

Take Home Messages Heard at this Year's Dairy Partners/Young Dairy Producer Meeting



College of Agriculture,
Food and Environment
Cooperative Extension Service

By: Donna M. Amaral-Phillips, Ph.D.

The KY Dairy Partners and Young Dairy Producer meetings held in Bowling Green are always a great exchange of ideas and updates regarding the Dairy Industry, not only as they relate to KY but throughout the US and globally. This year's program again delivered in these areas. For those of you who were unable to attend, a brief summary of some of the speakers' main discussion points are summarized in this article.

Animal Care- What You Need To Know

Dr. Charles Townsend began his discussion reemphasizing how public perceptions impact animal agriculture, including the dairy industry. The public wants assurances that their food is produced in a manner consistent with their values. To address this, the dairy industry proactively implemented the validation of animal care practices, commonly through application of the FARM program and its validation mechanisms.

Dr. Townsend also discussed that dairy producers need to continue to be proactive when it comes to animal care, employee management, environmental stewardship and judicious use of antibiotics. This begins, but does not end, with obtaining signed employee agreements that employees will report animal abuses to owners. He also suggested that farmers use video surveillance systems. In addition, farmers need to identify risks on their dairies including knowing withholding/withdrawal times for antibiotics, perform their own audits to assess areas needing improvement, and continue to develop relationships and communication channels with their neighbors.

Managing Your Components- Butterfat

Dr. Darren McGee from Elanco discussed some of the risk factors associated with depressed milk fat. A majority of these risk factors are associated with changes in the rumen environment of the cow. These changes can result in a decrease in the production of milk fat by cells within the udder.

He noted that most of the risk factors are known, but they are difficult to identify and then correct on-farm. These risk factors can be attributed to 3 categories: herd demographics, diet-related factors and management. He covered some key control points for each of these 3 categories. As it relates to herd demographics, cows have a lower butterfat percent in the summer and from 60 to 90 days in milk. Several dietary factors impact milkfat, but the top on the list is cows sorting their feed resulting in an inconsistent and lower dietary fiber intake. In addition, depressions in milkfat might be seen when shifting between forage sources, for example when opening a new silo that may be wetter than the previous silo storage structure and adjustments in amounts fed were not made accordingly.

Dr. McGee spent most of his time discussing management factors that influence milk fat. As it relates to feeding a TMR, sortability of the TMR not only at time of feeding but also later in the day, uniformity of TMR mix, load order for TMR mixes, and accuracy of feeding scales can

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impact milkfat content. In addition, stocking density, time away from the "home" pen, and as importantly, heat abatement practices influence milkfat. He reminded the audience that it is not one particular practice that reduces milkfat synthesis, but a combination of risk factors.

Economics of Different Milking/Production Systems

Dr. Larry Tranel from Iowa State Extension Service talked both days of the conference on the economics of different production (conventional, organic, or only grass-fed organic systems) or milking systems (low-cost parlors vs robots). Irrespective of the system a farmer chooses, Dr. Tranel encouraged the audience to practice optimistic thinking where you think through how spending money can make you additional profit. Keeping a positive focus is very important at all times in any business.

Dr. Tranel discussed the difference between cash flow and profitability. Business operators should always calculate profitability not just cash flow. Profitability entails covering costs while accumulating wealth. When calculating profitability, his preference is to calculate a return per hour for unpaid labor. As you would expect, profitability of any system is influenced by milk price. For example, a change of conventional milk price by \$1/cwt would have resulted in unpaid labor cost per hour similar between organic and conventional herds in the herds he studied in 2016.

On the second day, Dr. Tranel discussed robotic milking systems and low cost parlors. An interesting number was that milking accounts for 40 to 50% of total labor costs. As expected, robots lowered labor costs by about 75%. With robots, feed costs were expected to be higher as a result of improved milk production and higher supplement costs associated with pelleting the grain fed through the robot. In addition, teat dip costs were higher in robots. Dr. Tranel indicated that farmers with robots should watch how a robot dips teats to ensure good coverage to help prevent increases in SCC.

Throughout Dr. Tranel's presentations on both days, he emphasized that all systems can work. The key is to manage any system you choose as a business and evaluate them as such. Using financial information allows one to identify successes and issues early.

Reproductive Management

On both days, Dr. Jeff Stevenson, professor at Kansas State University, spoke about the recent discoveries and tried and true methods which improve the success of getting cows bred back in a timely manner. He made the statement we all know too well, "if cows do not get pregnant, it is hard to maintain revenue". Generally, the optimum window for getting cows pregnant is between 80 and 150 days in milk. First-calf heifers may benefit from a longer calving interval than mature cows. Using either activity monitors or timed AI programs can result in equal success of getting cows pregnant. With either method, one should expect approximately 2/3rd of cows to become pregnant. Approximately 20% of cows do not show estrus at the usual timing of the first service, thus the use of an Ovsynch or Presynch/Ovsynch protocol may be necessary. Dr. Stevenson reminded the audience that all injections should be given IM using an 18 gauge, 1 ½-inch needle to deliver the solution deeply into the muscle.

The key in getting cows pregnant is the early identification of open cows. Open cows are back in heat 19 to 25 days after previous heat or breeding and need to be rebred. To identify those open cows, timely and frequent pregnancy checks are needed. Transrectal palpation to identify pregnant/open cows can be done as early as 35 to 40 days after AI whereas transrectal ultrasound can be used as early as 28 to 32 days after AI. With either method, Dr. Stevenson ideally recommends that pregnancy checks be done weekly. Blood or milk tests can also be

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used to diagnosis pregnancy, ideally 30 to 40 days after breeding. Dr. Stevenson recommended that pregnancies be reconfirmed at least 4 to 6 weeks after the initial early pregnancy diagnosis and again at 200 days of pregnancy or before dry off.

With early pregnancy diagnosis, higher embryo losses are expected since you are actually measuring the losses during early pregnancy. Reproductive physiologists expect to see 10 % fetuses lost between early palpations/ultrasound diagnosis and the follow up pregnancy diagnosis at 60 to 80 day post AI. Embryo losses are not related to a cow's milk production or the use of timed AI versus use of estrus detection to determine when to breed cows. Cows with mastitis during the first 45 days of pregnancy are 2.7 times more likely to abort during the next 90 days. Embryo losses are also higher in cows that lose one body condition score or more between calving and AI, reemphasizing the importance of management during the transition from the dry period to lactation.