So, what do you mean by "Dairy Systems"?

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In my limited travels through the state thus far, since taking on my new role as a state dairy extension specialist in "dairy systems," I have already observed that using the term "dairy systems" can lead to some confused looks. In reality, many people have different opinions about what this term means. The best analogy may be to think about a dairy farm as a puzzle. In building this puzzle, there are many pieces that have to be put together. If you are missing a piece of the puzzle, the picture is incomplete or at least won't look as good as it would if every piece were there.

So, what are the pieces of the puzzle that need to be put together to build a dairy system? The main parts of the dairy system are shown in the figure below. Notice how there is overlap between the circles in this figure. This is meant to demonstrate that all parts of the dairy system overlap and influence each other. Making changes in one part of the system may result in corresponding changes (desired or undesired) in another part of the system. For example, changing the nutrition program can have positive or negative impacts on milk quality, because nutrition influences the cow's immune system. Or changes in human resources management could influence the reproductive program (hiring a new employee who doesn't understand the value of heat detection). "Dairy systems" essentially involves looking at how the pieces of the dairy puzzle fit together through identification of areas of opportunity within any part of the system. I actually prefer the term "herd management science" defined as the process of maximizing farmer welfare (including economic and personal goals) by deciding the best way to combine resources on a farm given specific circumstances and constraints.

Of course, the dairy system includes traditional areas such as nutrition, reproduction, genetics, milk quality, and herd health. However, if you notice in the figure, it also includes less familiar areas like risk management, business management, human resources management, business strategy, and animal well-being. These areas are "the rest of the story" for how successful dairy producers will survive and thrive in the future. Gaining a better understanding of the economics of on-farm decisions will help dairy producers to remain competitive. The key to successful dairy management is thinking more about the crossroads between cow biology and business management. And, this is where I, as a "dairy systems" dairy specialist, hope to provide valuable information and programming for Kentucky dairy producers. Whether a producer is milking 30 cows and needs help with basic cow comfort or milk quality problems or his/her neighbor is milking 500 cows and wants to know more about risk management or investment analysis, a dairy systems approach toward identifying opportunities or solving problems is beneficial.

