 E90 V85 E92 (3/05)
4/10 365d 3x 25100 3.9 967 3.3 832

#2 Riedland Carter Freesia ETV 840003146077287

Born: 9/9/17 Tattoo: 22128
Abnormalities: Haplotypes:

Parent Average:
PPR: +75 PTAT: +1.4 (4/18)
PA: +450m +23f +13p +148NM$

Maternal sister to:
RIEDLAND LEBRON FLORAL "E92/93MS"
4/00 365d 3x 32080 4.1 1328 3.7 1176
1st 4 Year Old, Indiana State Fair, 2017

5th Dam: **KRUSES GK JADE FANTASY VIX ET 789702**
13/01 "4E94" E94 E90 E94 E90 E94 (5/02)
"Superior Brood Cow"
6/02 365d 2x 26400 4.7 1242 3.9 1028
8/05 365d 2x 25700 4.4 1134 3.6 915
All American Spring Yearling Heifer, 1990
All American 4 Yr. Old, 1993
All American Aged Cow, 1995
Grand Champion, Central National, 1993 & 1995
6th Dan: **KRUSES BEAUTICIAN VIXIE *TA 644583**
14/11 "5E" E E E E (3/92)
"Superior Brood Cow"
6/04 357d 2x 18680 4.6 857 3.3 617
All American 2 Year Old, 1980; 3 Year Old, 1981
Grand Champion, Madison, 1980, 1981
7th Dam: **KRUSES STRETCHED VICKIE 607200** "2E"
4/03 317d 2x 17540 4.0 702
Nominated All American 2 Year Old, 1976

Consigned by
Daniel R. and Angie Rieder
Monroe, Wisconsin
608/214-3390

VOELKERS TD CARTER *TM 68119645
Abnormalities: *TM PT DT MT WT Haplotypes: BH1T BH2T
"Not Classified" "Superior Sire"
MACE:
PPR: +111 92%R PTAT: +1.4 95%R (4/18)
PTA: +1183m +38f +28p +196NM$ 97%R
391 daus. avg. 25619 4.0 1037 3.3 843
259 class. daus. avg.:
FS: 84.7 UDC: +1.10 FLC: +0.31

RIEDLAND FAUST FLOWER 65365740
Abnormalities: Haplotypes:
5/03 "2E91" E92 E90 E91 E90 E92 (8/14)
2/01 365d 3x 24060 4.1 987 3.6 860
3/03 292d 3x 19210 4.5 871 3.8 729
4/04 365d 3x 31460 4.3 1343 3.5 1102
6/00 365d 3x 21550 3.9 845 3.6 782

WEBSTER RIDGE TD ET *TM 193164
"Not Classified" MACE
PPR: +46 96%R PTAT: +0.2 97%R (4/18)
PTA: +15m +13f -6p +197NM$ 98%R

VOELKERS WNDRNT CARABELLA 68101970
4/00 "E90" E92 E91 E90 E91 V88 (1/12)
2/03 364d 2x 20600 4.7 972 3.6 741
3/04 334d 2x 22510 4.2 951 3.3 741
4/05 365d 2x 32300 4.2 1368 3.4 1106

RIEDLAND CAMELOT FAUST ET *TM
"E90 " GEN
PPR: +13 93%R PTAT: +1.0 96%R (4/18)
PTA: -444m +6f -11p +40NM$ 97%R

RIEDLAND DENMARK FLOSSIE ET 955403
3/07 "E90" E91 V88 E93 E90 V89 (6/10)
2/06 296d 3x 16630 4.2 695 3.4 563
3/06 365d 3x 30170 3.6 1086 3.3 1006

3rd Dam:
KRUSES JETWAY FLOWER ET 894779
5/01 "2E90" V89 E92 E90 V85 E92 (3/05)
4/10 365d 3x 25100 3.9 967 3.3 832

Appendix C

#3 Coredale Winmore Peach Pie 840003013495205

Born: 6/22/16 Tattoo: T9
Abnormalities: Haplotypes:

3rd Summer Yearling, Eastern National, 2017

4th Dam: **TOWPATH PRE PONDER 906739**
6/01 "2E90" E90 E92 E90 E91 E90 (9/07)
4/05 305d 2x 23850 3.4 819 3.2 773
5/07 293d 2x 24600 3.9 964 3.3 824
5th Dam: **TOWPATH AYTOLA PRECIOUS ET 851595**
9/08 "2E90" E90 E92 E90 E91 E90 (9/04)
6/07 365d 2x 33320 3.9 1286 3.3 1084
7/11 365d 2x 31530 3.8 1197 3.2 1009
6th Dam: **TOWPATH ELEGANT PAT 690069**
9/08 "3E90" E E E V (10/90)
6/11 305d 2x 20130 4.2 843 3.4 693
8/00 317d 2x 19310 4.3 829 3.6 688
7th Dam: **VINE VALLEY PAUL PATSY (TN) 569721**
15/03 "5E" E E E E (5/86)
10/00 347d 2x 20130 4.1 825
11/00 365d 2x 20800 4.1 858 3.7 763
8th Dam: **VINE VALLEY A. SUN LOIS**
"5E - Superior Brood Cow"
9/00 357d 2x 21200 3.9 832
Lifetime: 4546d 177,410m 7666f
Dam of All American Produce, 1974
9th Dam **VINE VALLEY GENERAL'S LISA**
"3E - Superior Brood Cow"
6/09 356d 2x 21680 4.1 877
10th Dam: **COXING CLOVE IMPERIAL DONNA**
"VG - Superior Brood Cow"

TOP ACRES WINMORE ET 68154881
Abnormalities: PT DT MT WT Haplotypes: BH1C BH2T
"Not Classified"
GEN:
PPR: -49 69%R PTAT: +0.5 70%R (4/18)
PTA: -667m +4f -22p -141NM$ 77%R
18 daus. avg. 21048 4.3 908 3.4 709

COREDALE WHISKEY PEACHES 840003013495198
Abnormalities: Haplotypes:
3/02 "E90" V88 E91 E91 V88 E90 (6/17)

2nd Spring Yearling, Eastern BS Show, 2015
4th Spring Yearling, Eastern National, 2015
6th Spring Yearling, Southeast National, 2015

MORT LEGACY BONANZA *TM 197225
"Not Classified" GEN
PPR: -92 94%R PTAT: +0.3 96%R (4/18)
PTA: -820m -23f -27p -302NM$ 97%R

TOP ACRES ANDRE WHISPER ET 938574
6/02 "2E93" E90 E95 E92 E93 E93 (2/11)
2/04 365d 2x 21220 4.9 1040 3.4 729
5/07 365d 2x 32941 5.8 1921 3.6 1174

MANIS GLENN WHISKEY ET *TM 68133750
"Not Classified" "Qualified Sire" MACE
PPR: +79 88%R PTAT: +0.7 93%R (4/18)
PTA: +915m +9f +30p +109NM$ 94%R

SHEN-VAL CHAMP PATSY 68132396
3/10 "E90" E90 E91 V87 E90 E90 (7/14)
2/04 365d 2x 23860 3.4 802 3.6 863
3/08 365d 2x 32390 3.4 1087 3.6 1154
1st Summer Yearling, Maryland State Show, 2011

3rd Dam: **TOWPATH INTEL PARADE 947387**
5/06 "V88" E90 V88 E95 E90 V85 (7/11)
3/04 305d 2x 28960 3.3 944 3.4 998
4/06 345d 2x 29770 2.8 830 3.6 1063

Consigned by
Amanda (Thompson) Stewart
Dover, Pennsylvania
717/487-0501

#4 Wapsi-Ana Moon-L Freeme 68189845

Born: 6/25/17 Tattoo: 2417
Abnormalities: Haplotypes:

Parent Average:
PPR: +51 PTAT: +0.9 (4/18)
PA: +311m +10f +14p 96%NM$

3rd Dam: **VINRA ENSIGN FLORA ET 925817**
2/03 "V85" V85 +82 +83 V85 V88 (1/06)
1/11 365d 2x 22860 3.7 835 3.2 730
4th Dam: **VINRA TRADITION FONDNESS 821710**
9/08 "3E" E93 E90 E94 E90 V88 (4/02)
5/02 365d 2x 34820 3.2 1123 3.4 1174
7/09 357d 2x 31940 3.5 1132 3.2 1029
5th Dam: **VINRA BUSTER FLORA 738507**
7/07 "V86" + V V V (11/92)
3/04 365d 3x 30190 4.0 1207 3.6 1082
4/11 365d 2x 31800 3.9 1249 3.5 1125

LA RAINBOW B MOONLIGHT ET *TM 68161115
Abnormalities: *TM PT DT MT WT Haplotypes: BH1T BH2T
"Not Classified"
GEN:
PPR: +85 61%R PTAT: +1.1 65%R (4/18)
PTA: +776m +26f +22p +182NM$ 65%R

WAPSI-ANA G RUSH FREEDOM 68157460
Abnormalities: Haplotypes:
5/01 "V87" E90 V87 E90 V88 +84 (1/18)
3/06 320d 3x 29290 4.3 1257 3.7 1080
4/06 231d 3x 23610 3.9 918 3.7 870

HILLTOP ACRES W DURHAM ET *TM 68135214
"Not Classified" MACE
PPR: +36 92%R PTAT: +1.2 94%R (4/18)
PTA: +41m +26f +13p +77NM$ 97%R

LA RAINBOW BFLY SUNLIGHT ETV 68139729
3/09 "V85" V85 V86 V85 +83 V85 (12/15)
2/00 365d 2x 17870 4.4 779 3.6 648

TOP ACRES GOLDRUSH ET *TM 68126785
"Not Classified" GEN
PPR: -5 85%R PTAT: +0.7 87%R (4/18)
PTA: +250m -2f +5p -106NM$ 92%R

VINRA ZEUS FREDONIA ET 68111141
2/11 "V86" V86 +84 V85 V85 V87 (2/12)
2/04 365d 3x 26510 4.5 1186 3.4 894

Consigned by
Doug and Jody Fairbanks
Anamosa, Iowa
319/480-2484

BOURBON

29HO17944 WA-DEL ABS BOURBON-ET

Appendix D

PEDIGREE :

MONTROSS x MASSEY x SUPER

SIRE: BACON-HILL MONTROSS-ET

DAM: WA-DEL MASSEY BELINDA-ET

MGS: CO-OP BOSSIDE MASSEY-ET

MGD: WA-DEL SUPER BATHSHEBA-ET

MGGS: CHARLESDALE SUPERSTITION-ET

REAL WORLD DATA :

Bull Fertility: ★★★ 20244 Obs

TransitionRight: ★★★★

Reg. NO: 003014558977 | **100%** | **EFI:** 7.4%

Born: 11/29/2014 | **aAa:** 351 | **DMS:** 345,135

Kappa Casein: AA | **Beta Casein:** A2/A2

CDCB, Official Breed Assoc Data, 8/2018

Controller: ABS Global

Dam: Wa-Del Massey Belinda-ET VG-85

PRODUCTION

Dtrs: 0 | **Herds:** 0 | **NM$:** +722 | **TPI®:** +2645

Milk	+2116 lbs	80% Rel
Protein	+67 lbs	+0.01%
Fat	+65 lbs	-0.05%
Cheese Merit $	+733	
Grazing Merit $	+718	
Fluid Merit $	+703	

HEALTH & FERTILITY

Productive Life	+4.1	77% Rel
Livability	-0.2	71% Rel
Daughter Pregnancy Rate	+2.7	75% Rel
Somatic Cell Score	2.78	78% Rel
Heifer Conception Rate	+2.0	73% Rel
Cow Conception Rate	+3.7	75% Rel
Recessives and Haplotypes	HH1T, HH2T, HH3T, HH4T, HH5C, TC, TD, TL, TN, TV, TY	

CALVING TRAITS

Sire Calving Ease	6.9%	99% Rel	6939 Obs
Daughter Calving Ease	4.7%	76% Rel	
Sire Stillbirths	7.0%	97% Rel	6218 Obs
Daughter Stillbirths	5.8%	72% Rel	

CONFORMATION

Dtrs: 0 | **Herds:** 0 | **Rel:** 80%

	-2 -1 0 1 2		
Type		2.05	
Udder Composite		1.93	
Feet & Legs Composite		1.26	
Body Composite		0.82	
Stature		0.82	**Tall**
Strength		1.47	**Strong**
Body Depth		1.12	**Deep**
Angularity		1.29	**Open**
Rump Angle		-0.24	**High Pins**
Thurl Width		0.53	**Wide**
Rear Legs-Side View		-1.30	**Straight**
Rear Legs-Rear View		1.53	**Straight**
Foot Angle		1.37	**Steep**
Feet & Legs Score		1.22	**High**
Fore Udder Attachment		2.23	**Strong**
Rear Udder Height		3.02	**High**
Rear Udder Width		2.78	**Wide**
Udder Cleft		0.94	**Strong**
Udder Depth		0.75	**Shallow**
Front Teat Placement		0.81	**Close**
Rear Teat Placement		0.48	**Close**
Teat Length		-0.10	**Short**

MIXER

29HO18405 ABS MIXER-ET

Appendix D

PEDIGREE :

TRENTON x BALISTO x O-STYLE

SIRE: S-S-I STERLING TRENTON-ET

DAM: BACON-HILL BALISTO MOLLY-ET

MGS: DE-SU 11236 BALISTO-ET

MGD: BACON-HILL OSTYL MONIQUE-ET

MGGS: CO-OP O-STYLE OMAN JUST-ET

REAL WORLD DATA :

Bull Fertility: ★★ 4466 Obs

TransitionRight: ★★★★★

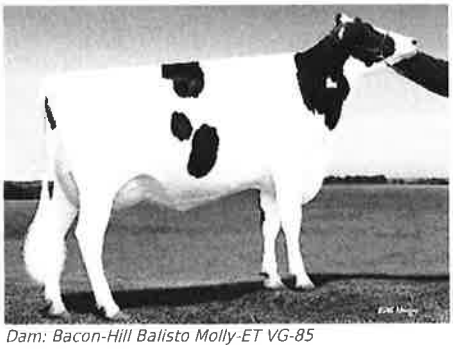
Reg. NO: 003128557644 | **99%** | **EFI:** 7.9%

Born: 02/20/2016 | **aAa:** 423 | **DMS:**

Kappa Casein: BB | **Beta Casein:** A1/A2

CDCB, Official Breed Assoc Data, 8/2018

Controller: ABS Global



Dam: Bacon-Hill Balisto Molly-ET VG-85

PRODUCTION

Dtrs: 0 | **Herds:** 0 | **NM$:** +842 | **TPI®:** +2695

Milk	+696 lbs	79% Rel
Protein	+55 lbs	+0.12%
Fat	+66 lbs	+0.14%
Cheese Merit $	+904	
Grazing Merit $	+804	
Fluid Merit $	+713	

HEALTH & FERTILITY

Productive Life	+7.6	74% Rel
Livability	+4.4	67% Rel
Daughter Pregnancy Rate	+2.6	74% Rel
Somatic Cell Score	2.71	77% Rel
Heifer Conception Rate	+3.2	68% Rel
Cow Conception Rate	+4.3	74% Rel
Recessives and Haplotypes	HH1T, HH2T, HH3T, HH4T, HH5T, TC, TD, TL, TN, TV, TY	

CALVING TRAITS

Sire Calving Ease	7.9%	94% Rel	562 Obs
Daughter Calving Ease	5.1%	67% Rel	
Sire Stillbirths	7.2%	87% Rel	656 Obs
Daughter Stillbirths	5.3%	62% Rel	

CONFORMATION

Dtrs: 0 | **Herds:** 0 | **Rel:** 78%

Type	1.63	
Udder Composite	1.79	
Feet & Legs Composite	1.75	
Body Composite	-0.20	
Stature	0.15	**Tall**
Strength	0.12	**Strong**
Body Depth	-0.13	**Shallow**
Angularity	0.90	**Open**
Rump Angle	-1.25	**High Pins**
Thurl Width	0.66	**Wide**
Rear Legs-Side View	0.22	**Curved**
Rear Legs-Rear View	1.55	**Straight**
Foot Angle	1.32	**Steep**
Feet & Legs Score	1.68	**High**
Fore Udder Attachment	2.06	**Strong**
Rear Udder Height	2.24	**High**
Rear Udder Width	2.06	**Wide**
Udder Cleft	0.68	**Strong**
Udder Depth	1.25	**Shallow**
Front Teat Placement	0.78	**Close**
Rear Teat Placement	0.89	**Close**
Teat Length	-0.32	**Short**

TORQUE

29HO18634 BUSH-BROS TORQUE-ET

Appendix D

PEDIGREE :

SKYFALL x FAIRFAX x SUPERSIRE

SIRE: DE-SU 12693 SKYFALL-ET

DAM: BUSH-BROS FAIRFAX 5290

MGS: BUSH-BROS MOG FAIRFAX-ET

MGD: BUSH-BROS SUPERSIRE 4624-ET

MGGS: SEAGULL-BAY SUPERSIRE-ET

REAL WORLD DATA :

TransitionRight: ★★★★★

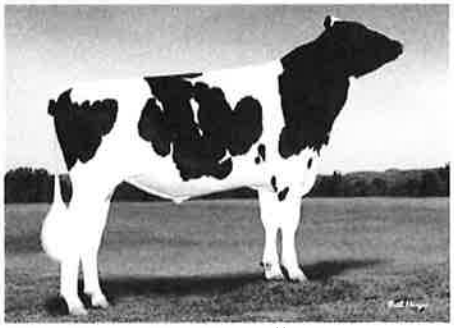
Reg. NO: 3135669665 | **98%** | **EFI:** 7.9%

Born: 09/24/2016 | **aAa:** 432 | **DMS:**

Kappa Casein: BE | **Beta Casein:** A1/A2

CDCB, Official Breed Assoc Data, 8/2018

Controller: ABS Global



bull: 29HO18634 Bush-Bros TORQUE-ET

PRODUCTION

Dtrs: 0 | **Herds:** 0 | **NM$:** +953 | **TPI®:** +2714

Milk	+1303 lbs	77% Rel
Protein	+49 lbs	+0.03%
Fat	+92 lbs	+0.15%
Cheese Merit $	+981	
Grazing Merit $	+903	
Fluid Merit $	+903	

HEALTH & FERTILITY

Productive Life	+7.9	72% Rel
Livability	+4.6	65% Rel
Daughter Pregnancy Rate	+2.8	71% Rel
Somatic Cell Score	2.49	74% Rel
Heifer Conception Rate	+1.8	65% Rel
Cow Conception Rate	+4.0	70% Rel
Recessives and Haplotypes	HH1T, HH2T, HH3T, HH4T, HH5T, TC, TD, TL, TN, TR, TV, TY	

CALVING TRAITS

Sire Calving Ease	7.2%	62% Rel	0 Obs
Daughter Calving Ease	3.0%	55% Rel	
Sire Stillbirths	6.5%	58% Rel	
Daughter Stillbirths	3.0%	53% Rel	

CONFORMATION

Dtrs: 0 | **Herds:** 0 | **Rel:** 73%

Type	0.67	
Udder Composite	1.14	
Feet & Legs Composite	0.69	
Body Composite	-0.53	
Stature	0.18	**Tall**
Strength	-0.66	**Frail**
Body Depth	-1.00	**Shallow**
Angularity	-0.12	**Tight**
Rump Angle	0.66	**Sloped**
Thurl Width	-0.40	**Narrow**
Rear Legs-Side View	-0.67	**Straight**
Rear Legs-Rear View	0.42	**Straight**
Foot Angle	0.43	**Steep**
Feet & Legs Score	0.75	**High**
Fore Udder Attachment	1.17	**Strong**
Rear Udder Height	1.36	**High**
Rear Udder Width	1.25	**Wide**
Udder Cleft	0.45	**Strong**
Udder Depth	1.59	**Shallow**
Front Teat Placement	0.33	**Close**
Rear Teat Placement	0.07	**Close**
Teat Length	-1.16	**Short**

YODA

29HO18545 CAL-ROY-AL YODA-ET

Appendix D

PEDIGREE :

JEDI x YODER x HEADLINER

SIRE: S-S-I MONTROSS JEDI-ET

DAM: CAL-ROY-AL JENNIE 4713-ET

MGS: WOODCREST MOGUL YODER-ET

MGD: HOL-STAR LINER TER0KA-ET

MGGS: SEAGULL-BAY HEADLINER-ET

REAL WORLD DATA :

TransitionRight: ★★★★

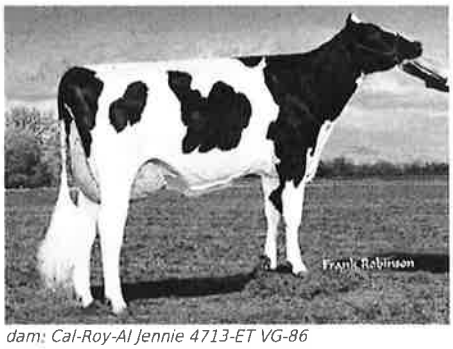
Reg. NO: 003138277108 | **99%** | **EFI:** 8.1%

Born: 09/09/2016 | **aAa:** 213 | **DMS:** 345,135

Kappa Casein: BB | **Beta Casein:** A1/A2

CDCB, Official Breed Assoc Data, 8/2018

Controller: ABS Global



dam: Cal-Roy-Al Jennie 4713-ET VG-86

PRODUCTION

Dtrs: 0 | **Herds:** 0 | **NM$:** +953 | **TPI®:** +2826

Milk	+2022 lbs	79% Rel
Protein	+75 lbs	+0.05%
Fat	+96 lbs	+0.07%
Cheese Merit $	+981	
Grazing Merit $	+888	
Fluid Merit $	+896	

HEALTH & FERTILITY

Productive Life	+6.3	73% Rel
Livability	+1.4	66% Rel
Daughter Pregnancy Rate	+1.5	73% Rel
Somatic Cell Score	2.78	77% Rel
Heifer Conception Rate	+0.8	70% Rel
Cow Conception Rate	+3.5	72% Rel
Recessives and Haplotypes	HH1T, HH2T, HH3T, HH4T, HH5C, TC, TD, TL, TN, TR, TV, TY	

CALVING TRAITS

Sire Calving Ease	7.9%	74% Rel	74 Obs
Daughter Calving Ease	4.4%	67% Rel	
Sire Stillbirths	7.0%	64% Rel	72 Obs
Daughter Stillbirths	4.0%	62% Rel	

CONFORMATION

Dtrs: 0 | **Herds:** 0 | **Rel:** 78%

Type	2.10	
Udder Composite	2.17	
Feet & Legs Composite	1.03	
Body Composite	0.44	
Stature	1.10	**Tall**
Strength	1.00	**Strong**
Body Depth	0.76	**Deep**
Angularity	1.49	**Open**
Rump Angle	0.13	**Sloped**
Thurl Width	0.62	**Wide**
Rear Legs-Side View	-1.70	**Straight**
Rear Legs-Rear View	1.27	**Straight**
Foot Angle	1.27	**Steep**
Feet & Legs Score	1.10	**High**
Fore Udder Attachment	2.30	**Strong**
Rear Udder Height	3.48	**High**
Rear Udder Width	3.20	**Wide**
Udder Cleft	0.47	**Strong**
Udder Depth	1.48	**Shallow**
Front Teat Placement	0.09	**Close**
Rear Teat Placement	0.17	**Close**
Teat Length	-0.18	**Short**

COW PAGE DHI-103 | Test Date: **08-15-2018** Processed: **08-17-2018** | **42-77-0074** I O STATE DAIRY | Appendix E | String 1

Barn Name	Index
10152	**10152**

Breed	Country	Identification	Birth Date	Body Wt.	Inbrd. Coef.	DCR Milk
HO	USA	72753173 984000001156145	09-01-14	1330	5.6	

Predicted Transmitting Ability								Estimated Relative Producing Ability			
Milk	%Fat	Fat	%Pro	Pro	$	%Rel	%Rank	Milk	Fat	Pro	$
+803	-.07	+10	+.02	+30	+332	52	78	+910	-65	+21	+13

Test Day Data												
Lact No.	2								Calving Date	09-24-17		
DIM	32	67	109	144	179	221	256	292				
Milk	114	111	79	92	81	63	44	42				
Fat %	3.5	3.4	2.6	2.8	2.8	2.7	3.3	4.2				
Pro %	2.7	3.3	3.3	3.3	3.3	3.3	3.1	3.7				
SCC	81	15	174	214	2599	246	123	348				

Sire — HAMMER-CREEK OB KEYBOARD-ET

Breed	Country	Identification	AI Code / Name	Inbrd
HO	USA	69708807	501HO10814 KEYBRD*CD	5.5

PTA	Milk	%Fat	Fat	%Pro	Pro	$	%Rel	%Rank
	+1208	-.21	-14	-.01	+35	+354	99	31

Dam

Breed	Country	Identification	Barn Name / Index	Inbrd
HO	USA	71588986 984000001156168	9362	4.8

PTA	Milk	%Fat	Fat	%Pro	Pro	$	%Rel	%Rank
	-79	+.23	+60	+.08	+19	+400	82	86

MGS — BOMAZ ALTAPHONIC-ET

Breed	Country	Identification	AI Code / Name	Inbrd
HO	USA	68886414	11HO10997 PHONIC	5.2

PTA	Milk	%Fat	Fat	%Pro	Pro	$	%Rel	%Rank
	+1044	+.14	+79	+.06	+49	+534	99	54

Lact No.	Test Plan	Calving Date	Age at Calving	Days Dry	Days Open	NO. BR.	305 Day Lactation Milk	% Fat	Fat	% Pro	Pro	Days 3X	Complete Lactation DIM	Milk	Fat %	Fat	Pro %	Pro	CAR	ME Lactation Milk	Fat	Pro	Herdmate Deviation Milk	Fat	Pro
1	2	09-30-16	2-00		76	1						268	291	25,351	3.1	786	3.1	790		30,494	933	921	+4889	-19	+117
2	2	09-24-17	3-00	68	113	1	24,167	3.2	767	3.2	778	283	318	24,664	3.2	788	3.2	796		25,373	803	793	-2160	-175	-55
LIFETIME		2 Number of Lactations			100 Reproductive Efficiency		71 Average Milk/Day						609 Totals	50,015	3.1	1574	3.2	1586		27,934 Averages	868	857	+1365	-97	+31

* Dry thru Test Date: 08-15-18
Dried on 08-08-18
Number of Breedings = 2
Last Bred 01-15-18 To 734HO00082 HO Preg
Prev Bred 12-04-17 To 1HO11985 HO

Barn Name 10152 Index 10152

Barn Name	10152	Index Number	10152	Identification	72753173

COW PAGE DHI-103 | Test Date: **08-15-2018** Processed: **08-17-2018** | **42-77-0074** **I O STATE DAIRY** | **Appendix E** | String 1

Barn Name	Index
10265	**10265**

Breed	Country	Identification	Birth Date	Body Wt.	Inbrd. Coef.	DCR Milk
HO	**USA**	**74086935** **984000001157700**	**12-16-14**	**1330**	**9.6**	

Predicted Transmitting Ability								Estimated Relative Producing Ability			
Milk	%Fat	Fat	%Pro	Pro	$	%Rel	%Rank	Milk	Fat	Pro	$
+482	**-.03**	**+11**	**+.04**	**+25**	**+312**	**52**	**75**	**-197**	**-22**	**+51**	**-11**

Test Day Data					Lact No.		2	Calving Date			11-02-17	
DIM	**28**	**70**	**105**	**140**	**182**	**217**	**253**					
Milk	**104**	**101**	**100**	**95**	**91**	**87**	**76**					
Fat %	**4.5**	**3.0**	**2.9**	**3.0**	**2.5**	**3.6**	**3.6**					
Pro %	**3.3**	**3.4**	**3.5**	**3.6**	**3.3**	**3.5**	**3.6**					
SCC	**17**	**54**	**35**	**38**	**38**	**23**	**44**					

Sire

Breed	Country	Identification	AI Code / Name	Inbrd
HO	**USA**	**69908769**	**1HO10853 YATES**	**6.7**

CO-OP RB SMRK YATES-ET

PTA	Milk	%Fat	Fat	%Pro	Pro	$	%Rel	%Rank
	+707	**+.01**	**+30**	**+.02**	**+26**	**+604**	**96**	**68**

Dam

Breed	Country	Identification	Barn Name / Index	Inbrd
HO	**USA**	**70340928** **984000001159258**	**8924** **8924**	**5.3**

PTA	Milk	%Fat	Fat	%Pro	Pro	$	%Rel	%Rank
	+16	**-.08**	**-20**	**+.02**	**+7**	**-87**	**84**	**7**

MGS

Breed	Country	Identification	AI Code / Name	Inbrd
HO	**USA**	**66183739**	**76HO00616 ESTEEM**	**5.8**

WABASH-WAY ESTEEM-ET

PTA	Milk	%Fat	Fat	%Pro	Pro	$	%Rel	%Rank
	+1065	**-.08**	**+18**	**-.03**	**+24**	**+228**	**98**	**20**

Lact No.	Test Plan	Calving Date	Age at Calving	Days Dry	Days Open	NO. BR.	305 Day Lactation Milk	% Fat	Fat	% Pro	Pro	Days 3X	Complete Lactation DIM	Milk	Fat %	Fat	Pro %	Pro	CAR	ME Lactation Milk	Fat	Pro	Herdmate Deviation Milk	Fat	Pro
1	**2**	**10-28-16**	**1-10**		**97**	**1**	**21,005**	**3.7**	**783**	**3.5**	**731**	**313**	**313**	**21,525**	**3.7**	**802**	**3.5**	**749**		**24,381**	**905**	**844**	**-1201**	**-22**	**+41**
2	**2**	**11-02-17**	**2-10**	**57**	**63**	**2**						**279**	**279**	**25,675**	**3.4**	**866**	**3.5**	**895**		**28,017**	**946**	**964**	**+611**	**-44**	**+113**
LIFETIME		**2** Number of Lactations		**106** Reproductive Efficiency			**73** Average Milk/Day						**592**	**47,200** Totals	**3.5**	**1668**	**3.5**	**1644**		**26,199**	**926**	**904** Averages	**-295**	**-33**	**+77**

* Dry thru Test Date: 08-15-18
Dried on 08-08-18
Number of Breedings = 1
Last Bred 01-04-18 To 1HO12409 HO Preg

Barn Name **10265** Index **10265**

Barn Name	10265	Index Number	10265	Identification	74086935

COW PAGE DHI-103

Test Date: **08-15-2018**
Processed: **08-17-2018**

42-77-0074
I O STATE DAIRY

Appendix E

String 1

Barn Name	Index
10276	**10276**

Breed	Country	Identification	Birth Date	Body Wt.	Inbrd. Coef.	DCR Milk
HO	**USA**	**74086946** **984000001157620**	**12-23-14**	**1330**	**6.7**	

Predicted Transmitting Ability								Estimated Relative Producing Ability			
Milk	%Fat	Fat	%Pro	Pro	$	%Rel	%Rank	Milk	Fat	Pro	$
+749	**-.04**	**+16**	**+.02**	**+28**	**+338**	**51**	**79**	**+1185**	**-26**	**+28**	**+166**

Test Day Data					Lact No.		2		Calving Date		10-23-17	
DIM	**3**	**38**	**80**	**115**	**150**	**192**	**227**	**263**				
Milk	**TF**	**124**	**118**	**123**	**105**	**73**	**63**	**56**				
Fat %		**3.8**	**2.9**	**2.5**	**2.5**	**3.3**	**3.5**	**3.5**				
Pro %		**3.0**	**3.0**	**3.1**	**3.2**	**3.4**	**3.0**	**3.0**				
SCC		**17**	**31**	**93**	**54**	**246**	**2986**					

Sire

CO-OP RB SMRK YATES-ET

Breed	Country	Identification	AI Code / Name	Inbrd
HO	**USA**	**69908769**	**1HO10853 YATES**	**6.7**

PTA	Milk	%Fat	Fat	%Pro	Pro	$	%Rel	%Rank
	+707	**+.01**	**+30**	**+.02**	**+26**	**+604**	**96**	**68**

Dam

Breed	Country	Identification	Barn Name / Index	Inbrd
HO	**USA**	**70341022** **984000001159327**	**9018** **9018**	**4.7**

PTA	Milk	%Fat	Fat	%Pro	Pro	$	%Rel	%Rank
	+660	**-.08**	**+2**	**+.02**	**+26**	**+59**	**82**	**24**

MGS

MR REGELCREEK SHOT AL-ET

Breed	Country	Identification	AI Code / Name	Inbrd
HO	**USA**	**53557278**	**7HO10176 AL**	**7.7**

PTA	Milk	%Fat	Fat	%Pro	Pro	$	%Rel	%Rank
	+8	**+.13**	**+35**	**+.06**	**+17**	**+355**	**99**	**31**

Lact No.	Test Plan	Calving Date	Age at Calving	Days Dry	Days Open	NO. BR.	305 Day Lactation Milk	% Fat	Fat	% Pro	Pro	Days 3X	Complete Lactation DIM	Milk	Fat %	Fat	Pro %	Pro	CAR	ME Lactation Milk	Fat	Pro	Herdmate Deviation Milk	Fat	Pro
1	**2**	**11-13-16**	**1-10**		**74**	**1**						**290**	**290**	**22,481**	**3.4**	**762**	**3.1**	**695**		**26,888**	**913**	**838**	**+2021**	**-18**	**+49**
2	**2**	**10-23-17**	**2-10**	**54**	**66**	**1**						**277**	**277**	**26,582**	**3.2**	**845**	**3.1**	**834**		**29,062**	**919**	**883**	**+1535**	**-61**	**+34**
LIFETIME		**2** Number of Lactations		**106** Reproductive Efficiency			**79** Average Milk/Day						**567**	**49,063** Totals	**3.3**	**1607**	**3.1**	**1529**		**27,975** Averages	**916**	**861**	**+1778**	**-40**	**+41**

* Dry thru Test Date: 08-15-18
Dried on 07-27-18
Number of Breedings = 1
Last Bred 12-28-17 To 1HO13359 HO Preg

Barn Name **10276** Index **10276**

Barn Name	10276	Index Number	10276	Identification	74086946

COW PAGE DHI-103

Test Date: **08-15-2018**
Processed: **08-17-2018**

42-77-0074
I O STATE DAIRY

Appendix E

String 1

Barn Name	Index
10680	**10680**

Breed	Country	Identification	Birth Date	Body Wt.	Inbrd. Coef.	DCR Milk
HO	**USA**	**74087350** **984000001156501**	**11-21-15**	**1210**	**5.6**	

Predicted Transmitting Ability								Estimated Relative Producing Ability			
Milk	%Fat	Fat	%Pro	Pro	$	%Rel	%Rank	Milk	Fat	Pro	$
+990	**+.00**	**+36**	**+.03**	**+38**	**+401**	**81**	**86**	**-1816**	**-26**	**-31**	**-402**

Test Day Data					Lact No.		1		Calving Date		10-03-17	
DIM	**23**	**58**	**100**	**135**	**170**	**212**	**247**	**283**				
Milk	**61**	**70**	**66**	**73**	**73**	**74**	**67**	**55**				
Fat %	**4.3**	**4.0**	**3.9**	**3.8**	**3.8**	**2.9**	**4.0**	**4.9**				
Pro %	**3.6**	**3.3**	**3.3**	**3.3**	**3.3**	**3.3**	**3.1**	**3.2**				
SCC	**3200**	**57**	**35**	**66**	**54**	**200**	**93**	**100**				

Sire

COOP MOGUL LAWMAN-ET

Breed	Country	Identification	AI Code / Name	Inbrd
HO	**USA**	**71451889**	**1HO11545 LAWMAN**	**7.9**

PTA	Milk	%Fat	Fat	%Pro	Pro	$	%Rel	%Rank
	+1281	**+.05**	**+61**	**+.08**	**+61**	**+612**	**99**	**69**

Dam

Breed	Country	Identification	Barn Name / Index	Inbrd
HO	**USA**	**65928071** **984000001156160**	**8203**	**5.6**

PTA	Milk	%Fat	Fat	%Pro	Pro	$	%Rel	%Rank
	-82	**+.03**	**+6**	**+.02**	**+2**	**+148**	**84**	**42**

MGS

HONEYCREST RUFFIAN-ET

Breed	Country	Identification	AI Code / Name	Inbrd
HO	**USA**	**132135953**	**11HO07871 RUFFIAN**	**3.8**

PTA	Milk	%Fat	Fat	%Pro	Pro	$	%Rel	%Rank
	+1016	**-.04**	**+26**	**-.01**	**+27**	**+152**	**99**	**16**

Lact No.	Test Plan	Calving Date	Age at Calving	Days Dry	Days Open	NO. BR.	305 Day Lactation Milk	% Fat	Fat	% Pro	Pro	Days 3X	Complete Lactation DIM	Milk	Fat %	Fat	Pro %	Pro	CAR	ME Lactation Milk	Fat	Pro	Herdmate Deviation Milk	Fat	Pro
1	**2**	**10-03-17**	**1-10**		**76**	**1**						**265**	**303**	**20,223**	**3.9**	**791**	**3.3**	**672**		**23,926**	**930**	**789**	**-3631**	**-51**	**-61**
LIFETIME		**1** Number of Lactations			**109** Reproductive Efficiency				**67** Average Milk/Day				**303**	**20,223**	**3.9**	**791**	**3.3**	**672**		**23,926**	**930**	**789**	**-3631**	**-51**	**-61**
													Totals							Averages					

* Dry thru Test Date: 08-15-18
Dried on 08-02-18
Number of Breedings = 1
Last Bred 12-18-17 To 1HO13323 HO Preg

Barn Name **10680** Index **10680**

Barn Name	10680	Index Number	10680	Identification	74087350

2018 Iowa FFA Dairy Cattle Evaluation CDE Key

Test Key

1. B
2. B
3. D
4. A
5. B
6. D
7. A
8. D
9. C
10. D
11. C
12. B
13. A
14. C
15. B
16. D
17. C
18. C
19. D
20. A
21. C
22. D
23. A
24. D
25. C

DHIA Questions

26. D
27. D
28. D
29. A
30. B

Dairy Management

31. A
32. B
33. B
34. A
35. C

Sire Evaluation Questions

36. D
37. B
38. B
39. A
40. B

Pedigree Evaluation

41. C
42. A
43. C
44. B
45. A

46. **Phase E Pedigree Placing**

Placing 2 - 4 - 1 - 3 **Cuts 2- 5- 3**

2- Highest Sire NM$ (196)
4 Consecutive records

4- Sire NM$ (182)
No 2 year old dam record
Similar production with #2

1- High sire NM$(196)
Incomplete 2 year old record low

3- Lowest sire NM$ (-141)
No dam production records
Does have positive show ring winners

47. **Phase F Sire Selection**

Placing 4 - 2 - 3 - 1 **Cuts 5 - 2 - 3**

4- Highest TPI (2826)
Highest combined fat & protein
Strong mammary & feet/leg scores

2- Similar TPI (2693) to #3
High PL (7.9)

3- Similar TPI to #2
Bit higher in combined fat & protein
Lacks in several conformation traits
(strength, body depth, thurl width, leg set)

1- Lowest PL (4.1)
Higher milk
Negative rear leg score

48. **Phase G Culling**

Placing 1 - 4 - 3 - 2 **Cuts 2 - 4 - 3**

1- Mastitis -High SCC
Second lactation records - lower
Low Rep Eff (100)

4- Lowest herdmate deviations - production
Some high SCC
Higher Rep Eff (109)

3- High SCC - Mastitis late in lactation
Rep Eff (106)
High milk protein

2- Low SCC
High Rep Eff 106
Production increase 2nd lactation