Paying it Forward with a Successful Transition Cow Program

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Summary and Implications

This educational program guided decision-making process to assist small, beginning, traditional commercial producers to determine best management practices in their transition cow program. Focused topic areas included facilities, nutrition, health, records, financial and production variables. Twenty-five risk management surveys, 7 on-farm workshops, 3 on-farm demonstrations of transition cow monitoring tools, 3 on-line learning modules, and 60 individual visits were used to increase awareness, understanding, and decision-making ability. Following the educational programming along with numerous articles published in national dairy magazines, 48 producers have begun to develop or implement change to their transition cow program best suited for their management, labor, and financial structure. Long term application of these management changes includes changes in reduced stress, reduced fresh cow problems, and improved milk production through a better start of the cow's lactation.

Introduction

While transition cow management encompasses only 20-30% of the herd, it ultimately influences milk production and health of 100% of the cows. A 2012 Iowa Dairy Survey conducted by ISU Extension and Outreach gave producers an opportunity to prioritize topics in areas they would like to receive more education. Training areas producers noted included: mastitis prevention/treatment, reproduction management, nutrition, herd health, facility management, and record keeping. Managing the transition cow at dry-off through 30 days after calving include many of the training topics prioritized by Iowa dairy producers. Dairy producers need facts and tools when asking their lender for money to build or remodel barns without adding any more milk cows. They must make the case for functional facilities that optimize their ability to provide cow comfort and increase on-farm profitability. In 2005, a freestall survey on 40 Wisconsin dairy farms found that facilities can optimize a fresh cow's performance through changes in social behavior, bunk space, type of bedding surface and stall resting space.

The ISU Dairy Team embarked on a long term educational project to assist dairy producers better manage the transition cow period.

Programmatic Response

The ISU Extension and Outreach Team, aided by a NCR Risk Management grant, reached every dairy producer in the state of Iowa, and many outside the state with educational newsletters, factsheets, and promotional materials to help increase knowledge to make more profitable decision of their transition cows. Twenty-five invited dairy producers filled out a survey of transition cow management practices and results were used to evaluate their herd compared to industry benchmarks. Seven factsheets were developed based on industry benchmarks and needs of the dairy producers who filled out the risk management survey. This information was presented to 200 dairy producers and industry personnel at 7 field day events in NE and NW Iowa. Approximately 200 producers who attended Iowa Dairy Days in 2016 were also presented with the information. Three on-farm demonstrations of fresh cow monitoring tools were used to assist producers with evaluating their current and future transition cow program. On-line learning modules were also developed to reference and coincide with factsheets developed. These learning opportunities achieved: 1) a better understanding of how a successful transition cow program can reduce stress, reduce fresh cow problems, and improve production, 2) the ability to make an informed management decision that is best for them, and 3) enhanced animal performance and farm profitability.

Result and Discussion

Producers at Iowa Dairy Days rated their increased knowledge gain in transition cow benchmarks and forages used in transition cow diets, using a post-pre instrument. Producers had a 40-60% knowledge gain of these two topic areas. During the 7 field day events, producers and industry personnel attended to gain information in the areas of ketosis monitoring, vaccination protocols, milk quality, facilities, dairy records, nutrition, and day of calving. Participants could network with other producers, ask questions of host farm, and learn on-farm monitoring tools with hands-on demonstrations. A short verbal evaluation was conducted on the farm, indicating 93% of the participants rated the program excellent and found content of the field day to be very valuable. 3165 cows were represented by the producers who responded to the survey. Dairy industry representatives that attended the field days included nutritionists, veterinarians, ag loan officers. When asked how many cows they work with or manage, they reported a total of approximately 35,000 cows. Combined, this represents nearly 20% of the cows milking in the state of Iowa. Every cow needs to go through a transition period before she can start a new lactation, making this a very critical stage in the cow's life. If producers can improve their transition cow program, then they could potentially

reduce their cost of $400 per calving as stated in the relevance section above. Using that number across the 3165 cows represented by producers during the transition cow field days, this would equal $1.2 million potential reduced cost or increased profitability across the herds that were represented.

Overall, a survey was emailed or mailed to all participates during the grant project encompassing field days, workshops, and individual consultations. Acknowledgements of gained knowledge, changes made or prospective changes, and positive economic impacts included:

From the 2016 Transition Cow Field Days, I learned:

- other ways to check for ketosis besides milk
- important to monitor prefresh and postfresh cows
- managing heifers different from cow
- how to better manage and monitor a cow that is close to calving or in the process of calving
- refresher on all parts of the transition cow
- how important transition cow management is to a successful lactation
- vaccination times are important; especially considering levels of the immune system and the effects the amount of fresh air, living space, and stress will affect the start of the cow's lactation
- a lot of the transition cow spaces lack the appropriate water space and heat abatement
- selective dry cow treatment
- bunk space is very important and even more important when you mix cows and heifers
- the dairy industry still struggles with the basics of a transition cow program

57% responded that they have made changes to their transition cow program and include:

- adding headlocks
- vaccinating fresh cows 21 days precalving and heifers 30 days precalving instead of 14 days to reduce stress and allow vaccine to be more effective
- Moving cows 3 weeks prior to calving into springer pen, we now have a close-up pen
- Made more space during times of over-crowding in the prefresh pen
- In the process of designing a transition cow facility
- I am sharing this information with producers I work with
- We started CMT paddling cows at dry off to do a selective dry cow treatment, the cost associated with this would be the savings of not having to test every cow and the cost of dry cow tubes / antibiotics

Positive economic values to making these changes include:

- Since we added our close-up pen, we have had fewer problems with milk fever and udder edema
- dry matter intake has increased
- less vet calls
- less metritis and milk fevers
- increased production, healthier cow (and calf) after calving, hopefully breed back better
- cost savings and reduced dry cow treatments that are not necessary
- over 2000 pounds more milk, reduced metabolic disorders by 60%, hope to increase dry matter intake by 3-4 pounds and reduce calf mortality by 20%

43% responded they have not made changes to their transition cow program, responding they will be making changes to include:

- adding fans/sprinklers to the dry cow barn/close-up pen
- improve housing and dry cow comfort
- look at water availability
- designing a new transition cow facility

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