

# Head Summary

**Minnesota DHIA**  
 Breed HO  
 Type Test 31-DH MAP  
 Prev. Test 03-11-2016  
 Test Date 04-13-2016  
 Days 33  
 Processed 04-14-2016  
 Herd Summary  
 DHI#02  
 String = HERD  
 FR op = 74BW

2016

Peak and Persistency		Peak and Persistency		Peak and Persistency	
305 ME	Prod Index	Lact	Cows	DM	Peak
Milk	\$ Value	Lact	Cows	DM	DM
30,873	4,134	1	20	214	107
28,089	3,654	2	17	114	71
29,316	3,690	3+	13	171	77
29,593	3,870	A.I.	50	169	91

Peak Milk Lact 1 is shaded yellow if peak ratio (last 60 tests) is < .70  
 (Indicates underperform once versus other cows)  
 Peak Milk Lact 2/3+ are shaded yellow if peak ratio (last 60 tests) is > .85  
 (Indicates underperform once versus younger cows)

305 ME		Peak and Persistency		Peak and Persistency		Peak and Persistency	
Milk	\$ Value	Prod Index	Lact	Cows	DM	Peak	Peak
Milk	\$ Value	Prod Index	Lact	Cows	DM	DM	DM
30,873	4,134	107	1	20	214	107	93
28,089	3,654	94	2	17	114	71	111
29,316	3,690	95	3+	13	171	77	125
29,593	3,870	100	A.I.	50	169	91	104

Peak Ratio (last 60 tests) is 0.79  
 Management Level Milk  
 Annual Summary  
 Days in Milk > 200  
 < 100 85 92 91 97 95 93  
 100-200 62 68 72 94 95 93  
 > 200 88 95 95 93 93 101

305 ME		Peak and Persistency		Peak and Persistency		Peak and Persistency	
Milk	\$ Value	Prod Index	Lact	Cows	DM	Peak	Peak
Milk	\$ Value	Prod Index	Lact	Cows	DM	DM	DM
30,873	4,134	107	1	20	214	107	93
28,089	3,654	94	2	17	114	71	111
29,316	3,690	95	3+	13	171	77	125
29,593	3,870	100	A.I.	50	169	91	104

Peak Ratio (last 60 tests) is 0.79  
 Management Level Milk  
 Annual Summary  
 Days in Milk > 200  
 < 100 85 92 91 97 95 93  
 100-200 62 68 72 94 95 93  
 > 200 88 95 95 93 93 101

305 ME		Peak and Persistency		Peak and Persistency		Peak and Persistency	
Milk	\$ Value	Prod Index	Lact	Cows	DM	Peak	Peak
Milk	\$ Value	Prod Index	Lact	Cows	DM	DM	DM
30,873	4,134	107	1	20	214	107	93
28,089	3,654	94	2	17	114	71	111
29,316	3,690	95	3+	13	171	77	125
29,593	3,870	100	A.I.	50	169	91	104

Peak Ratio (last 60 tests) is 0.79  
 Management Level Milk  
 Annual Summary  
 Days in Milk > 200  
 < 100 85 92 91 97 95 93  
 100-200 62 68 72 94 95 93  
 > 200 88 95 95 93 93 101

Breed HO  
Type Test  
31-DHEAP



**Herd Summary 2016**  
Herb Consultant Summary

Prev. Test 03-31-2016  
Test Date 04-13-2016  
Days 33  
Processed 04-14-2016

DHE302  
Staging - HERD  
FR ep = 74BW

**Herd Genetic Profile (Source: CDCB)**

Num Bred	Progeny Test		Service Sires		Genom ic		Group		Anim alPTRA		Sire PTRA	
	%	NMS	% Rk	%	NMS	% Rk	Num	NMS	% Rank	% AI	NMS	% Rank
20	45	+769	94	50	+693	95	24	+458	85	100	+716	96
18	50	+789	96	44	+748	96	24	+372	78	100	+555	83
9	44	+778	96	56	+650	92	18	+274	84	100	+378	60
8	38	+661	90	62	+716	97	17	+242	78	100	+315	51
35	46	+762	95	51	+712	95	13	+225	77	100	+279	45
							48	+249	80	100	+331	53

**Inventory**

% Head	Group	Age	Num	% Identified	
				Size	Dam
	Calves	0-05	24	100	100
	Yearlings	1-06	24	100	100
	Youngstock	1-00	48	100	100
40	Lact1	2-01	20	100	100
34	Lact2	3-02	17	100	100
26	Lact3+	4-11	13	100	100
	Cows	3-02	50	100	100

**Cows Entering and Leaving Herd**

Num ber Entered	Num ber Left	Reason for Leaving										% Turnover
		Lact	Dairy	Low Milk	Reprd	Sick	Mastitis	Ft/Legs	Died	Other		
19	3	1	1		1				2			6
	9	2	1		1				4			18
	10	3+	1						9			20
19	22	All	1		1				15			44
		Left Herd	5%		18%				68%			

**Reproduction Summary**

Breeding Herd	Anim als	Anim als Served (#)	Waiting Period (days or m o)	First Served (<100 days or 15 m o)	Time to First Services (days or m o)	Services per Animal	Open Period (<150 days or 17 m o)	Min Calving Interval (m onths)	Heat Detection Index (#)	Cows		Heifers	
										34	13.6	17	18
										44	24	83	12
										80	62	45	58
										62	45	93	14
										2.1	2.1	1.5	1.5
										18	18	75	24.7
										34	34	17	18
										17	17	41	67
										2.6	2.6	1.5	1.5
										11	11	16	16
										157	157	14.4	24.8
										14.4	14.4		

**Monthly Herd Turnover**

	History												Panning													
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
Total Cows	52	54	51	52	52	50	49	48	48	52	55	56	58	42	43	44	45	46	47	48	49	50	51	52	53	54
Cows Milkng	42	50	45	41	46	49	48	46	46	50	48	46	46	42	43	44	45	46	47	48	49	50	51	52	53	54
Heifers Calving	1	3	1	1	2	6	6	1	1	5	4	2	3	1	1	1	1	1	1	1	1	1	1	1	1	1
Cows Calving	2	7	3	2	5	1	2	2	2	2	1	4	8	2	2	2	2	2	2	2	2	2	2	2	2	2
Cows Dried Off	5	1	5	7	6	1	1	2	2	3	5	7	10	5	5	5	5	5	5	5	5	5	5	5	5	5
Cows Dry	10	4	6	11	6	1	1	2	2	3	7	10	12	10	10	10	10	10	10	10	10	10	10	10	10	10
Cows Left	2	1	4	2	2	2	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	

**% Left Non-Dairy by 60 DM**

Lact	1 M onth	3 M onths	6 M onths	12 M onths
1	0	0	0	0
2	0	0	9	7
3+	0	0	0	0
All	0	0	4	2

**Birth Summary**

Dams Lact Num	Males		Females		Calving Difficulty Score				
	Alive	Dead	Alive	Dead	1	2	3	4 & 5	6 & 7
1	11		6	2					
2+	17		19	2	1				
Total	28		25	4	36	1			

**Service or Heat Intervals (Num ber)**

< 18 Days	12
18-24 Days	9
36-48 Days	19
Other	

Management Calving Interval = 13.0 M onths



**LACTATION**  
Prey-Test Test Data  
03-11-2016 04-13-2016

Processed  
04-14-2016

2016

Index	Brd	Permanent ID	Sire	Prev Milk	Sample Day Data					Index	Lot #	Age at Calving	Days Dry	Calving Date	Due Date	Lactation to Date						Prod Index	Remarks	
					Milk	% Fat	% Pro	SOC	Inc Over Feed Cost							DIM	Milk	% Fat	% Pro	Fat	Pro			ME\$
201	HO	71616553	14HO06428	116	114	3.6	3.1	20	13.04	201	2	3-01	57	02-05-16		69	7222	3.9	282	3.2	228	5221	96	
202	HO	69155134	7HO10849	98	127	3.1	2.9	13	14.28	202	3	4-03	57	03-02-16		43	4566	3.9	176	3.1	140	4865	91	
203	HO	71616554	1HO10245	77	83	4.5	3.4	14	9.06	203	1	2-00		07-07-15	10-30-16	262	22762	4.2	947	3.1	715	6181	116	
204	HO	71616572	14HO06429	79	81	4.3	3.7	13	8.68	204	1	2-00		09-27-15	10-21-16	200	14563	4.3	826	3.4	487	5418	102	
205	HO	69155086	14HO05880	96	94	3.8	3.4	18	-4.77	205	4	4-09	38	01-07-15	05-08-16	424	34320	3.9	1343	3.5	1214	5251	96	
206	HO	71616560	1HO08527	112	94	3.8	2.9	373	10.08	206	1	2-04		08-16-15	08-29-16	242	21960	3.8	801	3.1	686	6227	117	
207	HO	71616543	14HO05639	71	79	3.6	3.2	19	8.06	207	2	3-04	52	01-30-16		75	7448	4.4	330	3.2	236	4690	86	
208	HO	71616595	14HO05560	83	108	3.2	2.6	23	11.91	208	1	1-11		02-20-16		54	3718	3.9	144	3.3	123	4706	86	
209	HO	71616544	7HO10806	83	88	5.1	2.9	13	11.34	209	2	3-08	56	03-17-16		28	2367	5.7	135	3.3	78		86	
210	HO	71616555	11HO10579	83	108	3.2	2.6	23	11.91	210	2	3-02	46	02-27-16		47	4176	3.8	158	3.1	131	4683	86	
211	HO	71616550	1HO10245	96	83	3.4	3.2	44	6.23	211	2	2-11	63	11-19-15	Poss PG	147	12569	3.6	454	2.9	361	4511	85	Y
212	HO	69155157	7HO08417	91	88	3.9	3.6	666	8.79	212	5	8-08	61	05-28-15		322	35158	3.4	1165	3.2	1110	6007	113	Y
213	HO	71616595	14HO06429	118	96	3.0	3.3	44	10.39	213	1	2-00		07-28-15	Poss PG	263	25777	3.8	960	3.2	829	7162	134	V
214	HO	71616574	28HO13865	85	83	3.9	3.5	13	8.83	214	1	1-11		08-08-15	08-02-16	250	18774	3.9	724	3.4	641	5616	109	
215	HO	71616552	1HO10245	92	82	3.1	2.6	41	9.45	215	2	3-02	57	02-21-16	11-18-16	53	4624	3.8	178	2.8	131	4105	77	
216	HO	71616577	1HO10218	89	85	3.8	3.3	31	9.09	216	1	2-00		11-04-15		162	12321	4.1	509	3.3	401	5259	99	
217	HO	71616596	28HO13865	94	96	3.4	3.1	460	10.89	217	1	1-11		07-04-15	10-21-16	285	26187	3.6	948	3.0	779	6451	121	
218	HO	71616581	28HO14788	85	81	4.1	3.4	44	8.60	218	1	2-04		09-13-15	11-28-16	214	14983	3.8	564	3.3	499	4822	90	
219	HO	69155116	7HO10011	63	61	5.4	4.0	187	5.09	219	3	4-02	58	02-18-15	10-07-16	421	35721	4.3	1547	3.3	1174	5136	96	
220	HO	69155136	1HO10000		118	4.0	2.7	23	13.47	220	3	4-02	52	03-12-16		33	3427	4.5	154	3.0	103			
221	HO	71616557	7HO09173	87	106	3.9	2.8	14	11.98	221	2	3-02	61	03-23-16	Poss PG	22	1959	4.3	85	3.2	63			
222	HO	71616575	14HO06429	87	114	3.7	2.9	54	13.49	222	1	2-03		01-01-16		104	9825	4.0	382	2.8	271	5746	108	
223	HO	71616554	28HO13363	83	114	3.3	2.8	13	12.97	223	2	3-02	54	03-04-16		41	3918	3.8	147	3.1	121	4651	91	
224	HO	69155174	7HO08679	120	112	3.3	2.8	132	12.15	224	4	6-01	81	09-01-15	09-13-16	228	26713	3.2	845	2.7	710	5568	104	
225	HO	71616538	28HO13401	94	69	3.8	3.0	1056	6.28	225	2	3-04	76	11-27-15	Poss PG	139	13031	3.8	494	2.8	371	4095	77	
226	HO	69155135	7HO10849	130	133	3.2	2.7	13	15.25	226	3	3-11	48	12-03-15	Poss PG	133	15767	3.6	564	2.7	433	5398	101	
227	HO	71616573	14HO06429	83	81	4.0	3.7	2599	8.56	227	1	1-10		07-21-15	08-23-16	268	22188	3.9	856	3.3	735	6421	120	
228	HO	69155132	7HO10721	110	102	2.8	3.4	20	10.38	228	3	3-11	45	11-01-15	Poss PG	165	16386	3.5	576	3.3	534	4810	90	V
229	HO	69155126	501HO09129	96	77	3.4	3.3	1300	6.90	229	3	4-02	60	10-08-15	Poss PG	169	19894	3.3	650	3.0	596	4379	82	
230	HO	71616582	28HO16251	53	40	4.3	3.5	303	2.28	230	1	1-11		04-19-15	07-19-16	361	22889	3.8	830	3.1	708	4600	86	
231	HO	69155121	1HO02683	87	71	3.1	3.5	132	5.88	231	3	4-06	66	09-07-15	11-18-16	220	22304	3.4	748	3.2	722	4915	92	V
232	HO	71616548	14HO06429	128	129	3.0	3.2	31	14.94	232	2	3-00	57	11-21-15	Poss PG	145	19110	3.2	609	3.1	596	6392	120	V
233	HO	69155107	501HO09129	61	104	3.2	3.1	17	10.89	233	4	5-06	46	03-08-16		39	3184	3.8	121	3.5	112			
234	HO	71616568	14HO06428	79	81	3.9	3.3	25	8.52	234	1	2-00		08-21-15	10-03-16	237	16879	4.0	750	3.3	614	5698	110	

Remarks Codes: V = Fat < Protein Y = Days Open > 250

2016

scription	Breed HO	Sample Date	Process Date
		4/13/16	4/14/16

**REPRODUCTION**



MONTHS	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR
MONTHLY REPRODUCTIVE CYCLES													
Est Non Heats	25	24	22	22	23	23	22	22	20	20	20	23	24
Replaced Heats	22	25	20	21	21	18	21	18	21	22	16	25	21
Num Breedings	13	11	11	8	5	7	9	7	9	11	10	12	8
Num Conceived	20	19	17	18	29	28	26	23	17	15	20	17	17
MONTHLY CALVING PATTERN													
Cows Calved Last	1	3	1			3	2	7	3	2	5	6	
Heifers Calved Last	1			5	3	2	1	3	1	1	2		
Cows to Calve		1		2	1	4							
Heifers to Calve			5	1	4	2							

COWS WITH HIGHEST DAYS OPEN					
BARN NAME	DAYS OPEN	BARN NAME	DAYS OPEN	BARN NAME	DAYS OPEN
COOKIE	322				
BUFFY	75				
ASTROID	69				
TRIG	66				

Index	COW'S SIRE		DATE CALVED	L AN CUT M	DAYS TO 1ST HEAT	DAYS OPEN	LAST BREEDING OR HEAT			
	ID	NMS					DATE	SERVICE SIRE		
								ID	NMS	
301	14HO06429	+343	2/05/16	2	69					
302	7HO10849	+575	3/02/16	3	43					
303	1HO10245	+243	7/07/15	1	50	201	5	1/24/16	11HO11201 +574	
304	14HO06429	+343	9/27/15	1	110	110	1	1/15/16	7HO11351 +936	
305	14HO05880	+120	1/07/15	4	85	207	4	8/02/15	29HO16887 +706	
306	1HO09527	+513	8/16/15	1	99	99	1	1/23/15	1HO16887	
307	14HO05639	+400	1/30/16	2		75				
308	14HO05560	+289	2/20/16	1		54				
309	7HO10606	+454	3/17/16	2		28				
310	11HO10579	+228	2/27/16	2		47				
311	1HO10245	+243	11/19/15	2	88	88	1	2/15/16	29HO17553 +824	
312	7HO06417	+372	5/28/15	5		322				
313	14HO06429	+343	7/26/15	1	107	228	4	3/10/16	1HO11097 +611	
314	29HO13665	+212	8/08/15	1	61	111	3	1/27/15	542HO05400 +496	
315	1HO10245	+243	2/21/16	2		53				
316	1HO10218	+552	11/04/15	1	100	100	1	2/12/16	29HO17553 +824	
317	29HO13665	+212	7/04/15	1	69	195	3	1/15/16	7HO11351 +936	
318	29HO14768	+333	9/13/15	1	92	160	3	2/20/16	1HO11373 +748	
319	7HO10011	+24	2/18/15	3	80	317	5	1/01/16	11HO11201 +574	
320	1HO10000	+200	3/12/16	3		33				
321	7HO09173	+216	3/23/16	2		22				
322	14HO06429	+343	1/01/16	1	100	100	1	4/10/16	7HO11351 +936	
323	29HO13363	+400	3/04/16	2		41				
324	7HO09879	+222	9/01/15	4	98	98	1	2/08/15	7HO11351 +936	
325	29HO13401	+115	11/27/15	2	97	97	1	3/03/16	1HO11097 +611	
326	7HO10849	+575	12/03/15	3	106	106	1	3/18/16	224HO02881 +866	
327	14HO06429	+343	7/21/15	1	108	150	3	2/18/15	1HO11373 +748	
328	7HO10721	+538	11/01/15	3	83	83	1	1/23/16	1HO11097 +611	
329	501HO09129	+128	10/08/15	3	107	107	1	1/23/16	1HO11097 +611	
330	29HO16251	+468	4/19/15	1	84	177	3	10/13/15	7HO11351 +936	
331	1HO02683	+260	9/07/15	3	106	158	2	2/12/16	29HO14142 +474	
332	14HO06429	+343	11/21/15	2	98	98	1	2/27/16	7HO11351 +936	
333	501HO09129	+128	3/06/16	4		39				
334	14HO06429	+343	8/21/15	1	129	129	1	2/28/15	11HO11201 +574	
335	14HO05639	+400	1/02/16	2	61	61	1	3/03/16	14HO06677 +664	
336	29HO16251	+468	7/31/15	1	69	69	1	10/08/15	7HO11314 +697	
337	14HO05639	+400	2/02/15	1	129	333	6	1/01/16	11HO11201 +574	
338	7HO11138	+642	11/24/15	1	100	100	1	3/03/16	29HO17553 +824	
339	14HO05936	+397	12/02/15	1	107	107	1	3/18/16	224HO02881 +866	
340	14HO05560	+289	10/20/15	1	62	62	1	2/21/15	7HO11351 +936	

Index	DATE TO DRY	DUE DATE	DAYS IN MILK	PROD INDEX
301			69	99
302			43	92
303	9/10	10/30	282	117
304	9/01	10/21	200	103
305	DRY	5/08	424	100
306	7/10	8/29	242	118
307			75	89
308			54	89
309			28	
310			47	88
311	10/02	POSS PG	147	85
312			322	113
313	10/26	POSS PG	263	135
314	7/14	9/02	250	110
315			53	77
316	9/29	11/18	162	100
317	9/01	10/21	285	121
318	10/07	11/26	214	91
319	8/18	10/07	421	97
320			33	
321			22	
322	11/26	POSS PG	104	108
323			41	92
324	7/25	9/13	226	104
325	10/19	POSS PG	139	77
326	11/03	POSS PG	133	101
327	8/04	9/23	268	121
328	9/09	POSS PG	165	91
329	9/09	POSS PG	189	82
330	5/30	7/19	361	87
331	9/29	11/18	220	93
332	10/14	POSS PG	145	120
333			39	
334	8/14	10/03	237	112
335	10/19	POSS PG	103	99
336	5/25	7/14	258	112
337	8/18	10/07	437	108
338	10/19	POSS PG	142	114
339	11/03	POSS PG	134	103
340	8/07	9/26	177	95

TestType and Description 31 DHEAP	Breed HO
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TestDay Milk		Actual SCC		Index		% of Tank	DM	Lact #	Log SCC	LactAvg		#> 200K	#SCC Tests	Pnd Index	MUN	Pnd %	Total SolMs
Actual	Expectd	Prev	Current							This	Last						
114	105	38	20	101			69	2	0.7	1.2	0.9		3	99	13	3.1	
127	110	44	13	102			43	3	0.1	1.0	1.0		2	92	14	2.9	
83	76	22	14	103			282	1	0.2	1.1			10	117	10	3.4	
81	78	13	13	104			200	1	0.1	1.0			7	103	12	3.7	
94	94	22	18	105			242	1	0.5	1.0			8	118	11	3.4	
94	107	87	373	106	N	3%	75	2	4.9	4.2	4.0	2	3	89	12	2.9	
79	77	66	19	107			54	1	0.6	1.5			2	89	18	3.2	
98			13	108			28	2	0.1	0.1	4.2		1		9	2.9	
108	93	47	23	109			47	2	0.9	1.4	2.0		2	89	15	2.6	
83	73	152	44	110			147	2	1.8	1.2	1.4		5	85	9	3.2	
88	92	5572	696	111	P	5%	322	5	5.8	4.6	5.7	7	11	113	13	3.6	
96	103	44	44	112			263	1	1.8	1.5			9	136	17	3.3	
83	82	22	13	113			250	1	0.1	1.3		1	9	111	15	3.5	
92	100	132	41	114			53	2	1.7	2.6	0.8		2	77	14	2.6	
85	81	22	31	115			162	1	1.3	1.7			6	100	11	3.3	
98	91	1131	460	116	P	4%	285	1	5.2	5.2		8	10	121	12	3.1	
81	75	71	44	117			214	1	1.8	2.1		1	7	92	10	3.4	
61	66	528	187	118		1%	421	3	3.9	5.3	0.8	12	14	97	10	4.0	
118			23	119			33	3	0.9	0.9	4.6		1		10	2.7	
106			14	120			22	2	0.2	0.2	1.5		1		15	2.8	
114	95	50	54	121		1%	104	1	2.1	1.9			4	109	12	2.9	
114	96	1970	13	122			41	2	0.1	3.7	1.0	1	2	92	13	2.8	
112	107	123	132	123		1%	226	4	3.4	3.6	2.7		8	105	11	2.8	
69	88	650	1056	124	P	6%	139	2	6.4	5.0	2.5	4	5	77	10	3.0	
133	117	13	13	125			133	3	0.1	0.3	1.0		5	102	12	2.7	
81	83	2111	2599	126	P	17%	268	1	7.7	5.1		7	9	121	13	3.7	
102	88	13	20	127			165	3	0.7	3.3	3.2	2	6	91	12	3.4	
77	85	1600	1300	128	P	8%	189	3	6.7	6.4	2.1	7	7	81	9	3.3	
40	33	303	303	129	P	1%	361	1	4.6	2.6		4	12	87	10	3.5	
71	77	985	132	130		1%	220	3	3.4	2.5	2.8	2	8	93	11	3.5	
129	116	57	31	131			145	2	1.3	2.4	1.5	1	5	121	12	3.2	
104	73	4526	17	132			39	4	0.4	4.5	5.4	1	2		11	3.1	
81	82	23	25	133			237	1	1.0	0.8			8	112	11	3.3	
118	80	13	23	134			103	2	0.9	1.0	2.6		4	99	14	3.1	
81	89	13	29	135			258	1	1.2	0.7			9	113	11	3.4	
42	59	57	71	136			437	1	2.5	1.7			15	109	10	4.1	
98	102	50	35	137			142	1	1.5	2.8		1	5	114	15	3.2	
90	88	19	17	138			134	1	0.4	1.0			5	103	11	3.3	
92	91	162	3940	139	N	30%	177	1	8.3	6.2		4	6	94	13	2.9	
126	114	18	17	140			57	5	0.4	0.5	2.8		2	87	15	2.8	
90	86	246	81	141		1%	147	1	2.7	2.0		1	5	113	10	3.3	
90	89	44	17	142			59	1	0.4	1.1			2	88	13	2.9	
96	102	696	1715	143	P	14%	204	4	7.1	3.7	3.3	3	7	109	12	3.1	
92	78	31	27	144			147	2	1.1	1.2	2.4		5	88	11	3.3	
131	113	13	87	145		1%	110	2	2.8	0.8	5.8		4	104	14	2.9	

TF = Too Fresh to Test

N Cow SCC > 200,000 this test  
P Cow SCC > 200,000 this test and last

## 2016 State FFA Dairy Management Group Activity

To answer the questions below, use the "Index" number. Each correct answer is worth 2 points for a total of 50 points. Put answers on the "Herd Record (Judge)" part of the scantron sheet.

### From the Lactation Report

- \_\_\_\_\_ 1. Which cow had the highest protein percentage on test day?
- \_\_\_\_\_ 2. Which 3rd lactation cow had the fewest days dry?
- \_\_\_\_\_ 3. Which cow has the most days in milk?
- \_\_\_\_\_ 4. Which cow has the highest "Production Index"?
- \_\_\_\_\_ 5. Which cow should be the next one to freshen after the test date?
- \_\_\_\_\_ 6. Which cow produced the most lbs. of milk on the previous sample date?
- \_\_\_\_\_ 7. Which cow, that was lactating last month, had the biggest increase in milk lbs. from last month to this month?
- \_\_\_\_\_ 8. Which is the oldest cow in the herd?
- \_\_\_\_\_ 9. Which 1<sup>st</sup> lactation cow was the oldest at first freshening?
- \_\_\_\_\_ 10. Which confirmed pregnant cow has the fewest days open?
- \_\_\_\_\_ 11. Which cow had the highest fat test for the lactation to date?
- \_\_\_\_\_ 12. Which lactating cow needs to be dried off next?

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- \_\_\_\_\_ 13. Which cow was sired by the bull with the lowest NM\$?
- \_\_\_\_\_ 14. Which 4th lactation cow was bred the most times during this lactation?
- \_\_\_\_\_ 15. Which 1<sup>st</sup> lactation cow had the most days to the first heat?
- \_\_\_\_\_ 16. Which cow third lactation cow was bred most recently?
- \_\_\_\_\_ 17. Which cow, with a due date, had the fewest days open?
- \_\_\_\_\_ 18. Which cow was bred to the bull with the lowest Net Merit Dollar value?
- \_\_\_\_\_ 19. Which cow most recently calved?
- \_\_\_\_\_ 20. Which cow was bred 3 days after Christmas?
- \_\_\_\_\_ 21. Which cow has the most days open without a breeding or heat?

### From the Flex Report

- \_\_\_\_\_ 22. Which cow, currently producing at least 100 lbs. per day, had the lowest milk urea nitrogen?
- \_\_\_\_\_ 23. Which cow contributed the most somatic cells to the bulk tank?
- \_\_\_\_\_ 24. Which cow had the biggest decrease in somatic cell count from last month?
- \_\_\_\_\_ 25. Which cow has the most tests over 200,000 SCC?

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- \_\_\_\_\_ 1. Which dairy breed is the 3<sup>rd</sup> most popular in the U.S. with headquarters in Beloit, Wisconsin?  
a. Ayrshire    b. Guernsey    c. Jersey    d. Brown Swiss    e. Montbeliarde
- \_\_\_\_\_ 2. Which breed originated in the kingdom of the Netherlands?  
a. Holstein    b. Montbeliarde    c. Ayrshire    d. Guernsey    e. Brown Swiss
- \_\_\_\_\_ 3. Which dairy breed has strengths of excellent heat tolerance, high fertility, young age at first calving, calving ease, and high pounds of milk solids produced per pound of feed consumed?  
a. Holstein    b. Jersey    c. Montbeliarde    d. Guernsey    e. Brown Swiss
- \_\_\_\_\_ 4. Which gene is recessive over the other in dairy cattle?  
a. polled gene    b. horned gene
- \_\_\_\_\_ 5. Which one of the following traits is given the most weight in Net Merit Dollars?  
a. protein    b. fertility    c. body size    d. somatic cell count
- \_\_\_\_\_ 6. Which one of the following breeds has the fewest registrations per year?  
a. Ayrshire    b. Brown Swiss    c. Holsteins    d. Jerseys    e. Milking Shorthorn
- \_\_\_\_\_ 7. What is the tube-like structure that carries the egg from the ovary to the uterus called?  
a. ovary    b. oviduct    c. follicle    d. cervix    e. vagina
- \_\_\_\_\_ 8. Which hormone, from the hypothalamus, signals the pituitary gland to release FSH?  
a. oxytocin    b. estrogen    c. progesterone    d. testosterone    e. GnRH
- \_\_\_\_\_ 9. How long do sperm remain viable in the female reproductive tract?  
a. 5-10 hours    b. 24 – 30 hours    c. 40 – 48 hours
- \_\_\_\_\_ 10. Which disease below is not considered a reproductive disease?  
a. pneumonia    b. Trichomoniasis    c. Brucellosis    d. Leptospirosis
- \_\_\_\_\_ 11. Which sperm is larger?  
a. X bearing sperm    b. Y bearing sperm
- \_\_\_\_\_ 12. Which section of the small intestine connects to the stomach and receives secretions from the pancreas?  
a. jejunum    b. ileum    c. duodenum
- \_\_\_\_\_ 13. Which one of the following is not considered a carbohydrate?  
a. protein    b. sugar    c. starch
- \_\_\_\_\_ 14. Which mineral is needed for hemoglobin production?  
a. calcium    b. sulfur    c. magnesium    d. iron
- \_\_\_\_\_ 15. Which one of the following is a water soluble vitamin?  
a. Vit. A    b. Vit. K    c. Vitamin C    d. Vitamin D    e. Vitamin E
- \_\_\_\_\_ 16. Which age of heifer requires the highest percent protein in the diet?  
a. 3 months    b. 13 months    c. 20 months
- \_\_\_\_\_ 17. How much should a Holstein heifer weigh at 14 months of age?  
a. 875 lb.    b. 1025 lb.    c. 1225 lb.
- \_\_\_\_\_ 18. What % protein should be in a late lactation diet?  
a. 14%    b. 18%    c. 22%    d. 44%

- \_\_\_\_\_ 19. When are calves best able to absorb antibodies from colostrum?  
a. at birth      b. 6 hours after birth      c. 12 hours after birth      d. 24 hours after birth
- \_\_\_\_\_ 20. Deficiency of what mineral causes grass tetany?  
a. sodium      b. magnesium      c. sulfur      d. calcium e. iron
- \_\_\_\_\_ 21. What category of organism causes ring worm?  
a. bacterium      b. virus      c. protozoa      d. fungus      e. varmint
- \_\_\_\_\_ 22. What category of organism causes Blackleg?  
a. bacterium      b. virus      c. protozoa      d. fungus
- \_\_\_\_\_ 23. What is the biggest advantage of tie-stall barns?  
a. individual cow care      b. cleaner cows      c. low labor per cow
- \_\_\_\_\_ 24. For what type of ventilation is the air drawn the length of the barn?  
a. natural ventilation      b. cross ventilation      c. tunnel ventilation
- \_\_\_\_\_ 25. What is the hollow cavity in the inside of the teat called?  
a. teat lumen      b. teat myometrium      c. teat sphincter      d. teat cistern
- \_\_\_\_\_ 26. Which hormone causes milk letdown?  
a. adrenaline      b. oxytocin      c. estrogen      d. progesterone      e. testosterone
- \_\_\_\_\_ 27. During which phase is the liner in the teat cup open?  
a. milk phase      b. rest phase
- \_\_\_\_\_ 28. How many robots would a herd with 220 milking cows need?  
a. two      b. three      c. four
- \_\_\_\_\_ 29. Which mastitis causing organism is considered an environmental mastitis organism?  
a. E. coli      b. Streptococcus agalactiae      c. Staphylococcus aureas
- \_\_\_\_\_ 30. What class of milk would fluid milk belong to?  
a. Class I      b. Class II      c. Class III      d. Class IV
- \_\_\_\_\_ 31. What percent of milk produced in the U.S. is Grade A?  
a. 10%      b. 28%      c. 58%      d. 94%
- \_\_\_\_\_ 32. Which milk component is not priced in component pricing?  
a. calcium      b. protein      c. fat      d. Solids-non-fat
- \_\_\_\_\_ 33. Which vitamin is most associated with good vision?  
a. Vit. A.      b. Vit. B12.      c. Vit. C.      d. Vit. D      e. Vit. E
- \_\_\_\_\_ 34. Approximately what percentage of the milk produce in the U.S. is made into cheese?  
a. 10%      b. 20%      c. 30%      d. 40%
- \_\_\_\_\_ 35. What is the average percent lactose in milk?  
a. 1.3%      b. 3.1%      c. 3.7%      d. 4.9%
- \_\_\_\_\_ 36. In what year did cows first come to the Jamestown Colony?  
a. 1492      b. 1611      c. 1776      d. 1862
- \_\_\_\_\_ 37. What did Dr. Gustav Delavel invent in 1878?  
a. pasteurization      b. cream separator      c. pulsator      d. reffridgeration
- \_\_\_\_\_ 38. Where does Minnesota rank among states for total milk production?  
a. first      b. third      c. fifth      d. eight



# 2016 State FFA Dairy Management Group Activity

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

- \_\_\_ 39. What was the percentile rank of the sires used to breed the 1<sup>st</sup> lactation cows?  
a. 60            b. 84            c. 96            d. 100
- \_\_\_ 40. Which group of cows had the highest peak milk production?  
a. 1<sup>st</sup> lactation   b. 2<sup>nd</sup> lactation   c. 3<sup>rd</sup> lactation and older
- \_\_\_ 41. What percent of cows were dry more than 70 days?  
a. 7            b. 16            c. 40            d. 49
- \_\_\_ 42. Which age of cows had the highest mastitis infection rate?  
a. 1<sup>st</sup> lactation   b. 2<sup>nd</sup> lactation   c. 3+ lactations
- \_\_\_ 43. Relative to raw somatic cell count over the last year, which statement best applies?  
a. SCC has decreased over the last year  
b. SCC has increased over the last year  
c. SCC has been variable from month to month with no definite trend over the last year
- \_\_\_ 44. What percent of the cows both dried off with a high SCC and then freshened with the SCC still high?  
a. 5            b. 14            c. 19            d. 60
- \_\_\_ 45. According to the current SCC evaluation, what % of cows are infected?  
a. 12            b. 18            c. 25            d. 67
- \_\_\_ 46. What was the average age at first calving?  
a. 22 months            b. 25 months            c. 28 months            d. 30 months
- \_\_\_ 47. What is the minimum calving interval (months) of the cows in the breeding herd?  
a. 12.9            b. 13.6            c. 14.6            d. 15.8
- \_\_\_ 48. Which month of the year was average fat% highest?  
a. February            b. April            c. June            d. November
- \_\_\_ 49. What month of the year was average lbs. of milk produced greatest?  
a. February            b. April            c. June            d. November
- \_\_\_ 50. In what month did the most cows leave the herd?  
a. January            b. February            c. June            d. December

**2016 State Convention FFA Dairy Judging Contest**

The cows below are in their third lactation; for which only the projected ME is provided.

<b>1</b>	COW								SIRE				
	<u>Comp num</u>	<u>Name</u>	<u>Identification</u>		<u>Birth Date</u>			<u>Code/Name</u>	<u>Identification</u>				
	534	Jeannett	1302008376		01/21/12			7HO3707	H 2080263				
	<b>GENETIC EVALUATION</b>								<b>GENETIC EVALUATION</b>				
	Milk	%fat	Fat	%prot	Protein	NM\$	Rel	Milk	%fat	%prot	NM\$	Rel	
ETA	1650	.10	83	.05	76	609	84	ETA	1226	.00	-.07	657	99

Summary of Lactations															
Age	Lact Num	305-Day Actual					DIM	Complete					305-Day-ME		
		Milk	%fat	Fat	%prot	Protein		Milk	%fat	Fat	%prot	Protein	Milk	Fat	Protein
2-00	1	23846	3.7	874	3.2	756	398	30676	3.8	1165	3.2	981	30384	1120	969
3-03	2	31012	4.1	1255	3.3	1004	385	36482	4.1	1500	3.3	1203	34570	1428	1147
4-03	3												35472	1338	1095

<b>2</b>	COW								SIRE				
	<u>Comp num</u>	<u>Name</u>	<u>Identification</u>		<u>Birth Date</u>			<u>Code/Name</u>	<u>Identification</u>				
	110	Anna	126905412		12/14/11			7HO4638	H2195662				
	<b>GENETIC EVALUATION</b>								<b>GENETIC EVALUATION</b>				
	Milk	%fat	Fat	%prot	Protein	NM\$	Rel	Milk	%fat	%prot	NM\$	Rel	
ETA	1635	.02	65	.03	55	613	66	ETA	1751	-.09	-.03	635	99

Summary of Lactations															
Age	Lact Num	305-Day Actual					DIM	Complete					305-Day-ME		
		Milk	%fat	Fat	%prot	Protein		Milk	%fat	Fat	%prot	Protein	Milk	Fat	Protein
2-00	1	21918	4.1	904	3.2	690	385	26658	4.1	1093	3.2	852	27837	1141	891
3-02	2	29092	4.0	1304	3.1	920	305	29092	4.0	1304	3.1	920	34641	1385	1080
4-03	3												30338	1183	980

<b>3</b>	COW								SIRE				
	<u>Comp num</u>	<u>Name</u>	<u>Identification</u>		<u>Birth Date</u>			<u>Code/Name</u>	<u>Identification</u>				
	509	Marcia	122145544		11/28/11			7HO4164	H2149849				
	<b>GENETIC EVALUATION</b>								<b>GENETIC EVALUATION</b>				
	Milk	%fat	Fat	%prot	Protein	NM\$	Rel	Milk	%fat	%prot	NM\$	Rel	
ETA	1181	-.05	30	.00	36	340	60	ETA	187	.20	.06	411	99

Summary of Lactations															
Age	Lact Num	305-Day Actual					DIM	Complete					305-Day-ME		
		Milk	%fat	Fat	%prot	Protein		Milk	%fat	Fat	%prot	Protein	Milk	Fat	Protein
2-00	1	18359	3.8	706	3.2	595	323	19171	3.9	740	3.3	624	23317	855	746
3-03	2	23345	3.4	786	3.1	724	390	26888	3.4	914	3.1	833	26114	888	809
4-06	3												23310	816	780

<b>4</b>	COW								SIRE				
	<u>Comp num</u>	<u>Name</u>	<u>Identification</u>		<u>Birth Date</u>			<u>Code/Name</u>	<u>Identification</u>				
	99	Jasmine	19764524		12/10/11			29HO7324	H2174868				
	<b>GENETIC EVALUATION</b>								<b>GENETIC EVALUATION</b>				
	Milk	%fat	Fat	%prot	Protein	NM\$	Rel	Milk	%fat	%prot	NM\$	Rel	
ETA	859	+.04	41	.05	30	338	55	ETA	99	.04	.07	457	99

Summary of Lactations															
Age	Lact Num	305-Day Actual					DIM	Complete					305-Day-ME		
		Milk	%fat	Fat	%prot	Protein		Milk	%fat	Fat	%prot	Protein	Milk	Fat	Protein
2-00	1	15801	4.0	627	3.2	642	387	19991	4.0	799	3.2	640	20004	790	632
3-05	2	22935	4.0	917	3.3	757	351	25551	4.0	1022	3.3	842	25814	1032	852
4-06	3												29817	1192	954

**2016 State FFA  
Dairy Judging Contest  
Sire Selection Problem**

Situation:

Semen from the following four bulls is being considered for purchase to breed the 2 year-old cow on the left whose ME record is based on 90 days in milk.

The dairy farmer has a 250-cow grade herd that averages 28,000 lbs. of milk. Net Merit Dollars is the main criteria that he selects for. If a cow has serious faults for functional linear traits, the farmer likes to find bulls that will correct those faults. He prefers to use bulls that are good for sire calving ease (average is 8% and a low number is better). He feels more confident in a bull if the reliability is at least 85%.

COW TO BE MATED		BULLS TO CONSIDER			
2 YR OLD RECORD	TRAITS	1	2	3	4
2 Yr. 0 MO-ME					
	REL	97	90	80	90
26804	PTA:Milk	1835	2880	1063	527
4.1	F %	+.08	-.09	-.06	.02
1089	Fat	89	80	64	16
3.4	P %	+.00	-.03	.02	-.03
912	Protein	56	79	57	25
	Type	0.95	1.61	.91	2.37
	Somatic Cell Score	2.54	2.87	2.94	3.07
	Productive Life	4.3	4.5	4.7	0.7
	Sire Calving Ease	8	4	9	7
	Net Merit \$	635	632	629	213
LINEAR SCORES					
35	Stature	1.19	.99	2.36	1.54
33	Angularity	2.11	2.95	1.50	1.28
30	Strength	1.49	.08	0.92	1.12
30	Body Depth	1.11	.75	.58	2.58
24	Pelvic Width	1.55	1.87	.48	2.52
30	Pelvic Angle	.81	.23	-.33	.78
25	Legs-side view	.06	-.31	-1.05	-.78
30	Foot Angle	1.32	.74	.15	1.33
07	Fore Udder	0.28	2.96	3.29	0.32
08	R Udder Height	0.19	2.72	1.98	1.62
09	R Udder Width	0.01	2.64	2.18	1.42
28	Udder Support	2.10	2.60	1.05	1.81
28	Udder Depth	1.64	1.98	1.68	1.93
28	Teat Placement	1.25	1.32	1.00	1.40

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a. oxytocin    b. estrogen    c. progesterone    d. testosterone    e. GnRH
- b 9. How long do sperm remain viable in the female reproductive tract?  
a. 5-10 hours    b. 24 – 30 hours    c. 40 – 48 hours
- a 10. Which disease below is not considered a reproductive disease?  
a. pneumonia    b. Trichomoniasis    c. Brucellosis    d. Leptospirosis
- a 11. Which sperm is larger?  
a. X bearing sperm    b. Y bearing sperm
- c 12. Which section of the small intestine connects to the stomach and receives secretions from the pancreas?  
a. jejunum    b. ileum    c. duodenum
- a 13. Which one of the following is not considered a carbohydrate?  
a. protein    b. sugar    c. starch
- d 14. Which mineral is needed for hemoglobin production?  
a. calcium    b. sulfur    c. magnesium    d. iron
- c 15. Which one of the following is a water soluble vitamin?  
a. Vit. A    b. Vit. K    c. Vitamin C    d. Vitamin D    e. Vitamin E
- a 16. Which age of heifer requires the highest percent protein in the diet?  
a. 3 months    b. 13 months    c. 20 months
- a 17. How much should a Holstein heifer weigh at 14 months of age?  
a. 875 lb.    b. 1025 lb.    c. 1225 lb.
- a 18. What % protein should be in a late lactation diet?  
a. 14%    b. 18%    c. 22%    d. 44%

- a\_\_\_ 19. When are calves best able to absorb antibodies from colostrum?  
a. at birth    b. 6 hours after birth    c. 12 hours after birth    d. 24 hours after birth
- b\_\_\_ 20. Deficiency of what mineral causes grass tetany?  
a. sodium    b. magnesium    c. sulfur    d. calcium e. iron
- d\_\_\_ 21. What category of organism causes ring worm?  
a. bacterium    b. virus    c. protozoa    d. fungus    e. varmint
- a\_\_\_ 22. What category of organism causes Blackleg?  
a. bacterium    b. virus    c. protozoa    d. fungus
- a\_\_\_ 23. What is the biggest advantage of tie-stall barns?  
a. individual cow care    b. cleaner cows    c. low labor per cow
- c\_\_\_ 24. For what type of ventilation is the air drawn the length of the barn?  
a. natural ventilation    b. cross ventilation    c. tunnel ventilation
- d\_\_\_ 25. What is the hollow cavity in the inside of the teat called?  
a. teat lumen    b. teat myometrium    c. teat sphincter    d. teat cistern
- b\_\_\_ 26. Which hormone causes milk letdown?  
a. adrenaline    b. oxytocin    c. estrogen    d. progesterone    e. testosterone
- a\_\_\_ 27. During which phase is the liner in the teat cup open?  
a. milk phase    b. rest phase
- c\_\_\_ 28. How many robots would a herd with 220 milking cows need?  
a. two    b. three    c. four
- a\_\_\_ 29. Which mastitis causing organism is considered an environmental mastitis organism?  
a. E. coli    b. Streptococcus agalactiae    c. Staphylococcus aureas
- a\_\_\_ 30. What class of milk would fluid milk belong to?  
a. Class I    b. Class II    c. Class III    d. Class IV
- d\_\_\_ 31. What percent of milk produced in the U.S. is Grade A?  
a. 10%    b. 28%    c. 58%    d. 94%
- a\_\_\_ 32. Which milk component is not priced in component pricing?  
a. calcium    b. protein    c. fat    d. Solids-non-fat
- a\_\_\_ 33. Which vitamin is most associated with good vision?  
a. Vit. A.    b. Vit. B12.    c. Vit. C.    d. Vit. D    e. Vit. E
- d\_\_\_ 34. Approximately what percentage of the milk produce in the U.S. is made into cheese?  
a. 10%    b. 20%    c. 30%    d. 40%
- d\_\_\_ 35. What is the average percent lactose in milk?  
a. 1.3%    b. 3.1%    c. 3.7%    d. 4.9%
- b\_\_\_ 36. In what year did cows first come to the Jamestown Colony?  
a. 1492    b. 1611    c. 1776    d. 1862
- b\_\_\_ 37. What did Dr. Gustav Delavel invent in 1878?  
a. pasteurization    b. cream separator    c. pulsator    d. refridgeration
- d\_\_\_ 38. Where does Minnesota rank among states for total milk production?  
a. first    b. third    c. fifth    d. eight

# 2016 State FFA Dairy Management Group Activity

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

- c 39. What was the percentile rank of the sires used to breed the 1<sup>st</sup> lactation cows?  
a. 60            b. 84            c. 96            d. 100
- c 40. Which group of cows had the highest peak milk production?  
a. 1<sup>st</sup> lactation   b. 2<sup>nd</sup> lactation   c. 3<sup>rd</sup> lactation and older
- a 41. What percent of cows were dry more than 70 days?  
a. 7            b. 16            c. 40            d. 49
- c 42. Which age of cows had the highest mastitis infection rate?  
a. 1<sup>st</sup> lactation   b. 2<sup>nd</sup> lactation   c. 3+ lactations
- c 43. Relative to raw somatic cell count over the last year, which statement best applies?  
a. SCC has decreased over the last year  
b. SCC has increased over the last year  
c. SCC has been variable from month to month with no definite trend over the last year
- b 44. What percent of the cows both dried off with a high SCC and then freshened with the SCC still high?  
a. 5            b. 14            c. 19            d. 60
- b 45. According to the current SCC evaluation, what % of cows are infected?  
a. 12            b. 18            c. 25            d. 67
- b 46. What was the average age at first calving?  
a. 22 months            b. 25 months            c. 28 months            d. 30 months
- b 47. What is the minimum calving interval (months) of the cows in the breeding herd?  
a. 12.9            b. 13.6            c. 14.6            d. 15.8
- d 48. Which month of the year was average fat% highest?  
a. February            b. April            c. June            d. November
- b 49. What month of the year was average lbs. of milk produced greatest?  
a. February            b. April            c. June            d. November
- d 50. In what month did the most cows leave the herd?  
a. January            b. February            c. June            d. December

## 2016 State Convention FFA Dairy Judging Contest

The placing on this production class is 1-2- 4- 3 cuts: 4 – 4 – 4

Upon analyzing this class, we find that 1 and 2 have higher NM\$ than 3 and 4. The calving intervals are similar with a slight advantage for 3 and 4.

1 places over 2 because of an advantage in production, especially be higher in the projected ME for this lactation.

2 places over 4 because of 2's advantage in NM\$, production for the first lactation, and slightly better calving interval.

4 places over 3 because of 4's much higher projected ME for the current lactation. Granted 3 had higher first lactation production.



# Sire Selection

2-3-1-4 is the official placing with cuts of 6-3-4.

Situation is that the farmer's main criteria is Net Merit, next important is to correct worst faults on cow. The cow has three linear type faults: 07 on fore udder, 08 on rear udder height, and 09 on rear udder width. He prefers calving ease bulls. Lastly, the farmer prefers the reliability to be at least 85%.

Upon analyzing the bulls available, 1, 2 and 3 are fairly identical for Net Merit. 4 is very inferior for Net Merit.

2 goes over 3 because 2 is superior for calving ease with a 4 versus a 9 and a higher reliability of 90%. 2 and 3 are fairly equal in the udder traits of interest.

3 over 1 in a close placing because of 3's advantage in the udder traits, especially with a 3.29 on fore udder versus .28 for 1. Granted, 3 does not quite meet the 85% reliability requirement. The two bulls are nearly identical for calving ease.

1 over 4 in an easy placing because 1 is over \$400 higher in Net Merit which is the main criteria for the dairy farmer. Granted that 4 is better than 3 in the rear udder traits.