

2022 State Fair of Virginia Junior Dairymen's Contest
DHI Questions

Instructions: Use the DHI-202 Herd Summary to answer these 10 multiple-choice questions. Answers must be recorded on your Scantron sheet in the "Exam 2/Team" section. Each question is worth five (5) points for a total of 50 possible points.

- 1. What is the breed of the herd?**
 - A. Ayrshire
 - B. Brown Swiss
 - C. Holstein
 - D. Jersey
- 2. How many cows were in the herd on August 15, 2022?**
 - A. 48
 - B. 164
 - C. 201
 - D. 208
- 3. How much milk did the milking cows produce per day on August 15, 2022?**
 - A. 67.6 pounds
 - B. 82.8 pounds
 - C. 88.6 pounds
 - D. 90.3 pounds
- 4. How many first lactation cows had a calving difficulty score of 4-5 in the past year?**
 - A. 1
 - B. 2
 - C. 4
 - D. 65
- 5. What is the herd's first service conception rate?**
 - A. 33
 - B. 42
 - C. 43
 - D. 47
- 6. What is the herd's rolling yearly herd average for fat percent?**
 - A. 3.0
 - B. 3.1
 - C. 3.5
 - D. 3.9
- 7. What percent of the herd is bred to A.I. genomic tested service sires?**
 - A. 5
 - B. 17
 - C. 70
 - D. 78
- 8. What is the average age at calving of the first lactation cows?**
 - A. 24
 - B. 37
 - C. 44
 - D. 58
- 9. What is the number one reason for cows leaving the herd?**
 - A. Dairy
 - B. Died
 - C. Mastitis
 - D. Reproduction
- 10. What is the average somatic cell count (SCC) for first lactation cows in milk 1-40 days?**
 - A. 168 (168,000 cells/ml)
 - B. 177 (177,000 cells/ml)
 - C. 201 (201,000 cells/ml)
 - D. 368 (368,000 cells/ml)

HERD SUMMARY

DHI-202

Test Date Samples at Lab Processed
08-15-2022 08-16-2022 08-16-2022

Non-Traditional Breed HO Type Test DHI-APCS Assoc. Supv. String

Production, Income & Feed Cost Summary

	Daily Average per Cow on Test Day		Rolling Yearly Herd Averages			
	Number	%	Number	%		
Total Cows	201		208			
Cows in Milk	164	82	182	88		
Milk Lbs (All Cows)	67.6		28207			
Fat Lbs (All Cows)	2.37		1091			
Fat %	3.5		3.9			
Protein Lbs (All Cows)	2.03		877			
Protein %	3.0		3.1			
Milk Lbs (Milking Cows)	82.8					
	Milking Cows	All Cows				
Silage	Lbs Consumed					
	75	66				
Other Succulents or Blended Rations	Lbs Consumed					
	22	20				
Dry Forage	Lbs Consumed					
		2				
Other Feeds	Lbs Consumed					
	37	32				
Pasture	NO	NO				
Concentrates	Lbs Consumed					
Cost of Concentrates \$						
Total Feed Cost \$	6.69	5.89				
Income Over Feed Cost \$	14.53	11.42				
Feed Cost per CWT Milk \$	8.32	8.98				
Value of Product \$	21.22	17.31	6536			
Milk Blend Price	Per CWT	% Fat	% Pro	Per CWT	% Fat	% Pro
	27.60	4.0		24.36	4.0	

Reproductive Summary Of Current Breeding Herd

Total Cows Breeding Herd	Voluntary Waiting Period (VWP)	Days to 1st Service	Cows With No Service Dates or Diag. Open			Cows Bred But Not Diag. Preg.			
			Open VWP to 100 Days	Open Over 100 Days	Number Diag. Open	Days Open at Last Service			
						Under VWP	VWP to 100 Days	101 to 130 Days	Over 130 Days
48	50	76	10	3	2				
			Number Cows				13	7	15
			% of Breeding Herd				27	15	31

Reproductive Summary Of Total Herd

	Days Open at 1st Service			Avg. Days to 1st Service	Services per Pregnancy		Projected Minimum		Service or Heat Interval		Services for Past 12 Months			
	Number Under VWP	Number VWP to 100	Number Over 100		Preg. Cows	All Cows	Calving Interval	Days Open	Interval Length	Number Intervals	Service Number	Number Services	Conception Rate	Service Sire Merit \$
1st Lact		44	2	74	1.7	2.1	12.4	96	< 18	4	1st	190	47	+586
2nd Lact		41	4	76	2.0	2.9	13.3	123	18 - 24	87	2nd	94	43	+586
3+ Lacts		49	7	78	2.0	2.8	13.3	125	36 - 48	39	3rd +	102	33	+599
All Lacts		134	13	76	1.9	2.6	13.0	115	Other	94	Total	386	42	+590
% of All 1st Services		91	9		Current Actual Calving Interval		12.5				Abortions	This Test	Past Year	
											Actual	1	3	
											Apparent	1	6	

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	34	1	31		65			1	2	
2+	99	12	63	2	153	4	3	4	2	
Total	133	13	94	2	218	4	3	5	2	

Cows To Be Milking, Dry, Calving By Month

	Sep	Oct	Nov	Dec	Jan	Feb
* Milking	170	181	187	200	205	202
Dry	37	31	25	19	14	21
Cows to Calve	23	20	17	14	11	6
Heifers to Calve	9	11	6	13	7	11

* Assumes 3.2% 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	43	35	24	23	12	34	117
9-09-21	46	33	17	27	12	28	108
10-11-21	52	43	23	37	9	29	94
11-10-21	50	46	18	41	21	24	92
12-10-21	61	49	28	55		17	77
2-02-22	56	47	30	76	43	38	88
3-02-22	54	43	29	35	19	12	97
4-07-22	43	46	20	35	23	15	108
5-12-22	70	37	23	38	29	10	131
6-02-22	51	21	13	19		8	126
7-06-22	63			36	15	25	125
8-15-22	53			33	13	28	110
Averages	54	42	22	39	17	21	105
Totals				432		234	

Miscellaneous Herd Information

	Shipped-Test Day Comparison		Milking Times	Wgh	Spl	
	Test Day	Yearly Avg.				
Sum of Test Day Wts	13183	15804	1st	06:45 PM	N	N
Reported Avg. Daily Bulk Tank Wts	12432	15115	2nd	07:00 AM	Y	Y
% Deviation	+6.0	+4.6	3rd			

Remarks:

Herd Code	Test Date	08-15-2022	Breed	HO	String
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Identification And Genetics (Genetic Data Source: CDCB)

Stage Of Lactation Profile

		Stage of Lactation (Days)						Total or Average
		1 - 40	41 - 100	101 - 199	200 - 305	306 +		
		Number Milking	1st Lact	3	15	9	14	
	2nd Lact	11	7	6	21	6	51	
	3+ Lacts	13	7	15	25	7	67	
	All Lacts	27	29	30	60	18	164	
Average Daily Milk	1st Lact	80	78	79	73	69	76	
	2nd Lact	93	106	92	79	55	84	
	3+ Lacts	98	107	98	78	57	87	
	All Lacts	94	92	91	77	60	83	
% Fat & Pro	1st Lact	% Fat	3.2	3.5	3.4	3.9	4.0	3.6
		% Pro	2.9	2.8	2.9	3.1	3.3	3.0
	2nd Lact	% Fat	3.4	3.1	3.3	3.6	4.3	3.5
		% Pro	3.0	2.7	3.0	3.1	3.7	3.1
	3+ Lacts	% Fat	3.6	3.3	3.7	3.8	3.7	3.7
		% Pro	2.9	2.7	2.8	3.2	3.3	3.0
	All Lacts	% Fat	3.5	3.3	3.5	3.8	4.0	3.6
		% Pro	3.0	2.8	2.9	3.1	3.4	3.0
SCC ACT	1st Lact	368	309	205	86	55	201	
	2nd Lact	72	73	312	144	336	155	
	3+ Lacts	216	29	29	283	120	157	
	All Lacts	177	164	132	188	165	168	
SCC ACT >= 200	Number	7	5	4	15	5	36	
	Percent	26	17	13	25	28	22	

Weighted SCC ACT (Nearest 1,000)

Age Group	Number Animals	Avg. Age (Yr-Mo)	Num. Ident. By		Number ID Changes	No. Animals with Merit \$	Average Merit \$		Herd Merit \$ Option	Genetic Profile of Service Sires						
			Sire	Dam			Animal	Sire		A.I. Progeny Tested	A.I. Genomic Tested	All Other A.I. Bulls	Non A.I. Bulls			
0 - 12	100	0-07	98	100		100	+328	+537	NM							
13+	93	1-07	92	93		93	+273	+481								
Replacements	193	1-01	190	193		193	+301	+510	% of Herd Bred to	78	17		5			
1st Lact	58	2-00	57	58		58	+183	+359	Number of Bulls Used	22	5					
2nd Lact	62	3-01	61	62		62	+175	+353	Average Merit \$	+614	+683	+0	DCR Milk			
3+ Lacts	81	5-04	81	81		81	+42	+156	Avg. Percentile Rank (Net Merit)	59	70		97			
All Lacts	201	3-08	199	201		201	+124	+274	% Identified (Producing Females)				No. Heifers Age Over 30 Months			

Production By Lactation Summary

Lact.	Number of Cows	Avg. Age (Mo)	Peak Milk	Summit Milk	Proj 305 Day ME			Difference From Herdmates			Avg. Body Wt.
					Milk	Fat	Pro	Milk	Fat	Pro	
1st Lact	58	24	91	87	29596	1126	884	-139	+4	-4	1297
2nd Lact	62	37	115	110	32264	1168	960	+2134	+36	+56	1468
3+ Lacts	81	64	126	122	29672	1131	892	-187	+6	-3	1574
All Lacts	201	44	113	108	30421	1140	910	+518	+14	+14	1461

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
1st Lact	76	7	11	4	2
2nd Lact	71	12	6	6	4
3+ Lacts	72	13	11	2	3
All Lacts	73	11	9	4	3
30-Day Herd Production Lost From High SCC					
Milk	10821	Dollars (\$)		2925	

Dry Cow Profile

Lact.	Number Dry Periods	Avg. Days Dry	Number Dry by Days		
			< 40	40-70	> 70
1					
2	62	56	1	61	
3+	80	58	1	74	5
All	142	57	2	135	5

Yearly Summary Of Cows Entered And Left The Herd

Lact.	Cows Entered		Cows Left		Number of Cows Left the Herd									
	Num.	%	Num.	%	Dairy	Low Prod	Repro	Mast	Udder	Feet & Legs	Injury Other	Disease	Died	Not Rptd
1	68	33	17	8	5		2	4	2	2	1		1	
2			13	6	2		3	6	1	1				
3+			50	24		4	15	5	5	4	2	3	12	
All	68	33	80	38	7	4	20	15	8	7	3	3	13	
33 % 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)		150 Day Milk	Test Period Persist. Index	Test Day Averages (All Cows)				Rolling Yearly Herd Average			Somatic Cell Count Summary					MUN	Number Left Herd			
			DIM	Milk			% In Milk	Milk	%Fat	%Pro	Milk	Fat	Pro	% Cows SCC Score						Avg. SCC Linear Score	Wt. Avg. Actual SCC	Died	Sold
			Below 142,000	142,000 283,000			284,000 565,000	566,000 1.13 M	Over 1.13 M														
Test Dropped	36	213	177	76.4	84.0	97	87	66.8	3.9	3.1	26652	1142	845	64	13	9	8	6	2.8	295			4
9-09-21	36	212	163	80.6	86.4	103	83	67.3	3.9	3.1	26667	1136	843	68	12	9	6	5	2.7	253		2	6
10-11-21	32	219	153	81.7	87.4	102	84	69.1	4.0	3.1	26647	1129	838	69	11	10	3	6	2.7	226		2	4
11-10-21	30	214	137	92.2	95.2	109	86	78.8	4.0	3.2	26707	1120	838	81	7	7	4	1	2.0	111			10
12-10-21	30	213	142	90.2	92.5	98	86	77.5	3.9	3.2	26962	1114	846	79	11	6	4	1	2.0	108			4
2-02-22	54	206	147	89.8	91.2	98	92	82.4	4.0	3.2	27277	1106	855	76	12	5	5	3	2.3	171		3	14
3-02-22	28	204	159	96.7	98.3	108	93	89.6	3.7	3.1	27452	1098	859	82	8	6	3	1	1.9	114		1	5
4-07-22	36	206	176	94.1	97.3	100	94	88.6	3.9	3.1	27720	1098	866	82	10	5	2	1	1.9	97		1	1
5-12-22	35	203	192	89.9	95.1	98	90	81.1	3.8	3.1	27950	1101	873	83	5	6	4	2	1.9	125		1	6
6-02-22	21	206	194	92.5	98.7	103	87	80.4	3.8	3.0	28105	1100	878	84	7	3	4	1	1.8	99			1
7-06-22	34	204	187	82.8	90.1	93	84	69.8	3.9	3.0	28205	1098	879	81	8	6	2	2	1.8	102		1	11
8-15-22	40	201	174	82.8	90.3	100	82	67.6	3.5	3.0	28207	1091	877	73	11	9	4	3	2.3	168		2	5
Averages	34	208	166	88.6	93.1	101	87	77.4	3.9	3.1				78	9	7	4	2	2.1	143		13	67

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