

# Dairy Comp 305 Newsletter

Number 24

Fourth Quarter – 2005

This year ends much as it began: for the first time in 3 years, unusually high or low milk prices have not existed. There is uncertainty in looking into the future due to unknown political and economic pressures. How long milk prices will remain relatively constant is not known. Perhaps forward contracting has helped stabilized this to an extent.

At Valley Agricultural Software we have out-grown our office space and moved into a new building on the south side of Tulare at 3950 South K Street. This location is less than a mile from our origins at Valley Veterinarians' office where we started 24 years ago. We have some growing room in our present location.

More than any time in the past, this newsletter is a collaborative effort by many in VAS. For most articles we included the name of the original writer. This is the most diverse newsletter we've put out. In addition to the normal updates to DC305 there are articles discussing program and hardware developments, Internet usage, upcoming new operating systems that will occur within a short time, plus viruses and spy ware hazards and protection.

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## Using Internet Remote Support (UltraVNC)

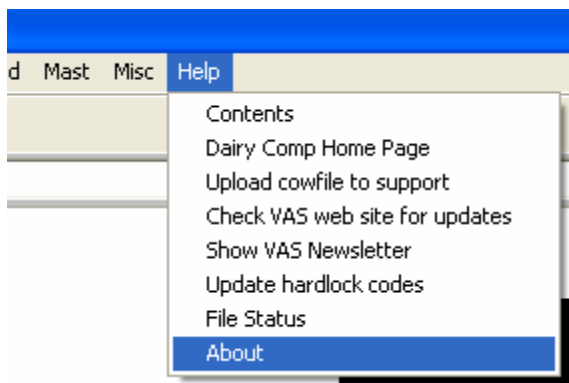
by Craig Walter

Dairy Comp now has a built-in remote support capability. This option includes the ability to make the Dairy Comp computer create an outgoing connection to a VAS repeater computer that will relay data to and from a VAS support person. The repeater option is important because it allows the Dairy Comp computer to initiate the connection and avoid the firewall, router and IP forwarding configuration issues that are associated with incoming connections. These have been a problem when using our older methods of remote control like LapLink®.

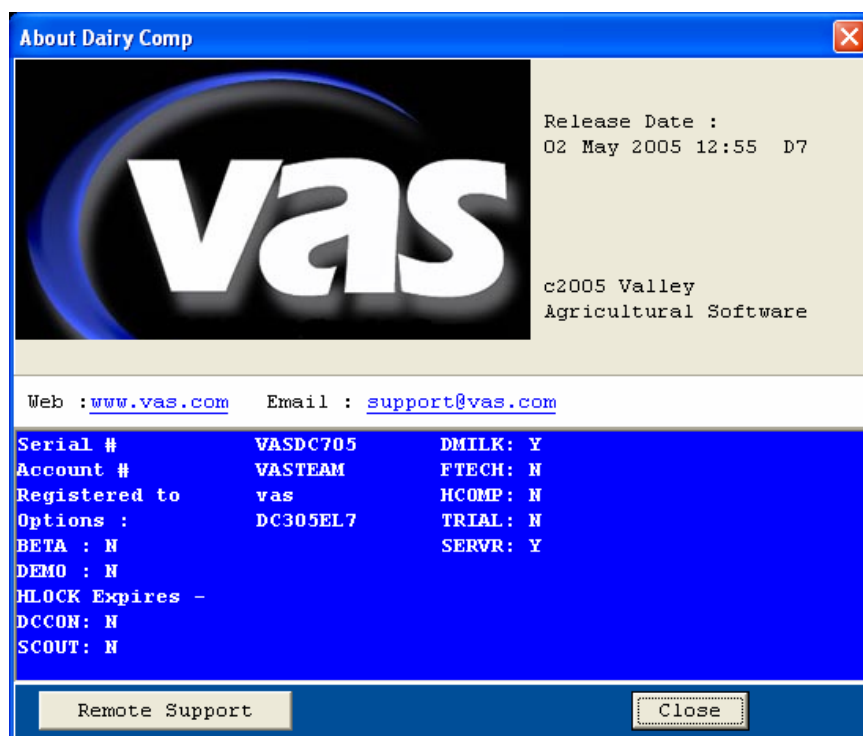
With this connection, your VAS support person can connect directly to your computer to work with you in regards to training, trouble-shooting, enhancing or updating your Dairy Comp database. This requires an Internet connection. It is best if it is high-speed internet connection such as DSL or cable. However, it will work over a dial-up connection but it is just a little slower. The other nice feature of this new addition is that you can select this option and then contact a VAS support person to do some support work without having to be at the computer at the same time. This would help eliminate scheduling conflicts and missed calls.

To use the “Remote Support” option, you will need to have this year’s program update in your computer (or confirm that you have a version of Dairy Comp released after 4/22/05) and the WINVNC.EXE file. This is best accomplished by using the web update service in the Dairy Comp program. Those who sign up for updates can get them over the Internet. To access the web update service, click the HELP menu, then click the “Check VAS web site for updates” option. This will take you through a series of web pages until you get to a screen similar to the one below, where you can click the green “UPDATE” button to begin the download.





Once the update process is complete, you can close the Internet Explorer window and re-start Dairy Comp. Now, you can select the Help, About menu.



You should see the “About Dairy Comp” dialog.

Now click the Remote Support button on the bottom left and then select Yes in the next dialog box to confirm you wish to enable remote support. Your VAS support person should now be able to now connect to your computer and work on the support requests. Once they are done, they can then close the remote connection to disable any further communications until support is needed again.

## ***Inside the Computer – Upcoming Changes, Viruses and Spyware***

by Logan Johnson

Microsoft is scheduled to come out with a new operating system called Vista next year. Valley Ag Software will be conducting extensive testing on the new software from Microsoft as the release date approaches. There is a Beta testing period active on the new operating system available now. This version is far from complete and there are many changes planned and needed before the final version is released. We do not foresee any compatibility issues with any VAS products.

For those of you that are running any operating system other than Windows XP Service Pack 2, it is time to upgrade. As new products come out and new software becomes available it is inevitable that older software and hardware will cease to be supported. Microsoft will most likely no longer support Windows 98 after the release of Windows Vista. If Microsoft chooses to stop supporting Windows 98, so will the rest of the technology world.

Having a computer virus is a bad thing. It not only means that it may be corrupting your software but your backups and any other computer that comes in contact with your backups. Think of it the same way as your kid getting the flu. After a few days your entire family has it. Keeping current updates on your anti-virus program is the only way to control these viruses. If you need any assistance with choosing an anti-virus program that is right for you, contact us or any local computer retail store. Email can easily spread viruses. This usually is done by sending “infected” attachments that can be very harmful to your PC. The email rule is very simple: If you don’t know it, don’t open it. Basically if you do not know the sender of the email in question DO NOT open it, just delete it. If you are not expecting an attached file from even a friend, don’t open it until you’ve contacted them. One property of a virus is it can attach itself to email without the writers knowledge and get transferred. Don’t be misled by catchy email subjects. If one says you’ve just won one million dollars, don’t believe it. Remember that new viruses are produced constantly. Therefore, whatever antivirus program you select, it must be updated frequently (i.e. weekly) to be effective. Update services are provided by reputable anti virus programs.

Spy ware is not a sever flu virus, it’s more like a cold. It’s not going to knock you off your feet it’s just going to slow you down. One usually gets spy ware by logging onto the internet. You can get it simply by downloading printer installation software from the Internet. The most effective way I have found to prevent getting spy ware is to install a couple of anti spy ware programs to handle the problem. Not using the Internet will also stop the problem, but for most of us, that is not an option. There are many anti spy ware software program from which you can choose. What I generally suggest is to use two established anti spy ware programs that do a decent job of removing 95% of what is out there. If you need any assistance selecting anti spy ware or installing and configuring it contact Valley Ag Software or a local computer repair shop.

## Useful Cow-Side Data Entry Into DC305 Is Here!

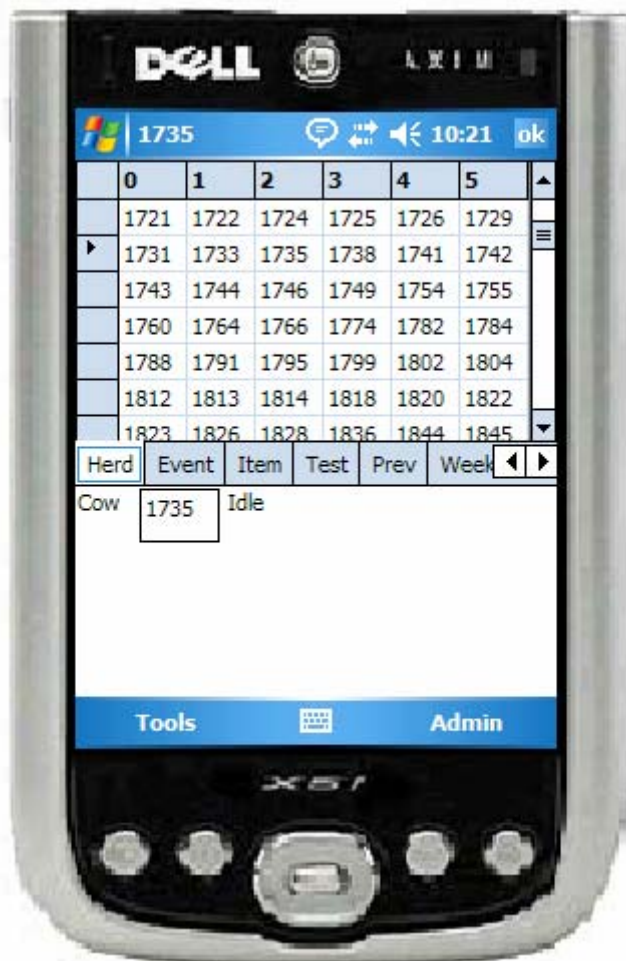
by Brandt Kreuscher

During the past year Valley Ag Software has continued to work toward providing data entry into a remote handheld unit. Improvements made to pocket computers coupled with more likely National ID standards and radio frequency identification (RFID) have allowed us to develop many of the tools we felt were essential for practical cow-side data entry. This article provides an overview of Pocket CowCard as a management tool both by itself and along with RFID which is scheduled to become a mandatory part of National ID in 2008.

### Pocket CowCard (PCC)

At the center of both handheld data entry and RFID possibilities is Pocket CowCard, or PCC. PCC is a handheld software program that is paired with Dairy Comp 305. It runs on a Pocket PC and can communicate with DC305 through either USB or wireless connections.

For most users, this program is easy to learn and understand. Great effort has been put into both data entry ease and protection.



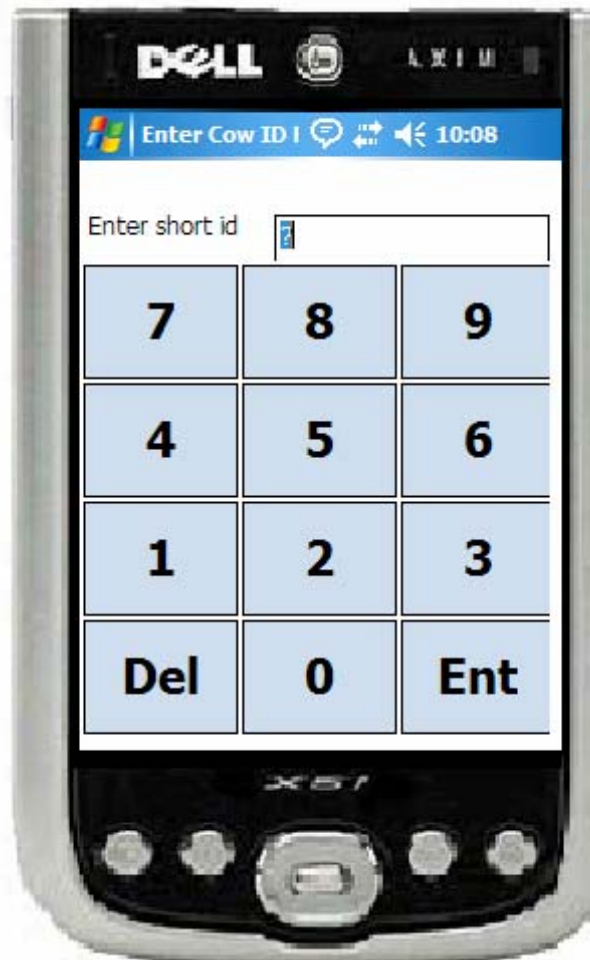
When PCC and DC305 are configured and PCC is opened for the first time, herd data is transferred to the handheld automatically.

The initial PCC screen looks like the screen to the left. Animal numbers are displayed on the "Herd" tab.

Individual records can be selected in one of three ways.

Records can be selected by scrolling with the scroll bar to the right of the grid and tapping a number. For most uses this is the least preferred option.

The second option is to call a record by tapping in the box below the grid (in the picture above, this box has record 1735 in it). Tapping in this box will bring up this keypad screen which allows easy number entry.



The third method of accessing an individual record is by scanning an electronic ID. EID is discussed in more detail later in this article. Scanning an EID can serve as both a way to locate an individual record and as a means of automated data entry from a work list. The speed and accuracy of EID makes this the most efficient means of accessing records and entering information on the handheld unit.

## Individual Records

Below are sample screens displaying each page of an individual animal record. Any page can be selected by tapping the desired tab at the bottom of the information window.



The event window shows all events that have occurred during the current lactation with the most recent being first.

Date	Event
06/15/05	PREG 46 DAYS
04/30/05	BRED 7H6758 P 7A
04/06/05	BRED 1H6802 O 2A
03/15/05	HEAT -
03/01/05	OK -
02/10/05	MOVE FR09TO03
02/03/05	TEMP 101.4

Herd: 1735 Cow: 1735 Idle

Tools Admin

Event Window

Item	Value
PEN	5
DIM	241
TDAT	09/10/05
FCM	0
LACT	3
DCC	145
TOTM	24400

Herd: 1735 Cow: 1735 Idle

Tools Admin

Item Window

Date	DIM	MK	%F	305	SCC	PEN
09/10/05	229	79	0	30670	0	5
08/24/05	212	81	0	30440	0	5
06/30/05	157	98	3.8	30930	69	4
06/11/05	138	108	0	30400	0	4
03/30/05	65	126	3.9	30980	19	3
02/12/05	19	110	0	27810	0	3

Herd: 1735 Cow: 1735 Idle

Tools Admin

Testday Window

Tapping the “Item” tab below the information window will bring up the item page. This page can be set to display either the 16 items from page one (Events) of the “cowcard” in DC305, all the items in the item table or up to 32 items selected in the Server command.

Among the setup options on each individual PCC is the ability to specify whether the user wants the event page or the item page displayed initially when a record is called.

FDAT	CDAT	DDAT	TM	TF	ME
03/22/05	05/16/05	12/24/05	1946	669	2743
02/24/05	04/22/05	12/01/05	2718	109	3472

Herd: 1735 Cow: 1735 Idle

Tools Admin

Previous Lact. Window

DIM	Wt
245	78
238	79
231	80
224	79
217	80
210	79
203	85

Herd: 1735 Cow: 1735 Idle

Tools Admin

Weekly Avg. Window

	1	2	3	4	5	6	7	8	Exp	Avg
43	40	44	42	34	35	40	36	40	40	
41	41	40	37	37	37	37	34	38	38	
84	81	84	80	71	73	77	70	78	78	

Herd: 1735 Cow: 1735 Idle

Tools Admin

Daily Production Window

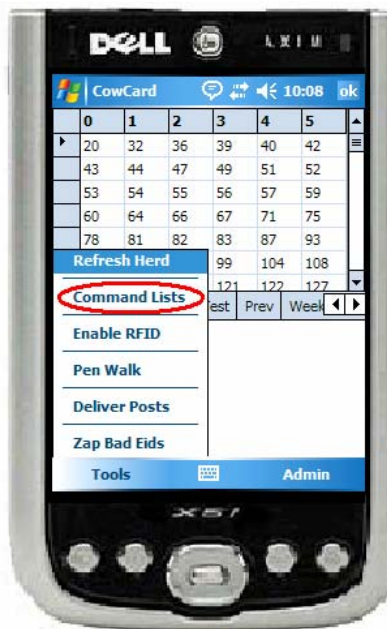
The other four pages in each cow record are test days, previous lactations, weekly averages for the current lactation and, if available, the last 8 days of actual milk weights for herds using daily milk meter interfaces with DC305.

Information is updated in PCC each time the handheld is in contact with DC305 and a “Refresh” is requested in PCC.

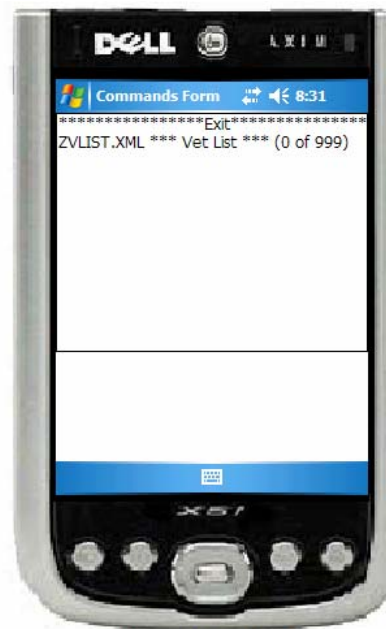
## Command Lists and PCC

Lists can be created for PCC in Dairy Comp 305. These lists are sent to PCC from DC305 with each herd refresh. However, not all lists are always replaced. The user can retain any list on PCC, if using the data entry option, until that list is completed and entries are sent back to DC305. In other words, when a work list is being used, it will not be over-written if the handheld is refreshed.

Command lists can be accessed in PCC from the “Tools” menu.



Tools Menu



Command List Window

Command lists can be simple lists of animals that need to be found, animals that need to have one or several tasks performed or, as will be discussed here, a vet list.

In the example above, the only list to select is a vet list. Selecting this list will present a pen selection window which is the first of three windows associated with any list. This window allows you to select animals on the list for all or a specific pen. This selection is for the display of animals on the handheld only. That is to say that if pen one is selected but a cow from pen six is entered, the handheld will still locate her on the list and indicate the action, if any, that needs to be taken.



When a pen is selected, PCC advances to the list of animals “To Do”. As animals are located and entered into the handheld, they are moved from the “To Do” window to the “Done” window.



As animal numbers are tapped or entered PCC will beep indicating that the animal is not needed, state that the animal cannot be found or tell the user that the animal is needed. PCC can even tell the user what task(s) needs to be performed. This is especially helpful for lists such as vet lists and Ovsynch treatment lists.

In herds using electronic identification, the user does not even look at the handheld for most tasks. Instead, they wear an inexpensive radio headset plugged into their handheld unit. As each animal is scanned, PCC will tell them if a cow is needed and what needs to be done if there is more than one task to perform. In the case of vet lists, PCC will even bring up the vet entry screen for the animal entered or scanned.

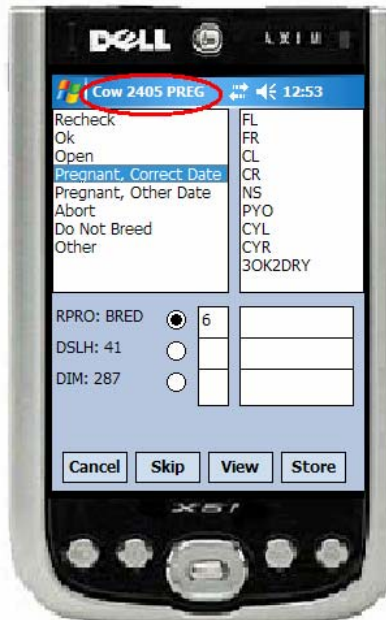
If using the data entry feature, animals moved to the “Done” window can have information sent (posted) back to Dairy Comp indicating that the task required has been performed. For example if a “Cows to Dry” list is sent to PCC, this list can come back to DC305 and all animals entered as done will be given a dry event and moved to the dry pen automatically.

Dairy Comp can also record the date and time that an animal was last entered into PCC as well as whether the animal was entered by hand or scanned into the program using electronic ID (EID).

## Other Data Entry

In many cases, simply entering or scanning an animal on a list can be used for data entry. This is much like entering information in Dairy Comp from a list of cows checked off.

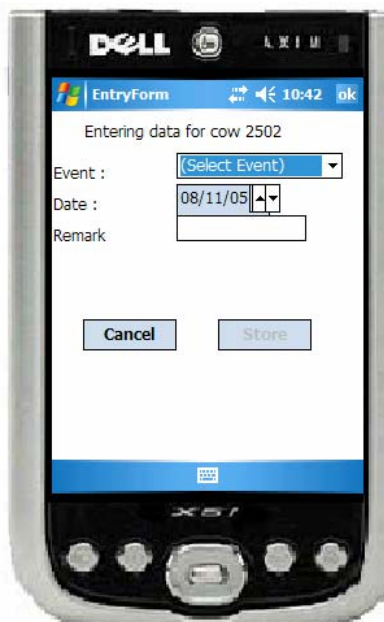
Two obvious exceptions are vet check and event entry, both of which can easily be performed in Pocket CowCard. Upon posting, this information is sent back to Dairy Comp 305.



Vet Check Entry Screen

As discussed earlier, in a vet list, when a needed record is scanned or tapped into the handheld, PCC will tell the user what the animal is needed for and then automatically bring up the vet entry screen for that animal. The vet entry screen is very similar to Dairy Comp 305. This is true down to the “function keys” which are set in PCC directly from those set in Dairy Comp. Making changes to the function keys in Dairy Comp will change the function keys in PCC at the next refresh.

Entry into the handheld is performed by tapping the desired selection on the right, entering a remark if desired and storing the entry with the “Store” button in the lower right corner of the screen. If a custom remark is needed, there is an alpha keypad, much like the numeric keypad used for ID entry that appears when the remark field is selected.



Event Entry Window

By tapping and holding on an individual record’s event window, the screen to the left is accessed. A pick list of events taken directly from the Dairy Comp program is offered.

In the case of BRED entry, there is even a large keypad for sire entry. This is combined with the same sire choice pick list as a bred entry in DC305 would offer.

## Refreshing Information on Pocket Cowcard and Posting to DC305

A herd refresh is requested by clicking on the “Tools” menu in the lower left corner of the screen and selecting “Refresh Herd” as indicated in the picture on the lower left.

As the refresh occurs, two shaded status bars indicate the progress of the refresh. When these bars are gone and the main grid is displayed, the refresh is complete.



Refreshing Pocket Cowcard will not overwrite lists that are still being used or “in progress”.

When “Deliver Posts” is selected from the same “Tools” menu, all lists that the user has indicated are ready to be sent to DC305 are sent and any data entry indicated is performed.

## Electronic ID

During the past year there has been increasing discussion centered on RFID technology and the National ID program, which is presently scheduled to become mandatory in 2008.

Pocket CowCard is designed to maximize the value of “ISO 1784/1785 compliant” electronic ID. This is the adopted format for the electronic component of the National ID program.

With PCC and RFID, large numbers of cows in lockups can be processed faster and more accurately than ever before without printed lists. Human error is eliminated both at cow-side and in the office.

Perhaps of greatest value is the increased task compliance gained with RFID. Arguably, the most difficult part of any task performed by list is locating animals. PCC provides an easy, fast and extremely accurate way to do this. Just as important to compliance, with PCC, management can

track and review the last scan date, time and method. This information is invaluable when trying to implement programs such as Ovsynch on a large scale.

## **How Pocket CowCard Utilizes RFID**



PCC communicates with RFID devices through a handheld RFID scanner. The handheld scanner is connected to the PCC handheld computer by a wireless Bluetooth connection. Once configured, this connection is easy to establish in Pocket CowCard and it is very reliable.

The most common form of RFID device at this time is some type of ear tag. Indications at this time are that this will most likely be the only type of ID accepted by the USDA in 2008 as part of the NID program. Not all RFID ear tags are the same. There are significant differences in both price and performance as measured by read distance. The tag pictured to the left is gaining widespread acceptance and is about the diameter of a U.S. quarter. We have found this tag to have the best read distance of all the tags we have tested with handheld scanners.



When Pocket CowCard is used with EID, the scanner and tag are used to electronically key in animal numbers. This is both simple in concept and profound.

For example, if a user is looking for cows to Ovsynch, this list would be sent to PCC from Dairy Comp. The handheld scanner and tags allow the user to locate and move cows to the “Done” list in PCC much faster and without even looking at the handheld computer. The result is that they walk past cows scanning RFID devices at virtually a normal walking pace. When a cow that is needed is scanned, PCC will tell them what shot the animal needs and move her to the done list at the same time.

With cows to dry, the same concept applies but that information can also be used to enter DRY events on cows in DC305.

In the case of vet entry, the user can scan a cow and PCC will tell them why that animal is being checked. At the same time PCC will bring up the data entry screen for that animal allowing easy result entry.

## Considerations

While most any Pocket PC *should* work, all development to date has been performed on the Dell Axim®. For this reason, we strongly recommend a Dell Axim for use with Pocket CowCard. If considering the purchase of a Pocket PC to run Pocket CowCard, please call us first. All Pocket PCs are not the same. While we are happy to try and help you with any Pocket PC device you may have, if you don't have one we would like to make sure you get one that will do all that you expect of it.

As with the handheld to run Pocket CowCard, the equipment you select for an RFID component is important. If you are considering RFID, again please give us a call and we'll be happy to share our experiences with you. Starting with the right hardware will make things go much smoother.

## Frequently Asked Questions

**Q. How many records can Pocket Cowcard hold?**

A. As many as a single cowfile which is up to 32,000 for version 5 cowfiles.

**Q. How long does it take to “refresh” Pocket CowCard?**

A. A good estimate is about 1 minute per 2,000 records. If a wireless connection to Dairy Comp is used, all handhelds can be refreshed at once, saving time.

**Q. How many Pocket CowCard programs can a user have?**

A. The number of Pocket CowCards that can be used with a Dairy Comp program is, for practical purposes, not limited.

**Q. How rugged is the Handheld that runs Pocket CowCard?**

A. Since the Axim does not have a hard drive like a laptop or desktop, it is more rugged than either. It is still a computer however. Valley Ag. Software has found a case that is shock and water resistant and helps protect the Axim further.

**Q. How long does the battery last on the handheld and the scanner?**

A. This depends on the device being used and the settings on the handheld but, with a standard battery, the Axim will last about 4 hours and the scanner that we have the most experience with will last about a day. Extra batteries can be purchased for each and there is a high capacity battery for the Axim that will last about 6-8 hours.

**Q. If the handheld dies, will all information entered but not yet sent to Dairy Comp be lost?**

A. Information is backed up to an SD card inserted in the handheld as it is entered so unless the SD card and handheld are both damaged to the point of failure, information will not be lost.

**Q. What is the best way to find out if my hardware will work?**

A. The best way to find out if your hardware will work is to call us before it is bought. If you have already purchased hardware for other uses, we will be happy to do everything we can to determine if it can be used.

**Q. Where can I get the “stuff” I need if I don’t have it?**

- A. Valley Ag Software is testing new products as they become available. We can supply any of the components needed including ear tags. Since the scanning option for Pocket CowCard involves multiple hardware components working together, we now offer a total package option that supplies our customers with everything but the labor to put ear tags in cows. This labor investment up front will result in decreased labor usage from then on.

## **Network DC305**

Over the past 2 or 3 years we have working to develop a “network” version of DC305. This was done to satisfy the request to be able to have more than one person enter data into the program at the same time from different locations. This work as been combined with the Axim remote data entry to make a system that will allow multiple entry sites into DC305. The Axim portion is discussed above.

The PC to PC version is based on having a program running at each computer. The master data file is controlled by one DC305 program and is called the “Server”. Remote computers being used each contain a modified DC305 program and are called “Clients”. Each “Client” has a set of data files which are updated from the “Server” periodically. When data is entered on the Client, a data packet of it is sent to the server and it gets processed (entered) on that machine also. This is true for most common data entry such as freshenings, breedings, pen movements, etc. When mass movements are done automatically such as PEN=15 FOR PEN=12, the command itself is sent to the Server and is executed.

Almost all reports and routine cow data entries are allowed on the Client computer. Most maintenance procedures are not. This includes CLEANUP, ALTER and CREATE. Also not allowed are commands that involve moving animals from one cowfile to another (GETCOW, PUTCOW or ABSORB), reading in data from other files (FILEIN), using procedures that require other files that are not sent to the CLIENT (SEMINV, SIRES or PARLOR). Data entry is prevented that usually involves the whole herd or at least a significant portion of it. This would include SEND, RECEIVE, MILK (for daily milk herds), MSEND and COWVAL. Likewise, the command MONITOR is not allowed on the Client.

Our goal is to have as much activity allowable as is needed to make remote, multi-user entry efficient and effective. As we are told of additional features that are needed, we will try to add them to the list of available Client commands.

Our reasons for setting up this function in this matter are many. Several of the same procedures are used for both the Axim and the Server/Client setup. In both the Axim and the Server/Client setup we cannot guarantee that the two computers will be connected to each other at all times during data entry. Both Axims and Laptops could be out of range if connected wirelessly. We can use the same data files and avoid the problems associated with multiple users in one data base at the same time which primarily concern protecting data integrity. This includes overwriting data, changing tables that affect other users, opening and/or closing files in conflict with other users and other actions which are not acceptable with valuable data. In short, this setup allows us to accomplish what is necessary for network function on a dairy operation and also maintain our speed and operation efficiency.



Using this feature might force a person to learn some aspects of the program better than the non-network user. These include the potential of running multiple veterinary lists, using mass commands, and being aware of scheduled tasks being done of the Server vs. the Client.

## **Parlor Watch 305 News and Updates**

by Zef Martinho

Parlor Watch 305 is a real-time solution for monitoring the milking and cleaning performance of a dairy parlor. The system consists of an inline electromagnetic flowmeter, a temperature sensor and a flow computer which connects directly into the Parlor Watch 305 Software that is installed on the office PC. Information being monitored includes milk production by pen and cow (assuming cow numbers are properly maintained in PW305) and milking times by cow and herd. It also has wash-up information including water volume, temperature and times. Graphic displays are available for any combination of the herd and or individual pens.

One of the new features of the Parlor Watch 305 program has been the Parlor Watch Stub, which allows the use of one Com Port on the office PC to be used with multiple milking parlors. Another added feature is an optional LED Display that is mounted where the milkers can view the information. The display scrolls the time of day, the current milking number, the total milk that has gone through the flowmeter during the session, the current pen being milked, the number cows in the current pen that are milking, the percentage of the expected milk that the pen has been produced so far, the temperature of the milk after the plate cooler, and the next scheduled pen that is going to be milked. This data scrolls on the display for the milkers or others to view while they are in the parlor.

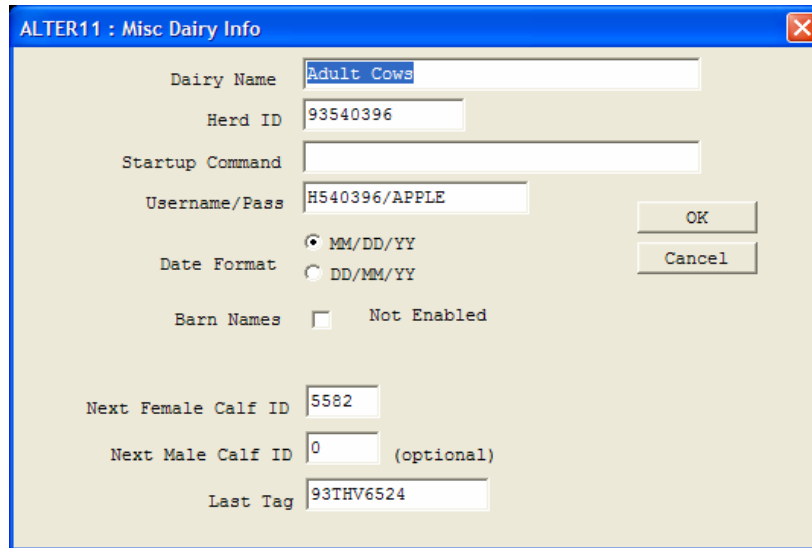
The Parlor Watch 305 program also has alerts for high milk temperature and cold wash. It can send messages when the tank has reached its capacity or when each milking and/or day ends. This can be sent either through an email or text message to a cellular phone. A display example is shown below:



## DC305 Program Changes

### Alter – Dairy Info.

In Alter, Choice B additional options have been added as shown:



The screenshot shows a dialog box titled "ALTER11 : Misc Dairy Info". It contains several input fields and options:

- Dairy Name:** A text box containing "Adult Cows".
- Herd ID:** A text box containing "93540396".
- Startup Command:** An empty text box.
- Username/Pass:** A text box containing "H540396/APPLE".
- Date Format:** Two radio buttons. The first is selected and labeled "MM/DD/YY". The second is labeled "DD/MM/YY".
- Barn Names:** A checkbox that is unchecked, followed by the text "Not Enabled".
- Next Female Calf ID:** A text box containing "5582".
- Next Male Calf ID:** A text box containing "0", followed by the text "(optional)".
- Last Tag:** A text box containing "93THV6524".
- Buttons:** "OK" and "Cancel" buttons are located on the right side of the dialog.

The last Female calf number used is shown. As this screen shot also shows one can keep a male calf sequence for those who keep male calves. The “Last Tag” is the last REG or USDA number that was used during an event entry. This could be the CALFVAC event or FRESH if the USDA number was prompted for a calf.

### Alter – Items

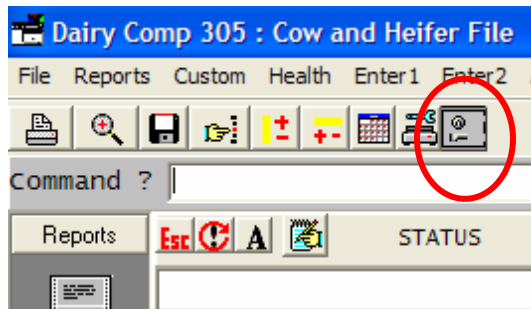
For those who make item changes or add items, some new features have been added to help. If a calculated item is made that is duplicated with an existing one, the program will show you the original item and ask if you really want to make a duplicate. When making a new stored item, the program will offer to go through the cowfile and clear the area it will occupy. In this manner, if a stored item is made that used the same location in the cow records as an old deleted item, no “data” will exist until it is intentionally put there.

## CLEANUP

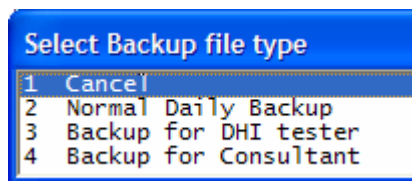
When running the CLEANUP command and the archive file fills up, one can no longer skip saving archive records and continue to finish the CLEANUP process. This option has caused too many previous lactation, sold or dead records to be lost. In fact, if CLEANUP is setup properly and the archive file is filled, the program will create a new archive file and continue with the commands process, finishing the job “automatically”. If CLEANUP is setup to run in “unattended” mode using the \2 switch, new archive files will be formed automatically when needed

## Consultant backups

On the main DC305 screen a new icon has been placed under the menu bar which is to be used for consultant backups. It is designed to allow the user to send the backup files to whatever is needed by the person getting them. This could be a floppy disk, a memory stick, a CD or the hard disk.



When one clicks on this icon, the following menu appears. Choice 2 will perform a normal daily backup. Choice 3 is used for special testing organizations that use a “PREPARE” command before this procedure should be run. The last choice is for consultants use. COWFILE1.DAT plus all the archive files will be compressed into a file called HERDCODE.ZIP. If the herd is a daily milk herd, this file will also include the latest parlor performance reports. All of these files also contain a file called DCINFO.TXT which is a brief description of the dairy’s configuration setup.



## ET Items and manipulations

We have started doing more work with Embryo Transfers, trying to keep track of implanted embryos and getting them registered. To this effort we have taken item # 42 and used it in the FRESH event to tell if a transfer has been done into a recipient. In most cowfiles this item is already called ETDAM. However, if for some reason somebody has renamed this item and is using it for another purpose, it will no longer work and, will often cause the dam’s ID number to be 0 in a new calf’s record. This is an instance of our using what we’ve said we would and that was that all items whose number id less than 90 are “sacred” and we reserve the right to use them whenever we need to.

## Econ Inventory Changes

ECON has a projected inventory selection (Choice 7) that show the number of animals anticipated to be in the herd looking forward for the next 6 to 8 months. If one uses a “\R” with this command, the program will prompt for the culling rates of cows and first calf heifers. To this has been added “Live Female Percentage”. This is in anticipation of use of sexed semen. A few semen companies have been selling this for the last year or so. This past September, Monsanto® announced they would start producing sexed semen in conjunction with production partners in the second half of 2006. Their claim is 85% females will be born to those who conceive to this prod-

uct. If this is true and becomes widely used, then the normal 45 % female calves we count on in the projected inventory could be greatly modified. The one difference between setting the percentage of females and the culling rates are that the female percentage stays in effect for all inventory projections, not just those that use the “R” switch.

## **Synchronization Programs and DC305**

by Steve Eicker

For many dairies, the adoption of synchronized breeding programs has resulted not only in significant time savings, but has also resulted in improved reproductive performance. The results on other dairies have been dismal. So, like many emerging technologies, adoption, implementation, and success will vary greatly between dairies.

We have done a significant amount of development over the past few years in the area of reproduction. This has been split in the following areas:

1. Automating lists of treatments and exams, including injection schedules, even combined with the vet check lists.
2. Making tools to assess the compliance of the implementation: mainly graphs.
3. Developing tools to measure reproductive success: i.e. BREDSUM\E, and BREDSUM\R.

We have significant experience helping dairies implement these programs. They are easy to set up at the beginning, but almost impossible to setup if someone has already started making their own commands, and has cows in a variety of states post-injections.

All these synchronization programs involve very strict adherence to schedules. There are a number of options available, including the frequency of veterinary exams (which by necessity determines the frequency of enrollment), number of prostaglandin shots, whether to breed 2 or 3 days after the final prostaglandin, and whether to re-synch the cows a week prior to pregnancy check (which enables far faster re-enrollment).

The conclusion is that if you are contemplating using one of these programs, it will save considerable time to contact VAS for assistance instead of trying this at home alone.

## **New Semen Products Coming to the Market**

by Steve Eicker

Another new technology is Gender Enhanced Semen (sexed semen). Although there is a small supply available right now, the negative effect on conception makes it uneconomical for almost every dairy. However, it appears this might be resolved in the near future. If so, there will be a vast array of options to consider in using these products.

Pregnancy provides two benefits - a fresh cow starts her next lactation, and a new calf is born. Currently, there is an approximate balance between the number of pregnancies needed with the number of heifer calves needed for eventual replacements. GES will uncouple this relationship. That is, it will be possible to produce sufficient replacements from only 60% of the herd. How-

ever, there will still be the need to get cows pregnant in order to have the necessary supply of fresh cows. This means there are options with respect to the lower 40% of the cows.

Some dairies will breed nearly all their cows with GES. Although this will not influence genetic improvement, it will provide a nearly doubling of female calves.

Other herds might use GES only on their top genetic cows, to accelerate the genetic improvement. But there is an interesting balance. If they only breed the top 1%, they will have genetically superior calves from those few breedings. But if they breed the top 99%, they will have insignificant progress from almost all breedings.

There will be a premium on being able to estimate the genetic value of each cow. Dairies that have good genetic data and process through DHIA will have the ability to more accurately identify those dams.

Every dairy should be sure they are tracking sires, and also be certain that they are transferring the maternal grand sire to the new-born calf. If both the sire and maternal grand-sire are properly identified, 75% of the genetics are known.

## Bredsum – Switch Additions

The “\X” switch has been added to BREDSUM to allow analysis by more than one breeding factor. For example, BREDSUM\TXB makes the following report:

```
Command : BREDSUM\TXB                                     8/24/05

Technician by Bred Number from 7/20/04 through 7/20/05
95% CI
=====
```

	Total	1	2	3	4	5	6	7	8	9	10
Jose	18-23	15-26	19-31	21-36	14-31	16-35	9-27	13-36	7-30	3-25	3-30
Tiburcio	29-31	31-35	32-37	31-37	28-35	23-32	19-29	18-29	19-31	10-23	7-19
Anthony	16-35	16-61	12-49	6-51	4-62	3-51	-	-	0-43	-	-
Arie	29-34	28-37	32-43	29-42	25-41	15-32	17-39	9-33	7-39	6-39	0-23
Alex	15-25	11-35	15-38	12-40	10-35	3-29	2-40	0-39	8-64	3-51	4-62
Willy	32-38	32-44	34-48	31-49	28-49	17-38	19-46	8-36	15-52	10-47	7-43
Dustin	28-43	25-48	39-72	23-64	10-57	11-60	0-39	3-56	-	-	-
Timo	16-40	19-49	0-39	-	-	-	-	-	-	-	-
OTHERS	10-24	-	23-88	3-51	0-32	21-67	2-47	2-40	5-48	0-39	0-39
TOTALS	29-30	31-34	33-37	31-36	27-33	23-29	19-26	17-26	18-27	11-21	7-16

```
Percent
=====
```

	Total	1	2	3	4	5	6	7	8	9	10
Jose	21	20	24	28	21	24	16	22	16	10	10
Tiburcio	30	33	35	34	32	27	23	23	24	16	11
Anthony	24	36	26	20	20	14	-	-	0	-	-
Arie	32	33	38	35	33	22	26	18	18	17	0
Alex	20	21	25	24	19	10	10	0	29	14	20
Willy	35	38	41	40	38	26	31	18	30	24	19
Dustin	35	36	56	42	27	30	0	17	-	-	-
Timo	27	32	0	-	-	-	-	-	-	-	-
OTHERS	16	-	60	14	0	43	12	10	18	0	0
TOTALS	30	32	35	34	30	26	22	21	22	15	11

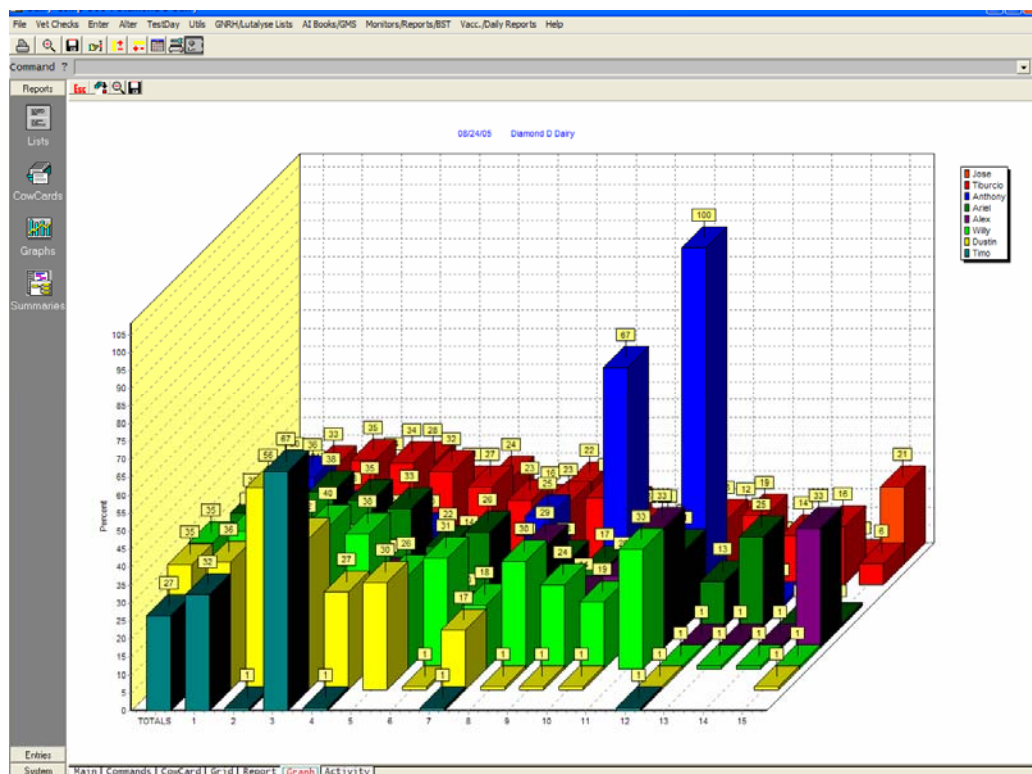
```
Count
=====
```

	Total	1	2	3	4	5	6	7	8	9	10
Jose	946	193	176	128	98	79	68	49	38	31	20
Tiburcio	6286	1833	1317	893	603	407	299	230	177	129	96
Anthony	74	14	19	10	5	7	4	4	5	3	1
Arie	1342	458	298	193	134	81	57	39	22	18	13
Alex	232	43	52	34	36	21	10	6	7	7	5
Willy	849	248	191	118	77	62	39	28	20	17	16
Dustin	155	59	32	19	11	10	6	6	4	3	3
Timo	49	34	6	3	3	-	-	2	-	-	-
OTHERS	113	1	5	7	8	14	8	10	11	6	6
TOTALS	10051	2885	2098	1405	976	681	491	374	284	214	160

402 non-AI breedings were omitted

This report is designed to give the user information to help determine the significance of the differences between each breeder. There are 3 blocks of data: 95% CI, Percent and Count. 95% CI means 95% confidence interval. It is easiest to explain this using the data shown. Jose, Tiburcio and Anthony have 21, 30 and 24 % conceptions rates when looking at all of their breedings. Jose's CI of 18 – 23 means that within a 95% confidence level, Jose's average breeding of 21% is really somewhere between 18 to 23 % when taking into consideration the number of breedings he has. This makes logical sense. It takes many breedings to establish the true conception rate of a breeder. Since Anthony only has 74 breedings, it is difficult to accurately know his breeding ability as opposed to those who have hundreds. Also notice when looking at any service number, the confidence levels widen for all breeders as their numbers for each service goes down.

Clicking on the graph tab at the bottom of the screen will display the averages in a compound bar graph.

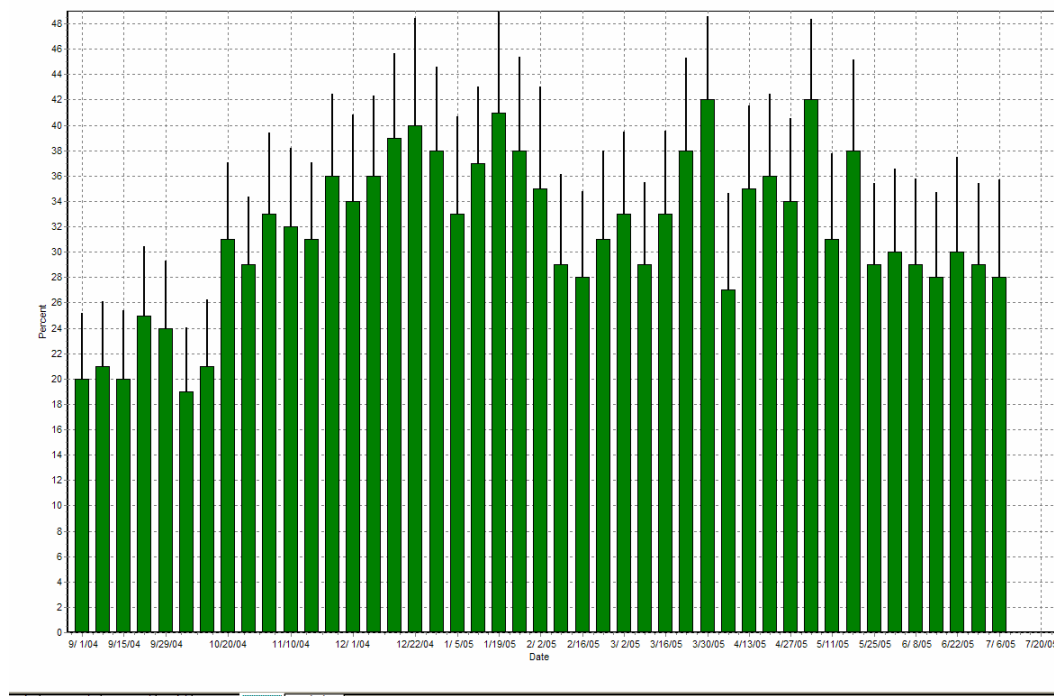


For herds that have ceased all heat detection by adopting total synchronization programs, the only determinant of pregnancy is now conception. For large herds, assessing conception rate by week is a rapid monitor of recent breeding performance. A new option (\R for Recent) has been added to BREDSUM. The whole year's weekly breedings are displayed in a bar graph showing the conception rates.



BREDSUM\R									
Date	%Cpgc	#Preo	#Ogn	Other	Abort	Total	%Tot	SPC	
3/ 9/05	29	55	132	27	1	214	2	3.4	
3/16/05	33	66	133	25	2	224	2	3.0	
3/23/05	38	64	104	42	2	210	2	2.6	
3/30/05	42	91	127	42	5	260	2	2.4	
4/ 6/05	27	35	96	32	4	163	1	3.7	
4/13/05	35	72	134	25	1	231	2	2.9	
4/20/05	36	78	136	29	5	243	2	2.7	
4/27/05	34	67	133	51	3	251	2	3.0	
5/ 4/05	42	96	135	34	0	265	2	2.4	
5/11/05	31	55	123	23	2	201	2	3.2	
5/18/05	38	67	109	29	1	205	2	2.6	
5/25/05	29	56	134	38	0	228	2	3.4	
6/ 1/05	30	55	131	35	0	221	2	3.4	
6/ 8/05	29	50	123	30	0	203	2	3.5	
6/15/05	28	48	125	38	2	211	2	3.6	
6/22/05	30	43	101	26	0	170	2	3.3	
6/29/05	29	56	135	48	0	239	2	3.4	
7/ 6/05	28	36	94	44	0	174	2	3.6	
7/13/05	0	0	106	114	0	220	2		
7/20/05	0	0	81	81	0	162	1		
TOTALS	10	2790	6397	1732	223	10919	100	3.3	

The whole year's weekly breedings are displayed in a bar graph showing the conception rates.



Monitoring reproduction continues to be an important aspect for most dairies. In addition to the cross tables described, there have been a number of enhancements to the EGRAPH (or PLOT) command.

PLOT BRED \S \T150 \D200 - creates a scatter graph of the breedings in the last 200 days that occurred in the first 150 DIM. The \D defines the days-since-today, and the \T defines the top DIM on the graph.

The colors of each point represent the number of the breeding – first, second, third, etc.

Adding a \R instead shows the Result of each breeding – Open, Pregnant, Aborted, Unknown, etc.

Finally, adding a \C instead shows each breeding Code as a separate color.

## **Internet Usage**

by Cal Burger

Internet availability and usage is becoming an assumed application for computers in general, and also for Valley Ag Software customers. The level of Internet usage will only continue to increase in years to come. Many references to its usage are mentioned in this newsletter. Internet access comes in a variety of forms. A dial-up connection, using your standard phone line, is still the most common. Another option from the phone company is DSL. This is a high-speed connection which requires upgraded phone line and equipment so it is not available in many rural areas where this equipment upgrade has not been done. Cable is another option. If you have cable TV, then cable Internet access may be a good option, with speeds and cost very similar to DSL. Satellite Internet access is also growing in popularity. Service is generally good, it can be more expensive, and often has an initial cost for equipment. A more recent development by a few companies in some areas is wireless internet access using a modem in your house to accesses a signal coming from a cell tower. Other companies are setting up special towers that can send wireless signals to a special antenna at a home or office.

Internet access has its dangers; probably the largest two involve virus concerns and unwanted usage by employees. Passwords can restrict usage to only the selected employees who actually need Internet, which will really help reduce access to unwanted sites. Another option is to establish a list of “Approved Sites” and limit access only to sites on this list.

Concerns about virus infection are well founded and this is an area that has to be managed. This was discussed on page 4 of this document.

Valley Ag Software is using Internet access in a variety of ways, most of which you will find on your menu system, under the “Help” option. They are summarized below:

1. DairyComp Home Page – Connects you to our website
2. Upload Cowfile to Support – Described on page 3
3. Check VAS Website for Updates – Described on page 2
4. Update HardLock Codes - Allows you to download and update HL codes for an expiring HL. This is typically done by installing the annual Update or Utilities CD (Did you forget to install yours?)

5. The ABOUT choice under the Help pull down will give you information regarding your account, release date, etc. It also has the “Remote Support” options described on page 3.

## **GC305 also known as Grower Comp 305**

by David Nansel

We at Valley Ag Software understand the importance of maintaining accurate record's as animals move to and from different facilities. GC305 was created for heifer growers / raisers. The program is very similar to Dairy Comp 305 and uses the same type of cowfile. These similarities allow easy movement of the record with the animal.

From the dairy computer a backup is created of animals going to the heifer grower. That backup is sent to the grower either electronically or via removable media. Once the backup arrives at the grower / raiser the records of the new animals are imported. The records are moved to a temporary file and then imported to the grower cowfile. The dairy can also be setup to get a backup from the grower and update their records with any new information that the grower has entered. This way the record is maintained where the animal is located, and the dairy can see what events have been entered while the animal is at the grower.

GC305 also has the ability to generate an “invoice” for the grower. This system is set up, as closely as possible to the current billing system the grower is using. Invoices can be generated based on a “day rate” as well average “weight gain”. Invoices have also been setup to bill for specific events that might be entered at the grower. One example might be a brucellosis vaccination. Please contact Valley Ag Software for more information on GC305 and or the invoice feature.

## **iLOOP / CMR / VAS Server backup.**

by David Nansel

Many of you now have internet access on the computer running DC305. There are several different functions that the iLOOP provides.

The most widely used function of the iLOOP is to send and receive data from the DHI's. iLOOP uses your local internet connection, to send and receive data to our secure server. The DHIs also exchange data from this server. Many testers as well as dairymen have been setup to use the iLOOP. Please contact your local DHI representative or Valley Ag Software for more information on the iLOOP.

Another function is the VAS Server backup and “CMR” (Cowfile Maintenance Report). If your computer has a phone line connected to it you could take advantage of the VAS Server backup and CMR. Again using a local internet connection, the DC305 program sends a backup to our secure server. The backup is moved to a separate server every Tuesday morning and our support staff is notified. They then look over the backup to ensure it is current and complete. If the backup has problems a fax is sent notifying you that your backup failed. Uploading your files to our server does not mean that it is “backed up”. In order to ensure the backup is current you would need to contact our support staff and sign up for this service. The costs are based on your

herd size, \$.01 per animal that has been in the herd in the last two years. Generally the billing happens after the testday each month.

The CMR is a report made from on your records. We look for missing or wrong information and offer suggestions that could improve your cowfile or computer. For example we've seen cows that are called pregnant but is missing conception dates. A missing conception date means that the DCC (Days Carried Calf) would be zero and she could calve in the milking string. Another frequent finding is that the current updates had not been installed. Without the most current update you can not take advantage of newly added program features.

One more function of the iLOOP is to send your backup from our server to consultants. A release form is needed, and would be filled out by you and the requesting consultant prior to the data being released. Please contact the support staff at Valley Ag Software for more information.

## **Protocol Enhancements**

by Mark Doornink

The "Protocol" function is being used to input treatments on many dairies. This has been available in DC305 for a number of years. We have added enhancements this year which are intended to make using protocols easier to setup and use.

Using the procedure provides several advantages to the dairy. These include:

- Forcing the dairy to review their treatment procedures to make them consistent and up-to-date
- Establishing a set routine for treatments for specific diseases with number of treatments and time for review
- Setting meat and milk withdrawal dates for treatments
- Providing hospital work lists that can (and should) be kept for review if the need arises
- Provide a level of compliance with FDA regulators for maintaining treatment information and records

Many of the changes added to this procedure are concerned with the initial setup. For protocols to be active, one must go into ALTER, Choice 7 and setup the protocol table. In most cases treatments are tied to specific events, for example mastitis. Up to now, if someone wanted to have the MAST command call a protocol, a "\P" needed to be added to the command abbreviation. With the latest version of the program, if the protocol table is setup and an event is called that is in that table, protocols will be "activated". No "\P" is needed in the command.

There are several items that are normally associated with the use of protocols. Dairy Comp will assist you in setting these up by warning you if there are active protocols but not withhold date items are defined, and by defaulting to the correct item in the cowfile when you are defining a parameter. The items we recommend using are shown below and can be edited by going to ALTER > Choice 7 (Protocols) > Choice 8 (Set up Protocol items):

Item to change	
1	Exit
2	Milk withholding MKDAT
3	Meat withholding BFDAT
4	Treat date/days TRDAT
5	Total treat cost TCOST
6	Previous Pen PN
7	Hospital Date HPDAT
8	Recheck interval RCDAT

Changes have been made to ENTER so that one is warned if an entry is made in a cow's record that violates the milk or meat withdrawal date(s) setup in the latest protocol functions. If a cow is moved out of the hospital into a MILK pen prior to her MKDAT, DC305 will warn you that it might not be a good idea to do that. The warning will look like this:

ENTER	
<input type="button" value="Yes"/> <input type="button" value="No"/>	Warning! Milk Withholding date 11/25/05 but is moving to milking pen - Continue with change ?

In much the same way, if a cow is SOLD prior to her BFDAT, DC305 will warn you that it might not be a good idea to do that. The warning will look like this:

ENTER	
<input type="button" value="Yes"/> <input type="button" value="No"/>	Warning! Meat Withholding date BFDAT 12/2/05 Continue with change ?

The most unusual feature of these displays is that there is no default (Y or N) in them. One must enter either a "Y" or "N" (or "+" or "-") to get through this screen.

This function works only if the withdrawal dates are set in the Protocol procedure. If they are not done in this section, the program does not warn a withdrawal violation was entered. For the milk withdrawal function to work, in ALTER (4), the pen types HOSP and MILK must be defined properly. If an animal is moved to a MILK pen with a milk withdrawal date beyond today, it will warn of the potential problem. If she is moved to any other pen type, including a pen with no type definition, this will not happen. If a cow is moved to a HOSP pen even when it is also labeled as a MILK pen, there will be no warning.

Another nice feature of the new protocol table is how it handles hospital date (HPDAT) and previous pen (PN). When a cow is initially moved into the hospital pen from a milking pen, the HPDAT is set using the event entry date. The same is true for PN. It is set to the cow's previous pen automatically when she is moved into the hospital pen. The cool addition is when a cow is treated again using another protocol while she is already in the hospital, Dairy Comp will not change her HPDAT or PN. It will keep the values that were originally set when the cow first entered the hospital.

A new protocol parameter added this year is the Recheck interval, usually defined with an item called RCDAT. This parameter allows you to schedule a date in the future that an animal needs to be re-examined. A practical example of the use of a recheck date would be in LAME protocols where an examination of an animal is required a few weeks in the future. When defining a protocol, you will be prompted for the number of *days* to wait until the cows needs to be rechecked. Below is an example of a protocol table.

ALTER7 : Protocols											
#	Protocol	Event	REMark	Prompt	Pen	Milk	Meat	Days	Cost	ReChk	Active
1	HETACIN-K. IMM	MAST	HET3QQ	Y	0	3	10	3	0	0	Y
2	DARICLOX. IMM	MAST	DAR2QQ	Y	0	2	10	2	0	0	Y
3	SPECTRA-LC. IM	MAST	SLC5QQ	Y	0	3	0	5	0	0	Y
4	PIRSUE. IMM	MAST	PIR4QQ	Y	0	2	9	2	0	0	Y
5	MASTI-CLR. IMM	MAST	PEN2QQ	Y	0	3	3	2	0	0	Y
6	CEFA-LAK. IMM	MAST	CEF1QQ	Y	0	4	4	1	0	0	Y
7	NO TREATMENT	MAST	NOT0QQ	Y	9	0	0	0	0	0	Y
8	LA200. SQ	LAME	LAT4.35	Y	0	4	28	4	0	7	Y
9	EXENEL. SQ	LAME	EXN4.25	Y	0	0	2	4	0	7	Y
10	ALBON-INJ. IV	LAME	ALB5.	Y	0	3	5	5	0	5	Y
11	AMOXI-INJ. SQ	LAME	MOX3.25	Y	0	4	25	3	0	5	Y
12	NAXCEL. IM	METR	NAX3.25	Y	0	0	0	3	0	0	Y

### Hospital List using Protocols in DC305

If one uses Protocols, it is possible to set up hospital lists that will show what animals need to be treated and which are through with their protocol treatment. This is intended to be used when, for example, a cow with mastitis would have an entry such as 11/22/05 MAST SLC5RR. Using the above Protocol table, one sees that SpectraMast in this table is to be given for 5 days. When the hospital list was printed on 11/24/05, the following line appears for this cow:

```

- Dairy Comp 305 ----- Example Dairy ----- Page 1
- Command : HLIST
- Expanded: LIST ID PN MKDAT:7 DIH:3 DIM:3 DCC:3 REM:125 FOR PEN=9 \2VH
-
- EXAMPLE ----- 11/24/05-----
-
  ID  PN  MKDAT DIH DIM DCC REM
  ==  ==  ==
5698  6 30Nov05  8 166  0
              11/22 MAST SLC5RR 3:5

```

There are a few things to notice about this list. First, the command has a \VH switch in it. This is used to designate “hospital lists” which will display the current events that are listed in the protocol table that still require the animal to be treated. The extended line has been made to write today’s treatments and notes. The current treatment is a sub-heading of the mastitis event, the remark and what treatment is occurring today (three of five). Once this animal is beyond her last treatment, the sub-heading will not show up and she will be listed on the hospital list, showing her milk date so it is known when she can go back into the milk string.

We have written additional information about these procedures and will be happy to send them to those who are interested in setting this up. Of course, one can always call support for help with any of this.