

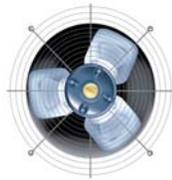
Can You Spit Into the Wind?

David R. Bray

We are now in the peak of hot, humid weather here in the Southeast. Is your cow cooling system up to the task of keeping your cows cool? There are many components to cooling cows; the first is spraying water on the cows' backs and the second most important component is air movement to evaporate the water off the cow to cool her.

Here is a Test

For proper air flow, stand halfway back from your fans and spit at the fan. If the spit hits the fan you don't have enough air flow. If it blew the chew out of your mouth you have enough air flow.



When we design a cooling system for an open barn, it is usually done by "rule of thumb." A fan blows ten times its diameter or a 36" fan blows 30 feet. A 48" fan blows every 40 feet etc. This means that in most cases, you should have enough air flow to dry the cow off and take the heat with it. Fans need to be placed over the feed face. You also need fans over the free stalls to provide air movement and they will help dry the beds out. If your barn is not at least 16 feet at the eaves, has a 4:12 roof pitch and a 3 foot wide ridge opening, it may need more fans to ventilate the hot air out of the barn and evaporate the water off the cows' backs. Many tall barns can get by with one fan over the free stalls. Not so tall barns need two fans over the free stalls.

Should I be Green?

Being green can be good or bad. You can be "green with envy" or green like "Kermit the Frog." Or just be smart about what you do.

Fans are rated for air flow at different static pressures. As a general rule, the least expensive fan will be the least efficient. Some of the old 36" fans we have used are very inefficient but some are very efficient.

There several tests that are done for efficiency. The secret is to make sure the testing was done by an independent testing service. Fan manufacturers may do their own testing but the results may be biased.

CFM/watt is a good standard to judge a fan because it standardizes any size fan. The higher the CFM/watt rating, the more efficient the fan, so you can compare 36" fans to 48" fans for efficiency.

Fans can lose 40% of their efficiency by being dirty. Belt driven fans can lose up to 40% of their efficiency because the belts are not tightened properly. Along with the losses of being dirty you'll have bigger losses. Fans with plastic shutters are more often efficient because metal shutters may have linkages that corrode and not open fully.

Saving Green

Effectiveness of most fans varies by a factor of two. The annual cost of operating most 36" fans for 240 days at \$0.10 per kilowatt electricity rate is about \$300 for the most efficient fans and about \$600 for the most inefficient fans.

In a 600-foot long open four row free stall barn, with 36" fans spaced 30 feet down the barn and fans over each row of free stalls and each feed face, you would need 120 fans for the 600 cows. The inefficient fans will cost \$72,000 per year to operate; the efficient fans will cost \$36,000 per year to operate. This is a savings of \$36,000 per year for this 600 cow barn! If you have 3 of these barns for a total of 1800 cows this would be a savings of \$108,000 per year for 1800 cows. If you had to pay \$200 more for an efficient fan this would be \$28,000 for the 120 fans in each barn or you could pay for the fans in less than a year and have \$8,000 left to take your wife to Hawaii.

Summary

Keep your fans clean, belts tight and as fan die, replace them with more efficient fans. Look for CFM/watt as a guide, no matter what size fan you decide on. To learn more about fans, contact Dave Bray at drbray@ufl.edu or call (352) 392-5594.

UF Dairy Faculty and Student Win National Awards

UF dairy faculty Charlie Staples, Geoff Dahl, and Albert De Vries, as well as graduate student Bruno do Amaral, won national awards this year at the joint annual

meeting of the American Dairy Science Association and the American Society of Animal Science held in Indianapolis, IN, on July 7-11. Dr. Charlie Staples received the American Feed Industry Association Award for his work in dairy cattle nutrition. Dr. Geoff Dahl was the recipient of the Pfizer Animal Health Physiology Award for recent work in dairy cattle physiology. Dr. Albert De Vries received the ADSA Foundation Scholar Award in Production which recognizes young scholars. Graduate student Bruno do Amaral received the Omega Protein Innovation Research Award for his work with feeding fish products to dairy cows. Bruno is advised by Drs. Charlie Staples and Geoff Dahl.

What is DAIReXNET?

Albert De Vries

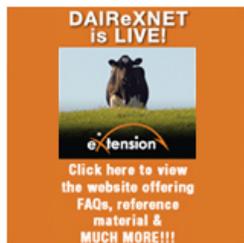
DAIReXNET is a national, extension-driven web resource designed to meet the educational and decision-making needs of dairy producers, allied industry partners, extension educators and consumers. Through collaboration amongst dairy professionals, relevant, cutting-edge information and learning opportunities are provided which are science-based and peer-reviewed in an accessible, 24/7 format.

DAIReXNET was launched in October 2007 at the World Dairy Expo in Madison, WI. Current informational resources on the site include: searchable state and regional extension newsletters, answers to frequently asked questions, access to cutting-edge content in 13 subject areas, consumer links about the dairy industry and its products, news and a calendar of upcoming extension events.

DAIReXNET dairy subject areas are:

- Business Management and Farm Labor
- Calf and Heifer Management
- Materiales en español
- Facilities
- Food Safety
- Genetics
- Health and Diseases
- Mastitis and Milking Management
- Milk Marketing
- Nutrient Management for Dairies
- Nutrition of Milking and Dry Cows
- Organic Dairy Production
- Reproduction

Leadership for this community of practice is provided by 10 dairy extension professionals from across the United States. Additionally, the subject areas are led by 13 dairy experts from across the country. Two hundred and seven dairy professionals representing 35



universities, including UF, and allied industries and including the top 25 dairy states are currently participating in DAIReXNET. Visit DAIReXNET at:

- <http://www.extension.org/dairy+cattle>
- Or through the Florida Dairy extension site at <http://dairy.ifas.ufl.edu>

Program 2008 Florida Dairy Business Conference

Date: September 8, 2008

Place: Marion County Extension Office
2232 NE Jacksonville Road, Ocala, Florida

Preliminary program as of July 14, 2008:

AM

- 10:00 **Registration** - See registration details below.
- 10:15 **Welcome** - Russ Giesy
- 10:20 **The UF commitment to teaching, research, and extension in a new era** - Dr. Joan Dusky, UF Associate Dean for Extension
- 10:30 **Crossbreeding opportunities** - Dr. Chad Dechow, Dept. of Animal and Dairy Science, Penn State University, University Park, PA
- 11:00 **Squeezing the most milk out of your feed dollars** - Randy Cragoe, Cragoe Consulting, Inc., Brookings, SD
- 11:30 **Learning Chinese for fun and profit** - Jerry Dryer, Editor, Dairy & Food Market Analyst.
- 12:00 **Lunch** - sponsored by our sponsors
- 12:45 Presentation of the **2008 Dairy Community Award**
- 1:00 **DBAP report: effect of type of feeding system on costs of southeast dairy farms** - Dr. Mary Sowerby, UF Extension Dairy Science
- 1:20 **Feeding your cows cheaper: perennial vs. annual forages** - Dr. Yoana Newman, Forage Specialist, UF Agronomy Department.
- 1:40 **Milk quality is more than SCC and SPC, now it is shelf life** - Dave Bray, UF Animal Sciences.
- 2:00 **Facing cow management decisions with the new cost of production on southeast dairy farms** - Dr. Albert De Vries, UF Animal Sciences
- 2:20 **Break** - sponsored by our sponsors
- 2:45 **Opportunities to enhance reproduction, cow health and herd life within breed** - Dr. Chad Dechow, Dept. of Animal and Dairy Science, Penn State University, University Park, PA
- 3:15 **Redefining dairy herd efficiency in our new economic climate** - Randy Cragoe, Cragoe Consulting, Inc., Brookings, SD
- 3:45 **DBAP report: now in its 14th year, can DBAP historical data suggest future economic viability?** - Russ Giesy, UF Extension Dairy

Science

- 4:00 **Dairy producer panel:** controlling costs in today's new economy; how we plan to remain competitive – participants TBA
- 5:00 **Program evaluation & adjourn**

Lunch is free for those that call Jeanne at (352) 793-2728 before noon Friday, 9/05/08. After that time or on the day of the program, lunch will be \$15.00.

For more information, contact Russ Giesy, by email rgiesy@ufl.edu, or call (352) 793-2728 (office).

2008 Florida Dairy Production Conference Proceedings Now Online

Albert De Vries

The 45th Annual Florida Dairy Production Conference was held April 29, 2008 in Gainesville. Over one hundred dairy producers, allied industry people, folks affiliated with UF and others attended the conference. The program was again rated as quite good.

The 2008 proceedings papers are available at <http://dairy.ifas.ufl.edu>. Also included on the site are pictures of the Conference and summaries of Southeast Milk Inc. Dairy Check-off grants. An archive of past conference proceedings is also available. The 2008 papers now posted are:

- Feed Efficiency Opportunities with 2008 Feed Cost - Michael Hutjens, University of Illinois
- A.I. Technology is Changing Rapidly!! (Molecular Genetics and Sexed Semen) - David Thorbahn, Select Sires
- Florida Dairy Youth Program Update - Brent Broaddus, University of Florida
- Feeding Management to Reduce the Environmental Impact of Dairy Farms - Robert James et al., Virginia Tech
- Development of a High Fertility Timed Insemination Program for Dairy Heifers - William W. Thatcher et al., University of Florida
- Is Testing Cows for Disease Resistance a Practical Tool for Managing Health in Dairy cows? - Jason De La Plaz et al., University of Florida
- Effect of Rust Infestation on Silage Quality - Adegbola Adesogan et al., University of Florida
- Direct Comparison of Natural Service vs. Timed AI: Reproductive Efficiency and Economics - Fabio Lima et al., University of Florida
- Sexed Semen Economics – Albert De Vries, University of Florida.

2008 Florida and Georgia Dairy Road Show Proceedings Available

Proceedings of the 4th Florida and Georgia Dairy Road Show held in March 2008 are now posted on the Florida Dairy Extension website at <http://dairy.ifas.ufl.edu>. Papers available are:

- What is New in Dairy Reproduction? - Carlos Risco
- Housing and Management in the Dry Period - Geoff Dahl
- Feeding Management: Do's and Don'ts - John Bernard
- Manure to Money??? Carbon and Renewable Energy Credits - Mary Sowerby

BIOENERGY – 2008 Farm to Fuel Summit

Ann C. Wilkie

In 2006, the Florida *Farm to Fuel* Initiative was statutorily created to enhance the market for and promote the production and distribution of renewable energy from Florida-grown crops, agricultural wastes and residues, and other biomass, and to enhance the value of agricultural products and expand agribusiness in the State. Since then, the Florida Department of Agriculture and Consumer Services has hosted two "Farm to Fuel Summits" in Orlando (2006) and St. Petersburg (2007), each of which attracted several hundred participants.



The third Florida Farm to Fuel Summit is scheduled for **July 30th – August 1st** at the Rosen Shingle Creek Resort in Orlando. The 2008 Summit will provide further opportunities for industry leaders to discuss Florida's energy future and join in shaping the future of biofuels and renewable energy in the State of Florida. This high-profile event will feature speakers and panelists representing international, national and state perspectives on issues of research, production and distribution of biofuels, including biodiesel, bioethanol and biogas.

For the 2008 Summit agenda and registration information visit the Farm to Fuel website: http://www.floridafarmtofuel.com/summit_2008.htm

For questions or issues about bioenergy, contact: Dr. Ann C. Wilkie at acwilkie@ufl.edu or (352) 392-8699. *Ann Wilkie is in the Department of Soil and Water Science.*

DHIA has Tools for Management of Somatic Cells

Daniel W. Webb

Dairy herd managers are concerned about the level of somatic cells in their milk for several reasons. The somatic cell count as measured in milk provides an indication of udder health of lactating cows and also indicates milk quality and potential shelf life. Milk processors insist on lower average somatic cell counts, thus dairy farmers make every effort to keep counts low to protect and enhance the marketability of milk as it leaves the farm.

DHIA lab analysis of milk samples from individual cows collected on test day provides a unique insight into a herd's milk quality. Monthly DHIA reports contain somatic cell numbers expressed as somatic cell count (scc) and somatic cell count score (sccs). The score is a logarithmic conversion aimed at making interpretation clearer. The following table shows the relationship of scc and sccs:

Level	Somatic Cell Count	Somatic Cell Count Score
Negligible	25,000	1.0
Very Low	50,000	2.0
Low	100,000	3.0
Medium	200,000	4.0
Medium High	400,000	5.0
High	800,000	6.0
Very High	1,600,000	7.0

We took a look at DHIA data from 126 herds in Florida and Georgia that sampled for somatic cells in June of this year (table below). Herds included ranged from 30 to 3800 cows per herd. Average milk production was 56.8 pounds, ranging from 30.6 to 82.1 pounds per cow per day. Thirty-four herds had an average SCC score < 3.0.

Item	Average
Average SCC (weighted by milk lbs.)	387,000
Average SCC Score	3.2
SCC Score for 1st Lact Cows	2.9
SCC Score for 2nd Lact Cows	3.1
SCC Score for 3rd+ Lact Cows	3.7
SCC Score for Cows in Milk 41-99 Days	2.9
% of Cows with SCCS less than 3.0	57.0
% of Fresh Cows with SCCS 4.0 & greater	41.4
% 1st lact Cows with SCCS less than 3.0	62.9
% 2nd lact Cows with SCCS less than 3.0	60.0
% 3rd lact Cows with SCCS less than 3.0	48.0

DHIA herds have a number of tools to choose from for managing somatic cell information:

- The first is to ask your DHIA technician to collect a milk sample from each cow and submit it for scc analysis. Reviewing these numbers for the herd and for cows in high risk categories can be a helpful resource in keeping control of the udder health in a herd. The *monthly DHI-202 Herd Summary* provides a look at the herd scc situation.
- The *somatic cell count profile, special option DHI-520* can be selected. This report summarizes the scc data for a single test day and provides a listing that identifies cows with specific scc problems. It also tells how much the herd average scc count would decrease with this cow diverted from the milk tank. As an example, one recent report identified 7 cows in a herd of 3200 that were responsible for 12% of the herd's bulk scc total. This profile also gives a 6-month scc history for each cow, the average scc score for the current lactation, the number of tests over 3.9 and each cow's contribution to the bulk tank scc total.
- Twice each year, a *Herd Management Comparison DHI-530* allows comparison of the herd's current performance to that of 1 year earlier and to the state breed average. Included in this comparison are scc numbers.
- The *SCC Hot Sheet* provides a timely overview of the herd scc results from test-day. This report can be faxed or mailed direct from the lab. It has unique value since milk production is combined with scc to allow for quick decisions of cows to divert from the milk tank.

Monitoring the scc situation for each cow and for the herd allows herds to reduce the herd's somatic cell count and provide enhanced milk quality for the market!

For more information, contact Dan Webb at dwwebb@ufl.edu or call (352) 392-5592.

UPCOMING DAIRY MEETINGS



- The annual Florida **Dairy Business Conference** is planned for Monday **September 8, 2008**. Location will be the Marion County Extension Office in Ocala. For more information, contact Russ Giesy, rgiesy@ufl.edu, (352) 793-2728 (office).

For registration information, agendas and other meeting details, visit the Florida Dairy Extension site at <http://dairy.ifas.ufl.edu> or contact Albert De Vries, devries@ufl.edu, (352) 392-5594.