

1997 Iowa FFA Dairy Cattle Production and Management Test  
September 20, 1997  
West Union, Iowa

Mark the correct answer in the proper blank on the answer sheet.

**Objective questions - 2 points each:**

1. Relative Feed Value (RFV) is an index of forage quality that is based on which of the following nutrient components:  
a) ADF and CP      b) CP and NDF      c) ADF and NDF      d) ADF, NDF, & CP
2. Which of the following feeds usually contains the most energy?  
a) alfalfa hay      b) corn silage      c) corn grain      d) soybean oil meal
3. Bovine somatotropin (BST) is also known as:  
a) somatic cells      b) growth hormone      c) steroid hormone      d) oxytocin
4. Whole cottonseed is often fed to lactating cows because it is a good source of:  
a) digestible fiber      b) energy or fat      c) protein      d) all three nutrients
5. Which of the following disorders or diseases does not usually cause a cow to go "off-feed"?  
a) milk fever      b) mastitis      c) dystocia      d) displaced abomasum
6. Heifers should be fed so that they can be bred at what age?  
a) 9-12 months      b) 13-15 months      c) 21-24 months      d) 27-30 months
7. The primary criteria for deciding when a heifer should be bred is:  
a) age      b) body weight      c) breed      d) service sire to be used
8. Retained placenta (retained fetal membranes) can lead to:  
a) mastitis      b) metritis      c) hardware disease      d) displaced abomasum
9. Cows generally reach peak milk production how soon after calving?  
a) 7-10 days      b) 21 days      c) 6-10 weeks      d) 9 months
10. Which of the following represents the largest single cost associated with producing milk?  
a) facilities      b) feed      c) labor      d) veterinarians & drugs
11. Cows can become infected with mastitis causing organisms that are on:  
a) milking equipment      b) bedding in stalls      c) hands of people      d) all of these
12. An example of an environmental mastitis causing organism is:  
a) Mycoplasma      b) Strep. uberis      c) Staph. aureus      d) All of these

13. Average daily weight gains (from birth to calving) of heifer calves should be around:  
 a) 1.0 lb/day      b) 1.7 lb/day      c) 2.0 lb/day      d) over 2.5 lb/day
14. Good milking hygiene involves:  
 a) dipping teats before milking.  
 b) dipping teats after milking.  
 c) milking udders that are clean and dry  
 d) all of the above.  
 e) only b) and c) above
15. The best milk replacer is one that does not contain:  
 a) meat solubles      b) dried whey      c) casein      d) soy protein isolates
16. Which of the following hormones is not directly associated with reproduction?  
 a) estrogen      b) testosterone      c) progesterone      d) adrenaline
17. The two nutrients of most concern regarding manure application to land are:  
 a) Ca and P      b) N and P      c) Se and Vitamin E      d) K and Mg
18. All livestock producers are encouraged to implement Best Management Practices (BMP) in regard to manure management as well as other management practices. Which of the following is not considered a BMP?  
 a) fencing animals away from streams  
 b) testing manure for nutrient content  
 c) applying manure to land when it is most convenient for the operator  
 d) testing soils for nutrient content  
 e) conservatively sizing manure storage
19. Studies in the U.S. have shown that yield traits are \_\_\_\_\_ times more important economically for sire selection than are conformation and other non-yield traits  
 a) 1.5      b) 2      c) 4      d) 10
20. Body condition of dairy cattle is often done to:  
 a) decide which animals to cull  
 b) decide when to dry a cow off  
 c) decide which cows to breed  
 d) evaluate the overall nutrition and feeding program  
 e) all of the above
21. Which of the following conformation traits is determined least by genetics, and so will show the smallest change through sire selection and is best changed by management?  
 a) udder depth      b) stature      c) foot angle      d) dairy character
22. Because young A. I. Sires are comparable genetically to Active A. I. Bulls in the 60<sup>th</sup> percentile and semen from young A. I. Sires is priced lower than semen from Active A. I. Bulls, breedings to young A. I. Sires should constitute a minimum of \_\_\_\_\_ % of inseminations in the herd.  
 a) 10      b) 25      c) 45      d) 60

23. An example of a contagious mastitis causing organism is:  
a) Mycoplasma      b) Strep. ag.      c) Staph. aureus      d) All of these
24. The number one reason for reproductive losses is poor:  
a) semen quality      b) heat detection      c) insemination techniques      d) records
25. The only part of a milking machine that touches the cow is the:  
a) vacuum pump      b) pulsator      c) milk line      d) inflation

**DHIA Questions - 5 points each**

Use the attached DHI forms (103, 202, 220, 520, and 521) to answer the following five questions (26-30).

26. Which cow contributed the most somatic cells to the bulk tank (on the current test day)?  
a) Nanbela      b) Heddia      c) Rennie      d) Julli
27. What was the average milk production of the milking cows on the last test day?  
a) 69.8 lb.      b) 70.9 lb.      c) 62.8 lb.      d) 71.5 lb.
28. What is the average days open for all cows in the herd?  
a) 150 days      b) 305 days      c) 101 days      d) 142 days
29. What was the overall culling rate for the last year in this herd?  
a) 25%      b) 30%      c) 49%      d) 54%
30. Which of the following cows' daughters are likely to produce the lowest milk yield?  
a) Jetta      b) Jewel      c) Mara      d) Nanbela

# PEDIGREE AND PERFORMANCE EVALUATION - DHI-103

<b>Herdcode</b>	8-05-97
<b>Listed</b>	

<b>TRUTHIE</b>		<b>Identification</b>	<b>Breed</b>	<b>Index Number</b>	<b>Birth date</b>	<b>Body wt.</b>
		13905042	H	950	9-12-88	1480
<b>P</b>	<b>% Rel</b>	<b>Milk</b>	<b>Fat</b>	<b>Prot</b>	<b>Prot</b>	<b>Rank</b>
<b>T</b>	55	+316	-11	+03	+1	25
<b>A</b>						
<b>P</b>						
<b>R</b>						
<b>A</b>						

<b>Sample Day Data</b>	<b>Lact No.</b>	<b>Fresh Date</b>
DIM	8	6-19-97
Milk	80	
Fat %	5.9	
Prot %	3.3	
SCC	348	

SCC TO THE NEAREST 1,000

<b>SIRE</b>		<b>Sire Name</b>		<b>Identification</b>	<b>Breed</b>	<b>NAAB Code</b>
		MILFORD FARMS STAR WAR		1756315	H	7HB79
<b>P</b>	<b>% Rel</b>	<b>Milk</b>	<b>Fat %</b>	<b>Prot %</b>	<b>Prot</b>	<b>Rank</b>
<b>T</b>	99	+402	-.05	+03	+3	
<b>A</b>						

<b>DAM</b>		<b>Barn Name</b>		<b>PTA: Predicted Transmitting Ability</b>		
		TRUTH		<b>ERPA: Estimated Relative Producing Ability</b>		
<b>P</b>	<b>% Rel</b>	<b>Milk</b>	<b>Fat %</b>	<b>Prot %</b>	<b>Prot</b>	<b>Rank</b>
<b>T</b>	65	-837	-.07	+03	-23	2
<b>A</b>						

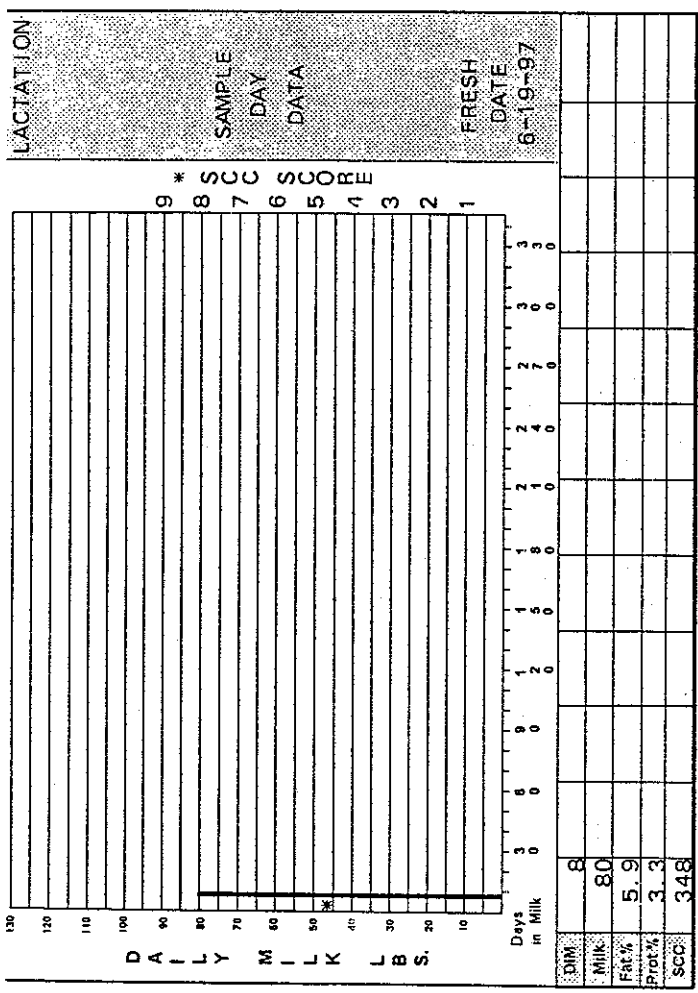
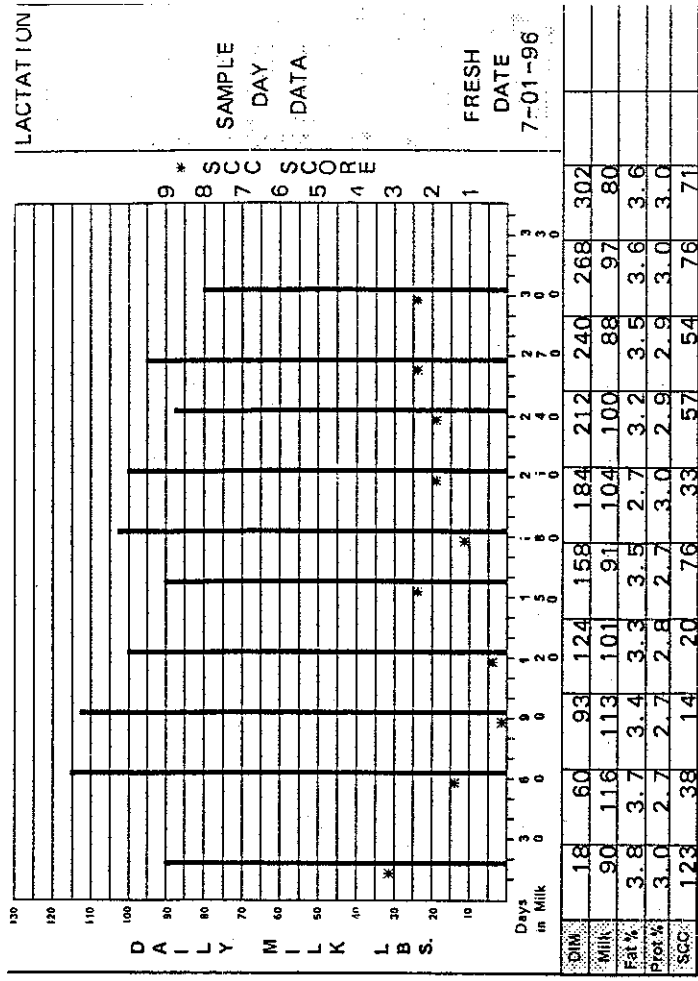
<b>MGS</b>		<b>Maternal Grand sire Name</b>		<b>Identification</b>	<b>Breed</b>	<b>NAAB Code</b>
		PAWNEE FARM REFLECTION ADMIRAL		1383926	H	21H133
<b>P</b>	<b>% Rel</b>	<b>Milk</b>	<b>Fat %</b>	<b>Prot %</b>	<b>Prot</b>	<b>Rank</b>
<b>T</b>	99	-1281	+08	+03	-36	
<b>A</b>						

Lact Test No.	Freshening Date	Age	Days Dry	Days Open	Days No. Serv	305 Day Actual			Reproductive Efficiency	Number of Lactations	LIFETIME	305-2X-ME			Diff. From HerdMates								
						Milk	Fat %	Prot %				Milk	Fat	Prot									
1	5-03-91	2-07			1	21160	3.4	718	3.2	667	344	23390	3.4	799	3.2	742	24550	833	771	-106	-68	+2	
2	5-18-92	3-08	37		2	26410	3.3	869	3.0	804	333	27880	3.3	921	3.1	852	28000	930	850	+3318	+3	+77	
3	6-03-93	4-08	48		2	26770	3.4	907	2.9	782	424	31330	3.4	1067	3.0	937	27840	943	807	+3993	+37	+53	
4	9-10-94	5-11	40		2	26500	3.2	855	3.0	790	365	29660	3.4	1002	3.0	876	27560	872	810	+4535	-3	+72	
5	7-01-96	7-09	137	68	5						365	28270	3.2	914	3.0	853	32096	1117	915	+7703	+188	+166	
6	6-19-97	8-09	50	41	1						41	3107	6.0	185	3.3	104	19602	1009	661				
						<b>TOTALS</b>			<b>TOTALS</b>			<b>TOTALS</b>			<b>AVERAGES</b>								
						1968	147047	3.4	5011	3.0	4446	1968	147047	3.4	5011	3.0	4446	26608	951	802	+3889	+31	+74

LEFT HERD 7-29-97  
CAR 5: SOLD - INJURY, HARDWARE. OTH.

TRUTHIE

<b>Barn Name</b>	TRUTHIE	<b>Index Number</b>	950	<b>Identification</b>	13905042
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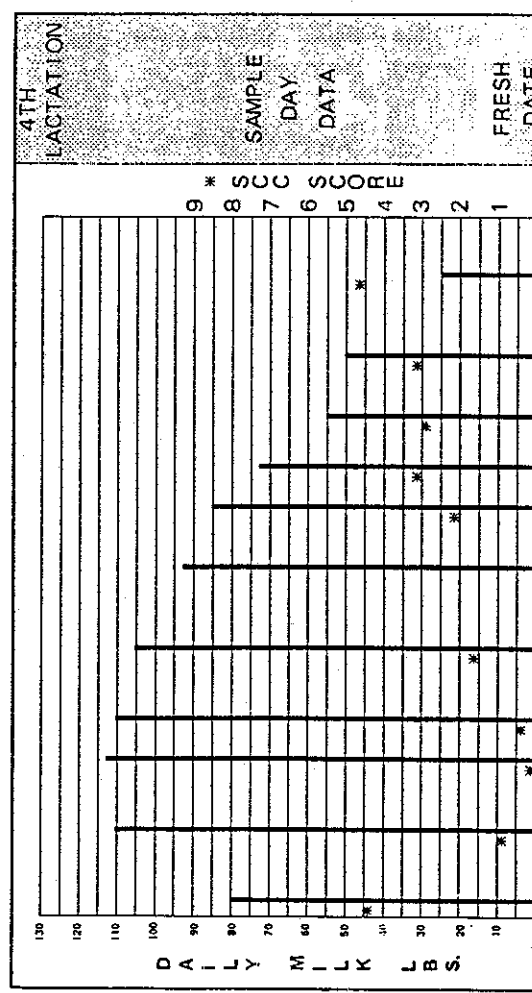
Calving Record

Successful Breeding

Lact No.	Birth Date	Calving Ease	Liv. Ease	Identification	Barn Name	No.	Date	Service Sire
1	5-03-91	N	M	BULL		1		7H2246
2	5-18-92	1	M	BULL		2		7H3340
3	6-03-93	1	M	BULL	TWINBUL	2		9H1293
4	9-10-94	1	M	F 42WHD8534		5	9-07-96	23H0453
5	7-01-96	1	F	BULL		1		29H6995
6	6-19-97			F 42WHV2286				

Calving Ease: 1-No problem, 2-Slight problem, 3-Needed assistance, 4-Considerable force, 5-Extreme difficulty

Livability: 1-Normal live birth, 2-Died later from other causes, 3-Born dead or died as result of birth, 4-Sold or removed from herd



Identification

Index Number 950

Barn Name TRUTHIE

Identification

Index Number 950

Barn Name TRUTHIE



HERDCODE	DATE TESTED	BREED
	7-31-97	H

### STAGE OF LACTATION PROFILE

STAGE OF LACTATION (DAYS)	1			2			3			4			5			TOTAL OR AVERAGE
	THRU 40	41 THRU 80	81 THRU 120	THRU 120	121 THRU 160	161 THRU 200	THRU 200	201 THRU 240	241 THRU 280	THRU 280	281 THRU 320	THRU 320	321 THRU 360	THRU 360		
1ST LACT	1	5	10	7	5	28										
2ND LACT		2	5	7	4	18										
3+ LACTS		3	9	3	3	21										
ALL LACTS	4	10	24	17	12	67										
AVERAGE	80	75	77	49	51	65										
DAILY MILK		59	84	69	55	69										
PROD-UCTIION	84	100	86	69	50	80										
	83	79	82	61	52	71										
FAT %	3.2	3.6	3.0	3.6	4.1	3.5										
PROT %	2.9	3.0	3.1	3.6	3.6	3.3										
	2.3	2.4	3.6	4.5	3.3											
	3.2	3.1	3.2	3.7	3.3											
	3.1	3.1	3.2	3.5	3.8	3.3										
	2.9	2.7	3.1	3.2	3.3	3.1										
	3.1	3.2	2.9	3.6	4.2	3.4										
	2.9	3.0	3.1	3.3	3.5	3.2										
1ST LACT	13	995	103	911	342	468										
2ND LACT	140	200	326	425	283											
3+ LACTS	450	2707	279	1073	384	844										
ALL LACTS	344	1304	193	669	381	517										
SCC	1	6	8	9	8	32										
SCORE > 3.9	25	60	33	53	67	48										

### WEIGHTED SCC (NEAREST 1,000)

DATE OF TEST	DAYS IN TEST PERIOD	NUMBER COWS IN TEST	TEST DAY AVERAGES (MILKING COWS)		STANDARD-IZED 150 DAY MILK
			DAYS IN MILK	MILK	
8-29-96	28	68	246	60.5	71.0
10-01-96	42	70	256	61.4	75.2
11-01-96	33	73	230	62.9	75.8
12-05-96	34	71	220	60.2	75.0
1-28-97	28	73	194	68.1	80.0
2-25-97	26	75	189	74.5	86.0
3-25-97	28	74	179	74.6	82.1
4-28-97	28	74	177	73.7	80.3
5-30-97	34	70	155	81.1	83.2
6-26-97	32	68	158	78.9	81.2
7-31-97	35	68	190	70.9	77.8
AVERAGES	32	71	188	71.5	79.4

### IDENTIFICATION AND GENETIC SUMMARY

AGE GROUP	NUMBER ANIMALS	AVG. AGE YR-MO	NUM. IDENTIFIED BY SIRE	DAM	NUMBER ID CHANGES	NO. ANIMALS WITH PTAS / PTAS		AVERAGE PTAS / PAS		HERD PTA \$ OPTION		GENETIC PROFILE OF SERVICE SIRE	
						SIRE	DAM	ANIMAL	SIRE	MFP	PROVEN A.I. SIRE	A.I. YOUNG SIRE	ALL OTHER SIRE
0-12	40	0-06	36	40		35	+134	+220			100		
13+	50	1-10	50	50		50	+116	+187			10		
REPLACE-MENTS	90	1-02	86	90		85	+125	+204			+240		
1ST LACT	29	2-07	29	29		13	+74	+162			82		
2ND LACT	18	3-09	18	18		17	+75	+117					
3+ LACTS	21	6-04	20	21		20	+58	+87					
ALL LACTS	68	4-01	67	68		50	+68	+123					
% IDENTIFIED (PRODUCING FEMALES)	99	100											

### CURRENT SOMATIC CELL COUNT SUMMARY

HERD PRODUCTION LOST FROM SCC THIS TEST PERIOD	MILK - 6,683
	\$ = 749
% COWS SCC SCORE	
0,1,2,3	4
4	5
5	6
6	7,8,9
OVER 1,130,000	566,000
OVER 1,130,000	284,000
OVER 1,130,000	284,000
OVER 1,130,000	284,000

### PRODUCTION BY LACTATION SUMMARY

NUMBER OF COWS	AVERAGE AGE MONTHS	SUMMIT		PROJ ME 305 DAY		DIFFERENCE FROM HERDMATES		BODY WEIGHT	
		MILK	FAT	MILK	FAT	MILK	FAT	WEIGHT	PROTEIN
29	31	76	22902	807	715	-1049	-79	-22	1210
18	45	104	25753	887	798	+2787	+35	+85	1240
21	76	109	24665	880	754	+1892	+40	+40	1300
68	49	93	24200	850	750	+905	-11	+26	1250

### YEARLY SUMMARY OF COWS ENTERED AND LEFT THE HERD

COWS ENTERED HERD	COWS LEFT HERD		NUMBER OF COWS LEFT THE HERD		DIS-EASE	DIED	NOT RPTD
	NUM.	%	FEET & HOVR OR OTHER	INJ.			
37	52	13	18	3	6	4	
1	1	13	18	3	1	2	4
2	2	9	13	2	2	2	2
38	54	35	49	5	6	4	10

### DRY COW PROFILE

NUMBER DRY PERIODS	DAYS DRY	NUMBER DRY		NUMBER DRY OVER 70 DAYS
		40-70 DAYS	70+ DAYS	
17	51	2	15	6
21	61	2	13	6
38	57	4	28	6

### YEARLY PRODUCTION AND MASTITIS SUMMARY

DATE OF TEST	DAYS IN TEST PERIOD	NUMBER COWS IN TEST	TEST DAY AVERAGES (MILKING COWS)		STANDARD-IZED 150 DAY MILK	TEST DAY AVERAGES (ALL COWS)		ROLLING YEARLY HERD AVERAGE		SOMATIC CELL COUNT SUMMARY		NUMBER LEFT HERD			
			DAYS IN MILK	MILK		% IN MILK	% FAT	% PROT.	% COWS SCC SCORE	AVG. SCC	WT. AVG. ACTUAL	DIED	SOLD		
			150 DAY MILK	% FAT		% PROT.	0,1,2,3	4	5	6	7,8,9	OVER 1.13 M	OVER 1.13 M		
8-29-96	28	68	246	60.5	71.0	97	59.6	3.9	3.2	22105	867	720	3.8	422	1
10-01-96	42	70	256	61.4	75.2	84	51.8	3.8	3.2	21871	863	713	3.7	398	1
11-01-96	33	73	230	62.9	75.8	85	54.3	4.0	3.3	21794	861	711	3.4	298	6
12-05-96	34	71	220	60.2	75.0	89	54.2	4.0	3.2	21920	867	714	2.8	162	1
1-28-97	28	73	194	68.1	80.0	84	56.9	3.9	3.3	22094	872	717	3.8	496	1
2-25-97	26	75	189	74.5	86.0	83	61.6	3.6	3.2	22147	870	716	4.0	673	1
3-25-97	28	74	179	74.6	82.1	84	62.5	3.8	3.2	22233	868	718	3.8	596	1
4-28-97	28	74	177	73.7	80.3	81	60.7	3.8	3.2	22161	863	714	4.3	836	2
5-30-97	34	70	155	81.1	83.2	85	68.2	3.8	3.2	22167	861	714	3.5	559	2
6-26-97	32	68	158	78.9	81.2	90	74.1	3.6	3.1	22278	861	716	3.0	274	4
7-31-97	35	68	190	70.9	77.8	90	70.7	3.6	3.1	22426	861	719	3.7	341	3
AVERAGES	32	71	188	71.5	79.4	90	62.8	3.7	3.2	23002	858	733	3.6	497	1

# MONTHLY REPORT DHI-220

**DUE DATE CODES**  
 \* CONF. PREG.  
 - NOT CONF. PREG.

**ACTION CODES**  
 B = TO BREED  
 D = TO DRY  
 F = LEAD FEED  
 P = PREG. CHECK

<b>Herdcode</b>	<b>Breed</b>	<b>Assoc.</b>	<b>Supervisor</b>	<b>Record Plan</b>	<b>Sample Date</b>
	H		102	20 DHIR	7-31-97
<b>Test Interval</b>					
<b>From</b>			<b>Processing Center</b>		
Barn Sheet Recd.			Last Data Recd.		
Mailed			Mailed		
<b>Cow Months</b>	<b>Length</b>	<b>From</b>	<b>8-05</b>	<b>8-04</b>	<b>8-05</b>
68.9	35	6-27			8-05

Breed	Cow Identification	Sample Day Data												Lactation to Date												305-2X-ME			Times Bred	Date Bred	Action Needed	Due Date				
		Test Date	Milk	SCCA	Test Date	Milk	SCCA	Test Date	Milk	SCCA	Test Date	Milk	SCCA	Test Date	Milk	SCCA	Test Date	Milk	SCCA	Test Date	Milk	SCCA	Test Date	Milk	SCCA	Test Date	Milk	SCCA					Income Over Feed Cost	Perst. %	Fat Lbs.	Prot. %
H	13305775	69	60	54	50	214	111	104	76	T-F	6-26	98.5	2.2	2.9	6.51	929	7	6-22	40	3585	87	113	3.2	362551	2091	134	176	3137	101	2.4	3.2	3	4-02	B	8-06	
H	11H2410	214	985	214	214							123	2.9		7.97	929	46	9-06	309	329891	122	1057	3.2	101	11172	280	362	101	3.4	3.2	3	4-02	B	8-06		
H	360551420	119	112	106	111	104	76	76	76	T-F	6-26	82.0	4.0	4.0	7.97	929	2	9-26	309	329891	122	1057	3.2	101	11172	280	362	101	3.4	3.2	3	4-02	B	8-06		
H	1H406	38	35	33	41	71	54	54	54			87	3.3	3.3	130	1125	51	3-09	310	257381	103	810	3.1	2564	319891	327	964	2564	3.4	3.1	4	7-28	P	5-04		
H	15536206	96	96	90	92	58	73	69	73			69.7	4.3	4.3	6.76	CHRIS	1	9-25	310	257381	103	810	3.1	101	6746	406	185	101	4.3	3.1	2	7-28	P	5-04		
H	11H2847	1300	1056	985	696	746	460	460	460			800	3.4	3.4	84	1	2-02	185	13342	13342	450	403	3.0	977	24522	821	749	977	3.4	3.0	2	7-21	P	9-01		
H	15699708		74	95	86	77	40	68	73			68.7	3.3	3.2	5.35	CHRISTY	1	1-28	185	13342	450	403	3.0	121	22223	26	40	121	3.4	3.0	2	7-21	P	9-01		
H	9H1289		2263	115	38							50	3.2	3.2	90	17	2-00	341	21908	21908	974	788	3.6	2458	23168	1008	810	2458	4.4	3.6	5	5-04	P	2-08		
H	15175944	62	61	57	61	54	55	52	54			52.5	4.5	4.5	5.22	CRISANA	2	8-25	341	21908	21908	974	788	3.6	100	2494	63	32	100	4.4	3.6	5	5-04	P	2-08	
H	9H1294	76	107	76	71	214	187	985	3.5	79	1122	985	3.5	3.5	79	1122	37	3-08	253	29980	1052	840	2.8	2204	33556	137	948	2204	3.5	2.8	2	6-09	P	3-16		
H	14514814	150	145	133	121	78	92	88	1			88.1	3.2	3.2	5.76	CRISTIA	21	1-21	253	29980	1052	840	2.8	2204	33556	137	948	2204	3.5	2.8	2	6-09	P	3-16		
H	1H7380	76	107	87	87	696	41	71	3.0	149	1074	71	3.0	3.0	149	1074	55	5-05	326	19572	857	669	3.4	2081	22364	952	746	2081	4.4	3.4	2	7-28	P	5-04		
H	15541580	69	63	62	56	50	45	44	2			44.2	4.7	4.7	4.21	DANNA	1	9-09	326	19572	857	669	3.4	2081	22364	952	746	2081	4.4	3.4	2	7-28	P	5-04		
H	2201004	31	44	62	141	66	25	19	3.5	69	1163	19	3.5	3.5	69	1163	1	2-07	71	4245	159	134	3.2	143	19230	691	591	143	3.7	3.2	1	6-17	B	3-24		
H	15536210											71.5	3.1	3.0	4.70	DOMIE3	1	5-22	71	4245	159	134	3.2	143	19230	691	591	143	3.7	3.2	1	6-17	B	3-24		
H	2201004											214	3.0	3.0	67	3	2-09	153	15248	436	500	5.00	5.00	22566	628	786	22566	628	786	2.9	3.3	1	6-17	P	3-24	
H	15172632	DRY	DRY	110	122	99	90	71	4	2.1	5.00	71.4	2.1	2.1	5.00	DOMINA	3	3-01	153	15248	436	500	5.00	5.00	22566	628	786	22566	628	786	2.9	3.3	1	6-17	P	3-24
H	7H1897											200	3.5	3.5	116	1097	61	5-00	248	25938	143	820	3.2	2225	30792	320	970	2225	4.4	3.2	2	6-13	P	3-20		
H	15172638	131	114	108	106	89	84	77	2	4.5	6.79	77.2	4.5	4.5	6.79	DOMINI	21	1-26	248	25938	143	820	3.2	2225	30792	320	970	2225	4.4	3.2	2	6-13	P	3-20		
H	9H1294	54	27	44	50	93	57	66	3.5	133	1118	66	3.5	3.5	133	1118	45	4-00	264	16245	625	522	3.2	102	7080	461	239	102	4.4	3.2	2	6-13	P	3-20		
H	15703015											75.3	3.7	3.6	6.03	ELISA	1	6-15	47	2824	103	83	2.9	111	22398	846	666	111	3.6	2.9	1	6-17	B	3-24		
H	370551419	T-F										566	3.0	3.0	64	26	2-04	30	1365	65	49	3.6	78	2398	846	666	111	3.6	2.9	1	6-17	B	3-24			
H	9H1294											61.0	4.0	4.0	5.52	ELISE	3	1-24	189	14340	540	465	3.2	1125	19776	757	656	1125	3.8	3.2	1	4-13	P	1-18		
H	370581414	69	70	68	53	54	62	48	0	3.2	3.52	48.0	3.2	3.2	3.52	ELLENA	11	1-10	264	16245	625	522	3.2	1201	21149	779	681	1201	3.8	3.2	5	6-26	P	4-02		
H	2201004	44	44	41	38	50	606	57	3.6	71	1178	57	3.6	3.6	71	1178	1	2-05	30	1365	65	49	3.6	98	2900	97	59	98	3.8	3.2	1	6-26	P	7-31		
H	370581075	84	71	68	64	DRY	DRY	52	3.3	4.14	ELSLIE	3	7-02	3	4.14	ELSLIE	3	7-02	30	1365	65	49	3.6	78	2398	846	666	111	3.6	2.9	1	6-17	B	3-24		
H	14H1127	57	62	87	33							1838	3.2	3.2	64	26	2-04	30	1365	65	49	3.6	78	2398	846	666	111	3.6	2.9	1	6-17	B	3-24			
H	14830702	113	108	108	100	85	80	75	0	4.5	6.96	75.0	4.5	4.5	6.96	ESTEE	2	1-12	201	19197	852	620	3.2	1686	24982	118	829	1686	4.8	3.6	1	5-20	P	2-24		
H	7H1897	41	27	857	23	44	22	100	3.4	110	1112	100	3.4	3.4	110	1112	58	4-05	201	19197	852	620	3.2	103	2764	316	120	103	4.4	3.2	1	5-20	P	2-24		
H	15541585	83	81	81	90	83	73	74	7	3.9	7.30	74.7	3.9	3.9	7.30	HEDDANA	1	8-29	337	26784	1003	890	3.3	2568	30533	126	982	2568	3.7	3.3	3	3-11	P	12*16		
H	9H1351	152	44	66	76	187	187	152	3.6	79	1171	152	3.6	3.6	79	1171	1	2-05	144	14926	511	428	2.9	100	5325	189	214	100	3.7	3.3	3	3-11	P	12*16		
H	14503092	DRY	DRY	46	130	121	125	100	0	3.3	8.10	100.0	3.3	3.3	8.10	HEDDIA	4	3-10	144	14926	511	428	2.9	1297	25174	887	759	1297	3.4	2.9	1	6-05	P	3-12		
H	7H1557											132	2.8	2.8	125	1024	97	7-01	209	17200	519	541	3.1	1268	21926	673	705	1268	3.4	2.9	1	4-28	P	2*02		
H	15172634	92	92	103	85	74	67	63	2	3.2	5.48	63.2	3.2	3.2	5.48	HEDIANA	3	1-04	209	17200	519	541	3.1	103	262	120	103	3.0	3.1	1	4-28	P	2*02			
H	1H406	2786	2111	857	746	2599	746	650	3.3	97	1113	650	3.3	3.3	97	1113	53	4-03	103	8975	254	265	3.0	482	22087	616	706	482	2.8	3.0	1	7-10	P	4-16		
H	15547919											85.8	1.8	1.8	5.55	HEDFANE	2	4-20	103	8975	254	265	3.0	102	1365	195	26	102	2.8	3.0	1	7-10	P	4-16		
H	7H3340											162	3.2	3.2	93	1149	53	3-06	103	8975	254	265	3.0	102	1365	195	26	1								











# SOMATIC CELL COUNT PROFILE DHI-520

11/96

HERDCODE

SCC OPTION SCORE/ACTUAL  
ACTUAL (NEAREST 1000)

DATE OF TEST  
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SCCS	CHL (1000)	SCCS	CHL (1000)	SCCS	CHL (1000)
0	0-18	5	181-287	9	2,243-4,523
1	19-35	6	284-565		
2	36-71	7	566-1,130		4,524-9,999
3	72-141	8	1,131-2,262		

↓ SORTED BY % OF BULK TANK SCC

HERD AVG SCC COUNT  
497

BARN NAME OR COW INDEX	TEST DAY MILK		SOMATIC CELL COUNT						MASTITIS INFECT *	% BULK TANK SCC	AV SCC W/O THIS COW & COWS ABOVE THIS COW	LACT AVG SCC SCORE	#SCC TESTS THIS LACT.	#TESTS OVER 3.9 SCC SCORE	DAYS IN MILK	DUE DATE	LACT NO	R A T I O N G
	PREVIOUS	CURRENT	TEST DATE	TEST DATE	TEST DATE	TEST DATE	TEST DATE	THIS TEST										
			02-25	03-25	04-28	05-30	06-26											
JULLI	74	73		17		373	2111	4223	CHR	13	438	6.9	4	3	97	4-23-98	1	D
RENNIE	83	104			18	2599	2425	2786	CHR	12	383	7.7	4	3	84		8	C
TRINETA	73	76				19	100	2599	NEW	8	345	5.4	3	1	42		3	D
HESPERA	89	90	41	3430	985	1300	1056	1715	CHR	6	316	7.1	10	9	248	5-05-98	4	A
NANBELA	39	35	54	93	1300	566	4526	3940	CHR	5	286	4.7	11	4	304	10-04-97	1	E
ELISIE		52						1838	NEW	4	267	7.2	1	1	30		3	
JENETTA	57	62	20	1838	746	1393	2786	1715	CHR	4	245	5.6	11	8	289	1-19-98	2	A
TREASY	93	84	13	1056	1056	1131	1213	1131	CHR	4	227	6.7	8	7	199	2-24-98	4	A
TRICEY	37	40	41	1131	3676	460	5972	1838	CHR	3	211	6.8	10	9	272	11-06-97	1	E
JETTA	60	44	54	31	492	800	650	1300	CHR	2	199	4.4	10	5	274	11-07-97	1	B
ELISE	65	61	13	17	31	41	283	1056	CHR	2	185	2.6	7	2	189	1-18-98	3	D
CRISANA	55	53	33	76	71	214	187	985	NEW	2	174	3.1	12	2	341	2-08-98	2	B
CHRIS	73	70	23	985	696	746	460	800	CHR	2	163	5.4	12	10	310	5-04-98	1	A
JENELLA	38	31	492	230	174	1213	985	919	CHR	1	156	4.4	15	7	413	1-01-98	4	B
HEDIANA	67	63	13	857	746	2599	746	650	CHR	1	148	6.6	8	7	209	2-02-98	3	D
ELISA	53	75				19		566	NEW	1	139	5.5	2	1	47		1	C
JUSSIE	65	63	23	123	187	230	348	566	CHR	1	132	3.7	10	4	305	11-14-97	1	A
HETTA	73	54	25	123	33	214	348	492	CHR	1	126	2.4	11	3	285	10-27-97	3	B
JOANNE	59	51	33	132	62	132	62	460	NEW	1	121	2.9	17	1	481	10-06-97	5	B
SUKANA	59	60	23	2425	348	1213	650	460	CHR	1	115	5.8	11	9	306	4-01-98	2	A
MAGENTA	78	65		17	6400	325	214	429	CHR	1	109	5.7	5	4	108	4-21-98	2	E
HELIANE	87	87	15	566	31	50	41	325	NEW	1	103	3.0	6	2	135	4-17-98	2	C
TRICTIA	75	67		17	348	566	1056	325	CHR	1	99	5.4	5	4	112	3-26-98	1	E
LADORE	74	89	31	57	187	71	81	303	CHR	1	93	3.5	9	3	234	1-15-98	2	A
TRICANE	41	34	1393	141	566	132	187	373	CHR	0	90	4.3	13	6	363	10-25-97	1	C
MARA	74	35			18	919	71	348	NEW	0	87	4.5	4	2	69		2	E
NELLA	43	23	23	93	123	246	93	264	NEW	0	85	2.5	12	2	322	9-13-97	2	A
HETTE	48	53	13	71	214	174	152	230	NEW	0	83	3.4	8	2	193	3-01-98	1	E
DOMIE3	63	72			18	214	100	214	NEW	0	79	3.7	4	2	71		1	D
NOELLE	70	77	71	81	35	81	66	214	NEW	0	76	2.7	7	1	166	3-11-98	1	C
DOMINA	90	71	15	152	107	123		200	NEW	0	72	3.5	5	1	153	3-24-98	3	D
JULLIA	46	32	23	66	54	81	44	200	NEW	0	71	2.5	12	2	309	12-29-97	1	D
HEDIANE	89	86		17	66	87	81	162		0	68	2.9	4	0	103	4-16-98	2	D
HEDDANA	73	75	27	66	76	187	187	152		0	65	2.8	11	1	337	12-16-97	1	A
HEDDIA	125	100	15	230	19	35	33	132		0	63	2.2	5	1	144	3-12-98	4	B
HELLI	71	63	47	81	62	62	76	123		0	61	2.5	10	0	288	9-30-97	1	A
BIANNE		99				19		123		0	58	3.3	1	0	40		7	
ROSEBUD	90	106	15	93	47	66	47	115		0	55	2.5	5	0	146	3-17-98	8	B
HELLETI	84	100		17	44	50	29	107		0	53	2.0	4	0	102		2	C
ESTEE	80	75	13	857	23	44	22	100		0	51	2.2	7	1	201	2-24-98	2	A
HESTER	120	112	15	31	23	44	50	100		0	48	1.8	5	0	149		3	A
ROMIA	72	69	23	66	71	132	66	87		0	47	2.6	11	1	333	11-28-97	3	A
GAMMIE	76	82	23	33	41	71	54	87		0	45	2.0	11	1	309	1-07-98	2	A
HELOISA	78	69	123	33	50	57	81	81		0	43	2.4	6	0	173	3-17-98	1	C
HESPRIA	48	56	115	47	54	141	162	81		0	42	2.6	8	0	221	4-16-98	2	D

\* NEW \* Animals with SCC Score > 4 (200,000) for the first time this lactation.  
 \* CHRONIC \* SCC Score > 4 (200,000) this test, and 2+ consecutive test dates this lactation  
 \* PRV \* SCC Score > 4 (200,000) 2+ consecutive test dates this lactation.

# SOMATIC CELL COUNT PROFILE DHI-520

1196

HERDCODE

SCC OPTION, SCORE/ACTUAL  
ACTUAL (NEAREST 1000)

DATE OF TEST  
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SCCS	CALL CNT (1000)	SCC	CALL CNT (1000)	SCCS	CALL CNT (1000)
0	0-15	4	141-293	8	2,253-4,523
1	16-35	5	294-565	9	4,524-9,999
2	36-71	6	566-1,130		
3	72-141	7	1,131-2,252		

HERD AVG. SCC COUNT  
497

SORTED BY % OF BULK TANK SCC

BARN NAME OR COW INDEX	TEST DAY MILK		SOMATIC CELL COUNT						MASTITIS INFECT *	% BULK TANK SCC	AV. SCC W/O THIS COW & COWS ABOVE THIS COW	LACT AVG SCC SCORE	#SCC TESTS THIS LACT.	#TESTS OVER 3.9 SCC SCORE	DAYS IN MILK	DUE DATE	LACT NO.	R A T I N G
	PREVIOUS	CURRENT	TEST DATE	TEST DATE	TEST DATE	TEST DATE	TEST DATE	THIS TEST										
			02-25	03-25	04-28	05-30	06-26											
CRISTIA	92	88	41	87	87	696	41	71	0	40	2.7	9	1	253	3-16-98	2	A	
ROSBUDA	85	88		17	57	76	44	71	0	38	2.3	4	0	106	3-25-98	1	C	
DOMINI	84	77	41	44	50	93	57	66	0	37	2.0	9	0	248	3-20-98	2	A	
RENNIA	98	111		17	93	54	27	66	0	34	2.1	4	0	104	4-16-98	1	C	
ELLENA	62	48	41	41	38	50	606	57	0	33	2.5	9	0	264	4-02-98	1	D	
CHRISTY	40	69	13	115	38		23	50	0	32	3.0	5	1	185	4-27-98	1	C	
NANELIA	53	82					19	214	0	31	3.1	2	0	60		2	E	
ROSABEL	66	80					19	115	0	29	2.6	2	0	55		1	C	
ROSEY	73	70	15	41	44	152	44	47	0	27	2.2	5	0	147		6	D	
LETTA		100						44	0	25	1.8	0	0	21		3		
MARIA	91	83	303	29	50	200	20	41	0	23	2.4	6	2	163	4-21-98	2	D	
JEWEL	69	65		29	33	71	27	35	0	22	1.5	5	0	159	3-05-98	1	D	
MISSY	57	53	66	71	25	41	66	35	0	21	2.0	8	0	224	12-16-97	1	E	
HEDINIA	86	82	15	31	18	31	18	29	0	20	1.0	5	0	146		3	C	
HELTIAN	67	74					19	38	0	19	1.4	2	0	49		1	B	
JELLY	94	91		17	33	87	27	23	0	17	1.6	4	0	110		1	D	
MIMI	84	38	41	27	18	41	13	20	0	17	1.7	9	1	246	1-07-98	2	A	
HESTERA	78	77		17	33	44	17	20	0	16	1.1	4	0	119		1	C	
DANNA	45	44	23	62	141	66	25	19	0	15	1.5	11	0	326	5-04-98	1	B	
HESSIE	75	92	15		41	57	107	17	0	13	1.9	4	0	133		3	C	
JULIANI		80					19	29	13	0	0.7	2	0	40		1		
COWS IN MILK-NO SCC REPORTED																		
HELEIA	137	121			18	38	13			0	0.9	3	0	82		4	B	

\* NEW \* Animals with SCC Score > 4 (200,000) for the first time this lactation.  
 \* CHRONIC \* SCC Score > 4 (200,000) this test, and 2+ consecutive test dates this lactation  
 \* PRV \* SCC Score > 4 (200,000) 2+ consecutive test dates this lactation.

HERDCODE	DATE OF TEST
	073197

## SOMATIC CELL COUNT SUMMARY DHI-521

Herd Average SCC By Test Day										
	Test Day 12-05	Test Day 12-31	Test Day 01-28	Test Day 02-25	Test Day 03-25	Test Day 04-28	Test Day 05-30	Test Day 06-26	Test Day 07-31	Reg Av. Top 25%
Weighted Av. SCC	496	673	596	836	559	274	341	390	497	162
Av. Linear Score	3.8	4.0	3.8	4.3	3.5	3.0	3.7	3.3	3.9	2.1

SCC Summary				
SCC		Animals	Herd %	Reg. Top 25%
Actual	Score			
< 100	< 3.1	27	41	70
100-200	3.1-4.0	9	14	15
201-400	4.1-5.0	9	14	6
401-800	5.1-6.0	8	12	4
> 800	> 6.0	13	19	3

Milk Loss Per Day		
	Per Milking Cow	Per Herd
Lbs	2.8	190
Dollar	\$0.32	\$21.40

Stage Of Lactation Profile								
	Lact #	Days in Milk This Test Day					Total	Reg Av. Top 25%
		1 - 40	41 - 100	101 - 199	200 - 305	306 +		
Number Cows	1	1	5	10	7	5	28	31
	2		2	5	7	4	18	23
	3+	3	3	9	3	3	21	33
	All	4	10	24	17	12	67	87
Average Milk	1	80	75	77	49	51	66	49
	2		59	84	69	55	66	66
	3+	84	100	86	69	50	77	71
	All	82	78	82	62	52	71	63
Average SCC Score or Actual	1	13	995	103	911	342	461	140
	2		140	200	326	425	295	180
	3+	450	2707	279	1073	384	379	225
	All	344	1304	193	669	381	497	162
% >4.0 SCC Score (200,000 Actual)	1		60	30	57	40	42	10
	2		50	40	28	75	44	12
	3+	33	100	22	100	66	50	16
	All	25	66	29	52	58	45	15
Number New Infect.	1		2	2		1	5	
	2		1	1		2	4	
	3+	1	1	1		1	4	
	All	1	4	4		4	13	
Number Chronic Infect.	1		1	1	4	2	8	
	2			1	2	1	4	
	3+		1	2	3	1	7	
	All		2	4	9	4	19	





Use the following information to calculate answers for questions 34 and 35:

Most Iowa dairy producers are now paid for their milk under a system that pays for various components rather than volume. A producer is paid the following amounts:

- \$ 1.55 per pound of protein
- \$ 1.17 per pound of milk fat
- \$ 0.36 per pound of other solids
- \$ 0.01 per cwt. for every 10,000 SCC below 400,000

One producer marketed 350,000 lb. of milk that contained 3.22% protein, 3.97% milk fat, 5.66% other solids, and 170,000 SCC.

34. What is the total value of the milk marketed?

- a) \$40,857.25      b) \$41,854.75      c) \$39,855.00      d) \$38,856.55

35. How much additional income did this producer receive for producing high quality milk?

- a) \$80.50      b) \$805.00      c) \$8,050.00      d) \$80,500.00

# Holstein Sire Summary

NAAB CODE	SIRE NAME	NM \$\$	USDA - DHIA GENETIC EVALUATIONS PREDICTED TRANSMITTING ABILITIES											SAMPLING INFORMATION			BREED ASSOC TYPE DATA			NAAB C.E		
			PRO	PRO	FAT			MF		SCS		PL		HRDS	DAUS	CD	PTAT	R	TPI™	DB	R	
			RK	LBS	%	R	MILK	LBS	%	\$\$	\$\$	R	R									
7H4637	LADYS-MANOR WINCHESTER-ET	255	84	-0.04	80	3004	102	-0.03	367	343	3.32	64	2.5	44	44	55	S	1.18	76	1607	8	70
11H3243	MAIZEFIELD BELLWOOD-ET	2655	85	0.01	90	2655	101	0.01	333	333	3.01	78	1.9	65	98	122	S	1.12	86	1564	8	99
29H7673	EASTVIEW INFLUENCE MATTIE G	256	92	0.08	82	2363	84	-0.01	292	324	3.17	67	2.2	45	51	75	S	1.59	79	1677	11	86
1H967	ZIELLAND ZEBO	268	81	-0.05	79	2968	96	-0.05	359	331	3.03	59	0.9	55	20	40	O	1.97	72	1640	10	98
7H4295	EMERALD-ACRES-SA THAD-ET	279	76	0.02	81	2262	91	0.04	288	295	3.10	67	3.3	58	27	82	O	1.69	78	1581	10	98
76H137	DERRWYN SELECT-ET	255	86	0.00	78	2707	85	-0.06	325	324	3.25	60	1.7	43	32	44	S	0.75	77	1468	10	66
7H4624	DE-SU AEROSTAR SPACE-ET	244	94	0.07	78	2475	77	-0.06	297	326	3.23	61	1.5	43	39	45	S	0.60	76	1548	7	67
7H4638	RICECREST TESK TERRY	241	82	0.01	80	2533	68	-0.11	295	297	3.14	65	2.8	47	49	58	S	2.12	83	1583	8	76
14H2090	HA-HO CUBBY MANFRED-ET	240	83	0.04	83	2346	88	0.01	293	309	3.32	66	2.4	55	45	56	S	1.10	80	1542	7	77
7H4523	KERNDTWAY GOLDFINGER	236	83	0.03	85	2447	81	-0.04	297	307	3.31	69	2.1	58	48	59	S	0.72	81	1484	7	69
7H4654	REIFF-FARM MASCOT JAVLIN-ET	229	79	0.02	78	2403	81	-0.03	293	297	3.09	62	1.6	44	40	47	S	1.11	74	1468	10	69
7H3847	AMELDIN II PONTIAC HUNTER	225	73	0.00	88	2362	68	-0.08	279	274	2.99	75	2.2	62	71	81	S	0.47	81	1360	10	99
1H4333	PAULO-BRO RTL DEMAND TCG-ET	222	84	0.02	89	2485	70	-0.09	292	301	3.07	61	0.6	50	119	133	S	1.69	70	1589	7	63
1H4316	CORNER-PINES AMBITION-ET	221	73	0.07	86	1782	81	0.07	234	266	3.16	72	3.0	60	64	71	S	0.57	83	1402	9	78
7H4211	END-ROAD BLACKSTAR MAJIC-ET	221	69	-0.03	83	2448	84	-0.02	300	281	3.27	67	2.3	62	31	54	O	1.66	78	1440	7	98
9H1736	NORRIELAKE LEAD ELEMENT-ET	142	56	0.06	89	1374	65	0.07	183	207	3.35	75	0.1	64	71	89	S	0.71	86	1203	8	80
122H1116	ARLINDA RIK-ET	142	50	0.09	85	988	71	0.16	151	187	3.25	71	1.1	56	45	84	S	0.53	85	1163	6	68
9H1698	BESHORE LEADMAN PLUNK-ET	142	48	-0.03	87	1719	30	-0.15	187	173	3.25	73	2.0	62	58	67	S	0.73	83	1099	6	97
2144	ZONNEVELD PRIDE-ET	142	48	0.00	73	1555	28	-0.13	170	167	2.99	61	1.7	47	22	54	M					
7H4164	SECOND-LOOK JOLT	142	43	0.05	82	1050	64	0.12	151	170	3.18	65	2.0	56	37	42	S	2.70	77	1352	11	98

Use the information in the table above (taken from the of the August, 1997 Holstein Sire Summary) to determine the best answer to questions 36-40.

### Sire Evaluation Questions - (5 points each)

36. The PTAM for Arlinda Rik-ET is +988 and for Maizefield Bellwood is +2655. On average, daughters of Bellwood are expected to produce:
- 1677 lb. more milk during each lactation than daughters of Rik in herds that have average production.
  - progeny that are expected to produce 834 lb more milk on average during each lactation than granddaughters of Rik.
  - more than 1677 lb more milk during each lactation than daughters of Rik in herds that have high production.
  - all of the above
  - none of the above
37. The owner of a commercial Holstein herd is comparing 4 bulls as potential service sires for milking cows. The herd sells milk on a Multiple Component pricing system, and is looking to maximize net income for the herd. The four bulls being considered are: Zielland Zebo, Emerald-Acres-SA Thad-ET, Ameldin II Pontiac Hunter, and De-Su Aerostar Space-ET.
- Thad should be used as a service sire because he is "plus" for both fat % and protein %. Thus his daughters are expected to produce more total net income from milk sales.
  - This herd owner should buy semen from Zebo, because Zebo has the highest NM\$.
  - Reliability is highest for Hunter, so he is the best bull choice for this commercial herd.
  - Although Space is -0.06 for PTA%F, he is the highest bull for PTA%P, and would help the herd improve protein %. These genetic data show that Space is the best choice to increase the farms net profitability.

38. We know that SCS is an indicator of mastitis, however, there is very little variability among bulls in the Sire Summary for PTA SCS. In a sire selection program for a commercial dairy herd,
- a) the PTA SCS is an important selection criteria, but it is considered in TPI, so it can be ignored when bulls are compared.
  - b) this low variability among bulls indicates that including PTA SCS in a selection program will have little impact on net profitability, and is unimportant for sire selection decisions
  - c) the PTA SCS for Ha-Ho Cubby Manfred-ET is higher than the PTA SCS for Ameldin II Pontiac Hunter, and this indicates that daughters of Ha-Ho Cubby Manfred-ET will be more resistant, and so will have fewer cases of mastitis.
  - d) Both a) and c) are correct.
  - e) None of the above.
39. A small herd in NE Iowa earns more than 93% of dairy income from milk sales. The herd owner would like to begin breeding heifers to AI bulls, and has suggested the following potential service sires. Indicate the bull that likely would be the best choice for this situation
- a) Maizefield Bellwood-ET
  - b) Arlinda Rik-ET
  - c) Angus bull
  - d) Eastview Influence Mattie G
40. As more information is learned about lower reliability bulls, PTA's for these bulls may change in subsequent Sire Summaries. Identify the bull whose Productive Life PTA may change the most during subsequent summaries
- a) End-Road Blackstar Majic-ET
  - b) Ameldin II Pontiac Hunter
  - c) Maizefield Bellwood-ET
  - d) Norrielake Lead Element-ET

**Pedigree Evaluation - 50 points**

The pedigrees of four animals are listed on the following pages. Rank these animals based on their pedigrees and indicate your ranking on the answer sheet in the "judging scorecard" in the third column under the Pedigree Evaluation heading.

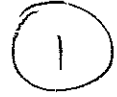
**OFFICIAL AJCA PERFORMANCE PEDIGREE**

DATE ISSUED 12-12-96 (T 419672)

FEMALE  
 AMES BERRETTA PAULINE  
 003976975  
 BORN 06-29-96  
 TATTOO A1541 A1541

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 \*P9\*  
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OWNER 21565  
 DAIRY SCIENCE DEPT  
 123 KILDEE HALL  
 AMES IA 50011-0001  
 BRÉEDER  
 DAIRY SCIENCE DEPT  
 123 KILDEE HALL  
 AMES IA 50011-0001



PA +1594M +36F +55P +172PS +195CYS  
 +2.5 TYPE +313PTI

REG. NUMBER BIRTHDATE TATTOO

ST SR BD DF RA TW RL FA  
 +1.3 +0.2 0.0 +2.8 0.8 +0.3 P1.0 S1.1  
 FU RH RW UC UD TP TL  
 +0.2 +2.1 +2.1 +0.8 0.1 C1.4 0.8

SOLDIERBOY BOOMER SOONER OF CJF  
 000640211 7J159

USDA 7/96 15457 DAUS 1732 HRDS 12% R  
 99%R +1599M -.34% + 22F 58%ILE  
 99%R -.11% + 43P +154PS +148CYS  
 AJCA 7/96 10307 DAUS 100%U  
 PTAT 99%R +2.9 PTI 99%R +245

OSB E SETTLER SHADOW MAGGIE  
 003459978 OSB D192

2-00 304 2 15530 5.0 778 3.7 576 DH  
 3-00 305 2 20040 5.1 1020 3.8 754 DH  
 4-03 305 2 26200 4.3 1125 4.01040 DH  
 5-06 305 2 25000 4.3 1068 4.11031 DH  
 6-11 305 2 27340 4.3 1179 4.21154 DH  
 8-10 305 2 25870 4.0 1036 3.91018 DH  
 305 2X ME AVG 6L 24,889M 1095F 97  
 PPA +4494M +198F +198P +647PS +757CY  
 USDA PTA 7/96 5RECS 65%R 99%ILE  
 +1014M + 42F + 55P +160PS +202CYS  
 AJCA 7/96 PTAT 51%R +0.6 PTI 62%R +

MASON BOOMER SOONER BERRETTA  
 000651835 YSP 7J254

USDA 7/96 793 DAUS 302 HRDS 24% RIP  
 97%R +1417M -.23% + 31F 97%ILE  
 97%R +.07% + 64P +184PS +222CYS  
 AJCA 7/96 562 DAUS 100%USA  
 PTAT 95%R +3.6 PTI 96%R +389

AMES HERMITAGE PAULINE  
 003832126 A1219 A1219

DHI HERD #42-85-0274 CONTROL #07920  
 1-10 505 3 18030 4.0 725 3.5 629 DHR  
 305 2X ME AVG 1L 19,082M 767F 666P  
 2-00 77% 2-08 78%  
 ST SR BD DF RA TW RL FA  
 28 31 33 27 27 25 29 22  
 FU RH RW UC UD TP TL  
 23 29 28 27 24 22 21  
 PPA +3335M + 70F +103P +358PS +369CYS  
 USDA PTA 7/96 1REC 43%R 99%ILE  
 +1370M + 41F + 45P +160PS +169CYS  
 AJCA 7/96 PTAT 49%R +1.4 PTI 42%R +237

REBOB DUNCAN HERMITAGE-ET  
 000646854 7J207

USDA 7/96 4272 DAUS 1060 HRDS 27% R  
 99%R +1051M +.02% + 52F 46%ILE  
 99%R +.00% + 39P +144PS +158CYS  
 AJCA 7/96 2210 DAUS 97%U  
 PTAT 99%R +1.3 PTI 99%R +232

AMES SOONER PAULINE  
 003721318 A1024 A1024

DHI HERD #42-85-0274 CONTROL #07920  
 2-00 305 3 16070 4.0 649 3.5 562 DH  
 3-00 119 3 5620 4.7 265 3.6 200 DH  
 305 2X ME AVG 1L 17,543M 698F 61  
 PPA +2942M + 42F + 78P +283PS +271C  
 USDA PTA 7/96 2RECS 49%R 96%ILE  
 +1261M + 21F + 38P +130PS +133CY  
 AJCA 7/96 PTAT 47%R +1.9 PTI 47%R

**OFFICIAL AJCA PERFORMANCE PEDIGREE**

DATE ISSUED 12-12-90 (1 419072)

FEMALE  
 AMES ALF DELLA  
 003976972 \*\*\*\*\*  
 BORN 06-20-96 \*P8\*  
 TATTOO A1535 A1535 \*\*\*\*\*

OWNER 21565  
 DAIRY SCIENCE DEPT  
 123 KILDEE HALL  
 AMES IA 50011-0001  
 BREEDER (2) 21565  
 DAIRY SCIENCE DEPT  
 123 KILDEE HALL  
 AMES IA 50011-0001

PA +710M +53F +39P +128P\$ +158CYS  
 +1.3 TYPE +253PTI

ST SR SD DF RA TW RL FA  
 -0.1 +1.1 +0.7 +0.8 LU.3 +0.5 SO.2 SO.4  
 FU RH RW UC UD TP TL  
 +0.3 +1.1 +1.1 +1.5 SO.7 C1.2 LU.3

REG. NUMBER BIRTHDATE TATTOO

COMFORT ROYAL ALF-ET  
 000651068 YSP 1J332

USDA 7/96 37 DAUS 25 HRDS 8% RIP  
 75%R +1042M +.06% + 58F 82%ILE  
 75%R +.08% + 52P +168P\$ +203CYS  
 AJCA 7/96 25 DAUS 100%USA  
 PTAT 56%R +1.2 PTI 69%R +318

AMES BROOK DELLA  
 003613404 A1192 A1192

DHI HERD #42-85-0274 CONTROL #07913  
 2-00 305 3 14530 5.2 753 3.7 542 DHR  
 305 2X ME AVG 1L 14,772M 759F 547P  
 2-03 36%

ST SR SD DF RA TW RL FA  
 20 21 32 33 31 20 32 18  
 FU RH RW UC UD TP TL  
 35 34 32 37 27 38 22

PPA + 521M +112F + 39P +162P\$ +201CYS  
 USDA PTA 7/96 1REC 45%R 84%ILE  
 + 378M + 48F + 25P +39P\$ +112CYS  
 AJCA 7/96 PTAT 47%R +1.4 PTI 43%R +188

J. S. QUICKSILVER ROYAL  
 000634142 SJ234

USDA 7/96 12290 DAUS 2013 HRDS 1% RE  
 99%R + 76M +.10% + 26F 08%ILE  
 99%R +.10% + 17P +48P\$ +72CYS  
 AJCA 7/96 6510 DAUS 100%U  
 PTAT 99%R +0.4 PTI 99%R +115

GREENRIDGE FW CHIEF ALTHEA-ET 9  
 003507678 GR1868

2-02 305 3 17750 5.0 381 3.9 686 DHI  
 3-02 305 2 18950 4.7 392 3.8 712 DHI  
 4-11 305 2 20560 4.7 970 3.9 809 DHI  
 6-00 305 2 20360 4.5 913 3.8 777 DHI  
 8-04 41 2 3360 4.3 144 3.7 124 DH  
 10-04 305 2 21240 4.1 862 3.9 832 DH  
 305 2X ME AVG 5L 21,036M 948F 80  
 PPA +4047M +203F +183P +607P\$ +714CY  
 USDA PTA 7/96 4RECS 84%R 99%ILE  
 +1247M + 70F + 66P +207P\$ +256CYS  
 AJCA 7/96 PTAT 50%R +0.2 PTI 77%R +

MOLLY BROOK BRASS MAJOR  
 000644248 29J2865

USDA 7/96 2971 DAUS 747 HRDS 35% R  
 99%R +1093M +.11% + 68F 73%ILE  
 99%R +.01% + 42P +162P\$ +179CYS  
 AJCA 7/96 1763 DAUS 100%U  
 PTAT 98%R +3.7 PTI 98%R +324

AMES ROYAL DELLA 7  
 003526975 A9691 A9691

DHI HERD #42-85-0274 CONTROL #07913  
 2-04 292 2 10660 5.6 598 4.1 438 DH  
 3-04 305 2 13370 5.5 739 4.2 560 DH  
 4-05 305 3 16750 5.5 917 4.0 676 DH  
 5-07 299 3 11250 5.4 613 4.1 466 DH  
 6-07 50 3 2240 4.8 108 4.0 89 DH  
 305 2X ME AVG 4L 12,367M 673F 51  
 PPA -1499M + 27F - 10P -64P\$ -10CY\$  
 USDA PTA 7/96 5RECS 56%R 45%ILE  
 - 248M + 26F + 10P +22P\$ +50CY\$  
 AJCA 7/96 PTAT 50%R -0.7 PTI 52%R

**OFFICIAL AJCA PERFORMANCE PEDIGREE**

DATE ISSUED 12-12-96 (T 419672)

FEMALE  
 AMES ALF DEEDEE  
 003976971  
 BORN 06-16-96  
 TATTOO A1529 A1529

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 \*P4\*  
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OWNER 215650  
 DAIRY SCIENCE DEPT  
 123 KILDEE HALL  
 AMES IA 50011-0001  
 BREEDER  
 DAIRY SCIENCE DEPT  
 123 KILDEE HALL  
 AMES IA 50011-0001

3

21565

PA +505M +43F +29P +96PS +119CYS  
 +0.4 TYPE +187PTI

ST SR BD DF RA TW RL FA  
 +0.7 +1.2 +0.7 -0.4 LO.3 +0.8 SO.3 SO.1  
 FU RH RW UC UD TP TL  
 +0.1 +0.4 +0.3 +0.6 DO.1 CO.7 LO.3

REG NUMBER BIRTHDATE TATTOO

COMFORT ROYAL ALF-ET  
 000651068 YSP 1J382

USDA 7/96 37 DAUS 25 HRDS 8% RIP  
 75%R +1042M +.06% + 58F 82%ILE  
 75%R +.08% + 52P +168PS +203CYS  
 AJCA 7/96 25 DAUS 100%USA  
 PTAT 56%R +1.2 PTI 69%R +318

AMES BRIGADIER DEEDEE  
 003700504 A1012 A1012

DHI HERD #42-35-0274 CONTROL #07895  
 1-11 305 3 12970 5.3 682 3.9 509 DHIR  
 3-00 305 3 16800 5.0 845 3.7 614 DHIR  
 4-02 300 3 14320 5.3 763 3.8 548 DHIR  
 305 2X ME AVG 3L 14,248M 736F 538P  
 2-09 64% 3-06 76%  
 ST SR BD DF RA TW RL FA  
 35 32 25 26 28 32 16 33  
 FU RH RW UC UD TP TL  
 27 25 28 23 25 19 37  
 PPA + 562M + 67F + 19P +102PS +106CYS  
 USDA PTA 7/96 3RECS 51%R 47%ILE  
 - 32M + 27F + 5P +25PS +35CYS  
 AJCA 7/96 PTAT 49%R -0.5 PTI 48%R + 55

J. S. QUICKSILVER ROYAL  
 000634142 8J234

USDA 7/96 12290 DAUS 2013 HRDS 1X RI  
 99%R + 76M +.16% + 26F 08%ILE  
 99%R +.10% + 17P +48PS +72CYS  
 AJCA 7/96 6510 DAUS 100%US  
 PTAT 99%R +0.4 PTI 99%R +115

GREENRIDGE FW CHIEF ALTHEA-ET  
 003507678 GR1868

2-02 305 3 17750 5.0 881 3.9 686 DHI  
 3-02 305 2 18950 4.7 892 3.8 712 DHI  
 4-11 305 2 20560 4.7 970 3.9 809 DHI  
 6-00 305 2 20360 4.5 913 3.8 777 DHI  
 8-04 41 2 3360 4.3 144 3.7 124 DHI  
 10-04 305 2 21240 4.1 862 3.9 832 DHI  
 305 2X ME AVG 5L 21,036M 948F 801  
 PPA +4047M +203F +183P +607PS +714CYS  
 USDA PTA 7/96 4RECS 84%R 99%ILE  
 +1247M + 70F + 66P +207PS +256CYS  
 AJCA 7/96 PTAT 50%R +0.2 PTI 77%R +

BUSH RIVER BRIGADIER-ET  
 000641781 29J2840

USDA 7/96 5704 DAUS 1214 HRDS 3% R  
 99%R + 324M +.28% + 56F 12%ILE  
 99%R +.04% + 18P +32PS +96CYS  
 AJCA 7/96 3530 DAUS 100%U  
 PTAT 99%R +1.0 PTI 99%R +141

AMES JIM DEEDEE  
 003414390 A9293 A9293

DHI HERD #42-35-0274 CONTROL #078  
 1-11 305 2 10700 4.5 478 3.8 405 DF  
 3-00 305 2 12880 4.8 618 3.8 495 DF  
 4-01 281 2 14020 4.7 660 3.8 534 DF  
 5-01 297 2 11170 4.6 512 3.8 422 DF  
 6-02 305 3 15590 4.3 678 3.7 574 DF  
 7-05 272 3 14190 4.5 644 3.7 530 DF  
 305 2X ME AVG 8L 13,743M 640F 51  
 PPA - 610M - 34F - 22P -85PS -92CYS  
 USDA PTA 7/96 5RECS 57%R 14%ILE  
 - 423M - 11F - 10P -42PS -39CYS  
 AJCA 7/96 PTAT 43%R -0.8 PTI 51%R

**OFFICIAL AJCA PERFORMANCE PEDIGREE**

DATE ISSUED 05-15-96 (T 406665)

FEMALE  
 AMES GLENWOOD JOY  
 003950743  
 BORN 02-12-96  
 TATOO A1502 A1502

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 \*P6\*  
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OWNER 21565  
 DAIRY SCIENCE DEPT  
 123 KILDEE HALL  
 AMES IA 50011-0001  
 BREEDER  
 DAIRY SCIENCE DEPT  
 123 KILDEE HALL  
 AMES IA 50011-0001

4

21565

PA +1263M +39F +34P +136P\$ +132CYS  
 +1.8 TYPE +220PTI

ST SR BD DF RA TW RL FA  
 +1.4 +0.1 +0.4 +2.7 HO.1 +0.5 0.0 0.0  
 FU RH RW UC UD TP TL  
 0.0 +1.3 +1.3 -0.4 SO.3 WO.2 LO.7

REG NUMBER BIRTHDATE TATOO

DUNCAN DUKE OF GLENWOOD  
 000649231 YSP 29J2910  
 USDA 1/96 345 DAUS 185 HRDS 79% RIP  
 94%R +1671M -.10% + 63F 91%ILE  
 94%R -.14% + 41P +183P\$ +171CYS  
 AJCA 1/96 124 DAUS 100%USA  
 PTAT 86%R +2.5 PTI 88%R +293

AMES SOONER JOY  
 003700505 A1013 A1013  
 DHI HERD #42-85-0274 CONTROL #07896  
 2-09 305 3 18750 3.6 671 3.4 640 DHIR  
 3-10 280 3 17520 4.0 708 3.4 595 DHIR  
 305 2X ME AVG 2L 16,492M 618F 553P  
 2-09 74% 3-06 81%  
 ST SR BD DF RA TW RL FA  
 34 31 28 31 32 28 32 35  
 FU RH RW UC UD TP TL  
 33 26 25 28 35 23 26  
 PPA +2142M - 21F + 38P +141P\$ +101CYS  
 USDA PTA 1/96 3RECS 50%R 88%ILE  
 + 854M + 14F + 27P +90P\$ +94CYS  
 AJCA 1/96 PTAT 49%R +1.0 PTI 50%R +147

HIGHLAND MAGIC DUNCAN  
 000635862 7J177  
 USDA 1/96 10436 DAUS 1488 HRDS 1% R3  
 99%R + 745M +.08% + 47F 29%ILE  
 99%R +.00% + 27P +108P\$ +117CYS  
 AJCA 1/96 8073 DAUS 100%U  
 PTAT 99%R +1.9 PTI 99%R +213  
 TOP B WANDAS WILEEN OF GLENWOOD 8  
 003386212 G32E  
 1-10 305 2 12840 4.9 624 3.4 439 DH  
 2-11 305 2 17410 5.5 954 3.5 607 DH  
 4-01 305 2 11750 4.6 543 3.5 410 DH  
 5-02 305 2 13270 4.5 601 3.4 450 DH  
 305 2X ME AVG 4L 15,171M 731F 51  
 PPA +2147M + 85F + 27P +198P\$ +141CYS  
 USDA PTA 1/96 4RECS 70%R 85%ILE  
 + 842M + 30F + 15P +82P\$ +67CYS  
 AJCA 1/96 PTAT 50%R +1.4 PTI 67%R +

SOLDIERBOY BOOMER SOONER OF CJF  
 000640211 7J159  
 USDA 1/96 14305 DAUS 1677 HRDS 11% F  
 99%R +1570M -.33% + 22F 66%ILI  
 99%R -.11% + 42P +151P\$ +145CYS  
 AJCA 1/96 9419 DAUS 100%I  
 PTAT 99%R +3.0 PTI 99%R +243  
 AMES HAUG JOY  
 003479337 A9597 A9597  
 DHI HERD #42-85-0274 CONTROL #07  
 2-01 305 2 13290 5.1 681 4.0 525 D  
 3-01 305 2 15220 5.2 795 4.2 633 D  
 4-08 305 3 16170 4.9 798 3.9 637 D  
 5-10 305 3 18750 4.6 869 3.9 724 D  
 6-11 187 3 9790 4.8 473 4.0 393 D  
 305 2X ME AVG 5L 16,240M 796F 6  
 PPA +1152M +121F + 85P +268P\$ +352C  
 USDA PTA 1/96 5RECS 52%R 78%ILE  
 + 117M + 42F + 21P +67P\$ +96CYS  
 AJCA 1/96 PTAT 46%R -1.4 PTI 51%R