



# Dairy One News

Where Information Creates Opportunity

## Scout Newsletter

There have been many enhancements and additions to the Scout program this year. Development has focused on improving the usability of Scout and giving the user greater access to data. Valley Agricultural Software, the developers of Scout, remains committed to making improvements in all areas of the program. These improvements increase the value of your software, without compromising Scout's user friendly navigation or easy data entry.

### Enhanced Activity Tab Tracking

The Activity Tab in Scout has been enhanced to show the date and time when an event was entered, when a report was run, and when Scout was started or stopped.

Click on the word "Activity" in the lower right portion of the scout screen to get to the activity tab.

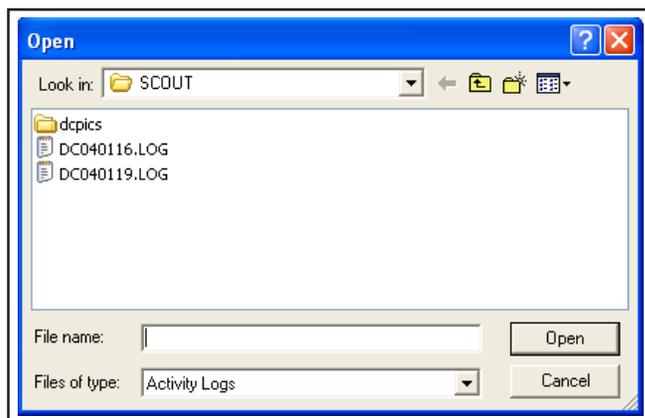


Time	ID	EvtDate	
S 15:13			Opened v3 C:\COWFILE1.DAT
C 15:20			BSTRPT
C 15:20			TANK
C 15:20			DRYCOWS
C 15:49			BSTRPT
C 15:49			DRYCOWS
E 16:13	713	12/ 4/01	BRED BULL
E 16:13	542	12/ 4/01	BRED BULL
E 16:13	277	12/ 4/01	BRED BULL
E 16:13	359	12/ 4/01	BRED BULL
E 16:13	107	12/ 4/01	BRED BULL
E 16:13	655	12/ 4/01	BRED BULL
E 16:15	479	12/ 4/01	BRED BULL
S 16:19			Opened v3 C:\SCOUT\COWFILE1.DAT

The Activity Tab can be helpful for remembering where you left off with data entry, or verifying that everything was entered. For instance, if you are entering several breedings and want to check to make sure you entered them all you can simply go to activity tab and see what has been done. The activity tab does not record changes made by double clicking an item on the cowcards.

Double clicking on a line in the activity tab runs the report or jumps to a cowcard. In the example to the left, double clicking on the DRYCOWS command will run the dry cow list.

You can also review the last seven days worth of activity by retrieving activity logs. Click on the activity tab, and then click on the "Review" button. Now browse to the Scout folder and double click on the .LOG file for the day that you want to view. The log files are named DCyymmdd.LOG. Example DC040119.LOG is the log file for January 19, 2004. Log files are automatically deleted on the seventh day.



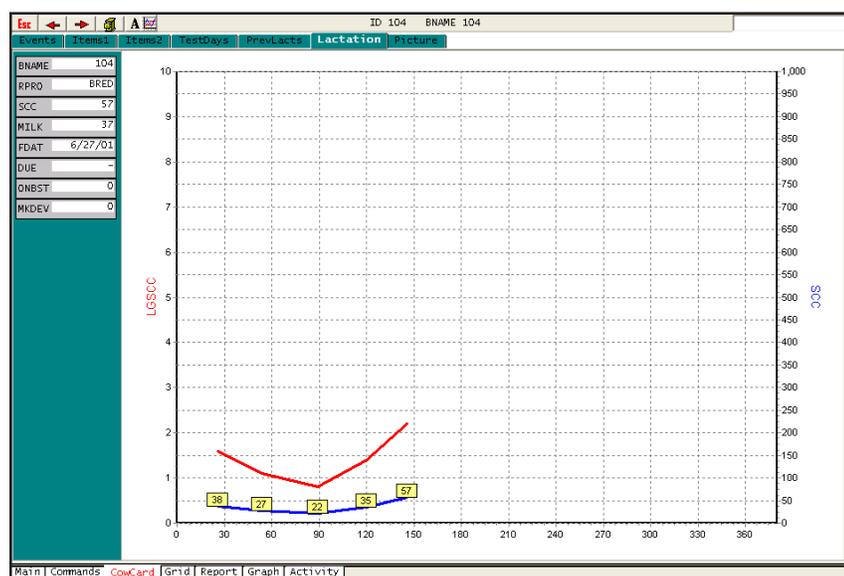
### Using The Lactation Cowcard Page

The basic display for the Lactation page shows several items and a graph of the milk weights and SCC scores for that cow. The items that are displayed can be changed or removed altogether. Click with the right mouse button on the item you would like to change and select "Add/Change Item On Page". Now browse down through the items, highlight the one you want to add and click OK. This feature works on every page of the cowcards.

The graph on the Lactation page can also be customized. You can zoom in on a specific area of the graph by clicking and holding the left mouse button down, then moving the mouse down and to the right. The area within the box will be magnified. To undo the magnification and return to a normal view, click and hold the left mouse button down and move the mouse up and to the left.

You can also move the lines within the graph. Click and hold the right mouse button anywhere on the graph. Now you can move the lines within the graph around by moving the mouse. To undo the move and return to a normal view click and hold the left mouse button down and move the mouse up and to the left.

You can view the data points that make up the graph by left mouse clicking on the line in the graph. Try clicking on the blue line to see the SCC scores from each test. Click on the line a second time to remove the data labels.



You can change what is displayed on the graph by left clicking the vertical axis on the left or right side of the graph. Data that can be viewed on the Lactation page graph includes: milk weight, percent fat, percent protein, SCC, Linear Score, 305me, Relv (relative value), MUN, fat corrected milk (FCM). The default display is Milk and Somatic Cell.

## Picture Cowcard Page Available

A seventh cowcard page is now available in Scout. This new page has a place for adding extended notes about the cow, displaying a digital picture, and displaying a copy of the cow's pedigree. The notes section will hold vast amounts of text. These notes cannot be added to a report, so this feature is best used for special notes about the cow that are not health or reproduction related. The digital pictures must be in a .JPG format to be displayed. The .JPG format is a common format used by digital cameras. Many places that develop film can also make pictures available digitally either on a CD or via the internet. The cow's pedigree must be in a .PDF format to view from page 7. .PDF files of pedigrees are available from the breed associations, or they can be created by scanning a pedigree on some types of digital scanners.

Some setup is necessary to take advantage of this new feature. Following these steps:



1. Create a folder to store the page 7 data in.
  - Double left click on the My Computer Icon.
  - Double left click on the C: drive
  - Right mouse click once on any blank space in the C: drive window.
  - Select New
  - Select Folder
  - Type DCPICS and press <enter>
  - Close the window by left clicking the X in the upper right corner.
2. Enable page 7 in Scout
  - Start Scout
  - Click on the System button in the lower left corner
  - Click on Alter
  - Double click on #5 Cow Card Pages
  - Click on "Enable Page 7"
  - Click OK
  - Exit Scout

Using the notes section is very easy. Bring up a cowcard, click on the Picture tab, left mouse click in the blank area at the top, and begin typing. Press the ESC key or click the save icon directly above the notes section to save your changes.

Using the picture or pedigree features is equally easy. Save the .JPG or .PDF file in the DCPICS folder on your computer. The files must be saved as the registration number of the cow or the USDA number if the REG field is blank (-). Here are some examples:

Cow #	Registration #	USDA #	Filename
1	12345678	—	12345678.JPG
2	—	17XYZ1234	17XYZ1234.JPG
3	91011121	12ABC1234	91011121.JPG

**If you use page 7 you may need to change how you make daily backups.** The files for page 7 are too large to fit on a standard 3.5 inch floppy disk. You will need to switch to a mass storage backup to ensure that you are backing up all of your data. Some common types of mass storage are ZIP drives, CDROMs, USB "pen" drives, or DVDs.

## Cleaning Up The Archive Files

Well maintained archive files are an important part of getting accurate answers from reports that include previous lactations or dead cows. Some examples of reports that use the archive files are the dead cow summary, the "Conception by" reports, and the Pregnancy Risk Report.

To clean your archives go to the FILE Menu, select Cleanup Cowfile, and click on the Clean Archive Files button. The clean archives feature searches the archive files for duplicate records and eliminates them. Duplicate archive records can occur when sold/died cows are restored or when the FRESH event is deleted and re-entered.

## Program Updates Available On The Internet

Scout is updated regularly throughout the year. You have access to these updates by using the automatic update feature in the Help Menu.

Getting updates through the internet is very easy. You will need to have an internet connection setup on the Scout computer. First start the internet connection. Next click on the Help Menu and select Check VAS web site for updates. Click Yes to run the browser and check for updates. The browser will start and bring you to a screen that looks like this.

Account Number	900952	Support Plan	Not Found
Serial Number	TESTCODE4	Licensed Type	Not Found
Program Directory	C:\Scout	Downloadable	Not Authenticated
Installed Type	SCOUTEU	Version	1,1,3,17- 1/15/2004
Local Files		Updated Files	
		Update	

Click on the Update button to download and apply the most current Scout updates.

Retrieving updates over the phone lines will take 15-20 minutes. Download progress is indicated by a series of dots moving across the lower portion of the screen. It will display "you have the latest version" in the lower left portion of the box when the update has been downloaded and applied. Close the window, disconnect from the internet, and restart Scout.

## Bull Calf Codes

Bull calves are now easier to track in Scout with the addition of the BULLCAF reproductive status (RPRO).

Scout automatically assigns a reproductive code (RPRO) of BULLCAF when you enter a calf code of 6 – Male, Live add to cowfile during the FRESH event.

To see a list of all the bulls in the herd simply add RPRO to the user defined heifers report and sort it down by RC. All the Bulls will be at the top of the list.

## **Backups - you will eventually need one. Are you ready?**

We recommend using "Zip" disk drives for your backups. The disks are written using standard methods common to all electromagnetic drives and can be read by one another. There currently are three sizes of Zip disks, 100mb, 250 mb and 750 mb disks. The 750 mb disk drive will read all the others but write only to the 750 and 250 mb disks. The 250 will read and write both 250 and 100 mb disks. These drives are portable and rugged.

Another method of data storage are "memory sticks". These are small, portable devices that act like memory expansions that plug into USB ports. They often look like something that would be placed on a key chain. They may have up to 250mb of data storage or more. They are fast, portable, and so far have proven reliable. They are easy to use especially on computers running Windows XP or Windows 2000. Older Windows versions often require a special program or driver for these to operate.

If you use CD drives for backing up, make sure that you have a second computer available that is able to read the CD's you are writing. Also, make sure the CD is set up in such a way that backups are easy to do. By this we mean they can take files sent by batch commands or you are willing to use the mouse and Windows Explorer to do your backups - EVERY DAY and in different files for different days.

If you are not confident your backups are working correctly please call us to discuss testing them.

## **Reproductive Monitoring A Discussion**

Why do we monitor reproduction?

1. Find when something about reproduction is broken
2. Evaluate the effectiveness of management changes.

If a cow that is being bred gets pregnant, whatever is being used to monitor reproduction should show an improvement. If she does not get pregnant, the monitor method should show a decrease.

Many feel that average days open (Avg DOPN) is a good monitoring tool. Certainly, most breeding programs are designed to have a short Avg DOPN. To start with it is important that all agree that Avg DOPN is calculated by subtracting the fresh date from the conception date. If a cow doesn't have a conception date, she is not included in the Avg DOPN calculation. (The logic behind this is if you wanted to know the average age of kids starting kindergarten, one would only include the kids that go to school. If you wanted to know the average life span of people in a community, you'd go to the cemetery to get your data. You don't get data from those who haven't met the end date - starting school or dying.)

Consider a three cow dairy.

Cow 1: is pregnant to a breeding at 90 DIM and is milking 200 days.

Cow 2: is pregnant to a breeding at 110 DIM and is milking 200 days.

Cow 3: is open to a breeding at 130 DIM and is milking 200 days.

What is the average DOPN? It is 100 ( $90 + 110 = 200 / 2 = 100$ ).

If cow 3 is now found pregnant to a breeding at 160 DIM, what is the new Avg DOPN? It is 120 ( $90 + 110 + 160 = 360 / 3 = 120$ ). Avg DOPN has gotten worse but the last cow got pregnant - which is good.

Now look at the same scenario using pregnancy rate. To start, pregnancy rate is calculated by dividing the number of pregnant cows by the number of eligible heat cycles. For this discussion the voluntary waiting period (VWP) will be 50 DIM. Thus, if we are looking at one cow and she gets pregnant to a 90-day breeding (cycle number 2 as shown in the chart below), her pregnancy rate is 50% (1 pregnancy / 2 cycles).

---1---	---2---	---3---	---4---	---5---	---6---		
50	71	92	113	134	155	176	DIM

So, starting with the same 3 cow dairy:

- Cow 1: is pregnant to a breeding at 90 DIM and is milking 200 days.
- Cow 2: is pregnant to a breeding at 110 DIM and is milking 200 days.
- Cow 3: is open to a breeding at 130 DIM and is milking 200 days.

---1---	---2---	---3---	---4---	---5---	---6---		
50	71	92	113	134	155	176	DIM

To calculate the pregnancy rate:

- Cow 1: is pregnant to a breeding at 90 DIM, or 2 cycles.
- Cow 2: is pregnant to a breeding at 110 DIM, or 3 cycles.
- Cow 3: is open to a breeding at 130 DIM, or 4 cycles.

There currently are 2 pregnancies / 9 cycles which equals a 22% pregnancy rate.

If cow 3 is declared pregnant to a breeding at 160 DIM

- Cow 1: is pregnant to a breeding at 90 DIM, or 2 cycles.
- Cow 2: is pregnant to a breeding at 110 DIM, or 3 cycles.
- Cow 3: is pregnant to a breeding at 160 DIM, or 6 cycles

Now there are 3 pregnancies / 11 cycles for a 27% pregnancy rate. This monitor method shows an improvement when the desired cow got pregnant. Average DOPN indicated the breeding was getting worse.

It is also very important to remember the economics of reproduction and what it means to a dairy. In most cases, we find that the day the average cow gets pregnant, her value increases by about \$300. This "pregnancy value" increases as the calf gets bigger so that on average, when the cow freshens it is equal to the cost of replacing a cull cow (replacement cost minus cull beef cost) or about \$1000. Many have asked, "What is the value of increasing a pregnancy rate by one percent?" There are many ways to look at this but here is one simple approach.

If a 1000 cow dairy has a 15% pregnancy rate, it could normally have somewhere between 25% to 30% eligible to be pregnant during any given 21-day cycle. If we say that averages 300 cows, 15% or 45 will get pregnant during each cycle. If the rate goes up 1% then that will be three extra cows per cycle. Assuming 17 21-day cycles in a year, that is 3 x 17 or 51 extra pregnancies. This multiplied by \$300 (minimum average pregnancy value) is over \$15,000 or about \$15 per cow per year for each 1% increase in pregnancy rates. Therefore, one could spend quite a bit of money on reproduction as long as the benefits of increased pregnancy rates followed.

There are many variables in this scenario. First, the lower the pregnancy rate, the higher the pregnancy value of the next cow that gets pregnant. Generally, the more of any "thing" one has, the less valuable each increment of that "thing" is. This applies to pregnancies also. A dairy that is having breeding difficulties will pay a lot to get the next cow pregnant while one that has a good breeding program will justifiably look with suspicion at spending more money for improvement. The value of getting the next cow pregnant will vary from almost \$800/ pregnancy in a poor breeding herd (5% pregnancy rates) to about \$200/ pregnancy in an excellent breeding herd (35% pregnancy rates).

The second factor is that the increase of 1% represents a different percentage increase depending on where the breeding performance starts. If one has a 10% pregnancy rate, increasing it 1% to 11% will produce 10% more pregnant cows. If one starts with a 20% pregnancy rate, going to 21% will produce only 5% more pregnant cows.

A third variable that goes along with this is that the lower the herd pregnancy rate, the higher the percent of the herd (and therefore the actual number of cows) that are eligible to get pregnant. As the pregnancy rates increase, there are less additional cows that will get pregnant for each 1% improvement. This last variable has only a finite affect on the value of changing pregnancy rates. There quickly comes a point when the faster cows get pregnant, the faster they will calve again and become eligible to breed the next time.

In summary it can be shown that the cost of good reproduction can almost never be too much. Obviously, spending a lot of money with poor success is bad. Not spending money and having poor breeding is not much better. The profits of a good breeding program (as defined by a high pregnancy rate) are well worth all reasonable expenses.

### Pregnancy Risk Report – What’s Your Herds Pregnancy Rate?

The Pregnancy Risk report makes it easy to determine your herd’s pregnancy rate. Go to the Rpr+Cul menu and select Pregnancy Risk to run the Pregnancy Risk report.

The Pregnancy Risk report breaks the past year into 21-day intervals and determines what percentage of the cows eligible to be found in heat or become pregnant are bred or become pregnant in each interval. Additionally it counts the number of cows that were pregnant in an interval that aborted later.

Date	Ht Elig	Heat	Pct	Pg Elig	Preg	Pct	Aborts	25	50	75
11/21/00	54	26	48	54	12	22	0	P	H	
12/12/00	46	23	50	46	8	17	2	P	H	
1/02/01	48	26	54	48	14	29	1	P	H	
1/23/01	40	29	72	40	13	32	1	P		H

The columns of the Pregnancy Risk report are defined as follows:

- Ht Elig - Number eligible to be in heat
- Heat - Number found in heat or bred
- Pct - Percent of eligible heats that were observed
- Pg Elig – Number eligible to become pregnant
- Preg – Number that became pregnant
- Pct – Percent of eligible cows that became pregnant (Pregnancy Rate)
- Aborts – Number of cows that were pregnant in an interval and were later diagnosed open.

Only eligible cows are included in the Pregnancy Risk report. A cow is considered eligible in an interval if she is:

- Greater than 50 days in milk.
- Known to be open at the start of the period.
- Not marked as Do Not Breed prior to or during the interval.
- Present at the end of the 21-day period (not sold/dead).
- Inseminated before or during the interval and has a known outcome - open or pregnant.
- AI bred cows only. Bull breedings are not included.
- Lactation > 0

The results for a given interval will change over time. This is due to additional reporting of pregnant or open cows. Unconfirmed breedings are only included in an interval once the outcome of the insemination is known.

Another common situation is when the number of heat eligible cows is different than the number of pregnant eligible. This happens when a cow is bred in an interval but is sold before her reproductive status can be determined. In this case the cow was eligible to be seen in heat but had no chance of ever becoming pregnant.