

Custom Reports in DairyCHAMP 3.0

The Mysterious "Where Clause"

Elegance is hard to come by in DairyCHAMP's Custom Reports, and the reason for that is that they are so powerful. In allowing for thousands, or Lord Help Us, millions of combinations of report options, user-friendliness is sometimes not all it could be. A good example of this is the Where Clause.

We try to build as much filtering of the report into the F3 Filter (found in the Custom Report Set Up screen, F3 key). Here the "big filters" are dealt with: Cows/Heifers/Bulls; Current/Complete lactations; etc. If you need something more specific than the F3 can provide, then you have to graduate to the Where Clause.

The Where Clause is where you will limit the population under investigation further than the F3 Filter Options. Think of it as a cross between your everyday language and a mathematical equation.

A blank Where Clause (or "Condition Statement") means that you are not narrowing the population any more than your F3 Filter Options dictate. The Where Clause can limit the report to just one animal or just one event, or any range of animals or events.

The database is linked to the individual cows' records, and to each data entry field within those cows records. Thus, wherever you have entered something in a cows record, in Custom Reports you can access that information. If you put a treatment for mastitis in a cow's record, treating just the left rear quarter, you can limit your analysis to just those animals which received treatment in the left rear quarter, through the Where Clause. Note that your analysis itself does not necessarily have to involve the treatment -- it could be anything from displaced abomasums to lameness incidence to milk production -- you are only limiting the population through the Where Clause.

In writing your Where Clause, think of it as a cross between your common language and a mathematical equation.

Let's build one. Say you want a list of second lactation cows and older, that gave less than 50lbs of milk at the last test, and are currently more than 200 days in milk. In order to be included, she must fulfill all three of these criteria.

Lactnum ≥ 2 is the start. Lactnum > 1 would also have worked, but we have opted to say, in shorthand, "Lactation number is greater than or equal to 2". Here is an important step: The use of the word "and". Whether you use the word AND or the

word OR in your Where Clause can dramatically affect the outcome. We want to use "and" in this case, so now add in **MMLastMilkWgt < 50** and then immediately add in **and DIM > 200**.

Let's look at a slightly more complex use of the And/Or feature: If you were to write out a Where Clause of **DaysOpen > 150 AND NumServs > 3** the list would include all animals that were both open more than 150 days and had been served more than three times in this lactation.

By using a Where Clause of **DaysOpen > 150 OR NumServs > 3**, the list would be much longer since it would include all animals which are more than 150 days open regardless of how many times they have been bred, plus it would include all those animals which had been bred more than three times in this lactation regardless of their reproductive status. A significantly different list.

The use of parentheses adds further power to the Where Clause. The statement **(DaysOpen > 150 OR NumServs > 3) AND MMLastMilkWgt < 50** would produce a list of cows that fulfill either of the first two factors AND the last factor.

So a cow that was less than 150 days open, but had been served more than three times and gave less than 40 lbs of milk at the last test would be included, but if that same animal had only been served twice, she would be excluded.

Wild Cards

A Wild Card is a symbol in the Where Clause that broadens your search to find anything that "begins with", "ends with" or "contains".

For example, if you were looking for a list of all the abscess problems in the records, you would have to itemize in the Where Clause each of the three abscess diseases listed in the default dictionary, unless you use the Wild Card option.

By typing in a Where Clause of **DiseaseName = "ABSC*"** the list will include all cases of any type of abscess problems, in this case, abscess foot, abscess hock, and abscess udder.

You can also use the Wild Card to avoid typing in a long ID or long word when you know that the first few letters or numbers are unique.

Syntax

An operator defines the relationship between the Report Item and the constant in the Where Clause

= equal to

<> not equal to (less than or greater than)

> greater than

>= greater than or equal to

< less than

<= less than or equal to

+ addition

- subtraction

* multiplication

/ division

EXISTS This operator selects all records in which a particular variable has a value. For example, use the Where Clause **EXISTS (AIsemenID)** to list services where a service sire has been recorded and to exclude all those services where a service sire has not been included.

FAILS This operator selects records in which a particular variable has no value. For example, to select lactation records where there has not been a dry off event, use the Where Clause **FAILS (DryOffDate)**.

AND The data will be selected only when both expression 1 and expression 2 are true (the first part and second part of your Where Clause)

OR The data will be selected when either expression 1 or expression 2 are true, or both are true.

NOT This operator is used to select the reverse value of an expression