

Missouri Dairy Growth Council's  
**Dairy Cattle**  
**Reproductive Manual**



February 2009

UNIVERSITY OF MISSOURI  
**M** Extension  
Commercial Agriculture Program

1. Introduction..... 2

2. Economics of Reproduction .....4

3. Creating a Presynch/Ovsynch Program in PC Dart ..... 28

4. Creating a Resynch Program in PC Dart ..... 51

5. Enrolling Cows into the Synchronization Program at Calving..... 65

6. Using PC Dart Reproductive Synch Programs on a Weekly Basis ..... 77

7. More Synchronization Programs ..... 88

8. Definitions.....89

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# Chapter 1

## Introduction

What is a cow's job? Think of her as your employee. You provide her with housing, food & water, health benefits, etc. In return she comes to the parlor 2-3 times per day to be milked. During her time in the parlor she "works" for approximately 15 minutes. You provide for her needs and in return she "works" for 30 to 45 minutes a day. Her work is to produce high quality milk.

How does she produce high quality milk? Initially, a heifer must have a calf. At the end of gestation there is an increase in prolactin and uterine lactogenic hormones that stimulate mammary development. In subsequent years the process is repeated with each pregnancy. So, the cows must become pregnant to stimulate mammary development.

Similarly, we know that the most productive time of the lactation is during peak milk. That period occurs sometime between 30-150 days in milk (DIM). The more time a cows spends during this part of her lactation during her lifetime, the more profit she will generate. The dairyman needs to maximize this time.

Therefore, to maximize profit, cows need to become pregnant on a regular basis. To accomplish getting a cow pregnant on a consistent basis, the reproductive program of a farm needs to be a high priority. The reproductive program must also be relatively easy to implement. In this booklet you will find a practical way to improve your herd.

Improvement can be measured in a variety of ways, including days open, days to first service, calving interval, etc. However, a relatively new way of examining a herd's reproductive performance includes HEAT DETECTION RATE (HDR) and PREGNANCY RATE (PR). National average, from various databases, for HDR and PR are 35% and 14%, respectively. Herds that are in the top 10% for these parameters will have rates of greater than 60% and 20%. From experience, herds that attain greater than 20% pregnancy rates will ultimately have excess heifers waiting to come into the herd! It creates a new area on the farm to generate more profit.

Let's say there is pen with 100 cows in it and today they are all 60 days in milk (DIM). The farm has decided on 60 DIM as their voluntary waiting period, so all 100 cows are eligible to be bred. Over the next 21 days 35 of the 100 cows are bred. Therefore, the HDR is 35/100 or 35%. Subsequently, 14 of the 35 cows that were bred become pregnant. Now, 14/35 or 40% is the conception rate. However, for pregnancy rate you want to divide 14 by the 100 eligible cows or 14%.

The definition of HDR and PR follows:

HDR = # of cows bred / # of cows eligible to be bred for each 21 day period during a year

PR = # of cows pregnant / # of cows eligible to become pregnant for each 21 day period during a year

Thus, actually PR incorporates HDR and conception rate. PR equals HDR times conception rate. If you do not have a software program that figures PR for you, you can use your DHI reports. It will give you the % of heat observed (equivalent to HDR). You then can multiply this by your conception rate and get a crude estimate of PR.

There have been several articles discussing the decline of fertility in dairy cattle. This especially pertains to the lactating cow. There are several reasons for this decline, including inbreeding, increased production, time management on the farm, nutrition, etc. We do know that as a cow increases her production, two effects on her estrus expression occur. Those two effects are a decreased time in estrus and a decreased intensity of estrus expression. A cow producing 100# of milk will only spend approximately 6 hours in heat rather than the usual 18 hours (more typical of a beef cow) that we have learned. On top of that, she will make far fewer mounts than a lower producing cow. All this leads to a more difficult time for the producer to find the cow in heat.

However, the conception rate among heifers has not declined to near the extent that it has in the milking herd. So there is potential to reverse this trend of poor fertility. There has been increased emphasis on sire selection for increased fertility using daughter pregnancy rate (DPR) and services per conception (SCR). Along the same lines crossbreeding has gained some favor among producers. It is well known that the beef crossbred cows tend to be more fertile than a straightbred. There is now data indicating the same in dairy cattle. Also, the use of estrus synchronization has allowed producers to get more cows pregnant and subsequently start to put some selection pressure on fertility within their herds.

The increase in the number of pregnant cows leads to the opportunity to do more voluntary culling and/or selling of excess breeding stock. There are several ways to economically evaluate better reproduction. An increase in days open can be valued at between \$0.50-4.50 per day, a pregnant cow is worth \$250 to 600 more than an open cow, or each % point increase in PR is equal to roughly \$35 per cow. This last estimate is the basis for the reproductive calculator that is included with this booklet.

Unfortunately, no one is going to give you a bonus check for being successful in getting cows pregnant. However, with time and patience, the increase in the number of pregnant cows will allow the producer to voluntarily get rid of low producers, chronic problem cows, high somatic cell count cows, and poor fertility animals. Likewise, producers that are attaining success with their reproductive programs are now able to merchandise excess bred heifers, which is a great addition to the cash flow of the farm.

# Chapter 2

## Economics of Reproduction

## Five ways to “Find 80 cents a Cow each day” Mike Hutjens

- Boost Components
- Long Day Lighting
- **Fewer Days Open**
- **Higher Pregnancy Rates**
- Extra Milking

2 out of 5 suggestions pertain to Reproduction

# What is the added value of a Pregnancy?

- A pregnancy is worth \$200-500



# What is the cost of an extra day open?

- **\$0.42 to \$4.95 a day for a day open after 110 DIM.**

For  
examples  
let's use:

**\$2.50/day**





# What is your average Days Open?

- 336 Herds on DHIA in Missouri
- Average 184 days open
- Range from 84 to 358 days open
- National Average 165.8

# What is your average Days Open?

- $184 - 165 = 19$
- $19 * 2.5 = 47.5$
- **\$47.5** lost due to excessive days open per cow in the herd vs national average

# What is the cost of poor reproduction?

- \$35 per cow in the herd for each % point increase in **Pregnancy Rate**

# What is **Pregnancy Rate**?

- **100 cows**



# How many were bred?

- **33** COWS (heat detection rate)
  - Or more importantly
- **67 cows were not bred!**

# How many will become pregnant?

- 12

- Therefore

- The Preg rate is

12%

# What is Pregnancy Rate?

- 100 cows
  - 33 cows bred
  - $33/100 = 33\%$ , Heat Detection Rate
  - 12 diagnosed pregnant
  - $12/100 = \mathbf{12\%}$  Pregnancy Rate
- 
- These are Missouri averages!

# What is your Pregnancy Rate

- 336 Herds on DHIA in Missouri
- 12.2 annualized average  
Pregnancy Rate
- National Average 15.1



# What is your Pregnancy Rate

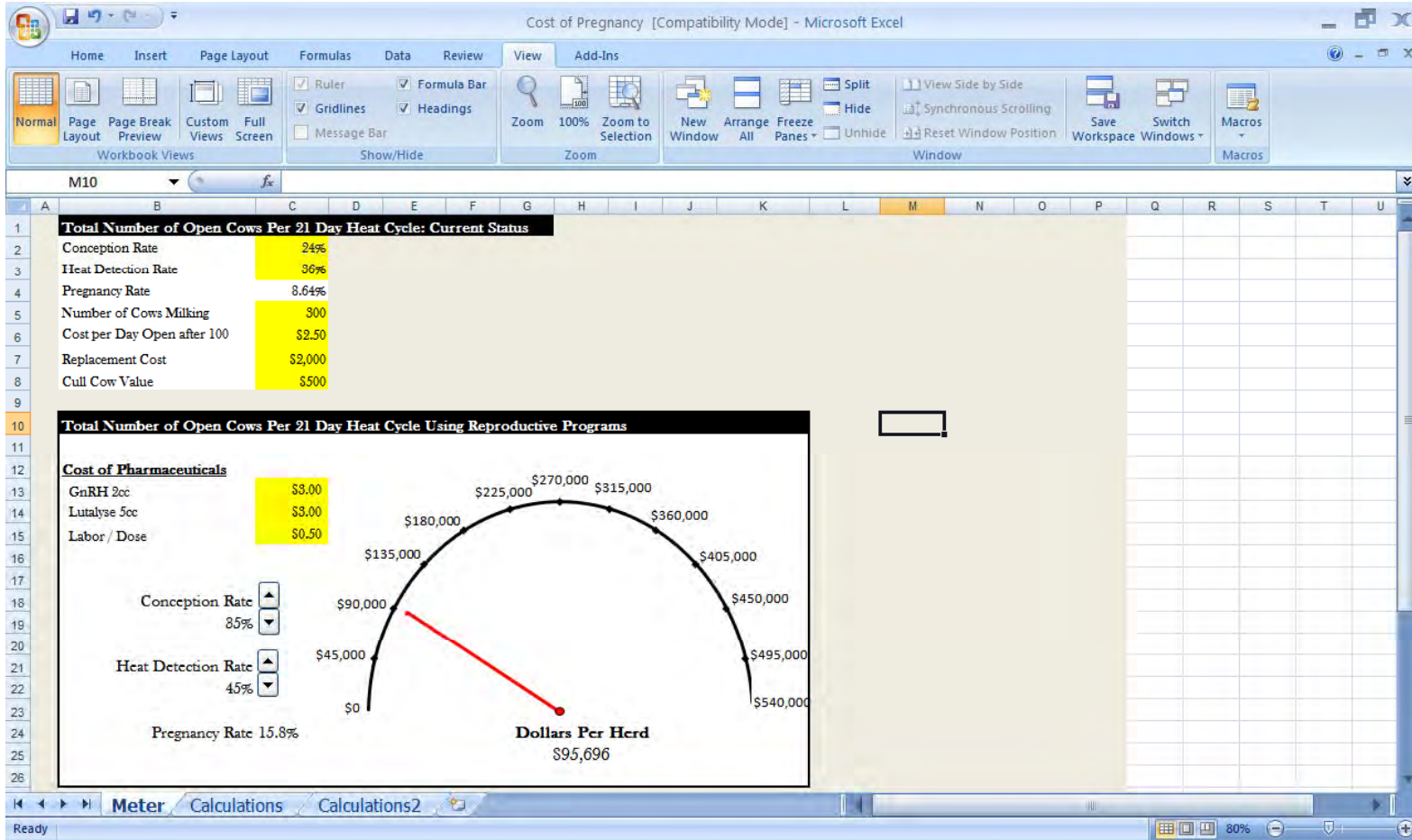
- Average herd in Missouri 110 cows
- Increasing Pregnancy rate from 12.2 to 15.1 yields:
  - **\$95.40** per cow in the herd

# Using the Reproduction Economics Spreadsheet

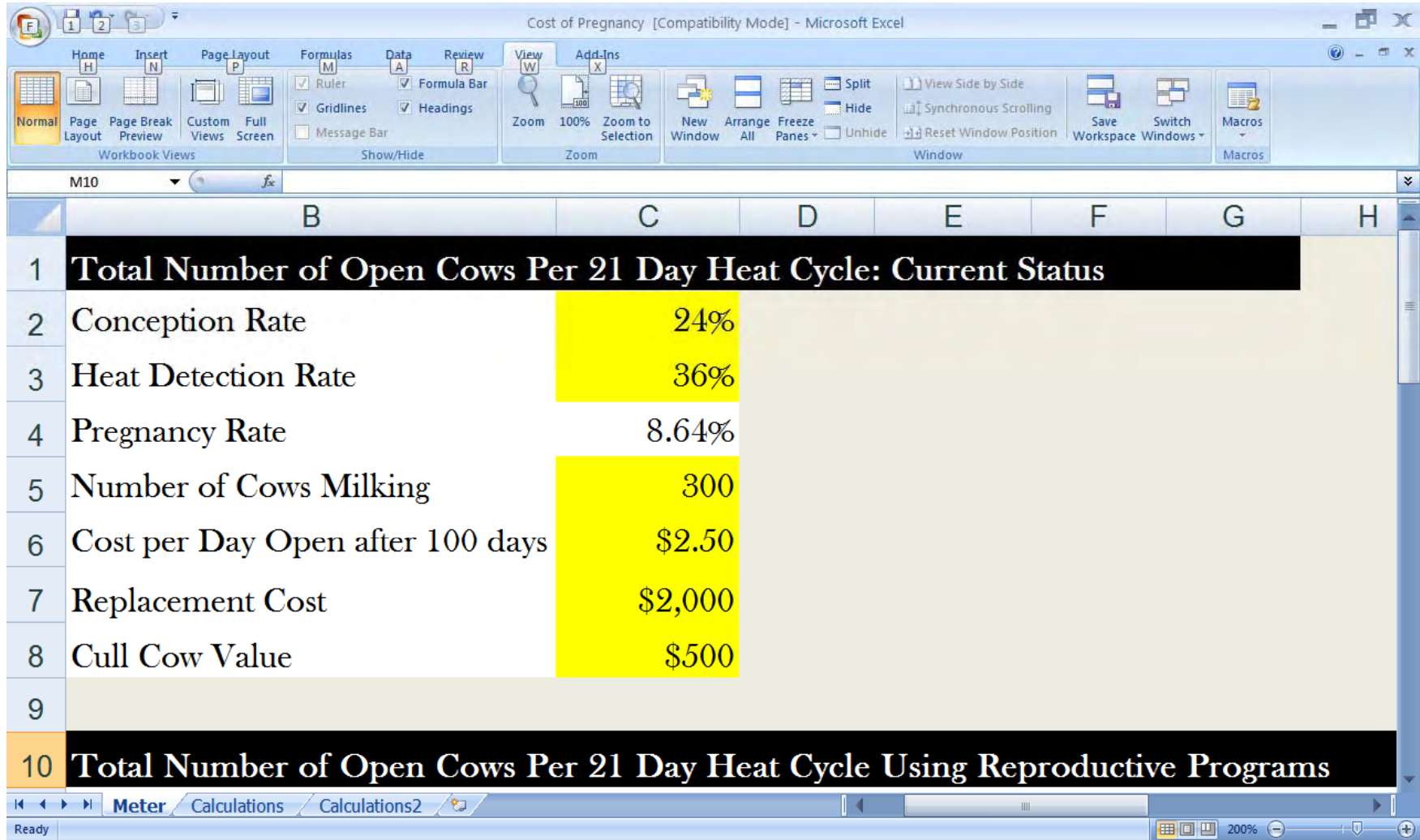
- Go to the following website to use the spreadsheet:

<http://agebb.missouri.edu/dairy/reproduction/>

# Using the Reproduction Economics Spreadsheet



# Put in your herd's numbers (yellow boxes)



Cost of Pregnancy [Compatibility Mode] - Microsoft Excel

	B	C	D	E	F	G	H
1	<b>Total Number of Open Cows Per 21 Day Heat Cycle: Current Status</b>						
2	Conception Rate	24%					
3	Heat Detection Rate	36%					
4	Pregnancy Rate	8.64%					
5	Number of Cows Milking	300					
6	Cost per Day Open after 100 days	\$2.50					
7	Replacement Cost	\$2,000					
8	Cull Cow Value	\$500					
9							
10	<b>Total Number of Open Cows Per 21 Day Heat Cycle Using Reproductive Programs</b>						

Meter Calculations Calculations2

Ready 200%

# Where do you find your conception rate (CR) and heat detection rate (HDR)?

- For PC Dart users:
  - Report 801
- For DHI only users:
  - Report 202

# PC Dart Report 801

Report Preview : Close

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### 801 Herd Summary - Reproduction

UNIV. OF MO FOREMOST DAIRY - 43090006  
Date of Test 1/19/2009  
Overall Herd

REPRODUCTIVE SUMMARY OF CURRENT BREEDING HERD

VWP 60

	Total	Not Bred or Diag. Open			Bred But Not Diag. Preg.			Days to 1st service
		Number from VWP to 100 days	Number over 100 days	Number Diag. Open	Number Open fewer than VWP	Number Open VWP to 100 days	Number Open 101 to 130 days	
Number of Cows	93	9	3	3	36	25	18	74
% Breeding Herd		10	3	3	41	27	19	

REPRODUCTIVE SUMMARY OF TOTAL HERD

	Days Open at 1st Service			Avg. Days to 1st service	Services per Pregnancy		Projected Minimum		Service or Heat Interval	
	Number Fewer than VWP	Number from VWP to 100 days	Number over 100 days		Preg. Cows	All Cows	Calving Interval	Days Open	Interval Length	Number Intervals
1st Lact	6	87	1	73	2.2	3.4	13.0	116	< 18	11
2nd Lact	1	42		75	3.2	4.3	13.9	143	18-24	72
3rd+ Lact	5	47		71	2.7	3.6	14.0	147	36-48	45
All Lacts	12	176	1	73	2.6	3.6	13.5	131	Other	170
% of all 1st srvs	6	93	1							

	ABORTIONS	
	This Month	Past Year
Actual	1	4
Apparent	1	15

SUMMARY BY SERVICE SIRE

Services for Past 12 Months

Service Number	Number Services	% Successful	Service Sire
1st srv	184	32	+307
2nd srv	126	33	+313
3rd+ srv	295	27	+301
All srv	605	30	+305

YEARLY REPRODUCTIVE SUMMARY

Date of Test	% Heats	Number Services	% Success-	Number Confirm. Preg.	Number Calving	Total Pregnant
Month Dropped	42	30	27		12	59
2/13/2008	74	83	27	53	17	93
3/17/2008	73	65	34	18	23	98
4/23/2008	73	64	28	28	20	114
5/27/2008	69	52	31	15	13	121
6/24/2008	81	50	30	16	12	128
7/22/2008	75	50	26	10	10	122
8/3/2008	77	79	25	24	4	138
10/2/2008	73	38	24	17	54	122
10/29/2008	3	1		12	31	119
11/20/2008					30	101
12/18/2008	84	84			20	86
1/19/2009	73	82		32	15	105
Averages	63	54	30	19	21	112
Totals		648			249	

	Number Dry Periods	Dry Days	Number Dry Fewer Than		Number Dry More Than 70 Days
			40 Days	40 - 70 Days	
2nd Lact	56	59	3	47	6
3rd+ Lact	68	76	1	47	20
All Lacts	124	68	4	94	26

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# PC Dart Report 801

Report Preview : [Navigation icons] Close

1st Lact	6	87	1	73	2.2	3.4	13.0	116
2nd Lact	1	42		75	3.2	4.3	13.9	143
3rd+ Lact	5	47		71	2.7	3.6	14.0	147
All Lacts	12	176	1	73	2.6	3.6	13.5	131
% of all 1st srvs	6	93	1					

< 18	11
18-24	72
36-48	45
Other	170

**SUMMARY BY SERVICE SIRE**

Services for Past 12 Months

Service Number	Number Services	% Successful	Service Sire
1st srv	184	32	+307
2nd srv	126	33	+313
3rd+ srv	295	30	+301
All srv	605	30	+305

Conception Rate

**ABORTIONS**

	This Month	Past Year
Actual	1	4
Apparent	1	15

**YEARLY REPRODUCTIVE SUMMARY**

Date of Test	% Heats	Number Services	% Successful	Number Confirm Preg.	Number Calving	Total Pregnant
Month Dropped	42	30	27		12	59
2/13/2008	74	83	27	53	17	93
3/17/2008	73	65	34	18	23	98
4/23/2008	73	64	28	28	20	114
5/27/2008	69	52	31	15	13	121
6/24/2008	81	50	30	16	12	128
7/22/2008	75	50	26	10	10	122
9/3/2008	77	79	25	24	4	138
10/2/2008	73	38	24	17	54	122
10/29/2008	3	1		12	31	119
11/20/2008					30	101
12/18/2008	84	84			20	86
1/19/2009	73	82		32	15	105
Averages	63	54	30	19	21	112
Totals		648			249	

Heat Detection Rate

	Number Dry Periods	Dry Days	Number Dry Fewer Than 40 Days	Number Dry 40 - 70 Days	Number Dry More Than 70 Days
2nd Lact	56	59	3	47	
3rd+ Lact	68	76	1	47	2
All Lacts	124	68	4	94	2

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# DHI Report 202

Adobe Acrobat Professional - [43090006-2009Jan19-DHI-202-Herd-Summary.pdf]

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HERD CODE AND TYPE OF RECORD	DATE TESTED
ST. CO. HERD NO. MG. DAY YEAR	
43 09 0006 1 1 19 09	
DHI RAPCS STRING 1	

## HERD SUMMARY DHI-202

UNIV. OF MO FOREMOST DAIRY  
9601 W. HIGHWAY 40  
1 COLUMBIA MO 65202

PAGE 1

ELECTRONIC METERS

### PRODUCTION, INCOME, & FEED COST SUMMARY

DESCRIPTION	DAILY AVERAGE PER COW ON TEST DAY	ROLLING YEARLY HERD AVERAGES
TOTAL COWS	206	180.4
COWS IN MILK	NUMBER 178 % 86	NUMBER 160.9 % 85
MILK LBS. (ALL COWS)	59.7	20,482
FAT LBS. (ALL COWS)	2.19	751
FAT PERCENT	3.7	3.7
PROTEIN LBS. (ALL COWS)	1.78	620
PROTEIN PERCENT	3.0	3.0
MILK LBS. (MILKING COWS)	69.1	
MILKING COWS		
ALL COWS		
LBS. CONSUMED		
%ENE		
OTHER SUCCULENTS OR BLENDED RATIONS		
LBS. CONSUMED		
%ENE		
DRY FORAGE		
LBS. CONSUMED		
%ENE		
OTHER FEEDS		
LBS. CONSUMED		
%ENE		
PASTURE	PASTURE IVES OR NOI	DAYS
%ENE		
CONCENTRATES	LBS. CONSUMED	LBS. CONSUMED
%ENE		
VALUE OF PRODUCT \$	12.09	10.39
COST OF CONCENTRATES \$		
TOTAL FEED COST \$		3,955
INCOME OVER FEED COST \$		
FEED COST PER CWT MILK \$		
MILK BLEND PRICE	PER CWT %FAT %PROT	PER CWT %FAT %PROT

### REPRODUCTIVE SUMMARY OF CURRENT BREEDING HERD

BR. OF HERD	TOTAL COWS IN BREEDING HERD	COWS WITH NO SERVICE DATES OR DIAG. OPEN	COWS BRED BUT NOT DIAG. PREG.	DAYS TO SERVICE
HO	81	OPEN VWP TO 100 DAYS 7	NUMBER OPEN 3	35 23 13
		OPEN OVER 100 DAYS 9	NUMBER OPEN 4	43 28 16
				73

### REPRODUCTIVE SUMMARY OF TOTAL HERD

DAYS OPEN AT 1ST SERVICE	AVG. DAYS TO 1ST SERVICE	SERVICES PER PREGNANCY		PROJECTED MINIMUM		SERVICE OR HEAT INTERVALS		SERVICES FOR PAST 12 MONTHS			
		PREG. COWS	ALL COWS	CALVING INTERVAL	DAYS OPEN	INTERVAL	NUMBER INTERVALS	SERVICE NUMBER	% SUC-CESSFUL	SERVICE SIRE MERIT \$	
1ST LACT	72	2.2	3.3	12.9	112	LENGTH		1ST	164	32	+324
2ND LACT	75	3.1	3.9	13.9	142	LESS THAN 18	7	2ND	114	24	+322
3+ LACTS	71	2.8	3.6	13.8	138	18-24	53	3RD+	248	29	+315
ALL LACTS	72	2.6	3.5	13.4	127	OTHER	37	TOTAL	526	31	+320
% OF ALL 1ST SERVICES	6	94				36-48		ABORTIONS THIS MONTH	1	4	
				14.6		OTHER	149	ACTUAL	1	14	
								APPARENT	1	14	

### BIRTH SUMMARY

DAM'S LACT NUM.	MALES		FEMALES		OFFSPRING BORN						
	ALIVE	DEAD	ALIVE	DEAD	CALVING DIFFICULTY SCORE						
1	17	7	55	7	44	21	14	7	8		
2+	69	7	53	2	86	26	11	1	1		
TOTAL	86	14	108	9	130	47	25	8	4		

### COWS TO BE MILKING, DRY, CALVING, BY MONTH

MONTH	FEB	MAR	APR	MAY	JUN	JUL
* MILKING	173	173	170	164	170	148
DRY	28	22	19	20	6	25
COWS TO CALVE	11	12	11	16	4	4
HEIFERS TO CALVE						

\* ASSUMES 3.0% PER MONTH CULLING RATE.

### YEARLY REPRODUCTIVE SUMMARY

DATE OF TEST	% HEATS OBS.	% SUCC-ESS-FUL	PREG RATE	NUMBER SERVICES	NUMBER CONFIRM PREG.	NUMBER CALVING	TOTAL PREGNANT COWS
MONTH DROPPED	43	26	14	27		10	54
2-13-08	75	27	20	77	48	16	84
3-17-08	73	34	24	58	18	20	90
4-23-08	72	31	23	55	27	16	106
5-27-08	69	28	19	46	13	12	111
6-24-08	78	29	19	41	15	10	117
7-22-08	75	30	27	43	9	8	112
9-03-08	76	27	22	62	19	1	123
10-02-08	75	25	19	32	14	49	108
10-29-08			0		11	28	107
11-20-08			0			27	91
12-18-08	84			74		18	77
1-19-09	73			72	32	14	97
AVERAGE	63	31	20	47	17	18	102
TOTALS				560		219	

### MISCELLANEOUS HERD INFORMATION

SHIPPED-TEST DAY COMPARISON	TEST DAY	YEARLY AVERAGE
SUM OF TEST DAY WTS (LBS)	12210	10439
REPORTED AV. DAILY MILK TANK WTS (LBS)		
% DEVIATION		

ASSOC. NO.	SAMPLES REC'D AT LAB	DRPC MAILED
99		
SUPV. MO. DAY	MO. DAY	
15 1 21	1 21	

MILKING TIMES	MO	DI
1ST MILK	4:30 AM	Y N
2ND	4:30 PM	Y Y
3RD		

### REMARKS:

COWS MILKED 3 TIMES DAILY FOR ALL OR PART OF THIS YEARLY PERIOD.



# DHI Report 202

Adobe Acrobat Professional - [43090006-2009Jan19-DHI-202-Herd-Summary.pdf]

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## REPRODUCTIVE SUMMARY OF TOTAL HERD

	DAYS OPEN AT 1ST SERVICE			AVG. DAYS TO 1ST SERVICE	SERVICES PER PREGNANCY		PROJECTED MINIMUM	
	NUMBER FEWER THAN VWP	NUMBER FROM VWP TO 100 DAYS	NUMBER OVER 100 DAYS		PREG. COWS	ALL COWS	CALVING INTERVAL	DAYS OPEN
1ST LACT	5	77		72	2.2	3.3	12.9	112
2ND LACT	1	39		75	3.1	3.9	13.9	142
3+ LACTS	5	44		71	2.8	3.6	13.8	138
ALL LACTS	11	160		72	2.6	3.5	13.4	127
% OF ALL 1ST SERVICES	6	94				CURRENT ACTUAL CALVING INTERVAL	14.6	

SERVICE OR HEAT INTERVALS	
INTERVAL LENGTH	NUMBER INTERVALS
LESS THAN 18	7
18-24	53
36-48	37
OTHER	149

SERVICES FOR PAST 12 MONTHS			
SERVICE NUMBER	NUMBER SERVICE	% SUCCESSFUL	SERVICE SIRE MERIT \$
1ST	164		+324
2ND	114	31	+322
3RD+	248	29	+315
<b>TOTAL</b>	<b>526</b>	<b>31</b>	<b>+320</b>

ABORTIONS	THIS MONTH	PAST YEAR
ACTUAL		4
APPARENT	1	14

## BIRTH SUMMARY

OFFSPRING BORN

DAM'S LACT NUM.	MALES		FEMALES		CALVING DIFFICULTY SCORE				
	ALIVE	DEAD	ALIVE	DEAD	1	2	3	4&5	% 4+5
1	17	7	55	7	44	21	14	7	8
2+	69	7	53	2	86	26	11	1	1
<b>TOTAL</b>	<b>86</b>	<b>14</b>	<b>108</b>	<b>9</b>	<b>130</b>	<b>47</b>	<b>25</b>	<b>8</b>	<b>4</b>

## COWS TO BE MILKING, DRY, CALVING, BY MONTH

MONTH	FEB	MAR	APR	MAY	JUN	JUL
* MILKING	173	173	170	164	170	148
DRY	28	22	19	20	6	25
COWS TO CALVE	11	12	11	16	4	4
HEIFERS TO CALVE						

\* ASSUMES 3.0% PER MONTH CULLING RATE.

## YEARLY REPRODUCTIVE SUMMARY

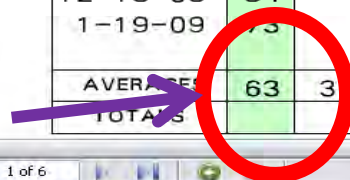
DATE OF TEST	% HEATS OBS.	% SUCCESSFUL	PREG RATE	NUMBER SERVICES	NUMBER CONFIRM PREG.	NUMBER CALVING	TOTAL PREGNANT COWS
MONTH DROPPED	43	26	14	27		10	54
2-13-08	75	27	20	77	48	16	84
3-17-08	73	34	24	58	18	20	90
4-23-08	72	31	23	55	27	16	106
5-27-08	69	28	19	46	13	12	111
6-24-08	78	29	19	41	15	10	117
7-22-08	75	30	27	43	9	8	112
9-03-08	76	27	22	62	19	1	123
10-02-08	75	25	19	32	14	49	108
10-29-08			0		11	28	107
11-20-08			0			27	91
12-18-08	84			74		18	77
1-19-09	73			72	32	14	97
<b>AVERAGES</b>	<b>63</b>	<b>3</b>	<b>20</b>	<b>47</b>	<b>17</b>	<b>18</b>	<b>102</b>
<b>TOTALS</b>				<b>560</b>		<b>219</b>	

11.00 x 8.50 in 1 of 6

Conception Rate



Heat Detection Rate



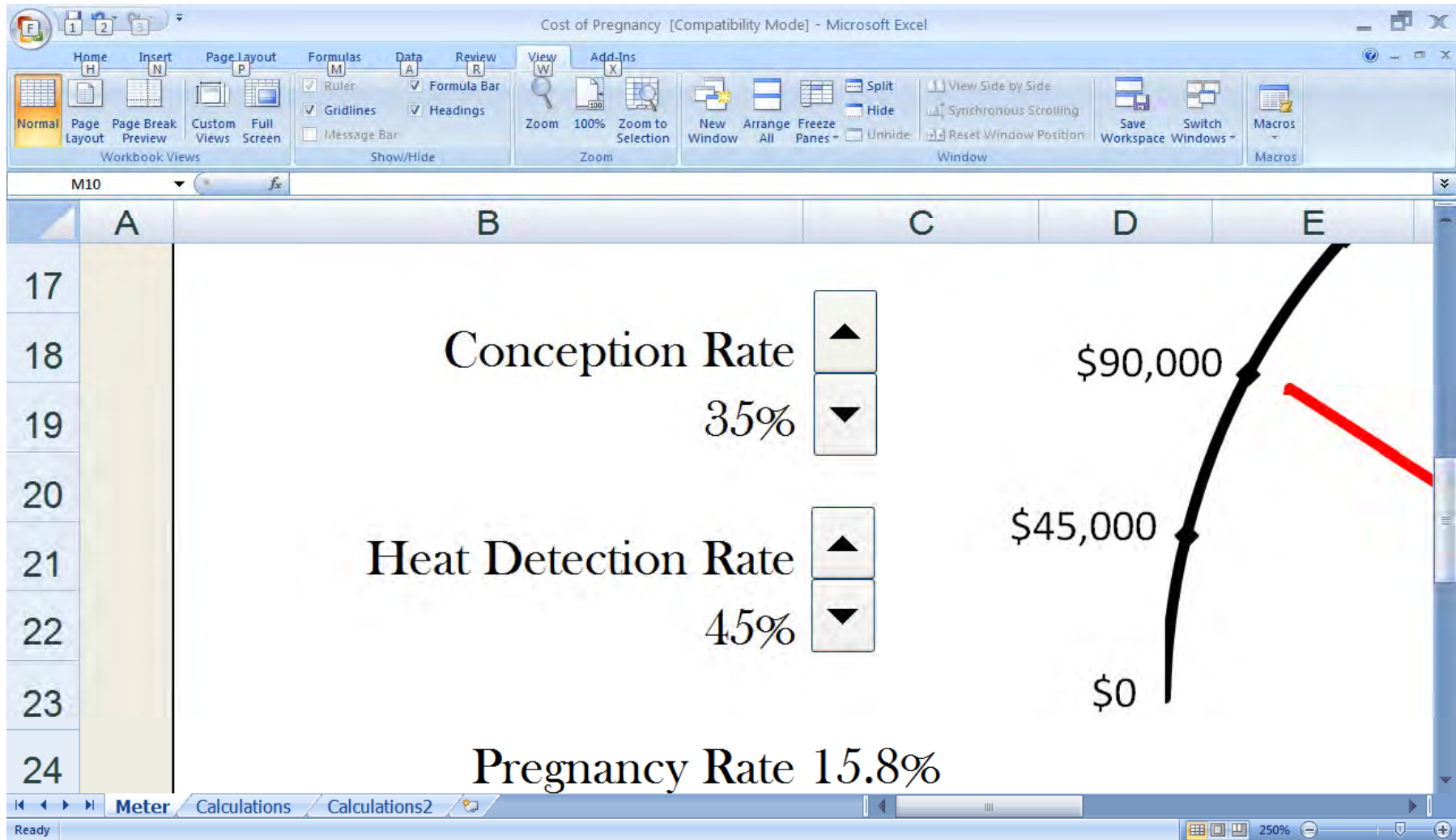
# Fill in the cost of the medications and labor

The screenshot shows an Excel spreadsheet titled "Cost of Pregnancy [Compatibility Mode] - Microsoft Excel". The spreadsheet contains a table with the following data:

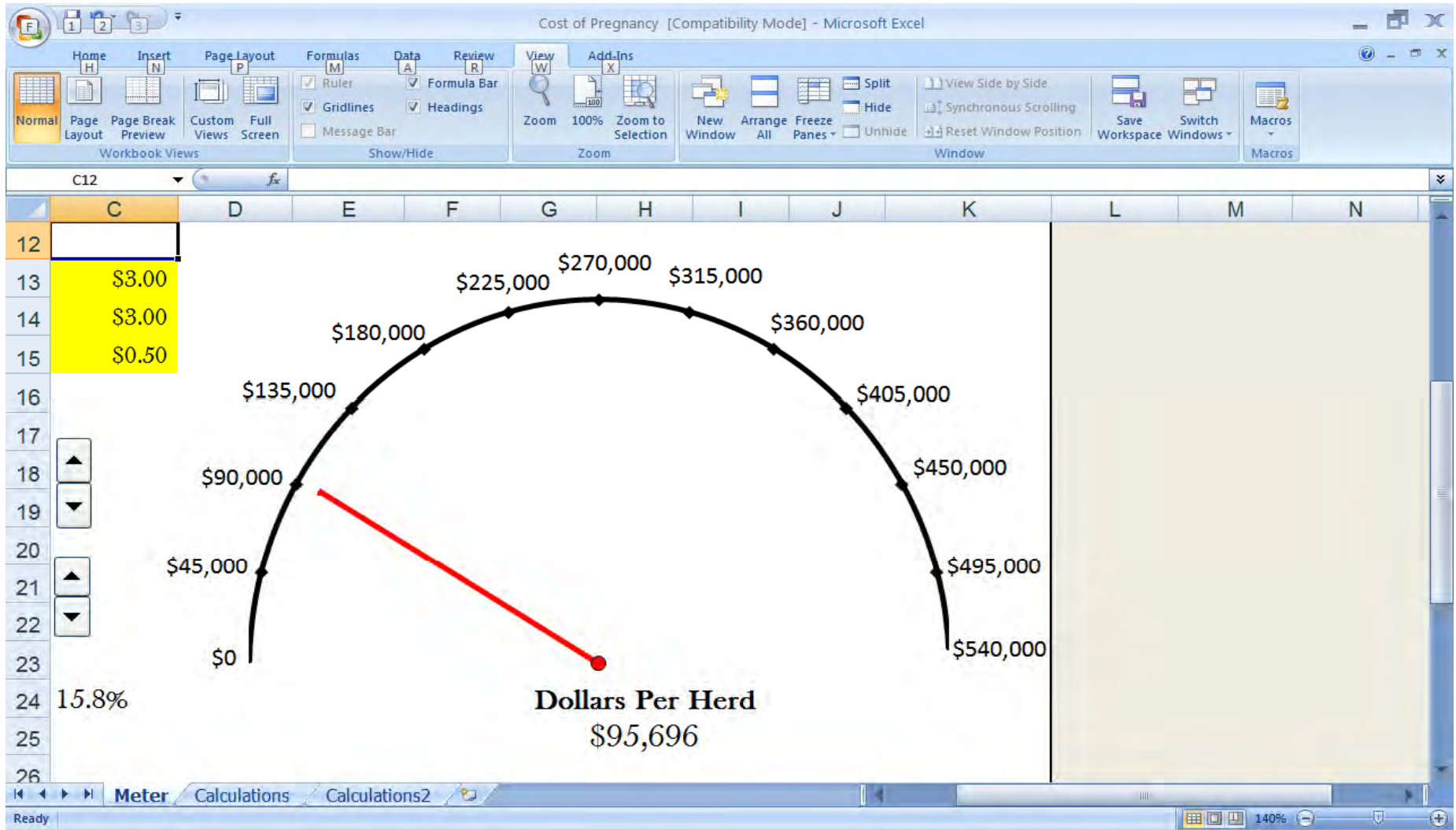
	A	B	C	D	E
10	<b>Total Number of Open Cows Per 21 Day Heat Cycle Using Repro</b>				
11					
12	<u>Cost of Pharmaceuticals</u>				
13	GnRH 2cc		\$3.00		
14	Lutalyse 5cc		\$3.00		\$180,000
15	Labor / Dose		\$0.50		
16					\$135,000
17					

The spreadsheet also shows a status bar at the bottom with "Ready" and a zoom level of 250%.

# Now change Conception Rate and Heat Detection Rate



# Observe the change in \$/herd



# Chapter 3

## Creating Presynch/Ovsynch Program in PC Dart

# Instructions

- The following slides will lead you through setting up a presynch/ovsynch program



# Presynch/Ovsynch

--Click on "File"

File

The screenshot shows the PCDART software interface. At the top, the title bar reads "43090006 - UNIV. OF MO FOREMOST DAIRY - Test Date: 12/20/2007". The menu bar includes "File", "View", "Analysis", "Input Desk", "Tasks", "Print", and "Tips". Below the menu bar, there is a "Quick Entry" field with a question mark icon. The main area is divided into two sections: "Action Lists" on the left and "Herd Statistics Today" on the right. The "Action Lists" section has a "Run Set 'Overview'" button and a table with columns: NextExpHeat, AniType, BarnName, Grp, DIM, and TmsBrd. The "Herd Statistics Today" section is highlighted in cyan and shows counts for Cows, Heifers, and Bulls.

NextExpHeat	AniType	BarnName	Grp	DIM	TmsBrd
Dec 27	C	2041	1	304	7
Dec 27	C	2089	1	112	1
Dec 28	C	505	1	355	6
Dec 28	C	589	3	114	1
Dec 28	C	598	1	270	4
Dec 28	C	701	1	112	1
Dec 28	C	755	3	394	5
Dec 28	C	797	1	113	1
Dec 28	C	853	4	171	2
Dec 28	C	872	1	162	1
Dec 28	C	924	1	325	5
Dec 28	C	939	1	187	2
Dec 28	C	965	3	115	1
Dec 28	C	G-218	3	205	4
Dec 28	C	G-350	5	309	6
Dec 28	C	G-351	3	293	6
Dec 28	C	G-353	1	328	8
Dec 28	C	2022	2	312	4
Dec 28	C	2051	3	308	5
Dec 28	C	2053	2	599	9
Dec 28	C	2064	3	113	1
Dec 28	C	2065	1	420	6
Dec 28	C	2070	3	121	1
Dec 28	C	2074	3	374	6
Dec 28	C	2083	1	116	1
Dec 28	C	2092	1	445	9
Dec 28	C	2093	1	466	9
Dec 28	C	2107	3	305	5
Dec 28	C	2108	2	304	5

**Herd Statistics Today:**

**Cows**

- Total: 197
- In Milk: 167
- Dry: 30
- Open: 41
- Bred: 89
- Pregnant: 67
- Heat in 7 days: 45
- Due in 7 days: 4
- Dry in 7 days: 5

**Heifers**

- Total: 256
- Bred: 34
- Pregnant: 71
- Heat in 7 days: 17
- Due in 7 days: 5

**Bulls**

- Total: 3

PCDART Current: Cw 103

# Choose “Management Options”

The screenshot shows the PCDART 6 software interface. The title bar reads "43090006 - UNIV. OF MO FOREMOST DAIRY - Test Date: 10/2/2008". The menu bar includes "File", "View", "Analysis", "Input Desk", "Tasks", "Print", "Tips", and "Help". The toolbar contains "Milking Machine Interface...", "PCDART 6", "Quick Entry", and "?". The "File" menu is open, and "Management Options..." is highlighted with a red circle. Other menu items include "Protocols...", "Program Setup...", "Config...", "Herd Download Setup...", "Printer Setup...", "Scheduled Items...", "Backup", "Restore", and "Exit".

The main window displays "Action Lists" with a table of data. The table has columns for "BarnName", "Grp", "DIM", and "TmsBrd". The data is as follows:

	BarnName	Grp	DIM	TmsBrd
	703	3	141	1
	925	3	110	1
	G-361	6	142	1
	2017	3	183	3
	2122	3	109	1
Oct 24	2170	1	224	5
Oct 27	2139	1	413	11
Oct 30	2121	5	606	4
Oct 30	G-395	0	0	3
Oct 31	1360	1	186	4
Oct 31	2109	3	181	3
Oct 31	G-390	0	0	4
Oct 31	2272	0	0	5

On the right side, there is a "Herd Statistics Today" panel with the following data:

Herd Statistics Today:	
Cows	
Total:	<u>222</u>
In Milk:	<u>183</u>
Avg DIM:	<u>177</u>
Dry:	<u>39</u>
Open:	<u>80</u>
Bred:	<u>20</u>
Pregnant:	<u>121</u>
Percent Preg:	55
Heat in 7 days:	10
Due in 7 days:	9
Dry in 7 days:	12
Heifers	
Total:	<u>246</u>
Bred:	<u>5</u>
Pregnant:	<u>82</u>
Heat in 7 days:	3
Due in 7 days:	11
Bulls	
Total:	<u>0</u>

The bottom status bar shows "PCDART Current: Cw 103". The Windows taskbar at the bottom includes the Start button, taskbar icons for "Reprodu...", "Microsoft...", "Herd Ma...", and "PCDART", the AOL Search bar, and the system clock showing "3:49 PM Friday".



# --Select "Timed AI"

The screenshot shows a software window titled "Management Options" with several tabs: "Days to Prep", "Index Barn", "Info panel", "ME 2X 3X", and "Timed AI". The "Timed AI" tab is highlighted with a red circle. Below the tabs, the window is titled "User Defined Timed AI Protocols" with a "Help" button. A red warning message states: "Veterinary supervision is required for extra-label drug use." To the right, there is a dropdown menu with the text "You may use one of these Timed AI Protocols as a model:". Below this, there are three tabs: "POS", "ReSync", and "CIDRCS", with "unnamed" sub-tabs. The main content area includes a table with columns for "Name" and "Description". The first row has the name "#4" and a description "Minimum DIM to breed cows". Below the table, there are input fields for "Minimum DIM to breed cows" and "Minimum Age (days) to breed heifers". A section titled "PreSync Setups" is followed by "Start of program" and "Breed Event" sections. The "Start of program" section includes "Heifer Age >" and "Cow DIM >" labels, followed by a row of eight input fields for "Events" and another row of eight input fields for "days to next". Below this is a checkbox "Do not schedule setups for diagnosed OPEN cows" and a "Day of Week for Start of program" dropdown menu. At the bottom right, there are buttons for "Clear Changes this Protocol" and "Delete this Protocol". A "Close" button is located at the bottom right of the window.

# --Name Protocol from drop down menu and at #1

Management Options

Days to Prep | Index Barn | Info panel | ME 2X 3X | Timed AI

User Defined Timed AI Protocols Help

You may use one of these Timed AI Protocols as a model:

Veterinary supervision is required for extra-label drug use.

Std Protocol 3:Pre-synch

POS | ReSync | CIDRCS | unnamed | unnamed | unnamed

Name: POS #1 Description: Pre-synch

This name will be associated with the cows enrolled in this program.

Use 14 day intervals to schedule start dates (default is weekly)

75 Minimum DIM to breed cows

410 Minimum Age (days) to breed heifers

PreSync Setups		Start of program			Breed Event
Heifer Age >	372 386	400	407	409	410
Cow DIM >	37 TUE 51 TUE	65 TUE	72 TUE	74 THU	75 FRI
Events	PGH-1 PGH-2	GnRH-1	PGH	GnRH-2	Breed
days to next	14 14		7	2	1

Do not schedule setups for diagnosed OPEN cows

TUE Day of Week for Start of program

Clear Changes this Protocol Delete this Protocol

Clear All Changes Apply Changes Close

--Select "Minimum DIM to breed cows" (for breed event)

--Select "Day of week for start of program"

Management Options

Days to Prep | Index Barn | Info panel | ME 2X 3X | Timed AI

User Defined Timed AI Protocols Help

You may use one of these Timed AI Protocols as a model:

Veterinary supervision is required for extra-label drug use. Std Protocol 3:Pre-synch

POS | ReSync | CIDRCS | unnamed | unnamed | unnamed

Name: POS #1 Description: Pre-synch

Use 14 day intervals to schedule start dates (default is weekly)

Minimum DIM to breed cows: 75

Minimum Age (days) to breed heifers: 410

PreSync Setups

Heifer Age >	372	386	400	407	409
Cow DIM >	37 TUE	51 TUE	65 TUE	72 TUE	74 THU
Events	PGH-1	PGH-2	GnRH-1	PGH	GnRH-2
days to next	14	14	7	2	1

Start of program

410 75 FRI Breed

Do not schedule setups for diagnosed OPEN cows

Day of Week for Start of program: TUE

Clear Changes this Protocol Delete this Protocol

Clear All Changes Apply Changes Close

# --Apply changes

# --Close

Management Options

Days to Prep | Index Barn | Info panel | ME 2X 3X | Timed AI

### User Defined Timed AI Protocols

Help

You may use one of these Timed AI Protocols as a model:

Veterinary supervision is required for extra-label drug use.

Std Protocol 3:Pre-synch

POS | ReSync | CIDRCS | unnamed | unnamed | unnamed

Name: POS #1 Description: Pre-synch

Use 14 day intervals to schedule start dates (default is weekly)

Minimum DIM to breed cows: 75

Minimum Age (days) to breed heifers: 410

This name will be associated with the cows enrolled in this program.

	PreSync Setups		Start of program			Breed Event
Heifer Age >	372	386	400	407	409	410
Cow DIM >	37 TUE	51 TUE	65 TUE	72 TUE	74 THU	75 FRI
Events	PGH-1	PGH-2	GnRH-1	PGH	GnRH-2	Breed
days to next	14	14		7	2	1

Do not schedule setups for diagnosed OPEN cows

Day of Week for Start of program: TUE

Clear Changes this Protocol Delete this Protocol

Clear All Changes Apply Changes Close

# Click on “RPT”

The screenshot shows the PCDART software interface. At the top, the window title is "43090006 - UNIV. OF MO FOREMOST DAIRY - Test Date: 1/7/2008". The menu bar includes "File", "View", "Analysis", "Input Desk", "Tasks", "Print", "Tips", and "Help". A toolbar contains several icons, with the "RPT" icon (a green square with a white 'R') highlighted by a red box. Below the toolbar is a "Quick Entry" button and a "Ref Date: 1/ 7/2008" dropdown menu. The main area is titled "PCDART" and contains a "Test Day Statistics" checkbox. Below this is an "Action Lists" section with a "Run Set 'Overview'" button. The "Action Lists" section has tabs for "Heat in 7", "Due in 7", and "Dry in 7". A table displays the following data:

NextExpHeat	AniType	BarnName	Grp	DIM	TmsBrd
Jan 07	C	656	2	144	2
Jan 07	C	2039	1	476	12
Jan 07	H	2203	0	0	1
Jan 07	H	2244	0	0	1
Jan 08	H	2199	0	0	1
Jan 09	H	J-002	0	0	6
Jan 09	H	2179	0	0	3
Jan 09	H	2217	0	0	1
Jan 09	H	2220	0	0	1
Jan 09	H	2229	0	0	1
Jan 09	H	2232	0	0	1
Jan 09	H	2242	0	0	1
Jan 09	H	2245	0	0	1
Jan 10	C	2118	1	362	8
Jan 10	H	G-378	0	0	1
Jan 10	H	2249	0	0	1
Jan 10	H	2253	0	0	1
Jan 11	C	654	2	285	3
Jan 11	C	887	3	259	3
Jan 11	C	966	4	83	1
Jan 11	C	983	4	83	1
Jan 11	C	2099	1	306	5
Jan 11	C	2131	1	123	2
Jan 11	C	2982	4	82	1

On the right side of the interface, there is a sidebar titled "Herd Statistics Today:" with a cyan background. It contains the following data:

**Cows**

- Total: 201
- In Milk: 170
- Dry: 31
- Open: 56
- Bred: 65
- Pregnant: 80
- Heat in 7 days: 10
- Due in 7 days: 5
- Dry in 7 days: 2

**Heifers**

- Total: 255
- Bred: 45
- Pregnant: 73
- Heat in 7 days: 18
- Due in 7 days: 0

**Bulls**

- 3

At the bottom of the window, the status bar shows "PCDART Current: Cw 103".

# Click on Reproductive Management

43090006 - UNIV. OF MO FOREMOST DAIRY - Test Date: 1/7/2008

File View Analysis Input Desk Tasks Set Report Printer Setup Tips Help

Ref Date: 1/ 7/2008 Input Filter: Cow Heif All

Quick Entry ?

Reports

Preview Print PDF Edit New Grid View / CSV New Set Print Rpts in Set Run Set for Tmp Grp Close Sets

Sets and Reports - Be sure Reference Date is correct

- >Standard Reports
- >User Reports
- Frequently Used
- Genetics and Heifers
- Health and Event Management
- Herd Activity and Status
- Milk Production and Udder Health
- Reproductive Management
- Tuesday

Reproductive Management

Edit Set Rename Set Delete Set

No Page Breaks

List Report Titles in Set

PCDART Current: Cw 103

Choose **report 134** (Timed AI—Eligible for enrollment) and be sure to mark the **POS (Pre-synch)** selection

The screenshot displays the PCDART software interface for a 'UNIV. OF MO FOREMOST DAIRY' on '1/7/2008'. The main window is titled 'Report 134 in Reproductive Management'. On the left, a tree view under 'Reproductive Management' lists various reports, with '134 Timed AI - Eligible for Enrollment' highlighted in a red box. The right pane shows configuration options for this report. Under 'Choose a User-Defined Timed AI Protocol', '1: POS (Pre-synch)' is selected, highlighted in a green box. Other options include '2: POS (Pre-synch)' and '3: CIDRCS (CIDR COSYNCH)'. Below this, there are fields for 'Control' (set to 'None'), 'Min', 'Max', and 'Assign Tmp Group #'. There are also options for 'Limit # Cows' and 'Sort (Default is by Index)'. The bottom status bar shows 'PCDART Current: Cw 103'.

# The Report will look somewhat like that below (return to previous window in PC Dart)

Ref: 1/26/2008

G	Index	Cows	Reproduc	Tue
r	Name	DIM	Date	cd
4	917	32		PGH-1
4	975	47		PGH-1
1	G-330	51		PGH-1
4	2056	44		PGH-1
4	2062	37		PGH-1
4	2098	43		PGH-1
4	2136	38		PGH-1
5	2166	36		PGH-1
4	2400	34		PGH-1
4	2401	37		PGH-1

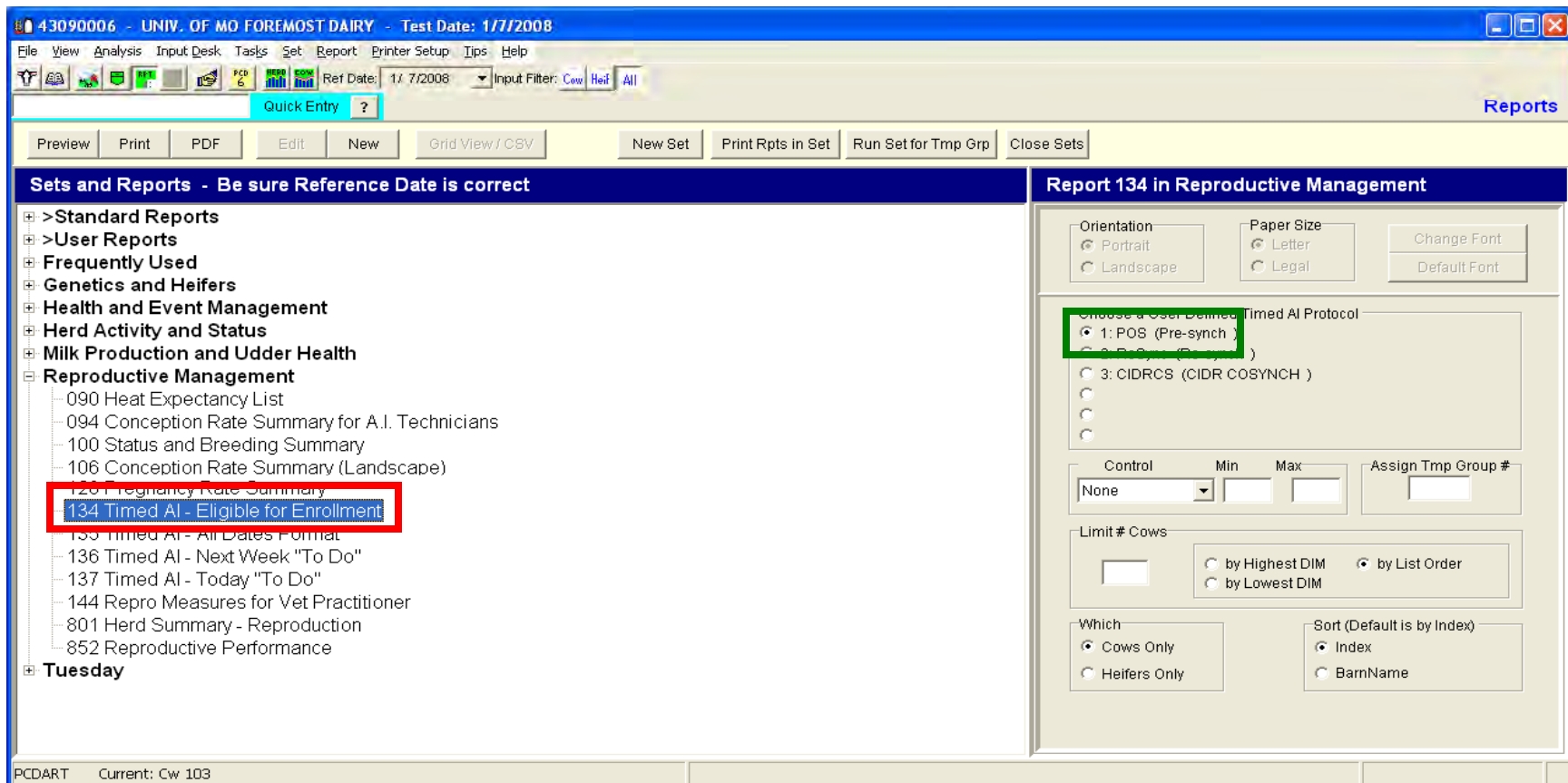
10 Cows

**These cows will be receiving the first injection of prostaglandin of the presynch program.**

0% Page



Choose **report 134** (Timed AI—Eligible for enrollment) and be sure to mark the **POS (Pre-synch)** selection



Select a “Assign Tmp Group #”  
(98 for example) and then choose report “134.” This will generate a report so PC Dart know which cows are in temp group 98.

The screenshot shows the PCDART software interface for a University of Missouri Foremost Dairy. The window title is "43090006 - UNIV. OF MO FOREMOST DAIRY - Test Date: 1/7/2008". The menu bar includes File, View, Analysis, Input Desk, Tasks, Set, Report, Printer Setup, Tips, and Help. The toolbar contains icons for various functions and a "Quick Entry" button. The main window is divided into two panes. The left pane, titled "Sets and Reports - Be sure Reference Date is correct", shows a tree view of reports. The "Reproductive Management" section is expanded, and the report "134 Timed AI - Eligible for Enrollment" is highlighted with a green box. The right pane, titled "Report 134 in Reproductive Management", contains configuration options. The "Assign Tmp Group #" field is highlighted with a blue box and contains the value "98". Other options include Orientation (Portrait selected), Paper Size (Letter selected), Control (None selected), Limit # Cows (empty field), and Sort (Index selected).

# Choose the **Input Desk**

The screenshot displays the PCDART software interface. The title bar reads "43090006 - UNIV. OF MO FOREMOST DAIRY - Test Date: 1/7/2008". The menu bar includes "File", "View", "Analysis", "Input Desk", "Tasks", "Set", "Report", "Printer Setup", "Tips", and "Help". The "Input Desk" menu item is highlighted with a red square. Below the menu bar is a toolbar with various icons, including a "Quick Entry" button. The main window is divided into two panes. The left pane, titled "Sets and Reports - Be sure Reference Date is correct", contains a tree view with the following items: ">Standard Reports", ">User Reports", "Frequently Used", "Genetics and Heifers", "Health and Event Management", "Herd Activity and Status", "Milk Production and Udder Health", "Reproductive Management" (highlighted with a blue selection box), and "Tuesday". The right pane, titled "Reproductive Management", contains buttons for "Edit Set", "Rename Set", and "Delete Set", a checkbox for "No Page Breaks", and a "List Report Titles in Set" button. The status bar at the bottom left shows "PCDART Current: Cw 103".

# Use the “Select Animal(s) Before Showing Input Form” and then the “Timed AI”

43090006 - UNIV. OF MO FOREMOST DAIRY - Test Date: 1/7/2008

**Input Desk** Entry Method:  Enter Animal Number(Name on Input Form)  Select Animal(s) Before Showing Input Form

Date being Reported: 1/21/2008 [Close]

Individual Animal Procedures [Cow] [Heif] [All]

Calved  
Heat  
Timed AI  
Bred  
Vet / Repro Check  
Dried  
Left  
Protocol Enrollment  
Chore Done  
Group Number  
User Defined Fields

Health Conditions  
Into Sick Herd  
Out of Sick Herd  
Sort Gate  
New Cow  
New Heifer  
New Bull  
ID Transponder  
RFID  
Heifer Growth  
Turned w Bull

Bd Wt, Lct#, Dt Ent  
Birth Type  
BST  
Body Condition  
Change ID  
Change Index  
Embryo Transfer  
Estimated Bred Date  
Prostaglandin  
Sugg'd Service Sires  
Temp-Group Number  
Modify Grower/Export

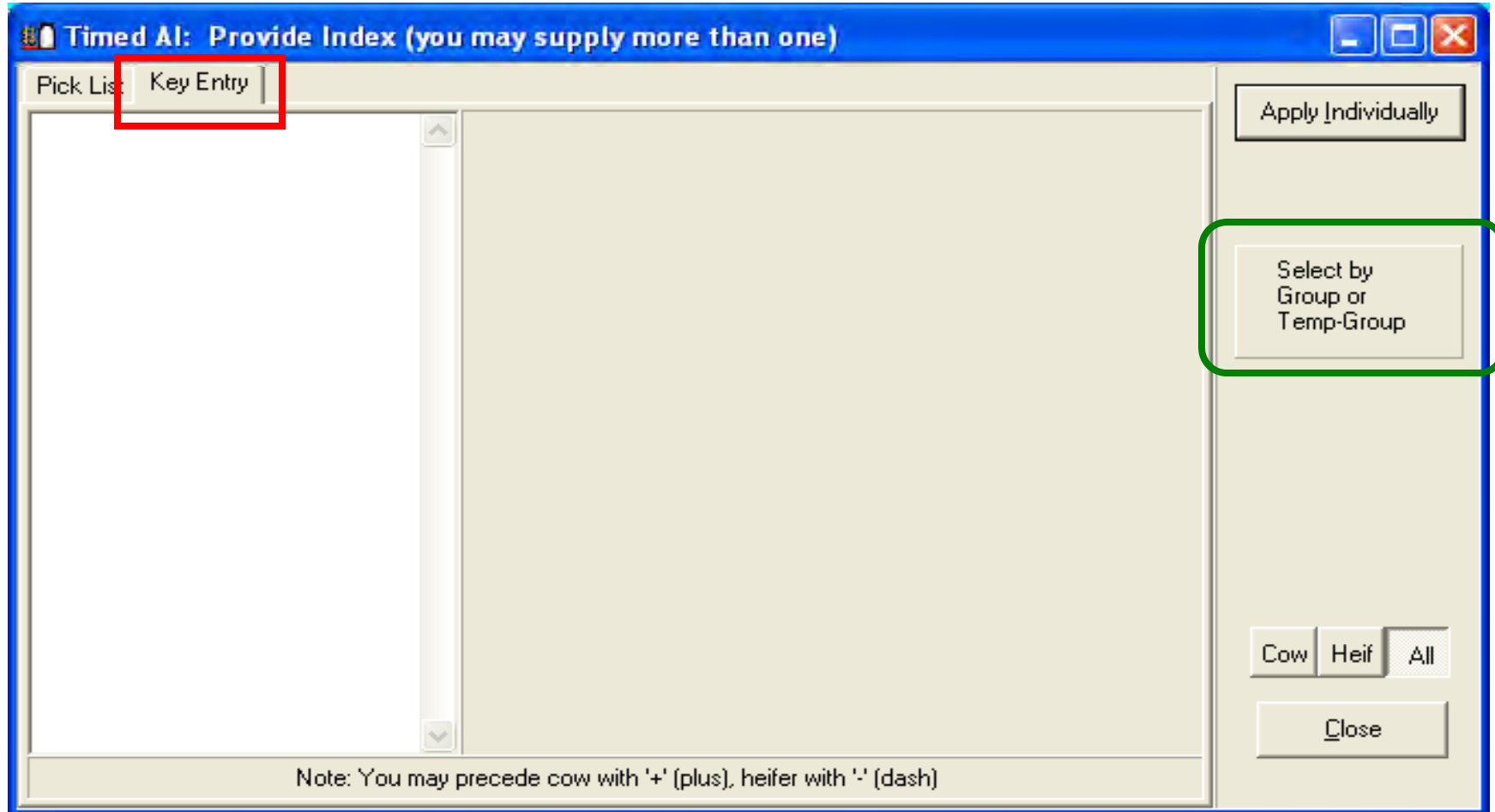
Herd Procedures

Assign Titles for U.D.Fields  
Blank a U.D.Field - all animals  
Zero Temp-Group # - all  
Exch Grp#/Temp-Grp# - all  
Move Batch to Group  
Assign Health Condition ID  
Bull File Functions  
Review Input

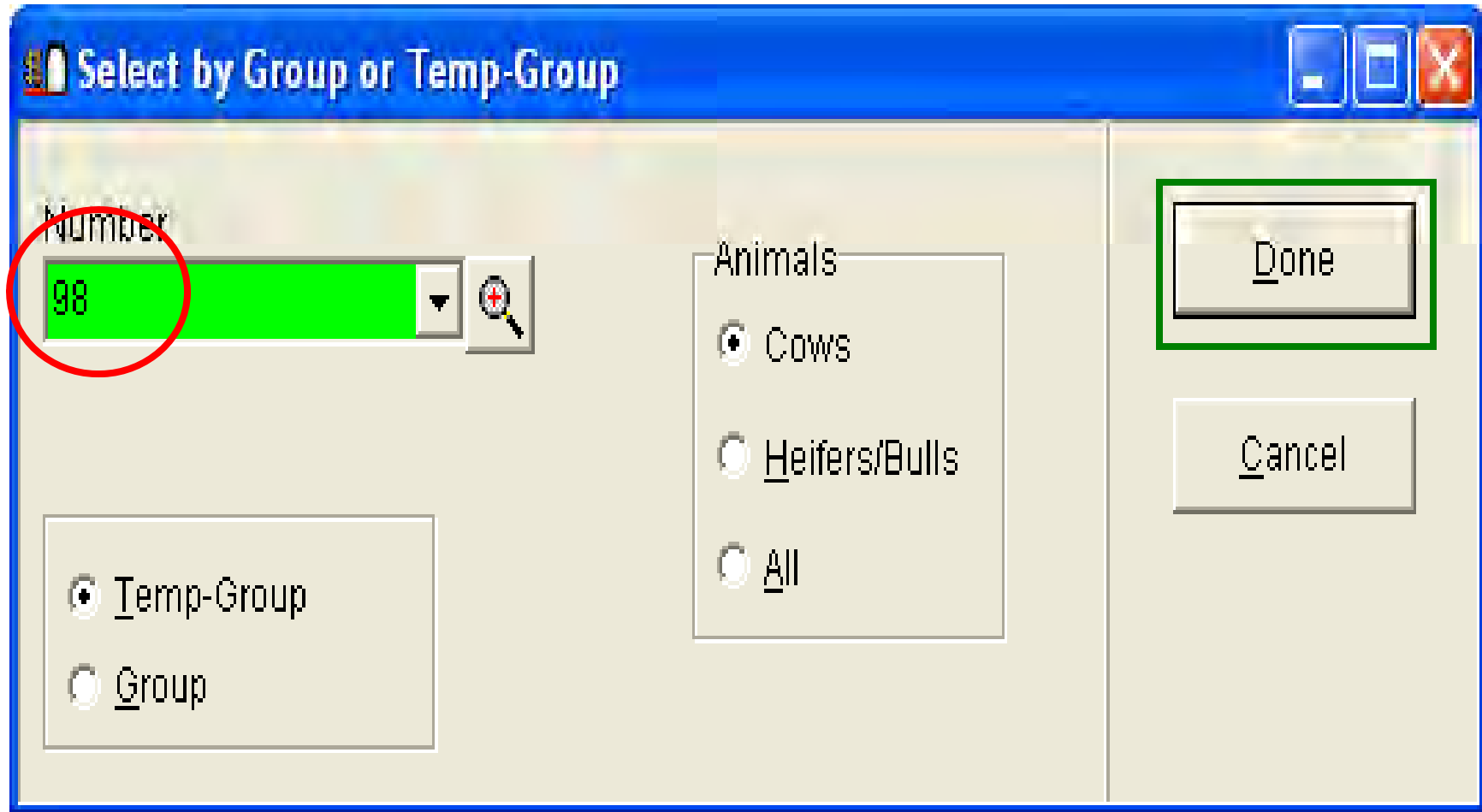
CalvedTimedAI (No chain) (No chain) (No chain) (No chain) (No chain)

Define Chain Events

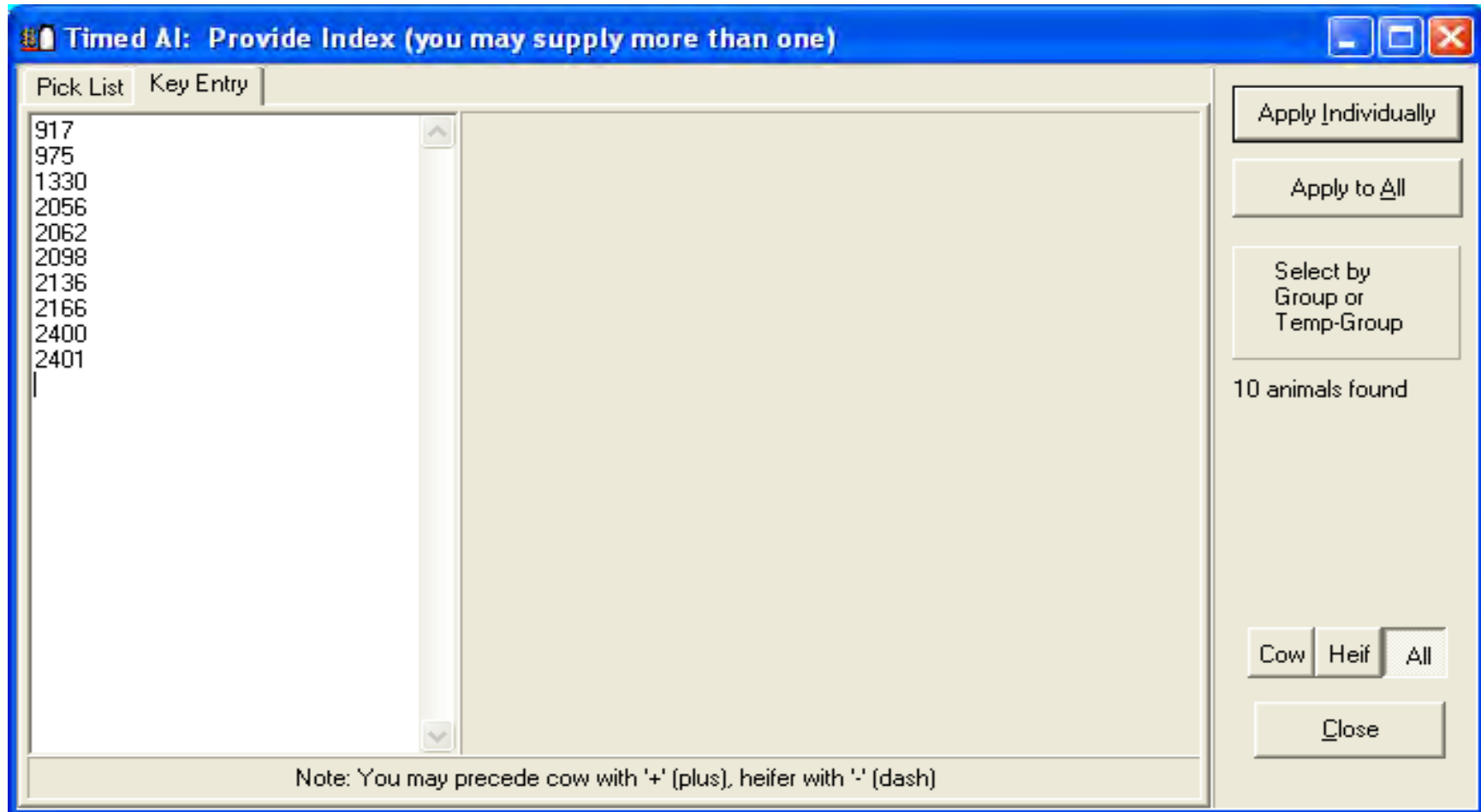
# Choose the “Key Entry” Option and “Select by Group or Temp-Group”



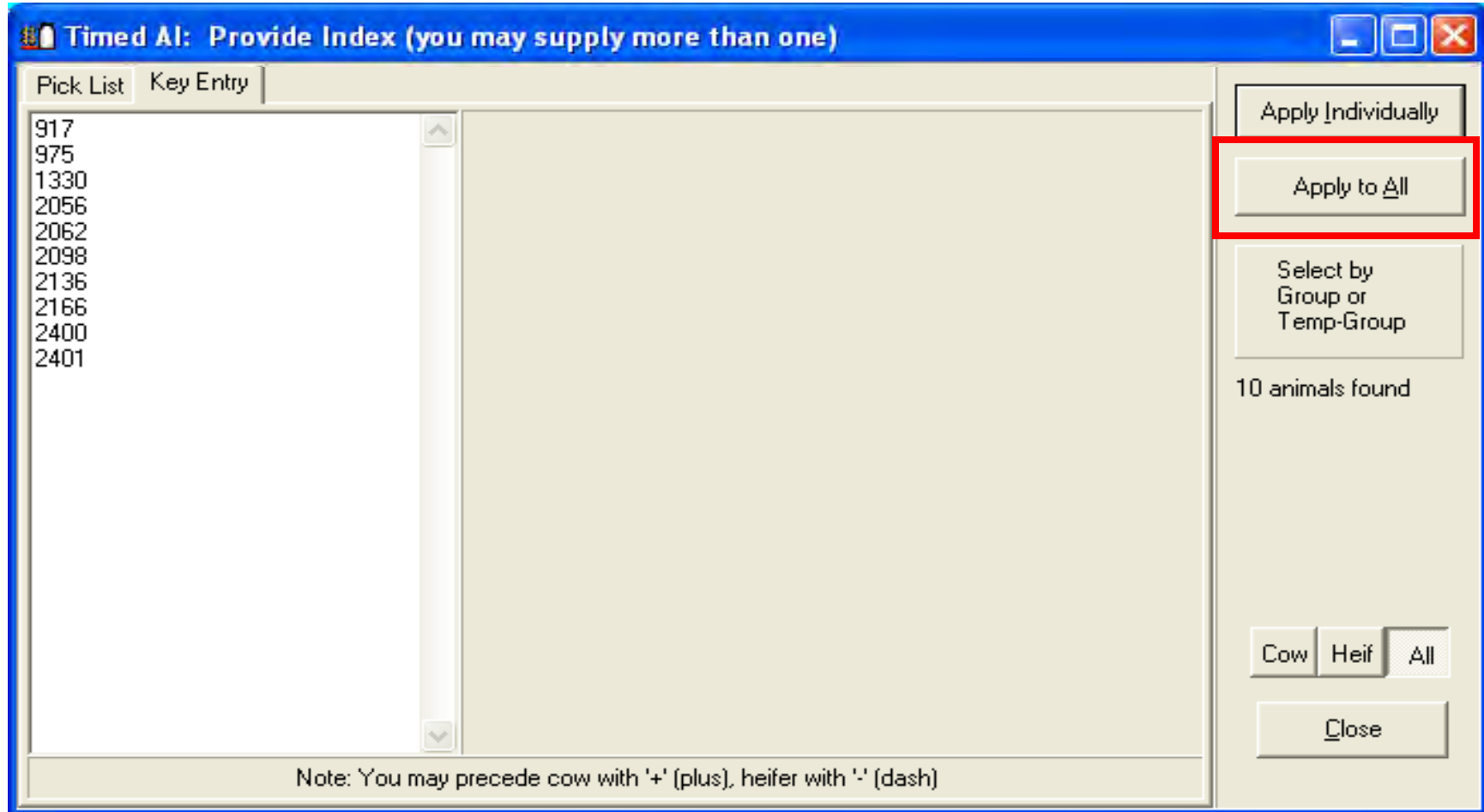
Enter your Tmp Group # (**98**)  
and then **Done**



# The selection will be similar to the screen below



# Now you want to “Apply to all”






# Choose “S Start her on TAI”

## Choose the “TAI Reference Date”

**Enter data**

**Cw 917 (917)** **Timed A. I. (P8)**

TAI Action: **S** 

S Start her on TAI
X Exclude her from TAI  
Z Zero the start date
R Remove exclusion

If bred, do not warn

**TAI Reference Date**  
 She will be started on TAI as soon as possible on or after this date:

Available TAI protocols:

<b>DIM</b>	35	49	63	70	72	73
	<b>PGH-1</b>	<b>PGH-2</b>	<b>GnRH-1</b>	<b>PGH</b>	<b>GnRH-2</b>	<b>Breed</b>
	01/29/08	02/12/08	02/26/08	03/04/08	03/06/08	03/07/08
			<b>start</b>			<b>breed</b>
			TUE			


De-select All selected animals.

Calv: 12/26/2007  
 DIM: 32   Milk: 112.8   Repro:  
 Lct#: 4   Grp 4

# Choose from the “Available TAI protocols” and then “Done”

**Enter data**

**Cw 917 (917)** **Timed A. I. (P8)**

TAI Action **S**  S Start her on TAI X Exclude her from TAI  
Z Zero the start date R Remove exclusion

TAI Reference Date  If bred, do not warn  
 She will be started on TAI as soon as possible on or after this date:

Available TAI protocols

DIM	35	49	63	70	72	73
	<b>PGH-1</b>	<b>PGH-2</b>	<b>GnRH-1</b>	<b>PGH</b>	<b>GnRH-2</b>	<b>Breed</b>
	01/29/08	02/12/08	02/26/08	03/04/08	03/06/08	03/07/08
			<b>start</b>			<b>breed</b>
			TUE			

Calv: 12/26/2007 F2-Cow Page  
DIM: 32 Milk: 112.8 Repro: F6-View Input  
Lct#: 4 Grp 4

**Done**  
Cancel  
De-select All selected animals.  
Cancel All

PC Dart will then apply the protocol to all the cows in temp group 98



# Chapter 4

## Creating a Resynch Program in PC Dart

# Resynch

--Click on "File"

File

4309006 - UNIV. OF MO FOREMOST DAIRY - Test Date: 12/20/2007

File View Analysis Input Desk Tasks Print Tips Help

Ref Date: 12/27/2007 Input Filter: Cow Heif All

Quick Entry ? Overview

**PCDART**  Test Day Statistics

Action Lists Run Set "Overview"

Heat in 7 | Due in 7 | Dry in 7

NextExpHeat	AniType	BarnName	Grp	DIM	TmsBrd
Dec 27	C	2041	1	304	7
Dec 27	C	2089	1	112	1
Dec 28	C	505	1	355	6
Dec 28	C	589	3	114	1
Dec 28	C	598	1	270	4
Dec 28	C	701	1	112	1
Dec 28	C	755	3	394	5
Dec 28	C	797	1	113	1
Dec 28	C	853	4	171	2
Dec 28	C	872	1	162	1
Dec 28	C	924	1	325	5
Dec 28	C	939	1	187	2
Dec 28	C	965	3	115	1
Dec 28	C	G-218	3	205	4
Dec 28	C	G-350	5	309	6
Dec 28	C	G-351	3	293	6
Dec 28	C	G-353	1	328	8
Dec 28	C	2022	2	312	4
Dec 28	C	2051	3	308	5
Dec 28	C	2053	2	599	9
Dec 28	C	2064	3	113	1
Dec 28	C	2065	1	420	6
Dec 28	C	2070	3	121	1
Dec 28	C	2074	3	374	6
Dec 28	C	2083	1	116	1
Dec 28	C	2092	1	445	9
Dec 28	C	2093	1	466	9
Dec 28	C	2107	3	305	5
Dec 28	C	2108	2	304	5

PCDART Current: Cw 103

**Herd Statistics Today:**

**Cows**

Total: 197

In Milk: 167

Dry: 30

Open: 41

Bred: 89

Pregnant: 67

Heat in 7 days: 45

Due in 7 days: 4

Dry in 7 days: 5

**Heifers**

Total: 256

Bred: 34

Pregnant: 71

Heat in 7 days: 17

Due in 7 days: 5

**Bulls** 3

# Choose “Management Options”

The screenshot displays the PCDART 6 software interface. The title bar reads "43090006 - UNIV. OF MO FOREMOST DAIRY - Test Date: 10/2/2008". The menu bar includes "File", "View", "Analysis", "Input Desk", "Tasks", "Print", "Tips", and "Help". The "File" menu is open, and "Management Options..." is highlighted with a red circle. Other menu items include "Milking Machine Interface...", "PCDART 6", "Protocols...", "Program Setup...", "Config...", "Herd Download Setup...", "Printer Setup...", "Scheduled Items...", "Backup", "Restore", and "Exit".

The main window shows "Action Lists" with a table of data. The table has columns for "BarnName", "Grp", "DIM", and "TmsBrd". The data rows are as follows:

	BarnName	Grp	DIM	TmsBrd
	703	3	141	1
	925	3	110	1
	G-361	6	142	1
	2017	3	183	3
	2122	3	109	1
Oct 24	2170	1	224	5
Oct 27	2139	1	413	11
Oct 30	2121	5	606	4
Oct 30	G-395	0	0	3
Oct 31	1360	1	186	4
Oct 31	2109	3	181	3
Oct 31	G-390	0	0	4
Oct 31	2272	0	0	5

On the right side, there is a "Herd Statistics Today" panel with the following data:

Herd Statistics Today:	
<b>Cows</b>	
Total:	<u>222</u>
In Milk:	<u>183</u>
Avg DIM:	<u>177</u>
Dry:	<u>39</u>
Open:	<u>80</u>
Bred:	<u>20</u>
Pregnant:	<u>121</u>
Percent Preg:	55
Heat in 7 days:	10
Due in 7 days:	9
Dry in 7 days:	12
<b>Heifers</b>	
Total:	<u>246</u>
Bred:	<u>5</u>
Pregnant:	<u>82</u>
Heat in 7 days:	3
Due in 7 days:	11
<b>Bulls</b>	
Total:	<u>0</u>

The bottom status bar shows "PCDART Current: Cw 103". The Windows taskbar at the bottom includes the Start button, taskbar icons for "Reprodu...", "Microsoft...", "Herd Ma...", and "PCDART", the AOL Search bar, and the system clock showing "3:49 PM Friday".

# --Select "Timed AI"

The screenshot shows a software window titled "Management Options" with several tabs: "Days to Prep", "Index Barn", "Info panel", "ME 2X 3X", and "Timed AI". The "Timed AI" tab is selected and circled in red. Below the tabs is a section titled "User Defined Timed AI Protocols" with a "Help" button. A red warning message states: "Veterinary supervision is required for extra-label drug use." To the right, there is a dropdown menu with the text "You may use one of these Timed AI Protocols as a model:". Below this is a horizontal list of tabs: "POS", "ReSync", "CIDRCS", "unnamed", "unnamed", and "unnamed". The main content area contains a form for defining a protocol. It includes a "Name" field with "#4" entered, a "Description" field, and a checkbox "Use 14 day intervals to schedule start dates (default is weekly)". There are also input fields for "Minimum DIM to breed cows" and "Minimum Age (days) to breed heifers". A timeline diagram shows "PreSync Setups", "Start of program", and "Breed Event" points. Below the timeline are input fields for "Heifer Age >", "Cow DIM >", and "Events" (a row of eight boxes). There are also "days to next" input fields. At the bottom, there is a checkbox "Do not schedule setups for diagnosed OPEN cows", a "Day of Week for Start of program" dropdown, and two buttons: "Clear Changes this Protocol" and "Delete this Protocol". A "Close" button is located at the bottom right of the window.

# --Name Protocol from **drop down menu** (note name of protocol) and at **#2**

**Management Options**

Days to Prep | Index Barn | Info panel | ME 2X 3X | Timed AI

**User Defined Timed AI Protocols**

You may use one of these Timed AI Protocols as a model: Std Protocol 6:Re-synch

*Veterinary supervision is required for extra-label drug use.*

unnamed | unnamed | unnamed | unnamed | unnamed | unnamed

Name: RES #2 Description: Re-synch

Use 14 day intervals to schedule start dates (default is weekly)

75 Minimum DIM to breed cows

410 Minimum Age (days) to breed heifers

PreSync Setups		Start of program		Breed Event	
Heifer Age >		400	407	409	410
Cow DIM >		65 MON	72 MON	74 WED	75 THU
Events		GnRH	PGH	GnRH	Breed
days to next			7	2	1

Do not schedule setups for diagnosed OPEN cows

MON Day of Week for Start of program



- Select **“Minimum DIM to breed cows”** (for breed event)
- Select **“Day of week for start of program”**

**Management Options**

Days to Prep | Index Barn | Info panel | ME 2X 3X | Timed AI

**User Defined Timed AI Protocols**

You may use one of these Timed AI Protocols as a model:

Veterinary supervision is required for extra-label drug use.

unnamed | unnamed | unnamed | unnamed | unnamed | unnamed

Use 14 day intervals to schedule start dates (default is weekly)

Name: [RES] #2 Description: [Re-synch]  Minimum DIM to breed cows  
 This name will be associated with the cows enrolled in this protocol.  Minimum Age (days) to breed heifers

**PreSync Setups**      **Start of program**      **Breed Event**

Heifer Age >	400	407	409
Cow DIM >	65 MON	72 MON	74 WED
Events	[GnRH]	[PGH]	[GnRH]
days to next	[7]	[2]	[1]

Do not schedule setups for diagnosed OPEN cows

Day of Week for Start of program

--Apply changes  
--Close

Management Options

Days to Prep | Index Barn | Info panel | ME 2X 3X | Timed AI

User Defined Timed AI Protocols

You may use one of these Timed AI Protocols as a model:  
Std Protocol 6:Re-synch

Veterinary supervision is required for extra-label drug use.

unnamed | unnamed | unnamed | unnamed | unnamed | unnamed

Name: RES #2 Description: Re-synch

Use 14 day intervals to schedule start dates (default is weekly)

75 Minimum DIM to breed cows

410 Minimum Age (days) to breed heifers

This name will be associated with the cows enrolled in this protocol.

PreSync Setups		Start of program		Breed Event	
Heifer Age >		400	407	409	410
Cow DIM >		65 MON	72 MON	74 WED	75 THU
Events		GnRH	PGH	GnRH	Breed
days to next			7	2	1

Do not schedule setups for diagnosed OPEN cows

MON Day of Week for Start of program

Now you will be able to enroll open cows back into the program!

- How do you enroll open cows?

# Choose the **Input Desk**

The screenshot displays the PCDART software interface. The title bar reads "43090006 - UNIV. OF MO FOREMOST DAIRY - Test Date: 1/7/2008". The menu bar includes "File", "View", "Analysis", "Input Desk", "Tasks", "Set", "Report", "Printer Setup", "Tips", and "Help". The "Input Desk" menu item is highlighted with a red box. Below the menu bar is a toolbar with various icons, including a "Quick Entry" button. The main window is divided into two panes. The left pane, titled "Sets and Reports - Be sure Reference Date is correct", contains a tree view with the following items: ">Standard Reports", ">User Reports", "Frequently Used", "Genetics and Heifers", "Health and Event Management", "Herd Activity and Status", "Milk Production and Udder Health", "Reproductive Management", and "Tuesday". The right pane, titled "Reproductive Management", contains buttons for "Edit Set", "Rename Set", and "Delete Set", a checkbox for "No Page Breaks", and a "List Report Titles in Set" button. The status bar at the bottom left shows "PCDART Current: Cw 103".

# Use the “Select Animal(s) Before Showing Input Form” and then the “Timed AI”

43090006 - UNIV. OF MO FOREMOST DAIRY - Test Date: 1/7/2008

**Input Desk** Entry Method:  Enter Animal Number(Name on Input Form)  **Select Animal(s) Before Showing Input Form** Date being Reported: 1/21/2008 Close

Individual Animal Procedures Cow Heif All

Calved	Health Conditions	Bd Wt, Lct#, Dt Ent
Heat	Into Sick Herd	Birth Type
<b>Timed AI</b>	Out of Sick Herd	BST
Bred	Sort Gate	Body Condition
Vet / Repro Check	New Cow	Change ID
Dried	New Heifer	Change Index
Left	New Bull	Embryo Transfer
Protocol Enrollment	ID Transponder	Estimated Bred Date
Chore Done	RFID	Prostaglandin
Group Number	Heifer Growth	Sugg'd Service Sires
User Defined Fields	Turned w Bull	Temp-Group Number
		Modify Grower/Export

Herd Procedures

- Assign Titles for U.D.Fields
- Blank a U.D.Field - all animals
- Zero Temp-Group # - all
- Exch Grp#/Temp-Grp# - all
- Move Batch to Group
- Assign Health Condition ID
- Bull File Functions
- Review Input

CalvedTimedAI (No chain) (No chain) (No chain) (No chain) (No chain)

Define Chain Events

# Choose the “Pick List” Option

Provide Index (you may supply more than one)

Pick List | Key Entry

Cw 59	Cw 266	Cw 341	Hf 382
Cw 94	Cw 268	Cw 342	Hf 385
Cw 103	Cw 269	Cw 343	Hf 386
Cw 109	Cw 270	Hf 295	Hf 387
Cw 110	Cw 273	Hf 319	Hf 388
Cw 118	Cw 276	Hf 330	Hf 389
Cw 131	Cw 280	Hf 334	Hf 390
Cw 139	Cw 286	Hf 335	Hf 392
Cw 140	Cw 287	Hf 344	Hf 393
Cw 163	Cw 288	Hf 345	Hf 394
Cw 168	Cw 289	Hf 346	Hf 395
Cw 178	Cw 290	Hf 347	Hf 396
Cw 187	Cw 292	Hf 348	Hf 397
Cw 190	Cw 294	Hf 349	Hf 399
Cw 197	Cw 296	Hf 350	Hf 400
Cw 207	Cw 297	Hf 351	Hf 401
Cw 210	Cw 299	Hf 352	Hf 402
Cw 212	Cw 301	Hf 353	Hf 403
Cw 214	Cw 304	Hf 354	Hf 404
Cw 215	Cw 305	Hf 355	Hf 405
Cw 216	Cw 307	Hf 356	Hf 406
Cw 217	Cw 308	Hf 357	Hf 407
Cw 218	Cw 309	Hf 358	Hf 408
Cw 221	Cw 310	Hf 359	Hf 409
Cw 223	Cw 311	Hf 360	Hf 410
Cw 224	Cw 312	Hf 361	Hf 411
Cw 225	Cw 313	Hf 362	Hf 412
Cw 226	Cw 314	Hf 363	Hf 413
Cw 229	Cw 315	Hf 364	Hf 414
Cw 230	Cw 317	Hf 365	Hf 415
Cw 233	Cw 320	Hf 366	Hf 416
Cw 235	Cw 322	Hf 367	Hf 417
Cw 236	Cw 323	Hf 368	Hf 418
Cw 237	Cw 324	Hf 369	Hf 419
Cw 239	Cw 325	Hf 370	Hf 420
Cw 243	Cw 326	Hf 371	
Cw 245	Cw 327	Hf 372	
Cw 246	Cw 328	Hf 373	
Cw 247	Cw 329	Hf 374	
Cw 249	Cw 331	Hf 375	
Cw 250	Cw 332	Hf 376	
Cw 255	Cw 333	Hf 377	
Cw 261	Cw 337	Hf 378	
Cw 262	Cw 338	Hf 379	
Cw 264	Cw 339	Hf 380	
Cw 265	Cw 340	Hf 381	

Apply Individually

Select by Group or Temp-Group

Cow Heif All

Close

Click all the open cows that need to be re-enrolled and then choose “Apply to All”

Timed AI: Provide Index (you may supply more than one)			
Pick List		Key Entry	
Cw 59	Cw 266	Cw 341	Hf 382
Cw 94	Cw 268	Cw 342	Hf 385
Cw 103	Cw 269	Cw 343	Hf 386
Cw 109	Cw 270	Hf 295	Hf 387
Cw 110	Cw 273	Hf 319	Hf 388
Cw 118	Cw 276	Hf 330	Hf 389
Cw 131	Cw 280	Hf 334	Hf 390
Cw 139	Cw 286	Hf 335	Hf 392
Cw 140	Cw 287	Hf 344	Hf 393
Cw 163	Cw 288	Hf 345	Hf 394
Cw 168	Cw 289	Hf 346	Hf 395
Cw 178	Cw 290	Hf 347	Hf 396
Cw 187	Cw 292	Hf 348	Hf 397
Cw 190	Cw 294	Hf 349	Hf 399
Cw 197	Cw 296	Hf 350	Hf 400
Cw 207	Cw 297	Hf 351	Hf 401
Cw 210	Cw 299	Hf 352	Hf 402
Cw 212	Cw 301	Hf 353	Hf 403
Cw 214	Cw 304	Hf 354	Hf 404
Cw 215	Cw 305	Hf 355	Hf 405
Cw 216	Cw 307	Hf 356	Hf 406
Cw 217	Cw 308	Hf 357	Hf 407
Cw 218	Cw 309	Hf 358	Hf 408
Cw 221	Cw 310	Hf 359	Hf 409
Cw 223	Cw 311	Hf 360	Hf 410
Cw 224	Cw 312	Hf 361	Hf 411
Cw 225	Cw 313	Hf 362	Hf 412
Cw 226	Cw 314	Hf 363	Hf 413
Cw 229	Cw 315	Hf 364	Hf 414
Cw 230	Cw 317	Hf 365	Hf 415
Cw 233	Cw 320	Hf 366	Hf 416
Cw 235	Cw 322	Hf 367	Hf 417
Cw 236	Cw 323	Hf 368	Hf 418
Cw 237	Cw 324	Hf 369	Hf 419
Cw 239	Cw 325	Hf 370	Hf 420
Cw 243	Cw 326	Hf 371	
Cw 245	Cw 327	Hf 372	
Cw 246	Cw 328	Hf 373	
Cw 247	Cw 329	Hf 374	
Cw 249	Cw 331	Hf 375	
Cw 250	Cw 332	Hf 376	
Cw 255	Cw 333	Hf 377	
Cw 261	Cw 337	Hf 378	
Cw 262	Cw 338	Hf 379	
Cw 264	Cw 339	Hf 380	
Cw 265	Cw 340	Hf 381	

Choose “S” for Start her on TAI and the **date** you want to start followed by the **TAI Protocol**

Enter data

**Cw 59 (59)** **Timed A. I. (P8)**

TAI Action S       S Start her on TAI      X Exclude her from TAI  
 Z Zero the start date      R Remove exclusion

**TAI Reference Date**  If bred, do not warn  
 She will be started on TAI as soon as possible on or after this date:

Available TAI protocols

De-select All selected animals.

DIM	279	286	288	289
	GnRH	PGH	GnRH	Breed
	11/03/08	11/10/08	11/12/08	11/13/08
	<b>start</b>			<b>breed</b>
	MON			

Calv: 1/30/2008      Bred: 1 6/13/2008      DaysSinceBred: 139        
 DIM: 274      Milk: 33.0      Repro: N  
 Lct#: 10      Grp 0



# Choose “Done” and PC Dart will apply the resynch to all the chosen cows

Enter data

**Cw 59 (59)** **Timed A. I. (P8)**

TAI Action S  S Start her on TAI X Exclude her from TAI  
Z Zero the start date R Remove exclusion

TAI Reference Date  If bred, do not warn  
 She will be started on TAI as soon as possible on or after this date:

Available TAI protocols

DIM	279	286	288	289
	GnRH	PGH	GnRH	Breed
	11/03/08	11/10/08	11/12/08	11/13/08
	<b>start</b>			<b>breed</b>
	MON			

De-select All selected animals.

Calv: 1/30/2008    Bred: 1 6/13/2008    DaysSinceBred: 139      
 DIM: 274    Milk: 33.0    Repro: N      
 Lct#: 10    Grp 0

# Chapter 5

## Enrolling Cows into a Synchronization Program at Calving

# Choose the **Input Desk**

The screenshot displays the PCDART software interface. The title bar reads "43090006 - UNIV. OF MO FOREMOST DAIRY - Test Date: 1/7/2008". The menu bar includes "File", "View", "Analysis", "Input Desk", "Tasks", "Set", "Report", "Printer Setup", "Tips", and "Help". The "Input Desk" menu item is highlighted with a red box. Below the menu bar, there is a toolbar with icons for various functions, a "Quick Entry" button, and a "Reports" link. A secondary toolbar contains buttons for "Preview", "Print", "PDF", "Edit", "New", "Grid View / CSV", "New Set", "Print Rpts in Set", "Run Set for Tmp Grp", and "Close Sets". The main interface is divided into two panes. The left pane, titled "Sets and Reports - Be sure Reference Date is correct", shows a tree view with categories: ">Standard Reports", ">User Reports", "Frequently Used", "Genetics and Heifers", "Health and Event Management", "Herd Activity and Status", "Milk Production and Udder Health", "Reproductive Management" (highlighted in blue), and "Tuesday". The right pane, titled "Reproductive Management", contains buttons for "Edit Set", "Rename Set", and "Delete Set", a checkbox for "No Page Breaks", and a "List Report Titles in Set" button. The status bar at the bottom left shows "PCDART Current: Cw 103".

Choose “**Select Animal(s) Before Showing Input Form**” and then check “**Define Chain Events**”

The screenshot shows the 'Input Desk' window for 'SW CENTER DAIRY' with the test date '9/23/2008'. The window title bar includes the ID '43500328'. The interface is divided into several sections:

- Header:** 'Input Desk' on the left, 'Entry Method' dropdown with two options: 'Enter Animal Number/Name on Input Form' and 'Select Animal(s) Before Showing Input Form' (the latter is selected and highlighted with a red box), 'Date being Reported' set to '10/29/2008', and a 'Close' button.
- Individual Animal Procedures:** A grid of buttons for actions like 'Calved', 'Heat', 'Timed AI', 'Bred', 'Vet / Repro Check', 'Dried', 'Left', 'Protocol Enrollment', 'Chore Done', 'Group Number', 'User Defined Fields', 'Health Conditions', 'Into Sick Herd', 'Out of Sick Herd', 'New Cow', 'New Heifer', 'New Bull', 'RFID', 'Heifer Growth', 'Turned w Bull', 'Bd Wt, Lct#, Dt Ent', 'Birth Type', 'BST', 'Body Condition', 'Change ID', 'Change Index', 'Embryo Transfer', 'Estimated Bred Date', 'Prostaglandin', 'Sugg'd Service Sires', 'Temp-Group Number', and 'Modify Grower/Export'. There are also 'Cow', 'Heif', and 'All' filter buttons.
- Herd Procedures:** A vertical list of buttons including 'Assign Titles for U.D.Fields', 'Blank a U.D.Field - all animals', 'Zero Temp-Group # - all', 'Exch Grp#/Temp-Grp# - all', 'Move Batch to Group', 'Assign Health Condition ID', 'Bull File Functions', and 'Review Input'.
- Footer:** A row of six '(No chain)' buttons and a checkbox labeled 'Define Chain Events' which is checked and highlighted with a green box.

# The screen will have changed and be similar to below

43500328 - SW CENTER DAIRY - Test Date: 9/23/2008

**Input Desk**

Entry Method:

- Enter Animal Number/Name on Input Form
- Select Animal(s) Before Showing Input Form

Date being Reported: 10/29/2008

Close

Individual Animal Procedures

Cow Heif All

Calved

Heat

Timed AI

Bred

Vet / Repro Check

Dried

Left

Protocol Enrollment

Chore Done

Group Number

User Defined Fields

Health Conditions

Into Sick Herd

Out of Sick Herd

New Cow

New Heifer

New Bull

RFID

Heifer Growth

Turned w Bull

Bd Wt, Lct#, Dt Ent

Birth Type

BST

Body Condition

Change ID

Change Index

Embryo Transfer

Estimated Bred Date

Prostaglandin

Sugg'd Service Sires

Temp-Group Number

Modify Grower/Export

Herd Procedures

Assign Titles for U.D.Fields

Blank a U.D.Field - all animals

Zero Temp-Group # - all

Exch Grp#/Temp-Grp# - all

Move Batch to Group

Assign Health Condition ID

Bull File Functions

Review Input

(No chain)

(No chain)

(No chain)

(No chain)

(No chain)

Define Chain Events

**(Empty)**

(Click procedure buttons to define an event chain. Clear checkbox to erase current chain.)

Proceed

Save

Choose “**Calved**” and then “**Timed AI**” followed by “**Save**”

43500328 - SW CENTER DAIRY - Test Date: 9/23/2008

**Input Desk**

Entry Method

- Enter Animal Number/Name on Input Form
- Select Animal(s) Before Showing Input Form

Date being Reported: 10/29/2008

Close

Individual Animal Procedures

Cow Heif All

Calved

Heat

Timed AI

Bred

Vet / Repro Check

Dried

Left

Protocol Enrollment

Chore Done

Group Number

User Defined Fields

Health Conditions

Into Sick Herd

Out of Sick Herd

New Cow

New Heifer

New Bull

RFID

Heifer Growth

Turned w Bull

Bd Wt, Lct#, Dt Ent

Birth Type

BST

Body Condition

Change ID

Change Index

Embryo Transfer

Estimated Bred Date

Prostaglandin

Sugg'd Service Sires

Temp-Group Number

Modify Grower/Export

Herd Procedures

Assign Titles for U.D.Fields

Blank a U.D.Field - all animals

Zero Temp-Group # - all

Exch Grp#/Temp-Grp# - all

Move Batch to Group

Assign Health Condition ID

Bull File Functions

Review Input

(No chain)

(No chain)

(No chain)

(No chain)

(No chain)

Define Chain Events

**Calved TimedAI**

(Click procedure buttons to define an event chain. Clear checkbox to erase current chain.)

Proceed

Save

# Steps to take when a cow calves

# Choose the **Input Desk**

The screenshot displays the PCDART software interface. The title bar reads "43090006 - UNIV. OF MO FOREMOST DAIRY - Test Date: 1/7/2008". The menu bar includes "File", "View", "Analysis", "Input Desk", "Tasks", "Set", "Report", "Printer Setup", and "Tips Help". The "Input Desk" menu item is highlighted with a red box. Below the menu bar, there is a toolbar with icons for various functions, a "Quick Entry" button, and a "Reports" link. A secondary toolbar contains buttons for "Preview", "Print", "PDF", "Edit", "New", "Grid View / CSV", "New Set", "Print Rpts in Set", "Run Set for Tmp Grp", and "Close Sets". The main interface is divided into two panes. The left pane, titled "Sets and Reports - Be sure Reference Date is correct", shows a tree view with categories: ">Standard Reports", ">User Reports", "Frequently Used", "Genetics and Heifers", "Health and Event Management", "Herd Activity and Status", "Milk Production and Udder Health", "Reproductive Management" (highlighted in blue), and "Tuesday". The right pane, titled "Reproductive Management", contains buttons for "Edit Set", "Rename Set", and "Delete Set", a checkbox for "No Page Breaks", and a "List Report Titles in Set" button. The status bar at the bottom indicates "PCDART Current: Cw 103".



# Choose “Select Animal(s) Before Showing Input Form” and then “CalvedTimed AI”

43500328 - SW CENTER DAIRY - Test Date: 9/23/2008

**Input Desk**

Entry Method

- Enter Animal Number/Name on Input Form
- Select Animal(s) Before Showing Input Form

Date being Reported: 10/29/2008

Close

Individual Animal Procedures: Cow Heif All

Herd Procedures

CalvedTimedAI (No chain) (No chain) (No chain) (No chain) (No chain)

Define Chain Events

# Choose your “cow(s)” and “Apply Individually”

Calved TimedAI Provide Index (you may supply more than one)

Pick List	Key Entry					
Cw 59	Cw 224	Cw 273	Cw 317	Hf 344	Hf 369	Hf 397
Cw 94	Cw 225	Cw 276	Cw 320	Hf 345	Hf 370	Hf 399
Cw 103	Cw 226	Cw 280	Cw 322	Hf 346	Hf 371	Hf 400
Cw 109	Cw 229	Cw 286	Cw 323	Hf 347	Hf 372	Hf 401
Cw 110	Cw 230	Cw 287	Cw 324	Hf 348	Hf 373	Hf 402
Cw 118	Cw 233	Cw 288	Cw 325	Hf 349	Hf 374	Hf 403
Cw 131	Cw 235	Cw 289	Cw 326	Hf 350	Hf 375	Hf 404
Cw 139	Cw 236	Cw 290	Cw 327	Hf 351	Hf 376	Hf 405
Cw 140	Cw 237	Cw 292	Cw 328	Hf 352	Hf 377	Hf 406
Cw 163	Cw 239	Cw 294	Cw 329	Hf 353	Hf 378	Hf 407
Cw 168	Cw 243	Cw 296	Cw 331	Hf 354	Hf 379	Hf 408
Cw 178	Cw 245	Cw 297	Cw 332	Hf 355	Hf 380	Hf 409
Cw 187	Cw 246	Cw 299	Cw 333	Hf 356	Hf 381	Hf 410
Cw 190	Cw 247	Cw 301	Cw 337	Hf 357	Hf 382	Hf 411
Cw 197	Cw 249	Cw 304	Cw 338	Hf 358	Hf 385	Hf 412
Cw 207	Cw 250	Cw 305	Cw 339	Hf 359	Hf 386	Hf 413
Cw 210	Cw 255	Cw 307	Cw 340	Hf 360	Hf 387	Hf 414
Cw 212	Cw 261	Cw 308	Cw 341	Hf 361	Hf 388	Hf 415
Cw 214	Cw 262	Cw 309	Cw 342	Hf 362	Hf 389	Hf 416
Cw 215	Cw 264	Cw 310	Cw 343	Hf 363	Hf 390	Hf 417
Cw 216	Cw 265	Cw 311	Hf 295	Hf 364	Hf 392	Hf 418
Cw 217	Cw 266	Cw 312	Hf 319	Hf 365	Hf 393	Hf 419
Cw 218	Cw 268	Cw 313	Hf 330	Hf 366	Hf 394	Hf 420
Cw 221	Cw 269	Cw 314	Hf 334	Hf 367	Hf 395	
Cw 223	Cw 270	Cw 315	Hf 335	Hf 368	Hf 396	

Apply Individually

Select by Group or Temp-Group

Cow Heif All

Close

Select the appropriate information in regard to date, calf, etc and then “Done”

Enter data

**Cw 59 (59)** **Calved (P1)**

Calving Code   Calving Date

Calf 1   Sex-Disp

You may enter \*### for days in milk

Cow's Body Wt (cwt)   Group   Birth Diff

Calf's Sire Id   Breed

Calv: 1/30/2008    Bred: 1 6/13/2008    DaysSinceBred: 139   

DIM: 274    Milk: 33.0    Repro: N   

Lct#: 10    Grp 0

Choose “S” to start on Timed AI, then select the **TAI protocol**, and finally you are “Done”

Enter data

**Cw 983 (983)** **Timed A. I. (P8)**

TAI Action **S**  S Start her on TAI X Exclude her from TAI  
Z Zero the start date R Remove exclusion

If bred, do not warn

**TAI Reference Date**  
 She will be started on TAI as soon as possible on or after this date:

Available TAI protocols

<b>DIM</b>	28	42	56	63	65	66
	<b>PGH-1</b>	<b>PGH-2</b>	<b>GnRH-1</b>	<b>PGH</b>	<b>GnRH-2</b>	<b>Breed</b>
	11/25/08	12/09/08	12/23/08	12/30/08	01/01/09	01/02/09
			<b>start</b>			<b>breed</b>
			TUE			

Calv: 10/29/2008  
 DIM: 1                      Repro:  
 Lct#: 4                    Grp 9

The cow will now be in the  
presynch/ovsynch program!

# Chapter 6

## Using PC Dart Reproductive Synchrony Programs on a Weekly Basis

# How do you apply it every week? Choose “Reproductive Management”

The screenshot shows a software window titled "43090006 - UNIV. OF MO FOREMOST DAIRY - Test Date: 1/7/2008". The interface includes a menu bar (File, View, Analysis, Input Desk, Tasks, Set, Report, Printer Setup, Tips, Help) and a toolbar with various icons. A "Quick Entry" field with a question mark is visible. Below the toolbar is a row of buttons: Preview, Print, PDF, Edit, New, Grid View / CSV, New Set, Print Rpts in Set, Run Set for Tmp Grp, and Close Sets. The main area is split into two panes. The left pane, titled "Sets and Reports - Be sure Reference Date is correct", contains a tree view with the following items: >Standard Reports, >User Reports, Frequently Used, Genetics and Heifers, Health and Event Management, Herd Activity and Status, Milk Production and Udder Health, **Reproductive Management** (highlighted with a red box), and Tuesday. The right pane, titled "Reproductive Management", contains buttons for "Edit Set", "Rename Set", and "Delete Set", a checkbox for "No Page Breaks", and a "List Report Titles in Set" button. The status bar at the bottom left shows "PCDART Current: Cw 103".

# Big Picture

- To obtain a list of all the cows ENROLLED in the program and when they should receive the proper injection, select “report 135.”
- This gives you an overview of what to expect
- See next slide



# Click on “Include User Defined Protocol (POS) and possibly Resync”

The screenshot displays the PCDART software interface. The window title is "43090006 - UNIV. OF MO FOREMOST DAIRY - Test Date: 1/7/2008". The menu bar includes File, View, Analysis, Input Desk, Tasks, Set, Report, Printer Setup, Tips, and Help. The toolbar contains icons for various functions and a "Quick Entry" button. The main area is divided into two panes. The left pane, titled "Sets and Reports - Be sure Reference Date is correct", shows a tree view of reports. The right pane, titled "Report 135 in Reproductive Management", shows configuration options for the report. A red arrow points to the report "135 Timed AI - All Dates Format" in the left pane. In the right pane, the "Include User Defined Protocols" section is highlighted with a green box, showing "1: POS (Pre-synch)" checked and "2: ReSync (Re-synch)" unchecked. Other options include Orientation (Portrait selected), Paper Size (Letter selected), Control (None selected), and Sort (Index selected).

Report 135

# Output of report 135 Time AI (All Dates)

Report Preview :

G r p	Index Name	TAI progrm	Cows		GnRH-1	PGH	GnRH-2	Breed
			PGH-1	PGH-2				
4	209	POS	12/25	01/08	01/22	01/29	01/31	02/01
4	799	POS	01/01	01/15	01/29	02/05	02/07	02/08
1	818	POS	01/08	01/22	02/05	02/12	02/14	02/15
4	844	POS	01/01	01/15	01/29	02/05	02/07	02/08
4	877	POS	01/01	01/15	01/29	02/05	02/07	02/08
4	888	POS	12/18	01/01	01/15	01/22	01/24	01/25
4	901	POS	12/25	01/08	01/22	01/29	01/31	02/01
4	922	POS	12/11	12/25	01/08	01/15	01/17	01/18
3	946	POS	12/11	12/25	01/08	01/15	01/17	01/18
4	977	POS	01/08	01/22	02/05	02/12	02/14	02/15
4	2008	POS	12/25	01/08	01/22	01/29	01/31	02/01
4	2015	POS	12/25	01/08	01/22	01/29	01/31	02/01
4	2063	POS	01/08	01/22	02/05	02/12	02/14	02/15
2	2076	POS	12/25	01/08	01/22	01/29	01/31	02/01
3	2084	POS	12/11	12/25	01/08	01/15	01/17	01/18
4	2152	POS	12/18	01/01	01/15	01/22	01/24	01/25
1	2159	POS	12/25	01/08	01/22	01/29	01/31	02/01
4	2160	POS	01/08	01/22	02/05	02/12	02/14	02/15
4	2161	POS	12/18	01/01	01/15	01/22	01/24	01/25
3	3659	POS	01/01	01/15	01/29	02/05	02/07	02/08
20 Cows								

Page 1 of 1





# Injection Day!

Choose **report 137** (be sure to check the synch program, could be both POS and ReSync)

The screenshot displays the PCDART software interface for a dairy farm. The window title is "43090006 - UNIV. OF MO FOREMOST DAIRY - Test Date: 1/7/2008". The menu bar includes File, View, Analysis, Input Desk, Tasks, Set, Report, Printer Setup, Tips, and Help. The status bar shows "Ref Date: 1/ 8/2008" and "Input Filter: Cow, Heif, All".

The main interface is divided into two panes. The left pane, titled "Sets and Reports - Be sure Reference Date is correct", shows a tree view of reports. The "Reproductive Management" category is expanded, and "137 Timed AI - Today 'To Do'" is highlighted with a red box. Other reports listed include "090 Heat Expectancy List", "094 Conception Rate Summary for A.I. Technicians", "100 Status and Breeding Summary", "106 Conception Rate Summary (Landscape)", "126 Pregnancy Rate Summary", "134 Timed AI - Eligible for Enrollment", "135 Timed AI - All Dates Format", "136 Timed AI - Next week 'To Do'", "144 Repro Measures for Vet Practitioner", "801 Herd Summary - Reproduction", and "852 Reproductive Performance".

The right pane, titled "Report 137 in Reproductive Management", shows configuration options. The "Include User Defined Protocols" section is highlighted with a green box and contains the following options:

- 1: POS (Pre-synch )
- 2: ReSync (Re-synch )
- 3: CIDRCS (CIDR COSYNCH )
- Undefined
- Undefined
- Undefined

Below this section are controls for "Control" (set to "None"), "Min", and "Max". At the bottom, there are options for "Which" (Cows Only, Heifers Only) and "Sort (Default is by Index)" (Index, Group then Event then BarnName, Group then Event then Index).

The status bar at the bottom left indicates "PCDART Current: Cw 103".

# Output of Report 137

Report Preview :

G	Index	TAI	Cows - Repro -	Tue	Wed	Thu	Fri	Sat	Sun	Mon	
r	Name	progrrm	Date	cd	01/08	01/09	01/10	01/11	01/12	01/13	01/14
p	209	POS		PGH-2							
4	818	POS		PGH-1							
1	901	POS		PGH-2							
4	922	POS		GnRH-1							
4	946	POS		GnRH-1							
3	977	POS		PGH-1							
4	2008	POS		PGH-2							
4	2015	POS		PGH-2							
4	2063	POS		PGH-1							
4	2076	POS		PGH-2							
2	2084	POS		GnRH-1							
3	2159	POS		PGH-2							
1	2160	POS		PGH-1							
4											
	13	Cows									

This is the list you will take out to the pens

Page 1 of 1





# To see which cows will be on the synchronization list next week Choose Report 136

The screenshot shows the PCDART software interface for 'UNIV. OF MO FOREMOST DAIRY'. The window title is '43090006 - UNIV. OF MO FOREMOST DAIRY - Test Date: 1/7/2008'. The menu bar includes File, View, Analysis, Input Desk, Tasks, Set, Report, Printer Setup, Tips, and Help. The toolbar contains icons for various functions and a 'Quick Entry' button. The main area is divided into two panes. The left pane, titled 'Sets and Reports - Be sure Reference Date is correct', shows a tree view of reports. The right pane, titled 'Report 136 in Reproductive Management', shows configuration options for the selected report. A red box highlights the report '136 Timed AI - Next Week "To Do"' in the left pane. A red arrow points from this box to the 'Include User Defined Protocols' section in the right pane, where '1: POS (Pre-synch)' is checked. Other options include '2: ReSync (Re-synch)', '3: CIDRCS (CIDR COSYNCH)', and three 'Undefined' entries. The 'Control' dropdown is set to 'None'. The 'Which' section has 'Cows Only' selected, and the 'Sort' section has 'Index' selected.

43090006 - UNIV. OF MO FOREMOST DAIRY - Test Date: 1/7/2008

File View Analysis Input Desk Tasks Set Report Printer Setup Tips Help

Ref Date: 1/10/2008 Input Filter: Cow Heif All

Quick Entry ?

Reports

Preview Print PDF Edit New Grid View / CSV New Set Print Rpts in Set Run Set for Tmp Grp Close Sets

**Sets and Reports - Be sure Reference Date is correct**

- >Standard Reports
- >User Reports
- Frequently Used
- Genetics and Heifers
- Health and Event Management
- Herd Activity and Status
- Milk Production and Udder Health
- Reproductive Management
  - 090 Heat Expectancy List
  - 094 Conception Rate Summary for A.I. Technicians
  - 100 Status and Breeding Summary
  - 106 Conception Rate Summary (Landscape)
  - 126 Pregnancy Rate Summary
  - 134 Timed AI - Eligible for Enrollment
  - 136 Timed AI - Next Week "To Do"
  - 137 Timed AI - Today "To Do"
  - 144 Repro Measures for Vet Practitioner
  - 801 Herd Summary - Reproduction
  - 852 Reproductive Performance
- Tuesday

**Report 136 in Reproductive Management**

Orientation: Portrait Landscape Paper Size: Letter Legal Change Font Default Font

Include User Defined Protocols:  1: POS (Pre-synch)  2: ReSync (Re-synch)  3: CIDRCS (CIDR COSYNCH)  Undefined  Undefined  Undefined Select All

Control: None Min Max

Which: Cows Only Heifers Only Sort (Default is by Index): Index Group then BarnName Group then Index

PCDART Current: Cw 103

# Output of Report 136

Report Preview :

G	Index	TAI	Cows	Thu	Fri	Sat	Sun	Mon	Tue	Wed
r	Name	prog	- Repro -	01/10	01/11	01/12	01/13	01/14	01/15	01/16
p		prgm	Date	cd						
4	799	POS							PGH-2	
4	844	POS							PGH-2	
4	877	POS							PGH-2	
4	888	POS							GnRH-1	
4	922	POS							PGH	
3	946	POS							PGH	
3	2084	POS							PGH	
4	2152	POS							GnRH-1	
4	2161	POS							GnRH-1	
3	3659	POS							PGH-2	
	10 Cows									

Page 1 of 1



# Chapter 7

## Estrus Synchronization Programs

<b>Ovsynch 56</b>	Monday	(7 days)	Monday	(2 days)	Wednesday		Thursday
	GnRH		PGF2		GnRH		Breed
	AM		AM		4:00 PM		AM

<b>Cosynch 72</b>	Monday	(7 days)	Monday	(3 days)	Thursday
	GnRH		PGF2		Breed
	AM		AM		GnRH

<b>SelectSynch</b>	Monday	(7 days)	Monday	Heat detect and Breed		
	GnRH		PGF2			
	AM		AM			

<b>Presynch + Ovsynch</b>	Monday	(14 days)	Monday	(14 days)	Monday	(7 days)	Monday	(2 days)	Wednesday	Thursday
	PGF2		PGF2		GnRH		PGF2		GnRH	Breed
	AM		AM		AM		AM		4 PM	AM

<b>Presynch + Cosynch</b>	Monday	(14 days)	Monday	(14 days)	Monday	(7 days)	Monday	(3 days)	Thursday
	PGF2		PGF2		GnRH		PGF2		Breed
	AM		AM		AM		AM		AM

<b>G6G Ovsynch</b>	Monday	(2 days)	Wed	(6 days)	Monday	(7 days)	Monday	(3 days)	Thursday
	PGF2		GnRH		GnRH		PGF2		Breed
	AM		AM		AM		AM		AM

<b>CIDRsynch</b>	Monday	(7 days)	Monday	(2 days)	Wednesday		Thursday
	CIDR		CIDR		GnRH		Breed
	IN		Out		4:00 PM		AM
	GnRH		PGF2				
	AM		AM				

<b>CIDR Cosynch</b>	Monday	(7 days)	Monday	(66 hours)	Thursday		
	CIDR		CIDR		Breed		
	IN		Out 2PM		8:00 AM		
	GnRH		PGF2		Give GnRH at		
	AM		2 PM		Breeding		

# Definitions

**Calving interval** ---The time between when the cow delivers a calf until the next calf is born

**Conception rate** ---The percentage of the number of cows that conceive divided by the number bred at the time of pregnancy check

**Days open**---The time from when a cow calves until when she conceives

**Days to first service**--- The time from when a cow calves until the first time she is bred

**Estrus synchronization**--- A program to group the heats in animals

**First service conception rate**--- The percentage of cows that conceive at the time of their first breeding

**Heat Detection Rate**--- Number of cows bred divided by the number of cows eligible to get bred over a 21 day period

**Pregnancy Rate**--- Number of cows that became pregnant divided by the number of cows eligible to get pregnant over a 21 day period

**Voluntary waiting period**--- A specified time after a cow calves that no breeding takes place or the time when you will start breeding your cows