

1. Breeds of dairy cattle that may be used in this CDE include Ayrshire, Brown Swiss, Guernsey, Holstein, Jersey and mixed breeds. Only one class may be mixed breeds. Teams will be given judging criteria for the class.
2. Four - six classes of 4 animals from the above breeds will be placed on type. At least 3 of these classes will be cows and from 1 to 3 classes may be heifers. The contestants will be allowed 12 minutes to place each class.
3. **Two Oral Reasons** will be required on the above listed cow classes. The Reason Class will be designated at the beginning of the contest. Scantrons must be turned in at the reasons classes.
4. One class of 4 animals will be placed on the basis on actual performance pedigree, type, and an overall placing. The pedigree will be based on the Minnesota DHIA Cow Index Form. Evaluation of the pedigree should be based on: 1) cow's actual performance, 2) estimated production ability, and 3) estimated genetic transmitting ability. A perfect score for pedigree will be 25 points. A perfect score for type will be 25 points. A perfect score for the overall placing will be 50 points. Contestants will be allowed 12 minutes for placing this class.
5. One sire selection exercise will consist of ranking potential mates for one cow. Linear evaluation and production information on the cow will be provided along with the transmitting ability estimates of 4 sires. Contestants will be allowed 12 minutes for placing this class.
6. **Team Activity (150 points)**
 - Part 1 (50 points) Team will answer 25 multiple choice questions on general dairy knowledge. The reference for the questions will be "Learning About Dairy". Available from University of Wisconsin Extension @ \$1.90
<http://learningstore.uwex.edu/Learning-About-Dairy-Resource-Manual-P652.aspx>
 - Part 2 (50 points) A team will analyze individual cow production records (DHI) of a 50-75 cow herd. Individual cows are to be selected according to their appropriate status for culling, breeding, or other management decision categories.
 - Part 3 (50 points) Dairy Management Exercise
The exercise will consist of a 25 question written test involving dairy management practices and DHIA Records in making management decisions.
7. In Reasons Classes, contestants will have 12 minutes to prepare reasons and not more that 2 minutes in which to deliver the reasons. Contestants may use the placing card in delivering reasons. No other notes will be permitted. A perfect score will be 50 points.
8. Team Activities will be provided to Regional CDE Chairs for use in their Regional Events.
9. Official Dress or appropriate FFA attire is required. Refer to Rule 1-A-5 on page 1.1.
10. Contestants will be permitted to view the animals from all angles but shall not at any time place their hands on any animal. At the beginning of each class the contestants will stand to the rear of the animals. Contestants will stand at least 12 feet away from each class for time periods as follows: 2 minute rear view, 2 minute side view, and a 2 minute head view. The classes will then be circled clockwise with cow No. 1 leading out, after which a 2 minute close up view will be allowed, and for the balance of the time, the contestants will remain at the distance of at least 12 feet.
11. Tiebreakers-
 - A. Team Activity (for tie team scores only)
 - B. Total scores of oral reasons
 - C. Class placing scores determined by official judge
12. Computer scan sheets will be used for this CDE. Refer to the CDE rules webpage for a sample.
13. Refer to the National FFA Contest for references.

Sample Dairy CDE Team Activity

Breed HO	Herd Summary				55-99-9999	DHI-302
Type Test 22-DHR APCs	Prev. Test 08-23-2010	Test Date 10-05-2010	Days 43	Processed 10-06-2010	SMITH DAIRY FARM HENRY SMITH	String = HERD Tech = 150

Service or Heat Intervals (Number)			
< 18 Days	18-34 Days	36-48 Days	Other
	2	147	40

Dry Period Summary			
Avg Days	Cows by Days Dry		
	< 40	40 - 70	> 70
55	2	138	11
	1%	91%	7%

Based on 149 Cows

Peak and Persistency									
365 ME		Prod Index	Lact	Cows	DIM	Peak		MLM	
Milk	\$ Value					DIM	Milk	Current	C-L
22,641	3,258	104	1	79	191	85	88	85	+1.9
25,887	3,210	103	2	70	174	82	113	92	+1.4
24,058	2,902	83	3+	79	181	78	103	81	+7.1
24,108	3,118	100	All	228	176	75	100	86	+3.6

Peak Ratio (1st/Other) is 0.82

Daily Milk	
DHR	14942
Sold	15000
Shipped %	100
Value \$	1942
\$/cwt	13.00

Current SCC Evaluation								
Cows	SCC LS	% Infected	Lact	% Cows by Linear Score				
				0,1	2,3	4,5,6	7,8,9	
71	1.6	7	1	56	34	8	1	
55	2.6	22	2	25	44	25	5	
63	2.8	32	3+	30	27	40	3	
189	2.3	20	All	39	34	24	3	

Monthly SCC Production Loss is 4928 Lbs with a \$ Loss of 641

Management Level Milk								
Annual Summary			Lact	All Cows	Current Test			
Days in Milk					Days in Milk			
< 100	100 - 200	> 200	All Cows	< 100	100 - 200	> 200		
76	82	88	85	1	85	76	82	88
95	93	90	92	2	92	95	93	90
79	83	78	81	3+	81	79	83	78
83	86	85	86	All	86	83	86	85

Based on 1 Tests

Yieldy SCC Summary			
Lact	% Infected by DIM		
	< 30	30 - 220	> 220
1	16	5	10
2	21	17	24
3+	33	22	34
All	24	14	21

Based on 1630 Samples

Changes in SCC Status			
Fresh vs Last Dry Off (%)		Current vs Last Test (%)	
Cures	Chronics	Cures	Chronics
19	5	5	10
Negatives		New Infections	
80	16	76	10

Based on 119 Cows

Based on 188 Cows

Production Averages																				
Rolling Herd			Test Day				Data	Quantity						Quality						
Milk	Fat	Pro	All Cows	% in Milk	Milk	% Shipped		Milk Cows	Fresh Cows	DIM	Milk	MLM	% Fat	% Pro	Raw SCC	LS SCC	Number Infections	Fresh Infections	New Infections	
22,984	837	708	228	84	88	100	10-05-10	191	28	178	79	80	3.9	3.1	199	2.4	37	5	19	10
23,057	837	712	233	87	88	102	08-23-10	203	29	174	76	82	3.6	3.0	200	2.4	41	6	22	11
23,105	841	714	244	87	89	101	07-10-10	212	27	180	80	84	3.3	3.0	238	2.0	25	3	17	8
23,000	845	709	264	83	87	102	06-05-10	218	34	189	81	88	3.3	3.1	54	1.4	14	2	5	2
23,227	862	713	259	84	86	103	04-24-10	217	24	178	79	82	3.5	3.1	125	2.1	31	2	16	8
23,878	886	730	259	86	88	101	03-13-10	223	44	177	87	71	3.8	3.1	169	2.4	33	4	14	7
24,549	906	747	244	85	80	101	01-18-10	207	39	173	71	75	4.0	3.1	282	2.9	55	8	29	14
24,679	908	749	247	81	87	101	12-01-09	201	31	180	70	76	3.9	3.2	190	2.7	45	8	20	10
24,523	902	743	238	87	82	101	10-17-09	208	28	189	71	79	3.8	3.2	236	2.7	48	6	29	14
24,223	894	739	231	87	87	103	09-12-09	201	21	192	78	86	3.6	3.1	195	2.3	32	6	17	9
23,768	883	720	233	89	73	102	08-01-09	207	27	184	82	90	3.5	3.0	139	2.3	35	7	23	11
23,544	875	715	230	89	81	101	06-27-09	205	28	178	68	74	3.5	2.9	127	1.9	23	4	12	6
Averages >			243	86	84	101		206	30	178	75	81	3.6	3.1	180	2.3	35	5	19	9

Record Publication

Limited Disclosure

Date Collection Rating (Milk) = 97.2

Breed HO	Consultant Summary				55-89-8999	DH8-302
Type Test 22-DHR APC8	Prev. Test 08-23-2010	Test Date 10-05-2010	Days 43	Processed 10-06-2010	SMITH DAIRY FARM HENRY SMITH	Strng = HERD Tech = 156

Herd Genetic Profile										
Service Sires				Group	Animal PTA			Sire PTA		
Num Bred	% AI	NMS	% Rank		Num	NMS	% Rank	% AI	NMS	% Rank
41	93	+363	74	Calves	114	+175	58	95	+289	81
60	98	+370	74	Yearlings	53	+69	42	91	+188	44
50	94	+359	73	Lact 1	56	+107	61	85	+149	39
53	94	+354	72	Lact 2	70	+68	52	94	+85	24
163	90	+362	73	Lact 3+	78	+78	54	98	+79	29
				Cows	204	+82	55	92	+97	31

Inventory					
% Herd	Group	Age	Num	% Identified	
				Sire	Dam
	Calves	0-06	114	100	100
	Yearlings	1-06	53	100	100
	Youngstock	1-00	167	100	100
35	Lact 1	2-01	79	100	100
31	Lact 2	3-03	70	100	100
35	Lact 3+	5-00	79	100	100
	Cows	3-05	228	100	100

Cows Entering and Leaving Herd											
Number Entered	Number Left	Lact	Reason for Leaving								% Turnover
			Dairy	Low Milk	Repro	Sick	Mastitis	Ft/Legs	Died	Other	
86	23	1	15			1				1	10
	30	2	17		2	1	1	1	3	1	13
	43	3+	10		4	2			19	4	19
86	96	All	42		6	4	1	1	23	5	42
		Left Herd	44%		6%	4%	1%	1%	24%	5%	

Annual Turnover Rate is 36%

Monthly Herd Turnover													
	History												Apr
	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	
Total Cows	260	269	248	247	247	253	259	229	231	229	227	222	221
Cows Milking	234	229	220	220	220	216	251	187	185	194	200	198	189
Heifers Calving	4	5	3	6	2	7	3	3	8	5	8	2	4
Cows Calving	10	11	13	11	14	9	1	13	14	21	14	9	11
Cows Dried Off	14	17	12	15	13	16		15	19	9	7	7	25
Cows Dry	32	40	28	27	27	37	5	42	46	35	27	24	32
Cows Left	3	2	24	7	2	1		8	8	8	6	6	5

Reproduction Summary		
Breeding Herd	Cows	Heifers
Animals	190	53
Animals Served (%)	93	81
Waiting Period (days or mo)	70	13
First Served (<100 days or 15 mo) (%)	91	64
Time to First Service (days or mo)	77	14
Services per Animal	1.9	1.7
Open Period (<150 days or 17 mo) (%)	43	58
Min Calving Interval (months)	13.3	24.9
Heat Detection Index (%)		
Pregnant Animals	Cows	Heifers
Animals	111	31
Conceived at First Service (%)	50	48
Services per Conception	1.9	1.9
Pregnancy Rate (%)		
Open Period (days or mo)	118	16
Calving Interval (months)	13.1	24.9
CI - Standard Deviation (months)		

Management Calving Interval = 13.4 Months

Birth Summary									
Dam's Lact Num	Offspring Born								
	Males		Females		Calving Difficulty Score				
	Alive	Dead	Alive	Dead	1	2	3	4 & 5	% 4+6
1	28	1	55	2	57	18	9	1	1
2+	74	7	75	5	119	21	4	4	3
Total	100	8	130	7	176	37	13	5	2

Sample Team Activity Questions

- ___ 1. What was the death rate of cows over the last year for the whole cow herd?
a. 0% b. 2.4% c. 4.7% d. 7.6% e. 9.4%
- ___ 2. What best describes the herds calving practice?
a. Most cows calve in the spring
b. Most cows calve in the fall
c. Cows calve year round
- ___ 3. What was the number one reason for culling cows (other than dairy or death)?
a. low production b. reproduction c. mastitis d. feet & legs e. injury
- ___ 4. What % of the yearlings were bred to A.I. sires?
a. 0% b. 48% c. 57% d. 93% e. 100%
- ___ 5. Which age group has the highest average genetic merit dollars?
a. calves
b. yearlings
c. 1st lactation cows
d. 2nd lactation cows
e. 3rd & later lactation cows
- ___ 6. Which month is the worst for mastitis?
a. July b. August c. May d. October e. January
- ___ 7. What age of cows have the highest ME dollar value?
a. 1st lactation b. 2nd lactation c. 3rd+ lactation
- ___ 8. When do cows tend to have the least problems with mastitis?
a. early lactation b. mid lactation c. late lactation
- ___ 9. What age of cow has the most mastitis?
a. 1st lactation b. 2nd lactation c. 3rd+ lactations
- ___ 10. What best describes this dairy's dry period length?
a. most cows are dry the proper amount of time
b. too many cows have short dry periods
c. too many cows have long dry periods
- ___ 11. Comparing the current vs last test for SCC status:
a. there were more cures than new infections
b. there were more chronics than cures
c. there were more chronics than negatives
d. about 10% of cows are infected
- ___ 12. Which is a true statement relative to quality of A.I. bulls used?
a. uses best bulls on older cows
b. uses best bulls on heifers
c. uses bulls of equal quality across age groups
- ___ 13. Relative to this dairy's animal ID system of knowing the sire and the dam of cows, would it be:
a. excellent b. fair c. poor
- ___ 14. Which age group makes up the largest number in this herd?
a. calves b. yearlings c. 1st lactation d. 2nd lactation e. 3rd + lactation
- ___ 15. Which management problem area should be investigated first?
a. mastitis
b. feet problems
c. cow death rate
d. reproductive problems
e. low milk production

- ___ 16. What is this herd's voluntary waiting period for cows?
a. 45 days b. 50 days c. 70 days d. 90 days e. 120 days
- ___ 17. Which has a better conception rate?
a. cows much better b. heifers much better
c. heifers and cows about the same
- ___ 18. What was the average days open for the cows that conceived?
a. 111 days b. 118 days c. 16 days d. 90 days e. 120 days
- ___ 19. What is this dairy cow herd's calving interval in months?
a. 11 b. 13 c. 15 d. 17
- ___ 20. What month had the most calvings reported?
a. May b. September c. March d. January
- ___ 21. In which month did the most cows leave the herd?
a. April b. June c. August d. December
- ___ 22. What animals had the most calving difficulty with the greater % scored 3 or greater?
a. 1st lactation heifers b. older cows
- ___ 23. What is the stillbirth rate for this herd?
a. 2.2% b. 6.1% c. 7% d. 8% e. 10%
- ___ 24. How would you describe this farm's overall management level?
a. above average b. average c. below average
- ___ 25. Of the following, what should this dairy's highest priority be?
a. increase fat %
b. increase milk production
c. increase conception rate
d. *decrease age at 1st calving*

Team Activity Key

- E 1. What was the death rate of cows over the last year for the whole cow herd?
a. 0% b. 2.4% c. 4.7% d. 7.6% e. 9.4%

Annual turnover of 39% times 24% of those died = 9.4%

- C 2. What best describes the herds calving practice?
a. Most cows calve in the spring
b. Most cows calve in the fall
c. Cows calve year round

- B 3. What was the number one reason for culling cows (other than dairy or death)?
a. low production b. reproduction c. mastitis d. feet & legs e. injury

- D 4. What % of the yearlings were bred to A.I. sires?
a. 0% b. 48% c. 57% d. 93% e. 100%

- A 5. Which age group has the highest average genetic merit dollars?
a. calves b. yearlings c. 1st lactation cows d. 2nd lactation cows
e. 3rd & later lactation cows

- E 6. Which month is the worst for mastitis?
a. July b. August c. May d. October
e. January

January had the most infections at 55 and highest SCC.

- A 7. What age of cows have the highest ME dollar value?
a. 1st lactation b. 2nd lactation c. 3rd+ lactation

- B 8. When do cows tend to have the least problems with mastitis?
a. early lactation b. mid lactation c. late lactation

Only 14% infected 30 to 220 DIM

- C 9. What age of cow has the most mastitis?
a. 1st lactation b. 2nd lactation c. 3rd+ lactations

32% of 3rd + lactation infected

- A 10. What best describes this dairy's dry period length?
a. most cows are dry the proper amount of time
b. too many cows have short dry periods
c. too many cows have long dry periods

91% of cows 40 to 70 day dry

- B 11. Comparing the current vs last test for SCC status:
a. there were more cures than new infections
b. there were more chronics than cures
c. there were more chronics than negatives
d. about 10% of cows are infected

5 cures and 10 chronics

- C 12. Which is a true statement relative to quality of A.I. bulls used?
a. uses best bulls on older cows
b. uses best bulls on heifers
c. uses bulls of equal quality across age groups

NM\$ of service sires very similar for all age groups

- A 13. Relative to this dairy's animal ID system of knowing the sire and the dam of cows, would it be:
 a. excellent b. fair c. poor
 % identified by sire and dam is 100%
- A 14. Which age group makes up the largest number in this herd?
 a. calves b. yearlings c. 1st lactation d. 2nd lactation e. 3rd + lactation
- C 15. Which management problem area should be investigated first?
 a. mastitis
 b. feet problems
 c. cow death rate
 d. reproductive problems
 e. low milk production

The herd is better than average for each area except death rate is worse than average at 9.4%

- C 16. What is this herd's voluntary waiting period for cows?
 a. 45 days b. 50 days c. 70 days d. 90 days e. 120 days
- C 17. Which has a better conception rate?
 a. cows much better b. heifers much better c. heifers and cows about the same
- B 18. What was the average days open for the cows that conceived?
 a. 111 days b. 118 days c. 16 days d. 90 days e. 120 days
- B 19. What is this dairy cow herd's calving interval in months?
 a. 11 b. 13 c. 15 d. 17
- C 20. What month had the most calvings reported?
 a. May b. September c. March d. January
- B 21. In which month did the most cows leave the herd?
 a. April b. June c. August d. December
- A 22. What animals had the most calving difficulty with the greater % scored 3 or greater?
 a. 1st lactation heifers b. older cows
 1st lactation had 11% greater than 2 versus 6% for older cows
- B 23. What is the stillbirth rate for this herd?
 a. 2.2% b. 6.1% c. 7% d. 8% e. 10%
 15 divided by 245 total calvings
- A 24. How would you describe this farm's overall management level?
 a. above average b. average c. below average
- B 25. Of the following, what should this dairy's highest priority be?
 a. increase fat %
 b. increase milk production
 c. increase conception rate
 d. decrease age at 1st calving

Fat% is high. Conception rate is well above average. Age at 1st calving is 25 months which is younger than average. Milk production is pretty good but it has been decreasing over the past year so seems there should be a priority to increase this.