

PCDART Tips and Tricks

What are Protocols and how does PCDART help?

Protocols are a **series of chores** to complete for each animal in a specific order. A protocol may specify a single chore or multiple chores such as “De-worm after Calving” or “Treat with Dextrose and Flush in the morning.” All dairies use written or verbal protocols to **instruct workers what to do** throughout the day.

PCDART enables the dairy manager to **develop protocols for most aspects of animal management**. After a protocol for an event is defined, the protocol should be assigned to animals that have completed the event (i.e. calved or dried) or are expected to complete the event (i.e. expected dry or expected calved).

Contrary to using reports where report specifications must identify all animals that require action, protocols are assigned to animals. Then, a report can identify the animals that require a chore on a specific day. The direct assignment of a protocol to animals is **simpler and more complete** than a series of reports with convoluted controls.

What types of Protocols do I need?

- **Flag** (unplanned or ad hoc events) - hoof trim or treatment for metritis, DA or ketosis
- **After Birth Date** - heifer vaccinations
- **After Bred** - preg checks
- **Expected Dry** - hoof trim
- **After Dry** - dry treat
- **Expected Fresh** - move to close-up lot
- **After Calved** - fresh cow monitoring

How do I assign Protocols to animals?

- Assign individually from PCDART’s Input Desk or Input Button in Cow Page
- Assign in a chain when an event occurs
- Identify eligible animals with report 900 (Protocols – Eligible for Enrollment)

Features

- Used Chores can be modified.
- Protocols and Chores can be entered in the PPC version of PocketDairy.
- When terminating a protocol, a termination date can be set instead of using the current date.
- When using the “Auto Terminate” feature, the event date will be used as the termination date.
- Added Vet Check as a subcommand for report 113 Cow Event List.
- Modified Report 902-Protocols Today's “To Do” to reflect in the summary section the number of chores that must be done today and the number that could be done.
- Added Meat Withholding to Report 903 – Protocols Today's Withholding
- Added selection boxes to Report 107 Animal Health List to select a Protocol, Chore or a Tech.
- Auto Enroll / Terminate: this new feature allows animals to be automatically enrolled into designated protocols or automatically removed when recording an input procedure. When using the Auto Enrollment, feature allow for chores to be designated as being done.

(Adapted from Dairy Records Management Systems)



PCDART Tips and Tricks

Data Entry Changes at the Virginia Tech Dairy

Health events and chores

Prior to this spring semester, health events and treatments were entered using the same codes. Any time a cow was re-treated for the same problem, the code was entered again, and marked as “re-treated”. Re-treated cows have a “Y” next to the event on most reports, but this can be difficult to distinguish on both standard and user reports. Individual treatments are also limited by space, terminology, and spelling so they can be difficult to track.

Now, each cow receives a health code to denote each health event, but treatments are entered as individual chores. Chores alleviate possible confusion between cows receiving treatment more than once for the same health event. Chores are selected from a drop-down menu which has advantages: 1) eliminates data entry variation, 2) enables individual chore tracking to determine drug and vaccine usage, and 3) determines variation in treatment methods by health event. Each chore also includes a technician, so questions about the event or chore for a particular cow can be directed to the correct person. Furthermore, each chore requires milk and meat withholding times, which are flagged on the cow page to prevent shipment of milk or meat containing antibiotics.

Protocol Enrollment

Use of protocols enables the farm to track cows on research studies, both for planning and IACUC records. Both heifers and cows can be enrolled in a protocol, allowing identification of available animals for future projects and location of active studies. The protocol becomes a permanent part of the cow record, but can be deactivated as it expires to prevent unnecessary backlog of several years of research. Protocols can also be “terminated” for cows failing to complete an experiment or “deleted” if the cow was dropped prior to study initiation. In the future, protocols can be created to reserve cows for upcoming experiments, providing clarity for cow allocation. Protocols will also help identify cows that need to be enrolled in multiple studies at once.

Simple report controls allow users to create reports to collect data from PCDART by protocol instead of sorting through the entire herd or individual cow pages. Protocols and chores are unique to each herd, so individuals can also create protocols and chores to track experiments on campus. Protocols can also be imported or exported between herds.

To enroll cows in protocols, provide the following information to Shane Brannock, Director of the Dairy Complex:

- Protocol Short Name (8 Character Maximum)
Example – *9BAC1* represents 2009, Ben Corl, and his 1st on-farm experiment of the year
- Protocol Description (30 Character Maximum)
Examples – *Stamey #12-345-DASC* represents the responsible grad student and IACUC # or *Mullarky #67-890-DASC* represents an entire lab group and IACUC #
- Location
Examples – Calan pens, Calves, Heifers, Herd, Metabolism, or Misfits
- Proposed experiment start date
 - provide potential window (# days) for delays
 - if start is event based (ie, calving), provide event for starting individual cows
- Proposed experiment end date for all animals
 - provide potential window (# days) for delays
- Proposed cow list and total number of animals used if known



PCDART Tips and Tricks

Using Reports

Reports provide the best way to collect cow data for transfer to Excel or a SAS dataset for analysis without mistakes. Collecting data from cow page to cow page is timely and requires repeated entry of the same data, which causes mistakes. In the report snapshot, health events, treatments, and chores are listed for cow 3881. On 2/19/09, 3881 was cultured in the left front quarter for mastitis. The quarter is noted in the health code and in the remarks. The T in the health codes indicates whether the incidence was a retreatment, Y, or new incidence, N. So, on 2/21/09, Pirsue was given as a re-treatment. The culture result remains unclear. Remarks will be used to denote the treatment plan, but chores will denote the actual job being done, thus causing the list of chores to be organized by date. Culture results are entered as chores so that incidence rate may be calculated.

Health events and chores for 3881:

| ** Last ** | | Most Recent Health Code | | | | First Prior Health Code | | | | | | | |
|------------|---------------------|-------------------------|--------|--------|-----|-------------------------|------|---|---------|--------|------|---|------------|
| * Status * | *** Chores Done *** | Current Lactation | | | | Current Lactation | | | | | | | |
| Index | Cde | Date | MMDDYY | Chores | Tch | MMDDYY | Code | T | Remarks | MMDDYY | Code | T | Remarks |
| 3881 | 2 | 9-26-08 | 022109 | PIRSUE | CC | 022109 | MLFQ | Y | PIRSUE | 021909 | MLFQ | N | CULTURE LF |
| 3881 | | | 022209 | PIRSUE | CC | | | | | | | | |
| 3881 | | | 022309 | PIRSUE | | | | | | | | | |

For the following report, the difference before (4091) and after (4058) dry treatment protocols and chores demonstrate the clarity of treatment received:

| VA TECH - 52606014 Ref:03-31 | | | | | | | | | | | | |
|---------------------------------|-------------------|-------------------------|----------|-----|-------------------|-------------------------|---|----------------|--------|------|---|------------|
| Stat *** | | Most Recent Health Code | | | | First Prior Health Code | | | | | | |
| *** Chores Done *** | Current Lactation | | | | Current Lactation | | | | | | | |
| Index | Code | MMDDYY | Chores | Tch | MMDDYY | Code | T | Remarks | MMDDYY | Code | T | Remarks |
| 4091 | 1 | 031109 | Endovac | WS | 020609 | DRYT | Y | ENDOCEFADRIORB | 111508 | MLFQ | 3 | ADSPEC CMP |
| 4091 | | 031109 | SG-4 | WS | | | | | | | | |
| 4058 | 1 | 022409 | CEFA-DRY | AU | 070808 | BRPG | Y | LUT | 062508 | KETO | Y | CMPK AAS |
| 4058 | | 022409 | Endovac | AUT | | | | | | | | |
| 4058 | | 022409 | Orbeseal | AUT | | | | | | | | |

Animals enrolled in specific protocols can be printed exclusively on a report using simple drop-down control DBIs:

Controls / Filters | Subgrouping

Limit or Control Which Animals to Include on the Report

| DBI | Description | Value |
|-----|---------------|--|
| 343 | Protocol Name | 9BAC1 Upper |



PCDART Tips and Tricks

Using Reports with Health:

Standard Reports for Health

- 105 Health Summary
- 107 Animal Health List

User Reports—Health Database Items (DBIs)

DBIs to List

- 126 Most recent hlth event
- 127 1st prev hlth event
- 128 2nd prev hlth event
- 129 Most recent hlth evntLife
- 130 1st prev hlth event – Life
- 131 2nd prev hlth event – Life
- 132 3rd prev hlth event – Life
- 135 All hlth events – Cur
- 335 All hlth events – Life
- 685 Health/Status events (multiple controls)

Extra Control Features

- Display Health Events, Chores or Both
- Display Health Events, Chores or Both

Control (and Subgroup) DBIs

- 37 Health code – Cur Lct
- 38 Health code - Lifetime
- 47 Days since last hlth event
- 331 Health Remarks – Cur Lct
- 332 Health Date – Cur Lct
- 333 Health Remarks - Lifetime
- 334 Health Date – Lifetime
- 353 Count-Selected Hlth item

Using Reports with Protocols:

Standard Reports for Protocols

- 900 Protocols – Eligible for Enrollment
- 901 Protocols – 5 Days “To Do”
- 902 Protocols – Today’s “To Do”
- 903 Protocols – Today’s Withholding
- 904 Protocols – Missed Chores

Extra Control Features

- Not Past Earliest Chore, Not Past Latest Chore, All
- Select individual protocols by name
- Number of Days to List, List Full or By Chore, Animals or Summary
- Select individual protocols and chores by name
- List Full or By Chore, Animals or Summary
- Select individual protocols and chores by name
- Milk or Meat “OK” or “NOT OK” to use
- Select time period
- Select individual protocols and chores by name

User Reports—Protocol DBIs

DBIs to List

- 339 Chores To Do
- 342 Protocol Assigned
- 349 Chores Done
- 395 Chores and Withhold Times
- 396 Date Milk is OK
- 397 Date Meat is OK
- 398 Treated – Withhold Milk
- 399 Treated – Withhold Meat

Control (and Subgroup) DBIs

- 340 Chores To Do Name
- 341 Chores To Do Next n Days
- 343 Protocol Name
- 344 Protocol Trigger Date
- 345 Protocol Enrollment Date
- 346 All Chores Done
- 347 Past Last Chore Date
- 348 Protocol Lact Control
- 350 Chore Done Name
- 351 Days Since Last Chore
- 393 Days Since Last WH Chore
- 393 Select Withhold Milk/Meat
- 398 Treated – Withhold Milk
- 399 Treated – Withhold Meat



PCDART Tips and Tricks

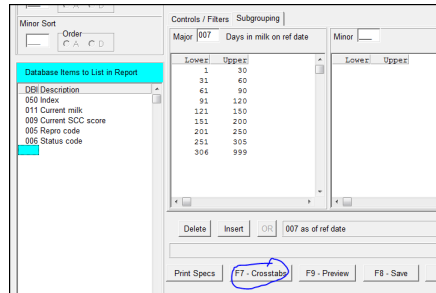
Sharing Reports

Reports can be imported and exported between computers to prevent rebuilding a set of complicated reports from scratch. To start, the cursor must be on any user report. Then, select the report menu and “import” or “export” reports depending on your needs. A new window will appear allowing selection of any or all user reports for import or export to or from a *.rpt file. Simply save the file to a flash drive or e-mail it.

Subgroups and Crosstabs

The subgrouping tab is hidden beside the controls/filters, but provides the opportunity to list cows within 1 or 2 subgroups. Using subgroups on any user report will allow the report to be viewed as “crosstabs”. “Crosstabs” provides both a grid view and graph of the data. Clicking on the individual cell (grid) or column (graph) provides a list of cows contributing to the group, and each cow in the list can be selected to go directly to her cow page. The drop-down menu at the top of the grid/graph can be used to view by various DBIs listed on the report. “Crosstabs” can be an effective way to isolate problem cows visually rather than poring over reports for hours.

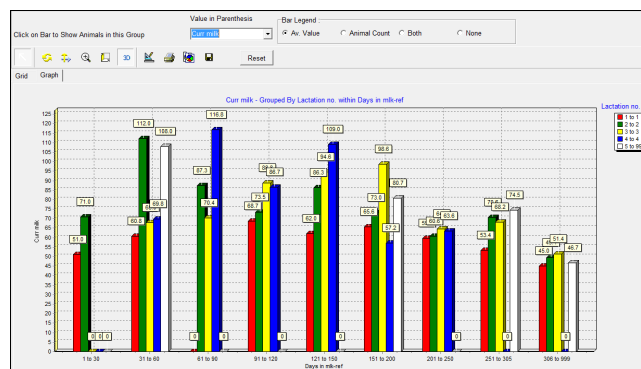
Report set up:



Grid view:

| Value in Parenthesis | | Percent of - | | | | | | | | |
|---|------------------|--------------|-------------|-----------|------------|------------|------------|------------|------------|--|
| Click on Cell to Show Animals in this Group | | Percent | Total Count | | | | | | | |
| Percent of Total Count - Grouped By Lactation no. within Days in milk-ref | | | | | | | | | | |
| Grid | | Graph | | | | | | | | |
| (% of Total Count) | Days in milk-ref | | | | | | | | | |
| Total: 179 | 1 to 30 | 31 to 60 | 61 to 90 | 91 to 120 | 121 to 150 | 151 to 200 | 201 to 250 | 251 to 305 | 306 to 999 | |
| Lactation no. 1 to 1 | 7 (4%) | 7 (4%) | | 12 (7%) | 2 (1%) | 8 (4%) | 7 (4%) | 18 (9%) | 22 (12%) | |
| 2 to 2 | 2 (1%) | 2 (1%) | 1 (1%) | 1 (1%) | 3 (2%) | 7 (4%) | 12 (7%) | 3 (2%) | 9 (5%) | |
| 3 to 3 | | 3 (2%) | 1 (1%) | 2 (1%) | 3 (2%) | 4 (2%) | 8 (4%) | 4 (2%) | 8 (4%) | |
| 4 to 4 | 1 (1%) | 2 (1%) | 3 (2%) | 3 (2%) | 1 (1%) | 4 (2%) | 1 (1%) | 1 (1%) | 1 (1%) | |
| 5 to 99 | 1 (1%) | 1 (1%) | | | 3 (2%) | 1 (1%) | 1 (1%) | 1 (1%) | 1 (1%) | |
| Overall | 11 (6%) | 15 (8%) | 5 (3%) | 18 (10%) | 9 (5%) | 23 (13%) | 32 (18%) | 25 (14%) | 41 (23%) | |

Graph:



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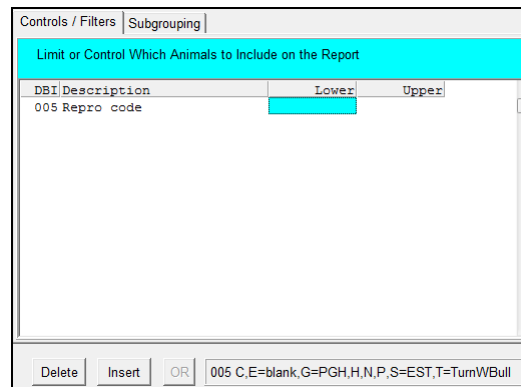
Searching for DBIs?

Database items are listed on the right side of the new report window. They are grouped in tabs by category, including alphabetical and numerical lists of all DBIs. Rather than scrolling through these lists, it is often faster to use the search button to type key words. To do this, place your cursor in “Database items to list in report”, “Controls/Filters”, or “Subgroups” and use the F10 key or click on Search in the top right corner. Placing your cursor in the category you need returns only DBIs that can be used. Unfortunately, not all DBIs are able to list, control, and subgroup on reports.

Control Limits

Lower and upper limits are often shown in the bottom of the control box of the screen. For repro code, it shows the letters C, E, G, H, N, P, S, and T are available, along with some description. Setting the lower at E and upper at T will include all cows except C, because the controls work in a sequential order. Another way to exclude culls is to type “NOT” in the lower and “C” in the upper. Dates can be used for appropriate DBIs in the yyyyymmdd format as indicated in the information box. When no information is provided, the controls limits are expected to be numeric values. Explanation of each DBIs codes can be found in PCDART Help. AND and OR statements can be used between DBI sets to include cows on the report for multiple or separate reasons, which is particularly useful for herd check or cull lists.

Report Controls/Filters:



| DBI Description | Lower | Upper |
|-----------------|-------|-------|
| 005 Repro code | | |

Delete Insert OR 005 C,E=blank,G=PGH,H,N,P,S=EST,T=TurnWBull

Additional Support

- 1) Review the existing chores and protocols in the Virginia Tech herd
- 2) Look in PCDART Help
- 3) Contact PCDART support (Free!):
E-mail drms@ncsu.edu or drms@iastate.edu
(screenshots or attached reports are helpful)
Call (919) 661-3120

