

DAIRY PIPELINE

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MILK QUALITY IN THE SOUTHEAST – HOW DID VIRGINIA MEASURE UP IN 2013?



As part of a large, collaborative USDA-funded Extension project called the Southeast Quality Milk Initiative (SQMI), six universities have come together with the goal to improve milk quality in the southeast US and in turn, improve producer profitability and sustain-

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ability. For each year of this 5-year project, we will evaluate milk quality parameters for each participating state in the southeast US.

To accomplish this goal, we collected bulk tank milk quality records from the state regulatory agencies for Grade A permitted dairy operations. At least one SCC and SPC were collected each month for each dairy. The greatest number of samples with a SPC of less than 5,000 cfu/mL came from VA operations in 2013 (76.0%), with the SE average at 64.6%. A total of 11.5% VA samples had an SPC between 5,000-10,000 cfu/mL; 10.9% between 10,000-100,000 cfu/mL and only 1.7% above 100,000 cfu/mL. Similarly, an increase in SPC during the summer months was seen for FL, GA, MS and TN, but not for KY and VA. The average bulk tank SCC in VA for 2013 was

263,000 cells/mL (average for DHI herds was 250,000 cells/mL), which was also the lowest average when compared to the other participating SE states. This state average was down 5.8% (16,000 cells/mL) from the 2012 data. Florida made the most improvement in SCC with a decrease of 7.4% in 2013. When we looked at SCC broken out by category, VA had the greatest percentage below 200,000 cells/mL (38.9%, see Table 1.). This was better than the SE average of 24.4% and also the US average, which was 37.3%. A total of 45.5% of VA samples were between 200,000-399,000 cells/mL; 14.5% between 400,000-749,000 cells/mL; and 1.1% above 750,000 cells/mL in 2013. Overall, Virginia maintained the best milk quality based on SPC and SCC in 2013, when compared to the other participating states in the SE. We will continue to collect and analyze this data on a yearly basis.

The next objective of this project is to conduct 96 on-farm milk quality assessments in VA. This comprehensive assessment includes an evaluation of milking equipment, milking preparation procedures, teat end condition, barn cleanliness, stall cleanliness, stall dimensions, cow cleanliness, etc. We have identified and visited a total of 26 farms, to date,

but are still looking for participants on this project. If you are interested in this portion of the project, please do not hesitate to contact me at milk@vt.edu or 540-231-4767.

—Christina Petersson-Wolfe
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2013 SCC Breakdown in Southeast US

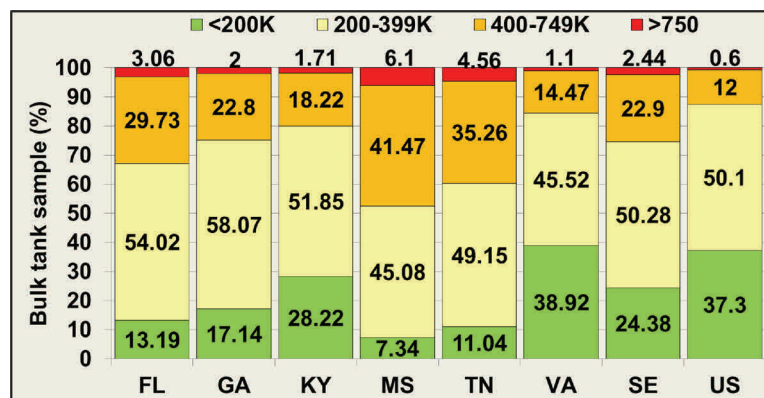


Table 1.

Upcoming Activities

See [VTDairy](#) for details.

Nov. 5, 2014

VA farm fence law workshop
Verona, VA

Nov. 15, 2014

VA Holstein Annual Meeting
Staunton, VA

Pesticide Recertification Classes

Nov. 24: 7 pm - Verona
Dec. 2: 7 pm - Harrisonburg
Dec. 3: 7 pm - Monterey
Dec. 9: 10 am - Staunton
Dec. 10: 1 pm - Dayton

Dec. 2-4, 2014

Farm to Table Conference
Weyers Cave, VA

Feb. 18-20, 2015

69th Annual Virginia State
Feed Association & Virginia
Tech Nutritional Management
"Cow College"
Hotel Roanoke
Roanoke, VA

Mar. 9-13, 2015

Area Dairy Conferences
--March 9 - Amelia
--March 10 - Harrisonburg
--March 11 - Culpeper
--March 12 - Rocky Mount
--March 13 - Marion

If you are a person with a disability and require any auxiliary aids, services or other accommodations for any Extension event, please discuss your accommodation needs with the Extension staff at your local Extension office at least 1 week prior to the event.

For more information on Dairy Extension or to learn about current programs, visit us at [VTDairy](#) —Home of the Dairy Extension Program at: www.vtdairy.dasc.vt.edu.



R.E. James,
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GROUP HOUSING FOR CALVES: IS THIS THE RIGHT SYSTEM FOR YOU?

Traditionally, preweaned calves have been raised in individual hutches or stalls. However, group housing systems have become increasingly more popular. Many producers have been successful after switching to group housing, despite the risks associated with this form of management. Why are more producers rearing calves in groups, and how can you make this system work on your farm?

One feature of group housing is flexibility of calf feeding. There are several feeding system options for this type of calf rearing. Generally, labor efficiency is increased in terms of milk volume fed per hour of labor. Therefore, these systems make it easy to feed larger volumes of milk without increasing labor requirements significantly. Mob feeding is one option that consists of using a large container with multiple nipples to deliver liquid feed to a group of calves at one time. Feeding acidified milk ad libitum is another system in which acid is added to milk to preserve it so that milk can be stored in a tank while calves access it throughout the day. Computer controlled automatic calf feeders are another alternative that allow for more control over individual calf intake, meal frequency, and monitoring. Automatic feeders recognize individual calves and feed them precise amounts of liquid feed determined by a feeding plan controlled by the producer.

Housing calves in groups also allows for expression of natural social behaviors. These systems encourage calves to play with and learn from each other. Social interactions may help calves cope with stressful events. Several research studies have shown that calves housed in groups or pairs are less stressed during handling and relocating events compared to individually housed calves. It has also been found that calves housed in groups or pairs are quicker to consume feed after weaning, indicating that they are more able to cope with the removal of liquid feed.

Despite the benefits of group housing,

there are risks associated with this system of calf rearing. Disease transfer between calves is a concern for two main reasons: calf to calf contact and improperly designed ventilation. While poorly ventilated housing increases disease risk to any calves housed indoors, the nose to nose contact between group housed calves allows them to transfer disease easily. Furthermore, it may be more difficult for employees to monitor individual calf health, since they are not being fed individually.

Regardless, group housing systems can achieve success with proper management practices. First, new calves entering a group pen must be healthy. Success starts at the freshening pen, which needs to be clean and well-bedded. Colostrum management is obviously important for calf health in any rearing system but is especially critical in group housing systems, due to the aforementioned risks. Colostrum should be collected into and fed with clean equipment, and colostrum quality should be monitored. In the calf barn, adequate ventilation is critical in preventing respiratory disease. The ventilation system must include the introduction of fresh outside air and prevention of "dead spots" in the facility where viral or bacterial pathogens can accumulate. Obtaining professional assistance to design and implement these systems is a wise investment. Facility cleanliness must also be maintained to ensure group housing success. Clean milk feeding equipment, waterers, grain troughs, and bedding are essential in keeping calves healthy. When possible, the "all-in, all-out" method should be utilized and pens should be sanitized between groups of calves. Space allotment is also important for ensuring calf success. Calves should have access to at least 30 ft² of bedded area to allow for plenty of rest. Finally, group-housed calves need to be monitored closely to detect and respond to illness in a timely manner. The time you save with more efficient feeding should be focused on managing your facilities and observing your calves diligently.

—Alyssa Dietrich, Master's student with
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