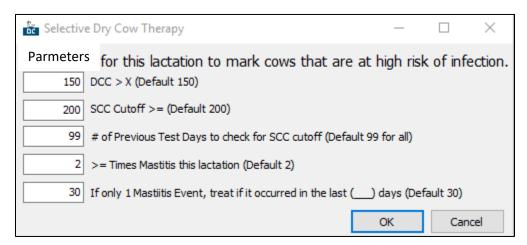**QUICK START GUIDE (version 3-16-2020)**

DairyCOMP305 Selective Dry Cow Protocol module

SECTION 1: Setting up

Command: ECON\SDCT

Currently, 5 parameters determine the output of the algorithm:

1. DCC
   This determines the minimum days carried calf (DCC) an animal must be in order to be assigned a Selective Dry Cow Therapy Code (SDCTC) of "Y" or "N"
       "Y" – Yes, animal likely has a subclinical mastitis infection based on the algorithm
       "N" – Not likely to have a subclinical mastitis infection based on the algorithm
2. SCC Cutoff
   a. For a given testday, this is the minimum SCC an animal must have surpassed to be considered likely infected.
   b. The default value is a testday SCC >=200,000 indicates a likely subclinical infection.
3. Previous Test Days to Check for SCC Cutoff
   a. This is the number of test days previous to the current date that DairyComp checks to see if an animal has surpassed the SCC Cutoff during any single test date; this is used with the parameter above
   b. If set to 99, all test days in the current lactation will be considered
4. Times Mastitis this Lactation
   a. For the current lactation, this is the minimum number of Mastitis Event incidences that the animal must have surpassed to be at-risk of infection at dry-off (SDCTC=Y)
   b. The Mastitis Event GAP is respected in this count of Events
5. If only 1 Mastitis Event, cow considered to be at-risk of infection at dry-off (SDCTC=Y) if it Occurred in the Last X days
   a. For the current lactation, this is the minimum number of days from today's date a Mastitis Event must occur for an animal to be at-risk of infection at dry-off (SDTC=Y)

By: Paul Rapnicki, Grande Cheese; Daryl Nydam, Cornell University;
Michael Capel, Perry Veterinary Clinic; Robert Bushnell, Valley Ag Software

Key items created in DC305

ITEM	Description	Details
SDCTC	Selective Dry Cow Therapy Code	Automatically calculates and displays the SDCT Code; Y= Yes at high-risk of mastitis infection, N= Not at high-risk of mastitis infection, and " "=Does Not Meet Any Criteria
SDCTD	SDCT at Dry off	Stores the SDCT code used at dry off for this lactation; populated and stored in the DRY Event
PSDCT	Previous SDCT Code at Dry off	Stores the SDCT code used this lactation at dry off so that the user can see changes in the SDCT code from last lactation and this lactation
DRYPR	Last Dry Protocol #	Stores the protocol number used with the DRY Event for this lactation
PDRYP	Previous Dry Protocol #	Stores the protocol number used with the DRY Event during FRESH Event entry so that the user can see protocol changes in the SDCT from last lactation and this lactation

Key points

- Use VAS support to initially setup ECON\SDCT module in DC305. This is important to ensure items are setup properly and needed changes are made to associated commands.
- Veterinarian of record and dairy producer review the 5 parameters and determine what is appropriate for the herd
- Veterinarian of record must determine appropriate DRY protocol to use for two different populations of animals:
  - Cows that are high risk of subclinical mastitis infection at the time of dry-off (SDCTC=Y)
  - Cows that are NOT likely to have a subclinical infection at dry-off (SDCTC=N)
- VAS support can assist with setting the veterinarian's protocols using ALTER\7 or the CowCare module.
- Place the item SDCTC on the list of cows due to dry, along with other items that can be used to help with determining the proper DRY protocol to select.
- Though supported by science, the SDCT algorithm is a work in progress and further research may discover new parameters for use in the algorithm. Users need to understand the assignment of the SDCTC is determined based solely on the user input of the five listed constraints.
- When entering the DRY event, users select the DRY protocol assigned based on the criteria agreed upon with the veterinarian of record.

References:

Vasquez AK, Nydam DV, Foditsch C, Wieland M, Lynch R, Eicker S, Virkler PD. Use of a culture-independent on-farm algorithm to guide the use of selective dry cow antibiotic therapy. *J Dairy Sci*. 2018

Rowe S, Godden S, Nydam DV, Gorden P, Lago A, Vasquez A, Royster E, Timmerman J, Thomas M. Randomized controlled trial investigating the effect of two selective dry cow therapy protocols on udder health and performance in the subsequent lactation . *J Dairy Sci*. 2020

By: Paul Rapnicki, Grande Cheese; Daryl Nydam, Cornell University;
Michael Capel, Perry Veterinary Clinic; Robert Bushnell, Valley Ag Software