

Fall 2019 State FFA Dairy Management Group Activity

To answer the questions below, put the three digits of the "Index" number in the "Identification" part of the answer sheet of contestant 11. Each correct answer is worth 2 points for a total of 20 points.

Lactation Report

- _____ 1. Which cow had the lowest % protein on test day?
- _____ 2. Which dry cow (non-lactating) had the shortest number of days dry to date?
- _____ 3. Which cow calved for the first time at 2 years, two months of age?
- _____ 4. Which cow is due to calve in April?
- _____ 5. Which cow has the highest "Production Index"?
- _____ 6. Which lactating cow had the biggest decrease in lb. milk from last month to this test?
- _____ 7. Which cow has the most days in milk?
- _____ 8. Which cow was most recently fresh?
- _____ 9. Which cow had the longest dry period?
- _____ 10. Which cow has the highest somatic cell count?

Questions from the DHIA Herd Summary (Put answers on Written Exam).

- ___ 21. What % of the pregnant cows conceived at first service?
a. 77% b. 64% c. 50% d. 45%
- ___ 22. In what area did the performance of this herd get poorer for the October test compared to September?
a. SCC b. fat test c. protein test
- ___ 23. What group of animals is bred to the highest genomic Net Merit sires?
a. 1st lactation b. 2nd lactation c. 3rd and later lactations d. yearlings
- ___ 24. Which test month was worst for number of new mastitis infections?
a. January b. May c. July d. April
- ___ 25. What group of animals was sired by the lowest net merit bulls?
a. 1st lactation b. 2nd lactation c. 3rd+ lactations d. yearlings
- ___ 26. What is the average days dry for the herd?
a. 65 b. 56 c. 85 d. 188 e. 154
- ___ 27. What age group of cows is most likely to freshen with a high somatic cell count?
a. 1st lactation b. 2nd lactation c. 3rd+ lactation
- ___ 28. Over the past year, what best describes the trend in rolling herd average milk production?
a. decreased b. remained about the same c. increased greatly
- ___ 29. At this time, what percent of the milking cows are chronically infected (according to "Changes in SCC status")?
a. 22 b. 15 c. 5
- ___ 30. What percent of the cows are dry for the preferred 40-70 days?
a. 13% b. 52% c. 41% d. 83%

Index	Perman ID	Site	Prev Milk	Sample Dry Data					Index	Lact #	Age at Calving	Days Dry	Calving Date	Due Date	Lactation to Date					MES	Prod Index	Remarks
				Milk	Fat %	Pro %	SCC	Feed Cost							DIM	Milk %	Fat %	Pro %	Pro			
201	51478664	253M008008	60	3.1	3.4	2425	201	6	6-10	43	08-13-18	10-31-18	19	835	3.4	3.2	3.9	36	4284	90	V	
202	51478708	11H008784					202	4	4-11	34	08-08-18		357	26382	3.9	1037	2.9	759				
203	51478710	7H011314	106	92	3.0	3.1	78	203	4	5-03	44	01-10-19		285	27811	3.5	975	3.0	838	5041	108	VV
204	51478721	248SR01804	82	64	3.3	3.3	83	204	4	5-03	80	01-11-19	01-04-20	284	25788	3.5	914	2.9	742	4514	95	
205	51478722	248SR01804	68	58	3.1	3.4	325	205	4	5-03	119	01-23-19	01-11-20	252	21630	3.6	772	3.0	646	3944	83	VX
206	51478739	7H008381	70	68	3.8	3.2	76	206	3	4-01	80	12-23-17		648	81165	3.5	2150	2.8	1751	5482	115	D
207	51478742	253M001528	88	88	3.3	3.4	107	207	4	5-02	41	02-04-19		240	23704	3.5	824	3.2	752	4754	100	V
208	51478769	14H005838	78	50	4.0	3.8	373	208	4	5-00	37	01-24-19	01-09-20	251	24811	3.7	821	2.9	711	4484	95	
209	51478772	14H008033	80	70	4.4	3.6	44	209	4	4-10	47	12-03-18	01-04-20	303	30191	3.9	1188	3.0	911	5170	109	
210	51478793	11H009527		52	3.9	3.7	650	210	4	4-11	47	08-24-18		8	318	4.1	13	3.8	12			
211	51478803	248SR02488	80	72	4.2	2.9	152	211	3	4-04	59	03-21-18		195	18850	3.9	655	2.8	478	4088	86	
212	51478805	253M003576		90	3.5	3.2	650	212	4	4-10	38	09-08-18		24	1836	3.9	71	3.6	67			
213	51478810	11H009167		100	3.5	2.8	283	213	4	4-10	40	08-10-18		22	1848	3.9	72	3.0	55			V
214	51478819	28H014335	84	84	2.5	3.1	132	214	3	4-03	59	03-14-18		202	20514	3.8	737	2.9	583	4514	95	
215	51478825	253M001528	64	62	4.1	3.8	35	215	3	3-10	36	10-24-18	02-15-20	343	24847	4.5	1125	3.8	938	4885	99	
216	51478828	248SR02488	84	88	3.4	3.0	23	216	3	4-01	87	03-19-18	04-10-20	197	18173	3.2	617	2.8	548	4373	92	
217	51478848	253M008024	64	58	4.2	3.3	25	217	1	1-11		11-15-18	12-14-18	321	22438	4.0	888	3.1	884	4786	101	
218	51478848	228SR08739	72	68	4.1	3.5	182	218	1	2-01		01-22-18	03-21-20	253	16387	4.2	772	3.1	572	4857	103	
219	51478852	14H008677	62	54	4.6	3.4	47	219	1	2-00		12-03-18		303	21102	4.0	854	2.8	914	4572	97	Y
220	51478853	7H011351	68	66	4.4	3.7	15	220	1	2-00		12-22-18		284	20147	4.6	925	3.4	681	5207	110	
221	51478854	7H011351	88	74	4.3	3.4	71	221	1	1-11	13	11-24-18	11-14-19	289	25020	3.5	870	2.8	690	5086	108	Y
222	51478855	7H011271	74					222	1	1-11		12-02-18		304	24030	4.3	1041	3.1	744	5574	118	
223	51478856	7H011271	64	54	4.4	3.7	3200	223	1	1-11		11-14-18	01-23-20	322	21414	4.2	892	3.4	719	4878	98	
224	51478858	7H011351	72	66	4.5	3.4	71	224	1	1-11		11-20-18	12-21-19	318	24036	4.3	1042	3.0	730	5357	113	
225	51478860	14H008677	60	80	4.1	3.4	66	225	1	1-11		11-17-18	02-28-20	319	21128	4.2	885	3.2	685	4712	99	
226	51478861	7H011351	72	78	4.4	3.7	141	226	1	2-00		12-25-18		281	23083	4.0	820	3.0	680	5404	114	Y
227	51478862	14H008677	66	80	4.4	3.8	25	227	1	1-11		12-13-18	11-28-19	283	22410	3.8	851	3.2	728	5137	108	
228	51478865	7H011351	68	80	3.7	3.3	50	228	1	1-11		12-28-18		278	20388	3.8	744	3.0	812	4830	98	Y
229	51478866	7H011271	80	62	3.2	3.1	819	229	1	1-10		12-09-18		287	28673	3.1	829	2.9	776	5381	114	Y
230	51478867	7H011271	70	68	3.9	3.2	62	230	1	1-11		12-19-18	12-05-19	287	23138	3.6	822	2.8	657	4871	105	
231	51478868	7H011351	72	70	4.3	3.0	246	231	1	2-02		04-04-19	Pose PG	181	13003	4.4	586	2.9	378	4536	96	
232	51478869	7H011351	78	70	4.8	3.7	83	232	1	1-11		01-08-19		289	22145	4.1	916	3.2	710	5758	122	D
233	51478902	14H008677		62	3.2	3.2	141	233	1	2-00		08-21-18		11	512	3.3	17	3.5	18			
234	51478906	7H011271		50	4.8	3.5	528	234	1	2-00		08-25-18		7	252	4.4	11	3.6	9			

Remarks Codes: D = Do Not Breed V = Fat < Protein X = Days Dry > 100 Y = Days Open > 250

Breed
XX
Type Test
40-DH-OS



Herd Summary
Prev. Test
09-04-2019
Test Date
10-01-2019

Service or Heat Intervals (Number)		
< 18 Days	2	
18-24 Days	1	
36-48 Days	39	
Other	30	

Dry Period Summary				
Avg Cows by Days Dry	< 40	40 - 70	> 70	
Days	4	44	5	
	56	8%	83%	9%

Based on 53 Cows

Reproduction Summary		
Breeding Herd	Cows	Hekters
Animals	90	74
Animals Served (%)	82	58
Waiting Period (days or mo)	70	25
First Served (<100 days or 15 mo) (%)	72	46
Time to First Services (days or mo)	86	14
Services per Animal	1.5	2.0
Open Period (<150 days or 17 mo) (%)	42	54
Min Calving Interval (months)	14.0	24.4
Heat Detection Index (%)	35	
Pregnant Animals	Cows	Hekters
Animals	53	40
Conceived at First Service (%)	45	55
Services per Conception	1.8	1.9
Pregnancy Rate (%)	17	
Open Period (days or mo)	119	15
Calving Interval (months)	13.1	
CI - Standard Deviation (months)		24.2

Management Calving Interval = 14.7 Months

Herd Genetic Profile (Source: CDCB)													
Num Bred	Service Sires			Genomic			Group	Animal PTA			Sire PTA		
	%	NMS	% RK	%	NMS	% RK		Num	NMS	% Rank	% AI	NMS	% Rank
43	95	+709	88	5	+906	98	Cows	43	+526	76	100	+789	87
33	76	+794	90	15	+385	92	Yearlings	74	+407	59	100	+545	59
21	90	+851	96	10	+378	92	Lact 1	35	+418	79	75	+594	63
9	100	+626	63		+0		Lact 2	29	+363	69	100	+501	49
63	84	+786	87	11	+383	92	Lact 3+	24	+343	64	100	+428	41
							Cows	88	+380	71	86	+528	54

Yearly SCC Summary			
Lact	% Infected by DIM		
	< 30	30 - 220	> 220
1	19	12	16
2	37	20	19
3+	52	24	34
All	33	17	22

Changes in SCC Status (Distribution of Cows Sampled)			
Annual Fresh vs Dry Off (%)	Chronics	Cures	Chronics
Cures	16	9	5
Negatives	51	23	12

Based on 1135 Samples

Based on 43 Cows Sampled

Based on 76 Cows Sampled

Rolling Herd			Test Day				Date	Quantity			Quality									
Milk	Fat	Pro	All Cows	% In Milk	Milk	% Shipped		Milk Cows	Fresh Cows	DHI	MILK	MILM	% Fat	% Pro	Raw SCC	LS SCC	Number Infections	Fresh Infections	New Infections Number	%
25,437	1000	797	118	84	54	107	10-01-19	99	23	196	64	76	3.9	3.4	287	3.1	22	9	9	9
25,546	1004	799	111	77	55	99	08-04-19	86	8	234	70	85	3.9	3.2	122	2.2	11	1	5	6
25,644	1006	801	107	93	65	103	08-06-19	99		244	70	85	3.8	3.1	176	2.6	18	9	9	9
25,575	987	798	111	98	72	104	07-03-19	109	8	212	73	83	4.1	3.1	173	2.4	14	3	4	4
25,502	982	795	103	98	79	99	08-05-19	101		193	80	87	3.7	3.1	105	2.1	16	8	8	8
25,447	989	793	105	99	79	103	05-06-19	104	12	160	80	83	3.9	3.1	106	2.3	13	1	4	4
25,290	973	787	99	99	85	106	04-03-19	98	7	143	86	85	4.1	3.1	266	2.5	20	1	10	10
25,319	963	786	102	92	78	101	03-06-19	94	2	123	84	82	3.9	3.2	209	2.4	14	2	6	6
25,488	961	792	103	91	78	101	02-05-19	94	11	99	85	83	4.0	3.1	148	2.5	17	3	4	4
25,470	963	794	113	87	71	104	01-08-19	98	20	108	83	83	3.8	3.1	196	2.8	25	6	8	9
25,382	955	795	111	85	66	101	12-04-18	94	26	123	78	83	4.1	3.1	366	3.2	28	5	2	2
25,242	947	792	101	76	59	104	11-06-18	77	25	151	78	84	3.9	3.2	438	3.4	28	6	5	7
Averages >			107	90	70	103		96	12	166	78	83	3.9	3.1	216	2.6	19	3	6	6

2019 U of MN Fall FFA Dairy Judging Contest

1

COW								SIRE				
Comp num	Name	Identification	Birth Date		Code/Name	Identification						
100	Connie	50425868	09/10/13		Labelle	2247421						
GENETIC EVALUATION								GENETIC EVALUATION				
ETA	Milk	%fat	Fat	%prot	Protein	NMS	Rel	Milk	fat	prot	NMS	Rel
ETA	1741	-.01	60	.02	58	273	50	614	.50	33	327	99

Summary of Lactations

Age	Lact Num	305-Day Actual					Complete					305-Day-ME			
		Milk	%fat	Fat	%prot	Protein	DIM	Milk	%fat	Fat	%prot	Protein	Milk	Fat	Protein
2-02	1	19178	3.5	671	3.5	671	305	19178	3.5	671	3.5	671	24931	873	874
3-02	2	24988	3.6	900	2.9	724	335	26237	3.6	945	3.0	760	28740	1035	833
4-03	3	24768	3.6	890	2.9	710	335	26007	3.6	905	3.0	730	28340	1005	803
5-04	4	Projected ME											27001	945	823

2

COW								SIRE				
Comp num	Name	Identification	Birth Date		Code/Name	Identification						
103	Julie	50560440	12/14/13		Mtoto	ITA6001001962						
GENETIC EVALUATION								GENETIC EVALUATION				
ETA	Milk	%fat	Fat	%prot	Protein	NMS	Rel	Milk	fat	prot	NMS	Rel
ETA	835	+.18	79	.03	33	537	48	1045	41	20	456	99

Summary of Lactations

Age	Lact Num	305-Day Actual					Complete					305-Day-ME			
		Milk	%fat	Fat	%prot	Protein	DIM	Milk	%fat	Fat	%prot	Protein	Milk	Fat	Protein
2-00	1	24426	4.0	976	3.1	756	356	26868	4.1	1102	3.1	833	30532	1220	945
3-01	2	26100	4.0	1044	3.0	783	305	26100	4.0	1044	3.0	783	30015	1200	900
4-01	3	27100	4.0	1084	3.0	803	305	27100	4.0	1084	3.0	803	31015	1205	920
5-01	4	Projected ME											29998	1170	930

3

COW								SIRE				
Comp num	Name	Identification	Birth Date		Code/Name	Identification						
111	Vicki	120123999	12/30/13		Lee	CAN 5757117						
GENETIC EVALUATION								GENETIC EVALUATION				
ETA	Milk	%fat	Fat	%prot	Protein	NMS	Rel	Milk	fat	prot	NMS	Rel
ETA	1251	.02	52	-.02	32	276	50	-134	35	8	193	99

Summary of Lactations

Age	Lact Num	305-Day Actual					Complete					305-Day-ME			
		Milk	%fat	Fat	%prot	Protein	DIM	Milk	%fat	Fat	%prot	Protein	Milk	Fat	Protein
2-02	1	22102	3.6	796	3.2	707	335	23655	3.7	875	3.2	757	28732	1035	919
3-03	2	26500	3.5	927	3.0	785	305	26500	3.5	927	3.0	785	30475	1066	904
4-03	3	25500	3.5	907	3.0	765	305	25500	3.5	907	3.0	765	30075	1006	870
5-03	4	Projected ME											30404	1064	888

4

COW								SIRE				
Comp num	Name	Identification	Birth Date		Code/Name	Identification						
107	Cheryl	50560449	12/28/13		Manfred	2183007						
GENETIC EVALUATION								GENETIC EVALUATION				
ETA	Milk	%fat	Fat	%prot	Protein	NMS	Rel	Milk	fat	prot	NMS	Rel
ETA	1427	.16	90	.00	44	533	46	1407	46	43	423	99

Summary of Lactations

Age	Lact Num	305-Day Actual					Complete					305-Day-ME			
		Milk	%fat	Fat	%prot	Protein	DIM	Milk	%fat	Fat	%prot	Protein	Milk	Fat	Protein
1-11	1	22300	4.2	937	3.0	691	305	22300	4.2	937	3.0	691	30105	1264	933
3-00	2	29200	4.1	1197	3.1	905	305	29200	4.1	1197	3.1	905	32456	1330	974
4-00	3	30200	4.1	1237	3.1	945	305	30200	4.1	1237	3.1	945	32756	1350	994
5-01	4	Projected ME											35111	1398	1053

**2019 U of MN Fall Invitational
Dairy Judging Contest
Sire Selection Problem**

Situation:

Semen from the following four bulls is being considered for purchase to breed the 3 year-old cow on the left.

The dairy farmer has a very profitable 600 cow grade herd that averages 28,000 lbs. of milk. Net Merit Dollars is the main criteria that he selects for. If cows have serious linear faults, the farmer likes to find bulls that will correct those faults especially in udders. He prefers the cows that are moderate in size as some cows are too big for the stalls.

COWS TO BE MATED		BULLS TO CONSIDER			
3 YR OLD RECORD	TRAITS	1	2	3	4
3 Yr. 1 MO-ME	REL	98	89	72	89
29,052	PTA:Milk	1229	1460	1411	1039
3.7	F %	.05	+.04	-.11	.07
1075	Fat	59	63	22	56
3.1	P %	.02	.00	.00	.04
900	Protein	40	45	43	42
	Type	1.69	2.65	1.94	1.46
	Somatic Cell Score	2.61	2.80	2.74	2.70
	Productive Life	7.9	4.3	6.4	8.0
	Net Merit \$	818	392	400	807
LINEAR SCORES					
35	Stature	1.57	.92	4.20	.30
20	Angularity	2.38	2.19	.90	-1.20
40	Strength	.45	.09	3.80	.20
33	Body Depth	.09	.61	3.70	.20
20	Pelvic Width	2.32	1.24	.40	.20
25	Pelvic Angle	1.21	.57	-.90	1.40
24	Legs-side view	1.01	1.29	1.70	1.40
25	Foot Angle	1.18	-.11	1.20	1.90
05	Fore Udder	1.34	1.91	1.70	2.60
27	R Udder Height	2.20	1.85	1.72	2.30
32	R Udder Width	3.26	2.07	1.40	2.00
26	Udder Support	2.25	2.62	0.33	2.60
26	Udder Depth	2.82	1.27	2.20	2.20
08	Teat Placement	0.81	1.35	1.40	3.30

Fall 2019 State FFA Dairy Management Group Activity

To answer the questions below, put the three digits of the "Index" number in the "Herd Record" part of the answer sheet of contestant 11. Each correct answer is worth 2 points for a total of 20 points.

Lactation Report

- 213 1. Which cow had the lowest % protein on test day?
221 2. Which dry cow (non-lactating) had the shortest number of days dry to date?
231 3. Which cow calved for the first time at 2 years, two months of age?
216 4. Which cow is due to calve in April?
232 5. Which cow has the highest "Production Index"?
208 6. Which lactating cow had the biggest decrease in lb. milk from last month to this test?
206 7. Which cow has the most days in milk?
234 8. Which cow was most recently fresh?
205 9. Which cow had the longest dry period?
223 10. Which cow has the highest somatic cell count?

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a. 77% b. 64% c. 50% d. 45%
- a 22. In what area did the performance of this herd get poorer for the October test compared to September?
a. SCC b. fat test c. protein test
- d 23. What group of animals is bred to the highest genomic Net Merit sires?
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a. decreased b. remained about the same c. increased greatly
- c 29. At this time, what percent of the milking cows are chronically infected (according to "Changes in SCC status")?
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- d 30. What percent of the cows are dry for the preferred 40-70 days?
a. 13% b. 52% c. 41% d. 83%

2019 U of MN Fall FFA Dairy Judging Contest

This pedigree class is placed 4-2-3-1 with cuts of 4-6-4.

4/2: 4 is slightly higher than 2 for the 305-Day-ME records and is significantly higher for the current projected ME.

2/3: 2 is \$300 higher for NMS and is much higher than 3 for Fat production.

3/1: 3 is higher than 1 for milk, fat, and protein production.

This class of bulls is placed 4-1-2-3 with cuts of 2-4-3.

The scenario is:

1. Select for Net Merit Dollars
2. Correct faults of cow which are wide teat placement and fore udder
3. Does not want very large cows

4 places over 1 for the advantage in teat placement and fore udder. 1 and 4 are about equal in Net Merit \$.

1 places over 2 because of the advantage in Net Merit Dollars which is of most importance. Granted that 2 is slightly higher in teat placement and fore udder.

2 places over 3 because of 2's advantage in siring a more moderate sized cow as 3 is really extreme in siring cows that are plus 4.2 on stature.