

Dairy Comp 305 Newsletter

Number 25

Fourth Quarter – 2006

In last year's newsletter, we started by saying that the future held uncertainty regarding milk price and pressures from political and economic sources. Low milk prices and high feed costs have combined to make this a difficult period for our industry.

During these times, we are grateful that our customers are showing confidence in us by continuing to use our products and support. We are doing as much as possible to maintain that confidence and continue to provide information management solutions to meet the needs of the dairy industry.

It is unclear what the USDA will do about a mandatory national ID system. However it is evident to us that the use of RFID and wireless, hand-held scanners have made a dramatic increase in the efficiency in a number of dairy operations. For this reason, last year's section on hand-helds has been updated and re-printed. It is at the end of this newsletter.

As with last year, many from VAS have contributed to this newsletter. Their efforts are appreciated and attest to their knowledge and willingness to help support our users.

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Regularly Scheduled Maintenance

The best way to minimize problems with your computer is to have routine computer maintenance performed regularly. There are two reasons for data loss; either there was no backup or the media used failed to successfully capture the data. To reduce the possibility of data loss we recommend you maintain regular backups of all your data on an external hard drive, flash drive, CDRW, or DVD. Floppy disks have a high rate of failure and should not be used to protect vital information. Dust is one of the leading causes of hardware failure. All moving components should be thoroughly cleaned to ensure your system runs cool and smooth. Some of the components that can be affected by dust are: the motherboard and all system boards, the CPU fan, power supply fan, and the hard drive. All data cables should be checked to be sure they are securely seated on system boards.

If you would like more information about computer maintenance or to schedule a local onsite maintenance appointment please feel free to give us a call at 1-888-225-6753 or email us at PCHardware@VAS.com

Windows Vista

Microsoft is on the verge of releasing a new operating system called Windows Vista. There are already hardware vendors shipping computers with certificates for the new operating system and peripheral devices labeled "Vista compatible". If you are looking to purchase a new computer you should verify that the machine is Windows Vista compatible but still choose Windows XP Professional for an operating system.

With a new operating system on the scene there are always "growing pains" involved with the transition. We believe it is best to wait those pains out and pick up Windows Vista after it has been tested. We are currently testing Windows Vista release candidates with our software and working through problems we are finding.

At this point in the game we would much rather see those users still using a Windows 98 or older platform upgrade to Windows XP versus making a jump to Windows Vista. Windows 95 has not been supported by Microsoft for some time now, Windows 98 SE and Windows Millennium Edition (ME) support ended as of July 11, 2006. Due to this we must also move on and strongly suggest to our customers to update if they have not already done so. Our future updates will not support Windows 98 as that will limit our capabilities. If you have any questions concerning operating systems or computer hardware in general please feel free to give our PC Hardware team a call.

Internet

Broadband internet is becoming more available in rural America. This is enabling VAS to take advantage of the increased use of the internet to supply remote support. In many cases it is far better than dial up connections and it does not (usually) require long distance phone calls. One problem that has occurred is that many on-farm computer systems are set up in networks containing firewalls that, for security protection, prevent outside entrance to the network. We have developed a method of getting around this using a program called VNC that allows the dairy to eas-

ily let our support staff into their computer while keeping the rest of cyberspace at bay. This allows our support technicians to take control of your computer remotely (with the dairy's permission) and work independently or with the dairyman to quickly and efficiently solve software and computer problems.

Another advantage of using the internet is that, if the "high-speed internet" is truly "high-speed" we can often talk and work over the same internet connection at the same time. This further reduces long distance phone costs. We are now using a program called Skype that is currently downloadable (and free) from the internet and is an internet phone system. It does require a microphone and speakers or a headset with a microphone to be used.

Remote support, as many know, makes dealing with support much easier than trying to explain to someone at VAS the problems that are occurring. It is much easier for all if we can see exactly what is going on, take control of the computer and often find and fix the problems in just a few minutes rather than taking a long time describing to each other what is being seen, what is happening, what to do about it and knowing that the fix worked..

We are actually able to provide Broadband Internet to customers in some parts of the USA and can help others in getting it. We would be happy to discuss the different technologies and options that may be available to you.

Networking

We are equipped to offer a wide range of networks to our customers. This includes networks connected with cables, wireless, or a combination of both. Our philosophy in designing networks is to build them robust enough to allow both video and data to run across the same infrastructure. A huge benefit to this is it will allow and support video, data and voice on the same network, provide a constant structure through out the network and erases the possibility of creating noise for other devices on the network. This is done so that, after the network is installed, additional devices can be added to the network easily, with a minimum of effort and possibility of interference.

We also offer a wide variety of network cameras. Cameras are a good example of an additional device which functions well on this type of network. The camera types that we offer include manual fixed, PTZ or pan, tilt and zoom with and without low light handling, and infrared for the no light scenario. The viewing of these cameras can be done from any computer on the network, as well as across the internet if desired.

Pen Table Descriptions

A new feature added to Dairy Comp is the ability to add a 15-character pen description to the pen table. This feature allows you to get more descriptive about the types of pens you have setup on your operation. You could define pens as EAST, WEST, NORTH or SOUTH. If you have different locations, name them DAIRY1 and DAIRY 2. Or in most cases be descriptive about what each pen means to you on your dairy.

Defining a Pen Label

Pen labels are edited using ALTER | Pens. When defining a pen, you can enter an optional label. Due to storage requirements, the cowfile must be version 5 or later.

Here is an Example of a herd:

ALTER4 : Pens								
PEN		BULL	AI	MILK	DRY	HOSP	CALF	USER
0								
1	Cows Fresh			MILK				
2	Cows AI		AI	MILK				
3	Cows AI		AI	MILK				
4	Cows Bullpen	BULL		MILK				
5	Drycows				DRY			
6	Closeups				DRY			USER
99	Cows Hospital			MILK		HOSP		
100	Calf Ranch						CALF	
101	Hfrs 4- 6 Mo.						CALF	
102	Hfrs 7-13 Mo.						CALF	
103	Hfrs AI		AI				CALF	
104	Hfrs Bullpen	BULL					CALF	
105	Hfrs Pregnant						CALF	USER

A new item type #57 has been added to allow you to use the pen label in your reports. You would select Op1 as PEN.

In the Example below it is called PLABL (Pen Label)

ALTER2 : Item definitions

Item Definition #182
Name : PLABL
Item Type : 57 Pen Label
Operand 1 : 2
Operand 2 : 0
Description : Pen Label

Item Name

Enter item name, up to 5 characters

These Pen Label items are “calculated” items, and can be displayed on reports like any other item. They can be sorted and selected the same as the PEN they refer to, and are treated as numeric items. Like any calculated item you can not ENTER into them.

Sorts are numeric (pen number), not by alpha label text.

This will allow you to run a command like SUM BY PLABL and get a report like this:

By PLABL %COW #COW

Cows Fresh	7	123
Cows AI	6	115
Cows AI	6	116
Cows Bullpen	7	122
Drycows	3	63
Closeups	1	19
Cows Hospital	1	10
Calf Ranch	9	173
Hfrs 4- 6 Mo.	9	167
Hfrs 7-13 Mo.	24	438
Hfrs AI	10	175
Hfrs Bullpen	6	119
Hfrs Pregnant	10	191
=====	=====	=====
Total	100	1831

Notice that there is no “grouping” of similar pen labels. Both pens 2 and 3 are “Cows AI” in the example given but show up separately in this SUM.

When using this item with FOR or BY for lists, there is no difference between using the label item (PLABL) or PEN. When using this with the BY in the SUM or PCT commands, the label description, not the pen number will be displayed in the report.

Other Examples

SHOW ID PEN PNLAB FOR PNLAB=3 (equals FOR PEN=3)

or

SHOW ID PEN PNLAB FOR PNLAB>0 BY PNLAB (equals FOR PEN>0 BY PEN)

or

- Command : SUM MILK 305ME RELV BY PNLAB

-

By PNLAB	%COW	#COW	Av MILK	Av305ME	Av RELV

-	47	245	0	0	0
North Barn	26	136	71	25913	99
South Barn	21	110	71	25357	97
Hospital Pen	5	26	0	26347	101
=====					
Total	100	517	71	25729	98

Ditto Key Function

The * (asterisk) key in Dairy Comp performs a “ditto” function. This allows you to enter the same exact information from a previous event or item entry into the next cow.



When entering data for groups of cows, there have always been a number of shortcuts available:

DRY EDAY REM prompts for ID, then date, then remark for each cow.

DRY EDAY=Today REM prompts for ID, then remark for each cow – no date prompt

DRY EDAY=Today REM=QTMMASTER prompts for only ID

DRY EDAY=TODAY REM=QTMMASTER FOR DCC>220 DDAT=0 is totally automatic.

Another example is entering **BRED**. Bred can prompt for sire, and optionally tech and breeding code.

However, if a number of cows are bred by the same technician, to the same bull, with the same code, the * acts as a repeat or ditto key.

Example:

Select the command **BRED** from the command line or menu. Type the cow ID, and additional information.

For cows that have exactly the same information, type **ID***, instead of **ID** <enter>.

For example, instead of entering “1234” when prompted, enter “1234*”.

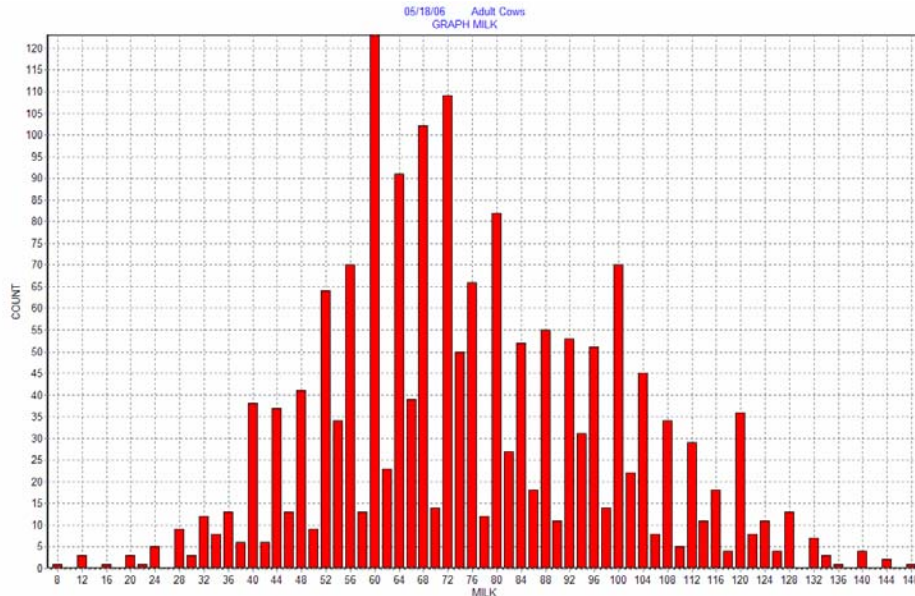
The exact same sire, technician, and breeding code will be used as the previous cow.

The **ID*** also works for disease events with or without protocols, and **SOLD** and **DIED**.

This new feature will save time and minimize errors for repetitive entries that prompt for various inputs. When you need to change what the inputs will be, just use the “Enter” key instead of the “*” ditto key and make your changes.

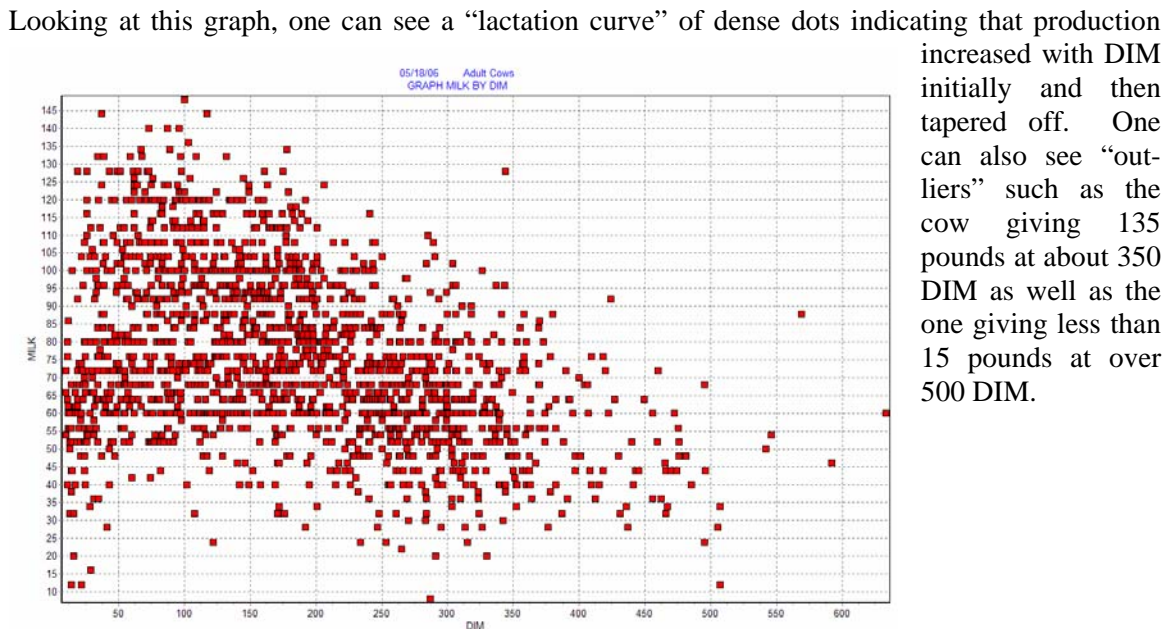
Use of the GRAPH Command

Graphing is a method to visually show various aspects or features of the dairy. Classically we do 2 types of graphs using items: bar graphs (also called histograms) and scatter graphs.



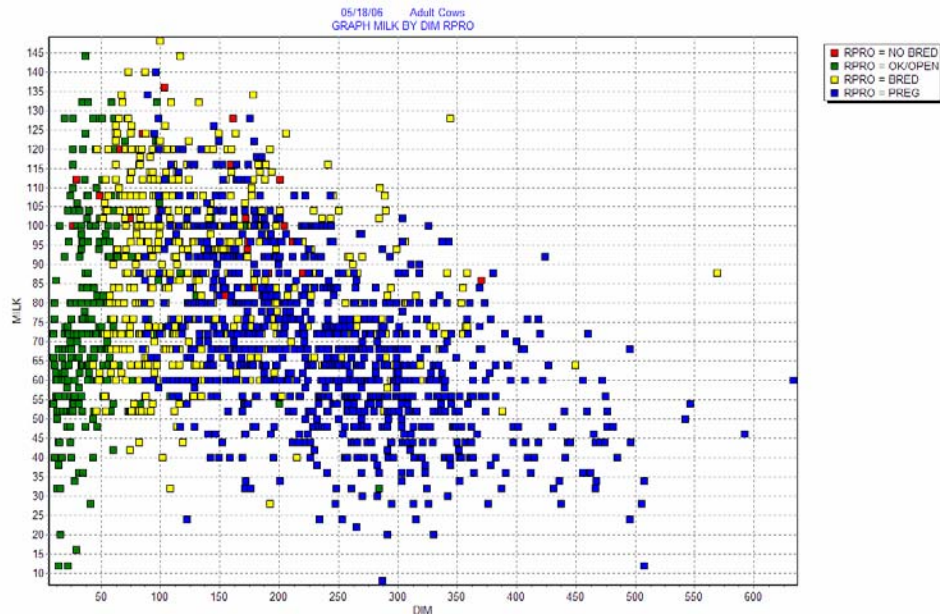
This is a bar graph of all the milk weights given on the dairy as of the last test date. The vertical bar is a count of the number of animals at each test day milk level. Thus, in this dairy there were 120 animals giving 60 pounds of milk on test day and 70 animals giving around 100 pounds. The command for this graph is GRAPH MILK.

This graph can be changed to a scatter graph if we want to graph MILK vs DIM. In that case the command is GRAPH MILK BY DIM and the following graph is made.



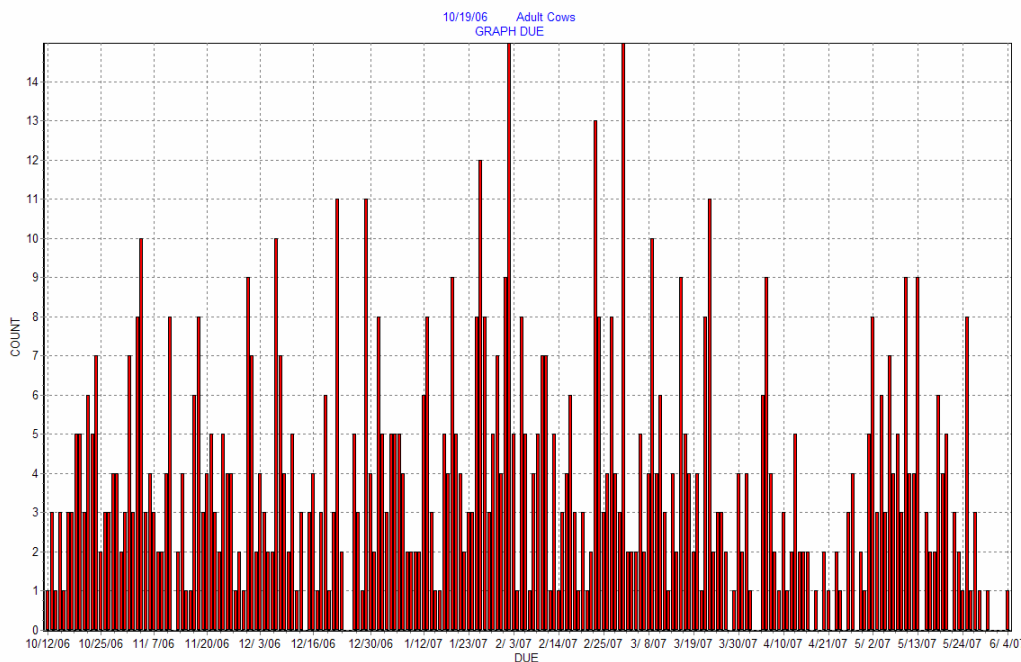
increased with DIM initially and then tapered off. One can also see “outliers” such as the cow giving 135 pounds at about 350 DIM as well as the one giving less than 15 pounds at over 500 DIM.

We can change this graph slightly by adding RPRO to it to get the following:

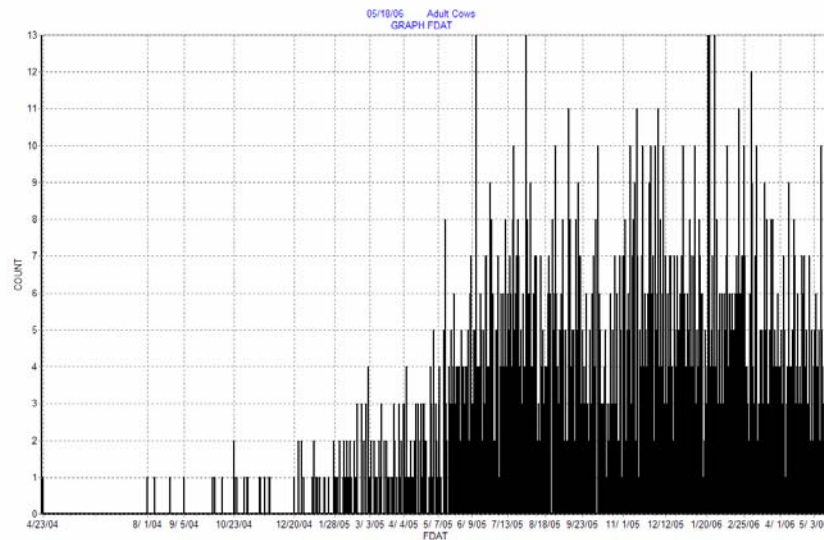


The first thing about this graph is that having color is nice. Using this, it is easy to see the different RPRO statuses of the cows defined in the key box in the upper right hand corner. It is also apparent why the cows that are giving very little milk are still around as they are pregnant. However it is easy to look at this and see possible cows to consider for culling or other purposes like drying early. One can click on the point (the small colored square) and bring up the cowcard that is represented.

One can graph other items and use it to easily “visualize” what the situation is. For example, the following, graphing the due date (DUE) of all the animals (cows and heifers) in the herd, shows the lack of fresh cows to expect next April due to the hot weather breeding this past summer.

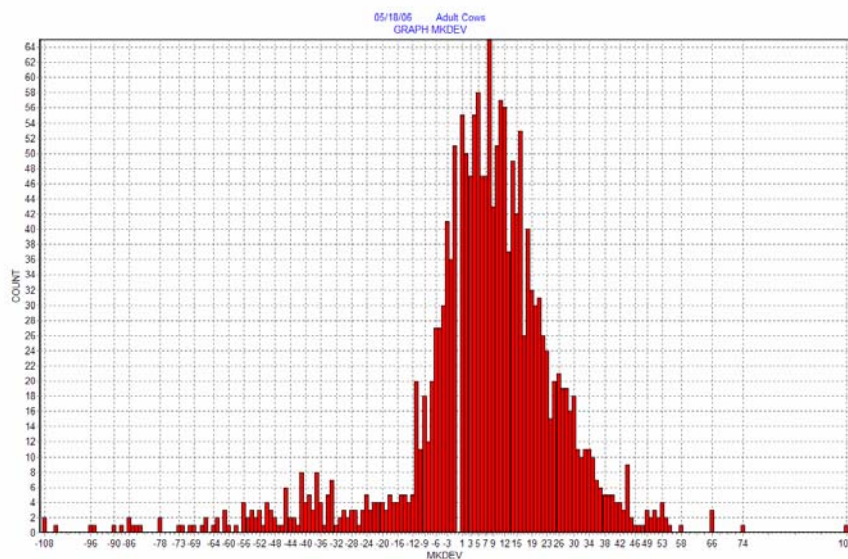


Similar bar graphs can be made of DUE to see the distribution of cows expected to freshen. One can even run GRAPH ID to see where “holes” exist in the IDs being used to look for the best area to find un-used ID numbers.



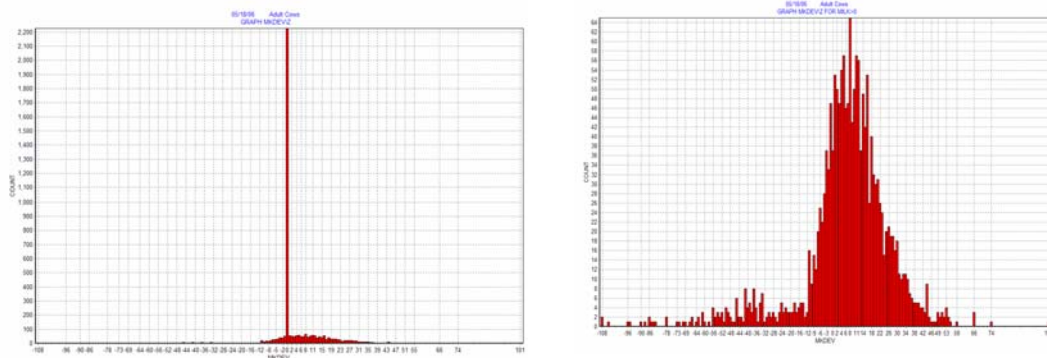
This graph of FDAT shows that there are a few stragglers that freshened a long time ago in the herd and that last fall there was a shortage of fresh cows. It is also black. The color of the graph is dependent of the screen resolution and also the items being used. In general, if there are less than about 270 bars the graph will be red; otherwise it will be black. However, when IDs are being graphed, the program is not trying to make range width resolutions and will make the bars all red.

Zeros are not normally wanted on a graph but that is not always the case. The following graph is one of deviation from expected milk after test day. Notice that one bar where a 0 should be is missing. In this case 0 means “no deviation”, not “no milk”.



Add a “\Z” to the command will

include zeros. GRAPH MKDEV\Z produced the graph on the left. However, this includes all animals with zero milk including heifers which is not what is desired. So changing the command to GRAPH MKDEV FOR MILK>0\Z will make the proper graph shown on the right:



When making graphs many of the same switches apply that are used with LIST or SHOW. “\D” will graph “dead” animals (those who have left the herd) and “\B” will graph both live and dead cows. Additionally, \L will force the program to look in the archive files for additional data. One should play with these to understand their potential and ask support for help if needed.

Graphing of Events

A few years ago we added an EGRAPH command. Typing just this command will bring up the following screen:

EGraph
✕

Events Selected : 1

<input type="checkbox"/> 1 FRESH	<input type="checkbox"/> 22 COLIM
<input type="checkbox"/> 2 OK	<input type="checkbox"/> 23 SOREFT
<input type="checkbox"/> 3 RECHK	<input type="checkbox"/> 24 SICK
<input type="checkbox"/> 4 HEAT	<input type="checkbox"/> 25 DA
<input checked="" type="checkbox"/> 5 BRED	<input type="checkbox"/> 26 3TEAT
<input type="checkbox"/> 6 PREG	<input type="checkbox"/> 27 SHITS
<input type="checkbox"/> 7 OPEN	<input type="checkbox"/> 28 J5VAC
<input type="checkbox"/> 8 PREV	<input type="checkbox"/> 29 BST
<input type="checkbox"/> 9 MOVE	<input type="checkbox"/> 30 BLOAT
<input type="checkbox"/> 10 BULLPEN	<input type="checkbox"/> 31 TERRI
<input type="checkbox"/> 11 DRY	<input type="checkbox"/> 32 RP
<input type="checkbox"/> 12 ABORT	<input type="checkbox"/> 33 PENINJ
<input type="checkbox"/> 13 DNB	<input type="checkbox"/> 34 TERRIV
<input type="checkbox"/> 14 SOLD	<input type="checkbox"/> 35 MF
<input type="checkbox"/> 15 DIED	<input type="checkbox"/> 36 BADDOER
<input type="checkbox"/> 16 CHECK	<input type="checkbox"/> 37 MISC
<input type="checkbox"/> 17 CALFVAC	<input type="checkbox"/> 38 ALBON
<input type="checkbox"/> 18 XID	<input type="checkbox"/> 39 BAN
<input type="checkbox"/> 19 POSTRX	<input type="checkbox"/> 40 PD
<input type="checkbox"/> 20 F2A	<input type="checkbox"/> 41 EXENEL
<input type="checkbox"/> 21 MAST	<input type="checkbox"/> 42 KETOSIS

Start Date

End Date

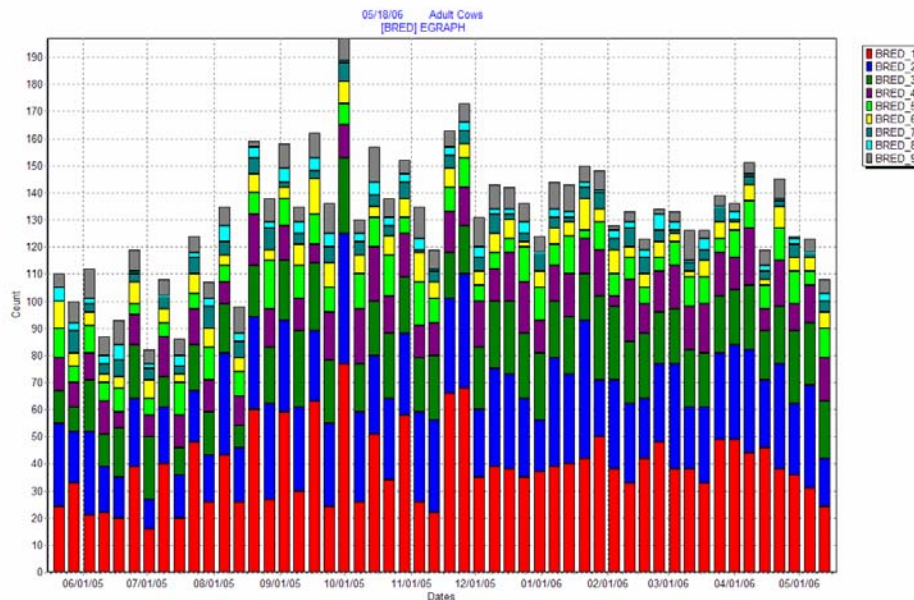
Graph By
☒ Calendar Date
☐ DIM (Adults)
☐ Age (Heifers)

Use Remark ☐

Use Scatter ☐

Go

One can click on the event, select a date range and get a graph of when the event occurred during the time specified. The following are the breedings for the past year on this dairy:



GRAPH {event} will make this same display. GRAPH BRED will make the same breeding graph shown.

There are a few differences in this graph function than in the one using items. In many respects it follows the same rules that are used for the EVENTS and the BREDSUM commands. This makes sense as we are dealing with the same basic subjects. Event graphing always looks in available archive records and thus includes all cows that were in the dairy during the time period specified. As in BREDSUM it only includes cows or heifers and doesn't mix the two. EGRAPH looks at cows as does GRAPH {event}. Add a "Y" to these to look at heifers (EGRAPH\Y or GRAPH {event}\Y). When looking at cows, the horizontal axis or time line can be the calendar dates or DIM. With heifers it can be calendar dates or age in days.

The events shown in the preceding graph are further separated by the number of times they have been used in an animal's record; red is first time bred, blue is second, etc. If remark is checked, the first letter of the remark is used to separate the different events. This is true of all events except BRED. In BRED the remark separates the events by the breeding result code. Some have configured their remarks so this can be used to advantage. For example, there are those who denote different types of mastitis and make the first character of their remarks be unique so they can graphically see the incidence of different types of mastitis by calendar date or DIM. The same has been done with a CULTURE event.

The following switches can be useful when running these graph commands. In most cases more than one switch can be use at a time.

For All events

GRAPH {event}\{blank}	Separates by count (except: Fresh by LACT; Sold by CAR)
GRAPH {event}\R	Separates events by first letter of Remark (except BRED)
GRAPH {event}\Y	Looks at Young Stock
GRAPH {event}\D	Prompts for date range
GRAPH {event}\D180	Date range is the last 180 days
GRAPH {event}\S	Makes Scatter graph
GRAPH {event}\W30	Makes Bars "30 days" wide
GRAPH {event}\N3	Graphs only the third event in the cows' records

Special BRED switches

GRAPH BRED\R Separates events by Breeding Result Code (Open, Preg, Abort, etc)

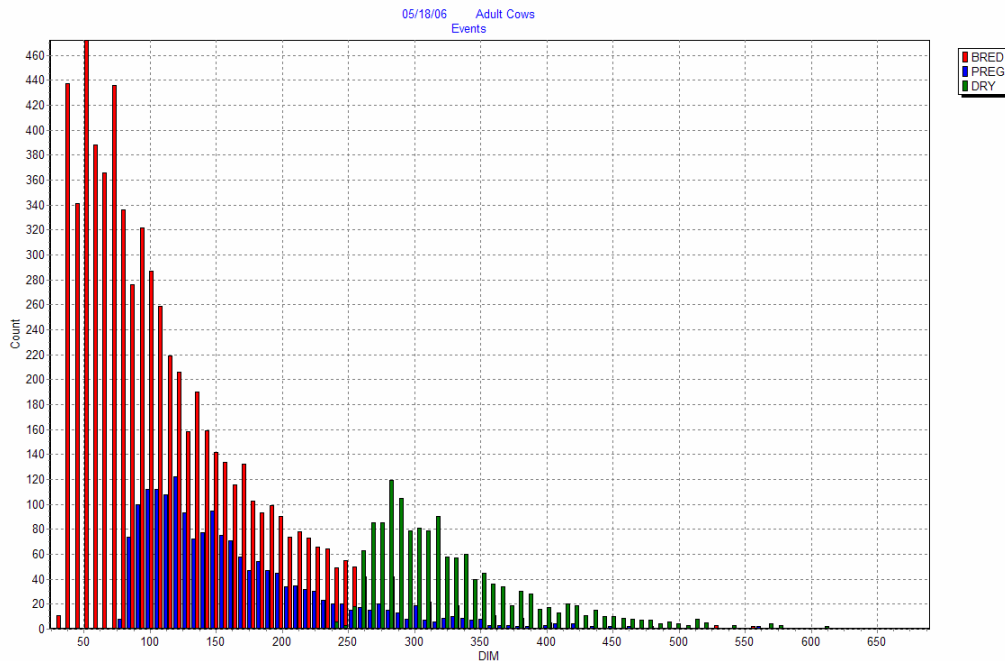
GRAPH BRED\C Separates events by User Breeding Codes

Using BY

GRAPH {event} BY DIM Displays DIM on time line

GRAPH {event} BY AGE Displays Age (in days) on time line

Multiple events can be graphed. The graph below was made by the command GRAPH BRED PREG DRY BY DIM. This visually shows what all know happens on a dairy.

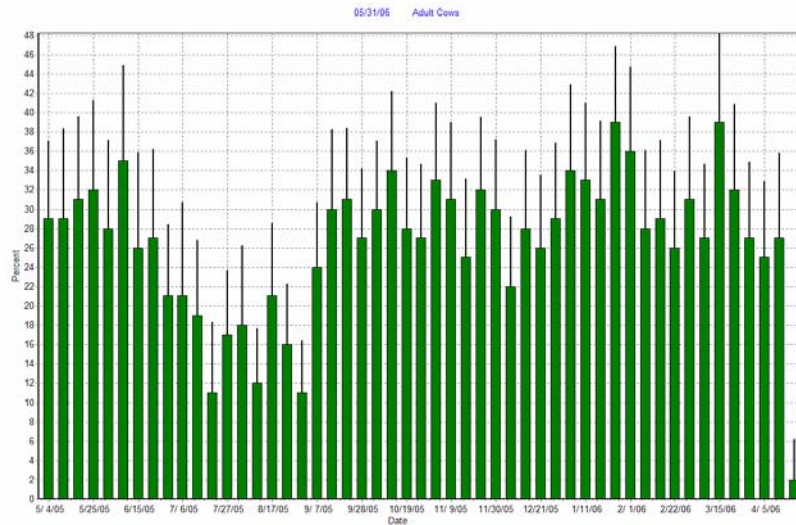


Graphs Associated with Other Commands

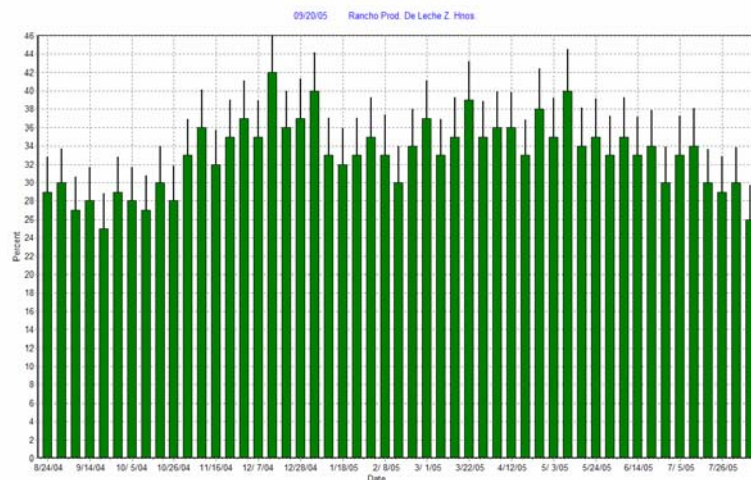
Some commands make graphs behind the scenes that are available and useful. Among these are SUM, BREDSUM, PARLOR and ECON. To see these graphs, click on the Graph tab in the bottom of the screen when looking at the report from one of these commands. Most of the graphs are self-explanatory. Two other commands, PLOT and EPlot, are also graphing commands of specialized data that will be covered

BREDSUM

There has been a special “R” switch addition to BREDSUM that will show the conception rates in the herd broken down by weekly intervals. The graph for this will look like the following:



Each green line represents the conception for the cows bred that week. The thin black line represents half the deviation of this measurement. The graph above was taken from a 1700 milking head dairy. The graph below was taken from a 8000 milking head dairy.



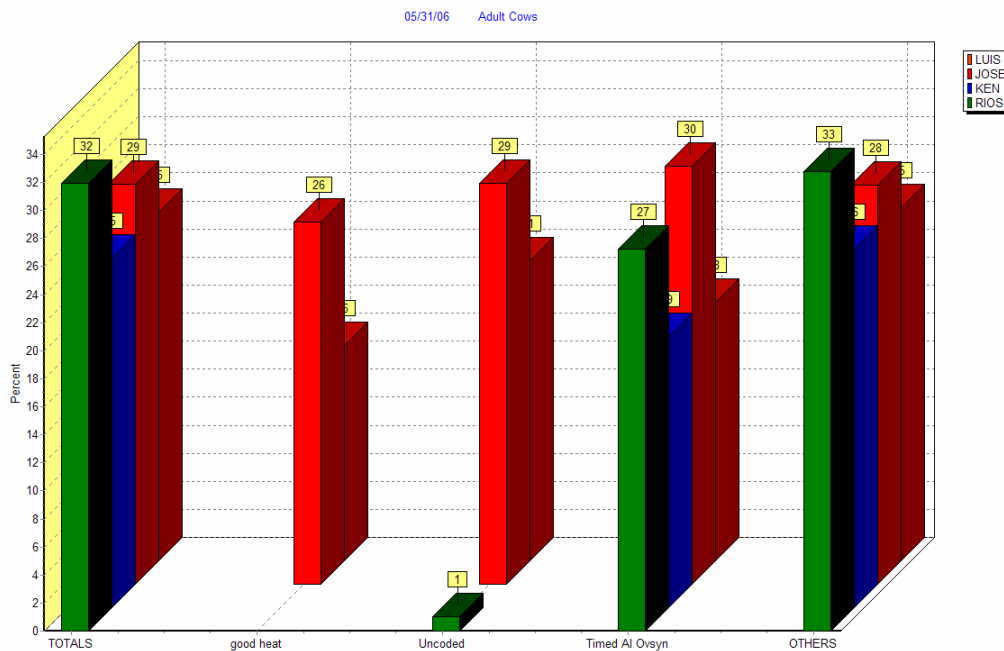
Notice when looking at this last dairy, which is over 4 times as big as the first one, there is still about a ± 4 percentage point variation in the reliability (or confidence level) of any conception rate. Thus the week displayed just over the 11 in the date 11/16/04 shows a 36% conception rate. In fact that could have been anywhere between 32 to 40%.

This confidence level is best described as the reliability of the percent calculation taking into account the number of animals in the group. If a technician bred 3 cows and got one pregnant, that is a 33% conception rate. However, using such a small group does not give one much confidence that 33% is the true conception rate of that breeder. If 30 cows were bred and 10 got pregnant, then the confidence level goes a little higher. On the other hand, if one bred 3000 cows and 1000 got pregnant, it can be assumed that close to one out of every three breedings by this breeder will result in a pregnancy. The confidence level of this is very high or the variation is very low. This would make a short black extension line, which represents variation, at the top of the green bars.

The \X switch is relative new and adds a dimension to BREDSUM that can be quite helpful. BREDSUM\XOT makes the following table and graph:

Technician by Breeding Code from 4/26/05 through 4/26/06					
95% CI	Total	good h	Uncode	Timed	OTHERS
=====	=====	=====	=====	=====	=====
LUIS	23-27	4-42	12-36	11-29	24-27
JOSE	27-30	14-43	8-64	22-39	27-30
KEN	20-30	-	-	9-36	21-31
RIOS	27-37	-	-	15-44	28-38
TOTALS	26-28	13-37	12-34	20-30	26-28
Percent					
LUIS	25	15	21	18	25
JOSE	29	26	29	30	28
KEN	25			19	26
RIOS	32			27	33
TOTALS	27	23	21	25	27
Count					
LUIS	2574	13	42	76	2442
JOSE	2830	31	7	104	2688
KEN	305			31	274
RIOS	335		3	33	299
TOTALS	6044	44	52	244	5703

The first switch letter after the X switch designates the listing across the top of the page and each of the major groups in the 3D graph. The second switch letter after the X switch designates the column listed towards the left of the table and is graphed by the individual blocks in the 3D graph. The graph key to these is in the upper right hand corner.



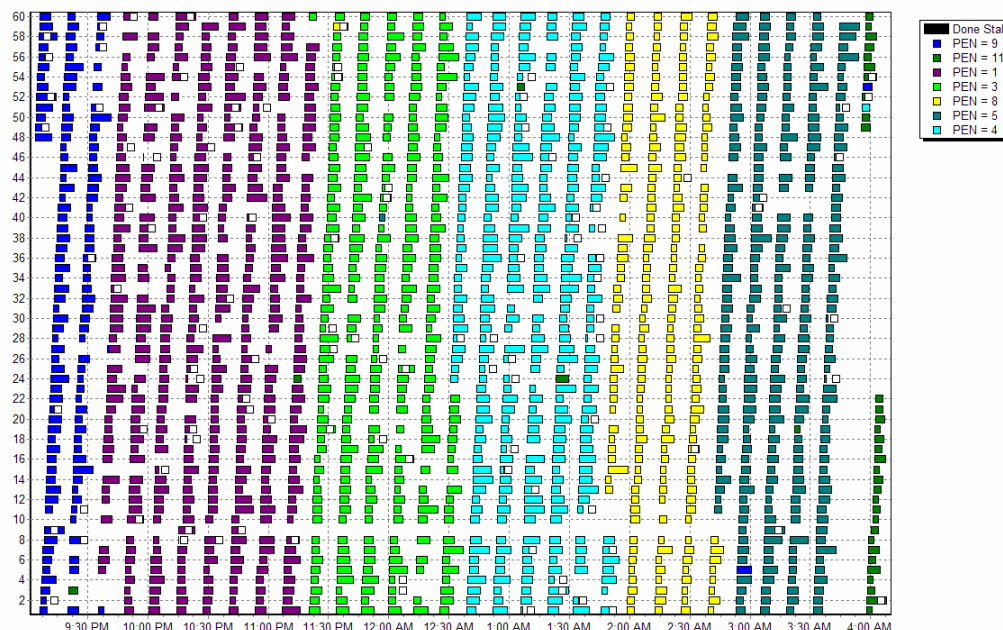
The “X” is used to tell BREDSUM to make a “2-way” table of 2 of the choice from this procedure. The letters (Capitals underlined>) are designated by the following Key taken from 9 of the BREDSUM Menu Options:

Sire
Stud Code (Manufacturer)
Technician
breeding cOde
number times Bred
Interval analysis
day of the Week
Calendar month
cycle (*breeding*) Number

In all cases except Stud Code it is the capitol letter in the menu listing. For Stud Code it is an M (for manufacturer). The heading “cycle Number” is used for DIM broken down into cycles..

PARLOR

For those who have daily milk meters, the parlor performance graph that comes with most meter interfaces is commonly used. It is designed to help visualize the parlor procedures and know when the process is working as expected or broken. The graph along with the parlor table (not shown) helps monitor milking procedures and performance.



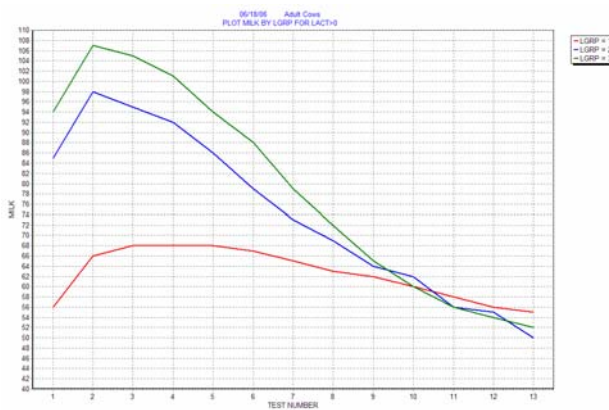
The graph above was taken from a 60 stall rotary dairy. It clearly shows that there is something not working on stall number 9. The colors represent the pens the cows came from, therefore it is easy to spot those that are in the wrong pen. The length of the line represents the milking duration and those with white inserts in them are those who had machines re-attached.

ECON

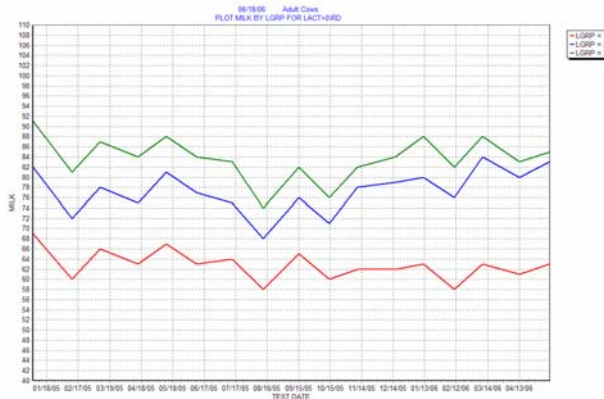
The ECON command has many different tables in it. The somatic cell count analysis and the projected herd inventory are the most often used features of this. In the table of the projected inventory we have added expected average milk per cow and total milk per day. A simple bar graph of the herd inventory also is made which shows the total animals due to freshen each month for as long as the pregnancies are detected in the herd. These include both the adults and the heifers.

PLOT

This command is used to graph the test date milk and components from page 4 of the cowcard. Classically it is used to make lactation curves of individual cows or groups of animals. These are used less commonly now for monitoring the dairy as they are not as effective at finding problems as other monitor measurements. One thing that has been added to this command is the “R” switch which plots test day data by the test date, not the test number which is used for the standard lactation curves.



This graph is a standard lactation curve for each lactation group in the herd.



The command for this graph is the same as the one above with a \RD added. R is for listing by dates and D allows a date range, in this case longer than one year. Each line represents the average milk for each lactation group for each test date.

Both of these graphs really show just historical information. However the one by test dates does show seasonal changes and differences in production between the 3 lactation groups.

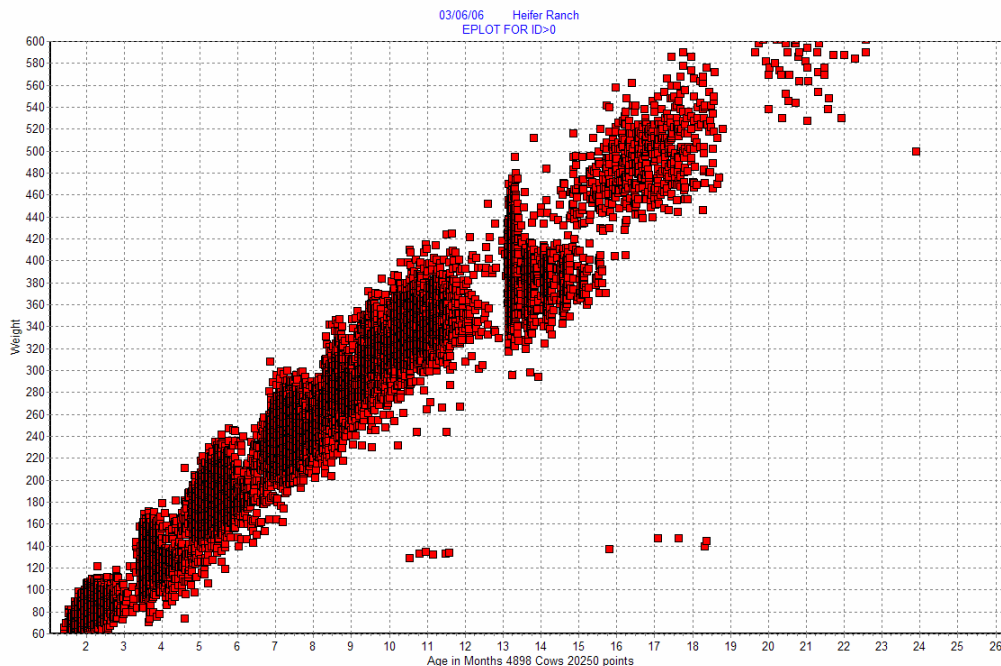
EPlot

This command is used to plot special events used for body score in cows or weight and height in heifers. In all cases the body score or the weight and height are entered as the remark of the event in each animal's record.

03/16/06 MEASURD 478

04/18/06 SCORE 2.75

The first of the two events shown would be the format for an event that is used to weight heifers; the second an event for recording body score in cows.



This EPlot is taken from a combination calf and heifer ranch that weighs the animals each time they move to a new growing area. They have 9 or 10 growing areas and the weights are in kilograms. Looking at this graph, it is evident that EPlot can be used both to see how the animals are growing and also to find outliers or mistakes in data entry. Those few animals at the 140 level at 10 to 12 and 16 to 19 months are mistakes. Clicking on each dot will bring up the animal's record and the data in the event can be changed. Usually, this is done after each time the animals weights are put into DC305.

Ovsynch Programs

In the last 3 to 5 years the use of Ovsynch programs to help improve efficiency has become very popular in some areas. This discussion is not meant to fully explain or recommend these programs but to give an overview of how these work. It is also written to describe how DC305 can help implement Ovsynch, some pitfalls of improper implementation and some ideas about monitoring the success or failure of these programs.

Overview

The normal heat (or estrus) cycle of cattle is 21 days. In the cycle of a heifer, often three waves of follicles develop, the third one developing fully and ovulating at the end of it. In an adult cow, there are most often 2 follicular wave per cycle. Researchers have determined that giving prostaglandins and gonadotrophin releasing hormones (GnRH) at opportune times during the cycle can change it and force cows to come in heat on a specified day with a fairly high degree of accuracy. This research has been focused on animals with two wave cycles; they don't work well in a three wave cycle and thus are not usually recommended for young heifers. The basis for this is the prostaglandins cause the corpus luteum (yellow body) to regress and the GnRH forces a new follicular wave to start if given during appropriate stages of the cycle. Those who worked in this field have developed a program that involves giving all open cows a series of injections to make this work. The procedure has taken a few years to develop and while a few different names and sequences have evolved, they all usually run in a similar manner. Usually two injections of prostaglandins and one of GnRH are given at two intervals followed by another injection of prostaglandin in a week. Two or three days after this last shot, a second injection of GnRH is given and the cow is "Timed AI Bred". The first GnRH is given to initiate a new follicular wave and the prostaglandin one week following is given to regress the yellow body and allow the cycle to complete to ovulation. The GnRH given either one day before or the day of breeding is to help ovulation occur in a timely manner.

If a cow is open, she is re-cycled back into the program by giving her a shot of GnRH, followed by prostaglandin in one week and Timed AI Bred two or three days later. In some cases this GnRH shot is given 7 days before pregnancy checking the cow so she can be given prostaglandin if called open and bred back 7 days earlier than would occur otherwise. The first two injections of prostaglandins are often called "PreSynch", the GnRH-prostaglandin-GnRH combination: "Ovsynch" and the re-enrollment of open cows at or before preg-checking: "ReSynch".

To implement this in DC305, we have done special programming to be able to set this up and run scheduled tasks each week to enroll animals into the program, catch any that have been "thrown out" due to abnormal circumstances (abortions or missed due to disease) and re-enroll animals that have been found open. This is designed to be run with no data entry of the injections. The full description of the install process is beyond the scope of this newsletter and the support staff routinely help people set these up. Call if you are interested.

Compliance

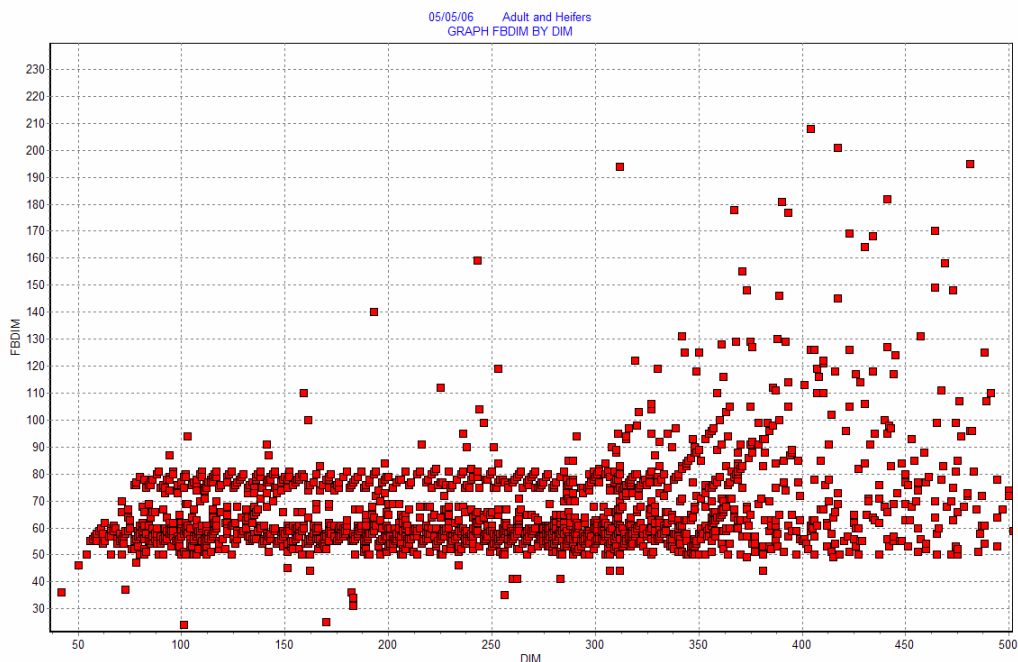
When working with these programs it has become evident that those dairies that can make this a regular steady part of their normal routine on the dairy have the most success. It is important to determine an exact procedure to follow and then follow it. If, for example, 5% (randomly) of the cows are missed for the first 5 injections, there will be a 79% compliance or 21% of the animals will have missed at least one injection. If 10% of the cows are randomly missed for each injection, there will be a 59% compliance rate or 41% of the cows will have missed shots by the time they are suppose to be breed. Making sure all the cows get the right injections at the right time is probably more important than the specific protocol used.

Measuring Results

Results are best measured by using pregnancy rates. Ovsynch is done to get more pregnant cows in a given period of time which is basically what pregnancy rate measures. Some people breed all their cows Timed AI and do no heat detection. Other dairies continue to do heat detection and

use the Timed AI to get those that do not show any heats. Both systems can be made to work and should be selected to fit into the management scheme of the dairy. Initially, to measure compliance, one can graph the DIM of the first breeding to see how these look.

The following graph was obtained by the command GRAPH FBDIM BY DIM. The Ovsynch injections started on those cows that are currently about 300 DIM. It is easy to see that for those cows that freshened earlier than 300 days ago, their first breedings were pretty scattered. However, once the Ovsynch injections were started, most cows had good natural heats and most that were missed got inseminated at 74 DIM when the first Timed AI breedings were scheduled. It is interesting that in this case the procedure not only got essentially all cows bred by 74 DIM but also helped the heat detection to catch most cows between 50 – 60 DIM or within the first 10 days of their voluntary waiting period.



Some people will code the Timed AI Breedings to look at their conception vs. those of detected heats. While this is ok to do and maybe interesting, it is important to look at the whole program, not just those Timed AI Breedings. This is especially true if heat detection is being done along with the Ovsynch program. Often we will see 35% conception rates for the “normal” breedings and maybe 25% conception rates for the Timed AI. This does not mean the program is a failure. Those Timed AI Breedings that conceived are pregnancies that would not have occurred with only heat detection and add to the total number of pregnancies obtained in a given period of time. Again, one must remember the total number of pregnant cows is suppose to go up and if it does, the procedure is probably working. This is why we look most closely at pregnancy rates.

Other graphs we use are GRAPH BRED\N1SR which shows breeding by calendar date over the last year by DIM. This is a scatter graph and each point is colored by the result code of the breeding. BREDSUM\XOB is also good table and graph to run to see the conception rates of different breeding codes.

Pocket CowCard and Electronic ID, A Management Tool.

By Brandt Kreuscher, Valley Agricultural Software

Electronic Identification (EID) has been the topic in many dairy forums this year. While much of the discussion has centered on when the National Identification System will become mandatory, EID, with the use of Pocket CowCard (PCC) has been gaining more and more momentum as a management tool for daily use on dairies.

Valley Ag Software's Pocket CowCard is a Pocket PC application that interfaces with Dairy Comp 305. It can also make use of a Bluetooth wireless scanner to read electronic eartags.

Pocket CowCard, coupled with EID, is a very powerful combination for dairy producers. PCC is fully integrated with Dairy Comp 305. With these two programs, the benefits of using EID for daily tasks are enormous.

Joe Alamo at Alamo Dairy in Turlock, California says, "Pocket CowCard is a great tool to aid in the overall accuracy of my dairy records. The use of Pocket CowCard with EID is saving time in data entry as well as saving time cow side." David Mc Dermid of Texaco, New Mexico puts it this way. "To the point, Pocket CowCard with EID decreases labor and makes money."

One of the biggest advantages of PCC is that workers no longer make mistakes when reading lists. The system can locate cows on an electronic list with the wave of a scanner. Human error is eliminated because the scanner never reads an EID incorrectly and Pocket CowCard never finds the wrong cow on a list. If an animal is needed, Pocket CowCard can actually tell the worker verbally what task needs to be performed. A simple beep indicates that an animal's tag has been read and that she is not needed.

Since workers do not have to compare tags to a printed list, most tasks that involve lists can be performed much faster. Pocket CowCard can process EID tags at a rate of one every second or two regardless of the number of animals on the list.

Another advantage in using PCC is that multiple lists can be combined into one list. For example, you can combine BST shots and vet list marking in one pass. Many dairies have even added synchronization shots to this same list. Since Pocket CowCard will tell workers verbally what needs to be done, with one person scanning tags and marking heads and the other giving injections, two people can easily perform all three of these tasks. Once again, this saves time and labor while having cows locked up less often and for shorter periods of time.

Much of the data entry that is done at the office computer can be done simply by scanning EID tags. Arguably, the hardest part of most animal tasks performed on dairies today is finding the animals that need to have something done to them. In many cases, if you know that employees found an animal, you know they did what needed to be done.

Pocket CowCard can tell Dairy Comp 305 to enter events or activities based upon the fact that an animal was scanned or entered into the handheld unit. When this feature is used, you can not only eliminate human error outside the office but at the computer as well.

Each time an EID is scanned, Pocket CowCard will check the animal's pen location and notify the user if a cow is found out of her assigned pen. The user is then given the option to either keep the pen the animal is assigned or move her to the pen in which she has been found. This allows pen corrections to be made each time a cow is scanned.

Another benefit to having employees use EID with Pocket CowCard and Dairy Comp 305 is that it gives you a means of confirming that animals have been found. You can see what time and date an animal was last scanned and whether her number was tapped into the handheld computer or her EID tag was read with a scanner. Tapping in the last animals on a list in Pocket CowCard might indicate that a list was completed but is also very easy to detect. This is because you can review if cows were scanned or entered into the PCC and sort the list by the time that they were done. On a written list, there is no way to confirm if cows have been found or not.

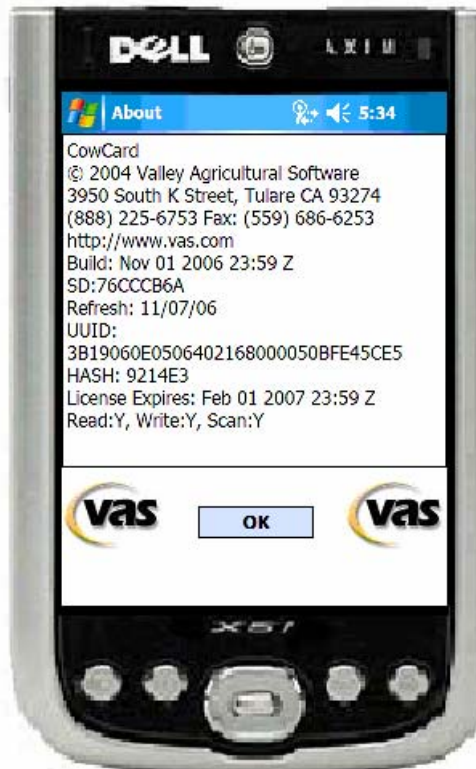
Obviously, speed without accuracy is not beneficial. Likewise, taking four hours to find a single missed cow is accurate but might not be profitable. The net translation in having Pocket CowCard with EID is time savings combined, in most cases, with improved task compliance.

Having information on individual animals in the palm of your hand is just the beginning. Entering herd checks "cow side" saves time. Entering information by scanning saves time and improves accuracy.

Valley Agricultural Software has been working with electronic identification for 15 years. Pocket CowCard was developed using this experience in conjunction with today's tools. The result is a program that has made EID a valuable management tool.

John Huie at Hillcrest Dairy in Le Grand, California uses Pocket CowCard and says, "We are currently milking 4,000 cows. We contacted Valley Agricultural Software about Pocket CowCard because we wanted to enter vet check information cow side. We've been very pleased! During vet checks we are able to find all of our cows in a lot less time and the handheld unit is easy to use. The reproductive management programs such as PreSynch and Ovsynch require us to find cows reliably. Pocket CowCard with EID allows us to do this quicker with no errors. The other feature we really like is the ability to keep a more accurate inventory of our cows. It just makes sense to use Pocket CowCard with EID and gain the benefits they have to offer."

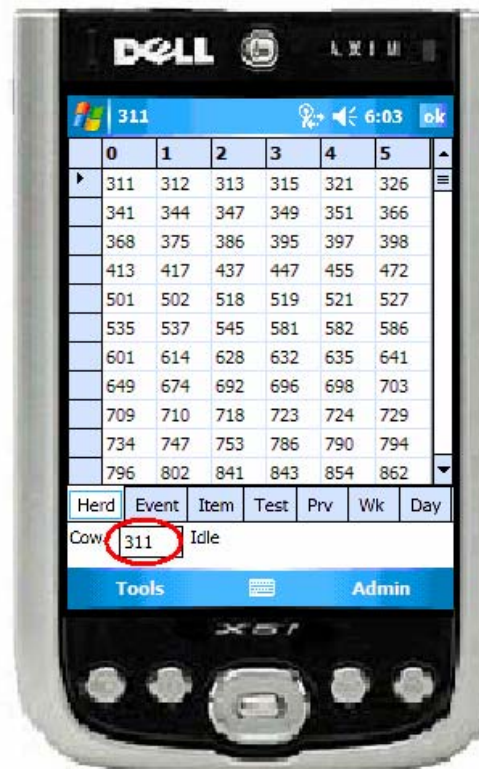
The video included on your 2006 VAS Update/Utility CD demonstrates Pocket CowCard in use on several dairies. What the video does not show is the various screens that the user sees when using the program. For Dairy Comp 305 users, these screens can be navigated easily right from the beginning.



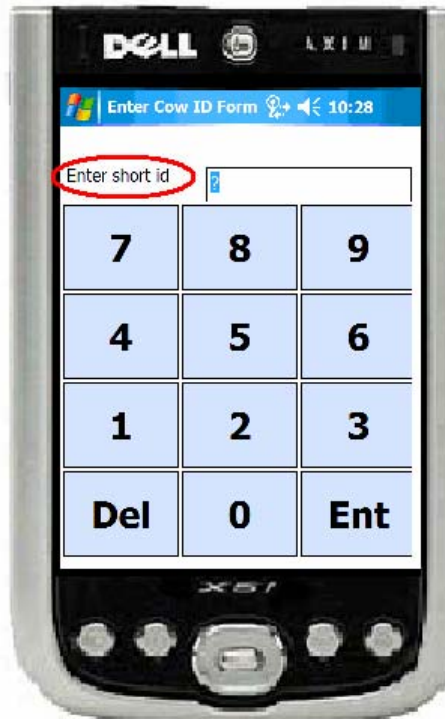
CowCard "About" Screen

When Pocket CowCard is first opened, the screen that appears provides program version information. Since the versions of Dairy Comp and PCC must be matched for proper communication, web updating Dairy Comp 305 will also download any updates for PCC. At the time the herd is refreshed on the handheld, the version of Pocket CowCard being used is compared to the latest version downloaded to your computer. If a newer version is waiting to be installed, you will be notified and walked through the process of installing the newer version.

The main grid screen displays all animal numbers in the herd. By clicking in the box at the lower left of the grid (the box that contains 311 in the image on the right), you can type in a cow number using a full screen keypad.



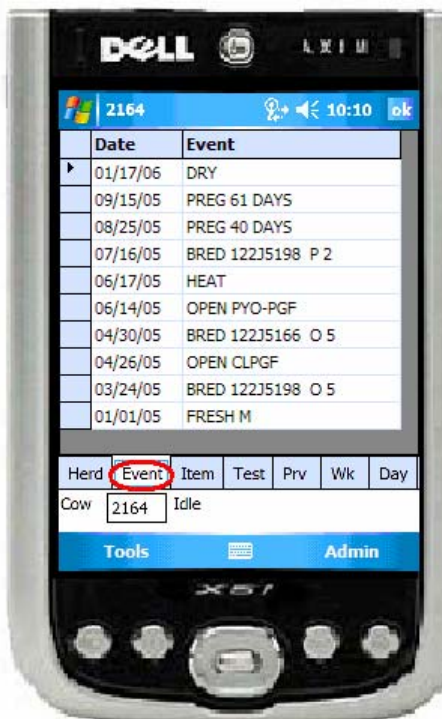
CowCard Main Grid



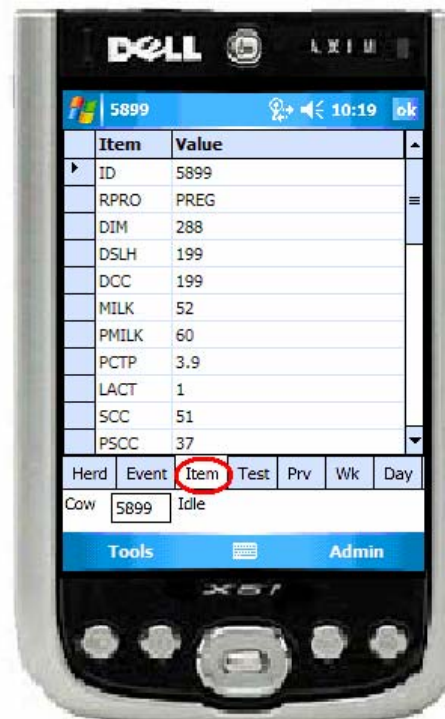
"Short" ID Entry Screen

When a number is tapped into the handheld using this Keypad, the "Events" or "Items" pane for that animal is presented. Which pane is shown initially is user defined.

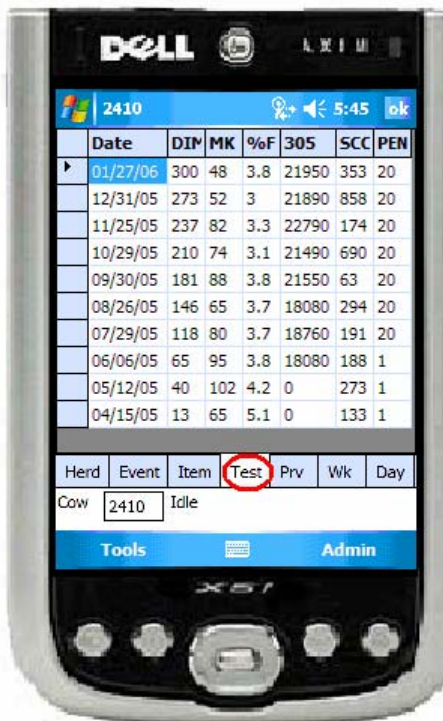
The "Events" pane displays all events for the current lactation. The "Items" pane can be customized by the user for both content and order. Below are examples of the various screens for each individual animal record.



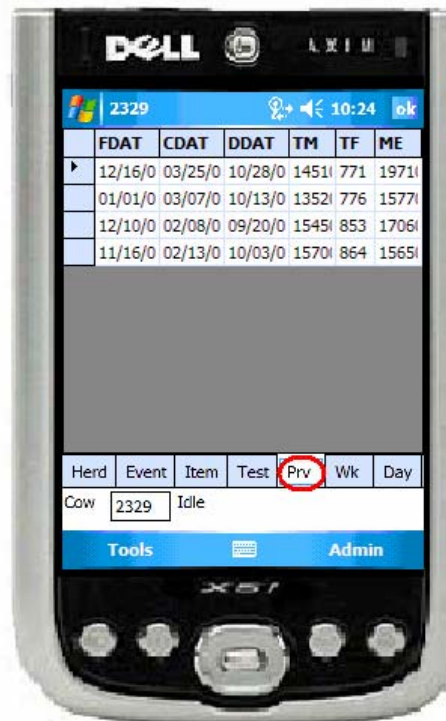
CowCard Events Screen



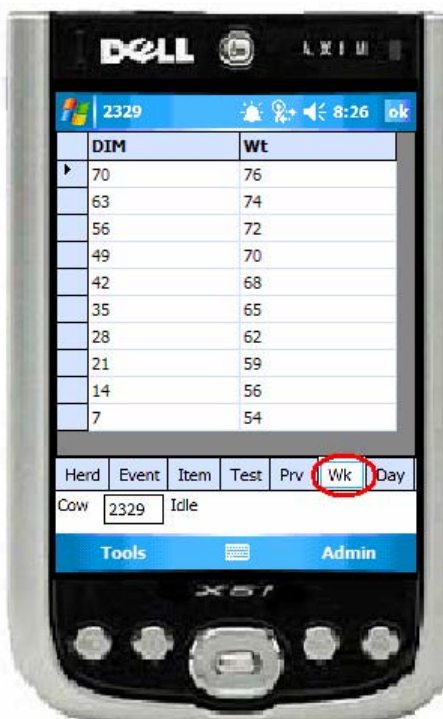
CowCard Item Screen



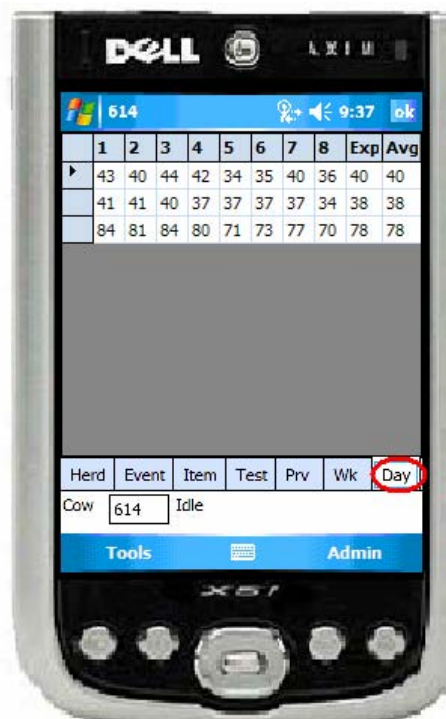
CowCard Test Dates Screen



CowCard Prev. Lactation Screen

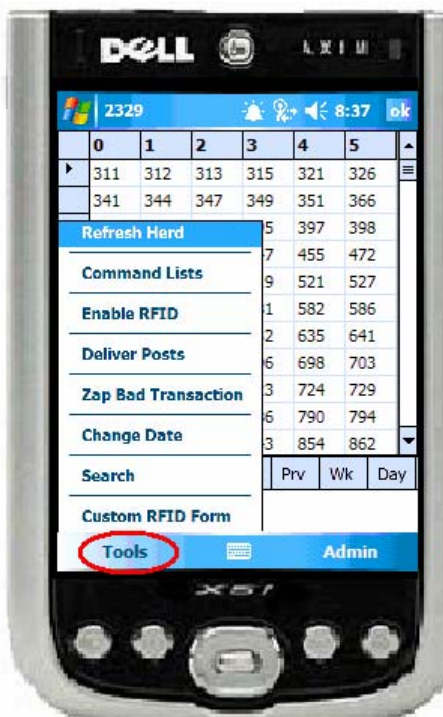


Weekly Avg. Milk by Week In Milk

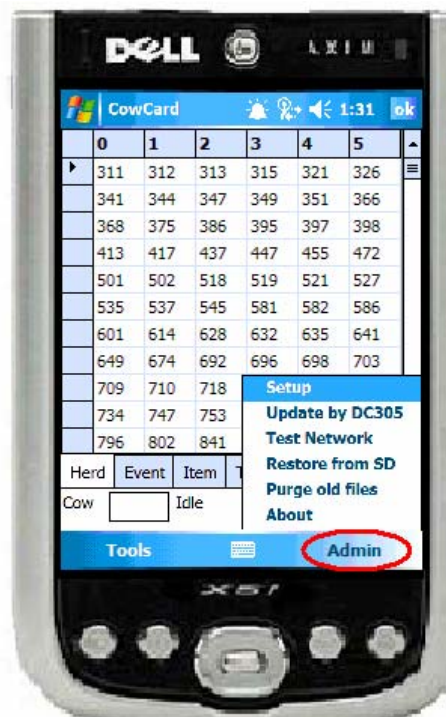


Daily Milk Production Screen

In the lower corners of the PCC main screens there are two options. Selecting either of these options will bring up corresponding menus.

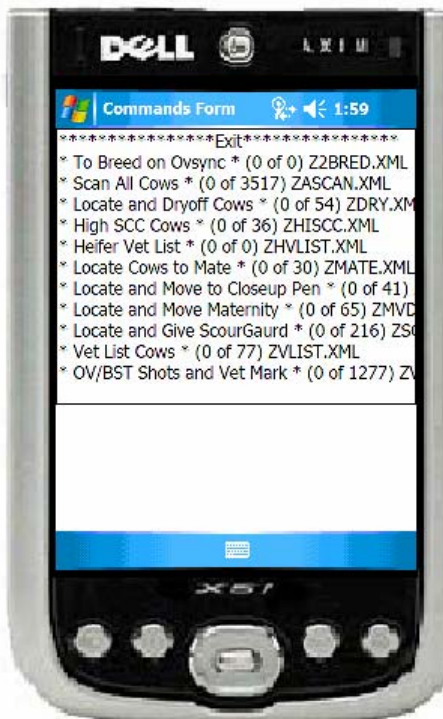


Tools Options Screen



Admin. Options Screen

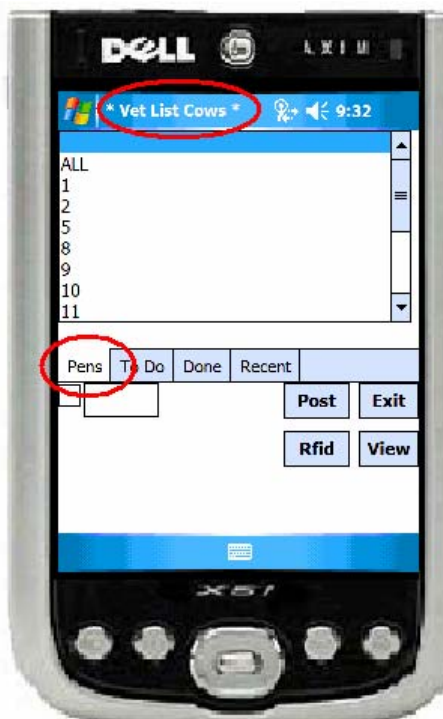
Among the options on the “Tools” menu, the user can enable RFID, delete or “Zap” bad entries or open a command list.



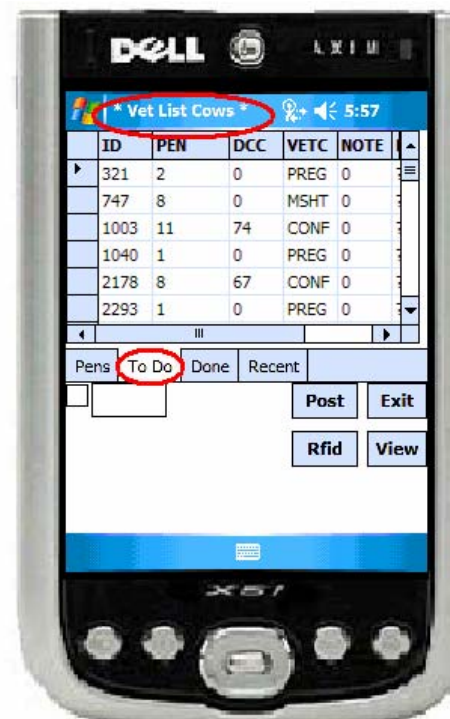
Example Command Lists Screen

Command lists are electronic clipboards. When using PCC with electronic ID, paper lists are replaced by list similar to those on the left. Selecting a command list will open a list.

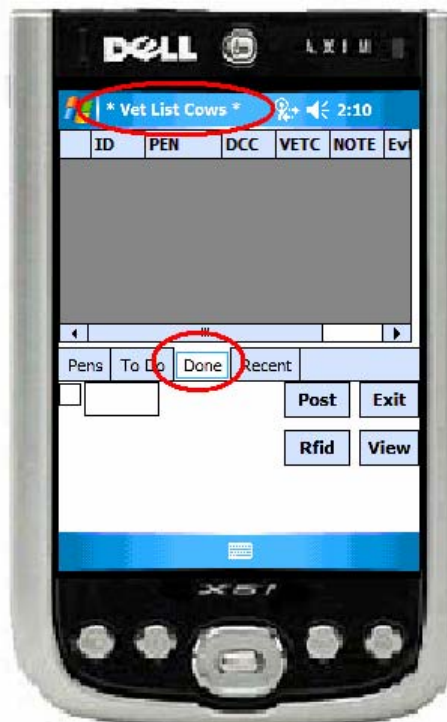
Opening a command list will allow you to view all animals needed, animals already done and the most recently located animals. These same options are also available for a specific pen if the desired pen is selected on the “Pens” tab.



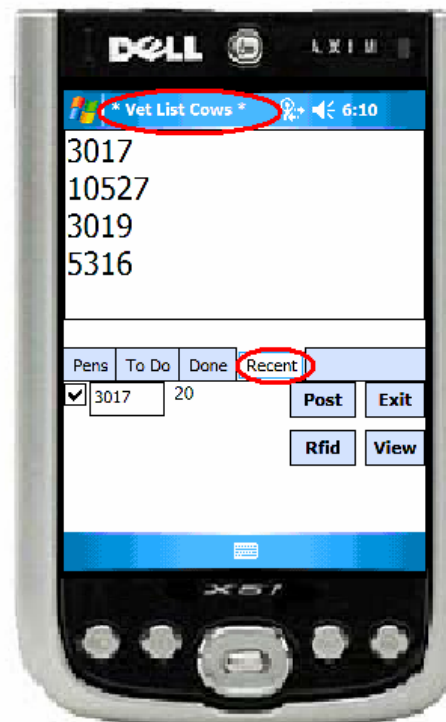
List Pen Selection Screen



List of Animals Left To Do



List of Animals Already Done



Return To Last 4 Recently Found

If a record
is tapped

into the handheld, scanned into PCC with EID or selected from the “Recent” pane while in a command list, PCC will perform the following tasks in about one second;

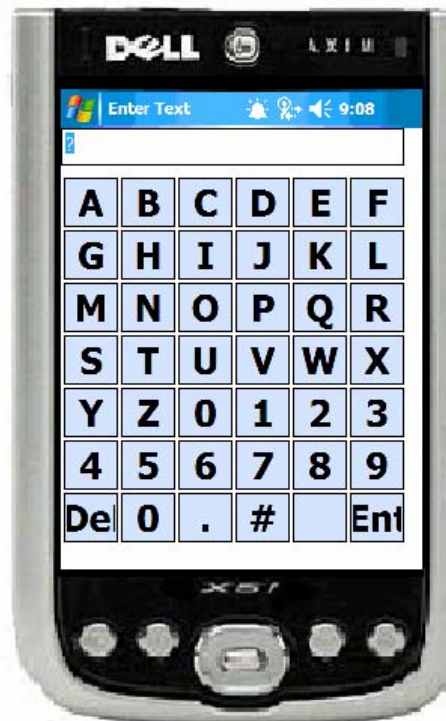
1. First Pocket CowCard will check pen location and notify the user if the animal is out of pen. PCC will allow the user to correct the pen at that moment or leave the animal in the pen she is assigned to in DC305.
2. Pocket CowCard will check to see if that animal is on the list.
3. If the animal is on the command list, PCC will check to see if the animal is already done. If the animal has been moved to the “Done” pane, Pocket CowCard will notify the user and then indicate what she was needed for if applicable.

In the case of a vet check list, selecting a cow will bring up a vet entry screen very similar to Dairy Comp 305. In fact this screen displays the function keys for default remarks as defined in Dairy Comp 305. This format allows most vet entry to be done with two or three taps on the screen. The “Recent” tab is very useful during vet entry as it allows the user to move back and forth between the last four cows needed very rapidly if more than one vet is involved in a herd check.

Tapping into the white remark field on the right during vet entry will allow entry of a remark from a full screen keypad if none of the default remarks provide the needed entry.

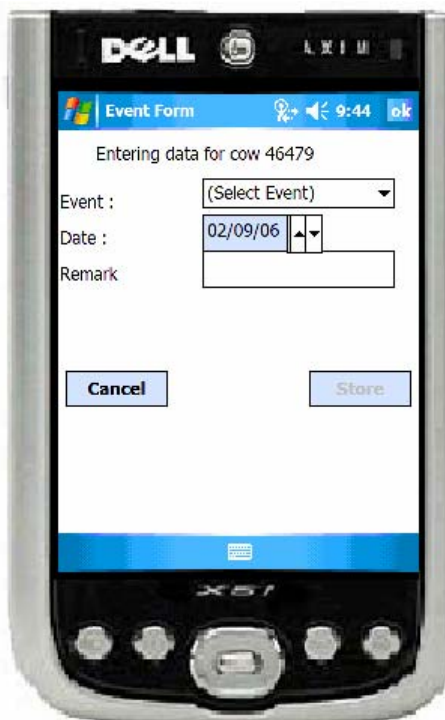


Vet Results Entry Screen



Vet Remark Entry Screen

Most entries coming into Dairy Comp 305 from Pocket CowCard are either completed through the vet entry screen or by locating animals on a command list.



Event Entry Screen

Although used less often, events can also be entered in Pocket CowCard by tapping and holding on the “Events” pane while viewing an individual animal record. When entering events this way, prompting is similar to the prompting you would expect in Dairy Comp 305.

Valley Ag. Software has competitive pricing on all of the hardware needed for Pocket CowCard and electronic ID and can provide you with a complete quote. This can save you the time of locating hardware and has the added benefit of allowing us to pre-configure this hardware prior to shipping it to you.



If you intend to purchase EID tags, please consider contacting us for a quote for these as well. Valley Ag Software is a USDA approved “AIN Manager” and distributor of Electronic ID tags including “840” tags..



Valley Agricultural Software is testing components as they become available in order to maintain the best combination of tools for a complete Pocket CowCard package. If you are considering this program please contact us so we can share what we know and help you obtain the most successful implementation.