

## Feeding Catfish Oil Improved Milk Production

Charles Staples

Approximately 12,000 to 14,000 tons of catfish oil is produced each year as a byproduct of the commercial catfish meat industry. Much of this is produced on catfish farms in the southeast. Feeding supplemental fat to lactating dairy cows has been beneficial in the past by improving milk production but care must be taken in formulating the ration to prevent milk fat depression by adding the oil.

The University of Florida conducted 2 studies to evaluate catfish oil as a fat supplement for milking cows. Catfish oil (donated by Protein Products Inc.) was mixed with liquid sugarcane molasses (donated by Westway Feed Products Inc.) so that the oil made up 20% of the as-is mixture. The molasses-oil mix was added to the TMR so that catfish oil comprised 0 or 1.8% of the dietary dry matter. Both diets had the same amount of molasses - about 5%. The control diet contained 3.2% ether extract. 190 cows averaging 210 days in milk were fed the 2 diets in an alternate fashion in an 8-week study.

Cows fed the catfish oil produced 2.6 pounds more milk per day, an increase from 67.8 to 70.4 pounds per day. Concentration of milk fat was unchanged, averaging 3.34% across both diets.

In another study to examine the effects of feeding catfish oil on intake and digestion, catfish oil was fed at 0, 1.5, or 3.0% of dietary dry matter to 12 milking cows, 4 of which were ruminally cannulated. In this study using fewer cows in late lactation, milk yield and milk fat % were not changed.

Benefits of feeding increasing amounts of catfish oil included increased digestibility of dry matter and fiber, increased rate of digestion of corn silage fiber in the rumen, and increased feed intake. Improved intake of digestible feed appeared to go into increased body weight in this study. Average ruminal pH was more acidic (6.4, 6.2, and 6.1) with increased catfish oil but proportions of volatile fatty acids in the rumen were changed only modestly.

In summary, feeding about 0.8 lb of catfish oil mixed with liquid cane molasses benefited milk

production without negatively affecting milk fat % of cows in mid to late lactation.

Contact Charlie Staples at [chasstap@ufl.edu](mailto:chasstap@ufl.edu) or call (352) 392-1958.

## What Kind of Standard Operating Procedures (SOPs) do you have on Your Dairy?

David R. Bray

Most dairies should have a document that defines the way the dairy operates, a comprehensive plan that explains how all jobs are done on the dairy. These are the Standard Operating Procedures (SOPs) for the dairy.

### SOPs should cover all aspects of the dairy

1. General herd health management – Vaccination schedules and treatments
2. Reproduction management – Timed A.I. protocols
3. Milking management – Procedures, cleaning sanitation, liner changes etc.
4. Replacement herd health – Calves and heifers
5. Emergency calls – (veterinary assistance)
6. Feed crew – Cows, dry cows, heifers and calves
7. Agriculture crew – Waste management monitoring, barn cleaning etc.
8. Maintenance crew
9. Organizational chart – Who is in charge of what and who
10. Maps - Diagram or maps of where animals and facilities are located, barns, lots, pens, silos and pivots

### SOPs should be dynamic

Everything is constantly changing in the dairy business; drugs change, new barns are built and more cows added to the dairy, nutritionists come and go, new commodities appear and waste management regulations change etc. Revisions must be done to stay current. SOPs can be easily revised on the computer.

### Who should develop and revise these documents?

Dairy management, veterinarians, waste management consultants, nutritionists and even technical reps from companies you deal with.

### Who should have access to the SOPs?

All employees should have access to these documents and each division manager should discuss them with not only new employees but go over changes in protocols with existing employees. It should be explained to all employees that their specific job is important to the operation of the dairy as a whole. Their contribution to the dairy operation should be explained to each employee written in their job description and if they meet these goals their compensation will reflect this.

This SOP document should make it possible for whoever replaces an existing employee that they can perform the same tasks in the same ways as the one who they replaced. This includes permanent replacements or relief personnel used in shift changes and days off, holidays etc.

### Training of employees

The SOPs should be the basics of job training for a specific job. Cross-training of many employees allows management to have enough help available to do many related activities. All employees on the dairy, from milkers to farm chores personnel, should have basic training in animal husbandry. Most dairy labor does not have any understanding of animal husbandry.

The calf feeder does not have the knowledge of how to carry out a timed A.I. protocol but should know if he does his job correctly. He will provide the A.I. breeder something to breed in 13 months.

### Cow treating vs. herdspersons

Proper training in basic animal husbandry then allows employees to better care for the animals they work with. Basic knowledge on movement of animals not only protects the animals but also helps labor perform their tasks safely. There are many good multi-lingual videos out on proper care and handling of animals.

### Dos and don'ts

SOPs should give directions on how and when to treat animals and when not to treat animals for various reasons. Management should decide which animals that will be culled whenever their production reaches a certain level or other criteria. Cows that may have health issues or have undesirable udders or other deficiencies should go on a "Do Not Breed" (DNB) list.

### DNT list

There should always be a "Do Not Treat" (DNT) list for animals that are unproductive or have health problems and are to go to market immediately when some problem appears. A rule of thumb is to cull mastitis cows after five (5) episodes of clinical mastitis

in a single lactation. This means if a cow gets a sixth episode of clinical mastitis the cow gets on the truck before any treatment is applied. This can also be cows with feet, hip or leg problems. If locomotion problems occur she goes immediately.

### More don'ts

Don't give feel-good shots to these DNT cows. These drugs don't have any milk withholding time but do for meat. Don't give Flunixin (Banamine) shots I.M. – only I.V. Give cattle I.M. in the neck only unless otherwise directed by a veterinarian.

Do not treat cows before they leave the dairy with antibiotics in them and they should be able to walk on and off the truck and should not have puncture wounds from injections in all the expensive cuts of meat.

### Summary

1. Have a plan: Standard Operation Procedures (SOPs)
2. Use your plan to train a stable work force
3. Update your SOPs when necessary
4. Use more husbandry practices
5. A dairy cow becomes a beef cow at the end
6. Handle the cow with care and compassion

Contact Dave Bray at [drbray@ufl.edu](mailto:drbray@ufl.edu) or call (352) 392-5594.

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### **UF Looking for Dairy Youth Agent**

The University of Florida is accepting applications for a Regional Specialized Dairy (4-H/Youth) Extension Agent (Rank II, III or IV). Location will be Polk County (Bartow), Florida. Applications are accepted until October 21, 2009.

This is a 12-month, permanent status-accruing, 100% state-paid, 100% extension (Florida Cooperative Extensive Service) position. It is available in collaboration with the Department of Animal Sciences, Institute of Food and Agricultural Sciences, at the University of Florida. This assignment may change in accordance with the needs of the unit. Duties will include providing leadership to dairy youth extension activities and participating in other dairy extension programs, such as assisting with the college dairy judging team. As appropriate, the incumbent of this position will seek contract and grant funding actively to support his/her program.

The complete job description can be found at [http://personnel.ifas.ufl.edu/jobs\\_countyvacancies\\_status.shtml](http://personnel.ifas.ufl.edu/jobs_countyvacancies_status.shtml) or <http://dairy.ifas.ufl.edu>. Persons interested should apply through the online UF GatorJobs application system (<https://jobs.ufl.edu>), referencing requisition # 0803068.

## Pat Miller Retired



Pat Miller retired from the Cooperative Extension Service in Okeechobee County, FL, on August 13, 2009. He served as an Extension Agent for 37 years. The Indiana native first spent 12 years in three different counties with the Extension Service in Indiana before coming to Okeechobee County in 1984. Pat was heavily involved with the dairy industry in Okeechobee. Now that he has retired, Pat plans to spend more time with his grandchildren. We wish him well.

## Year End Summary for DHIA Herds

Daniel W. Webb

September 30 ends the traditional DHIA test year. Here are some of the early year-end numbers for herds in Florida and Georgia. Data presented in Table 1 show the average for herds on all types of test in both states for October 1, 2008 through September 30, 2009.

Table 1. Florida and Georgia herds

Item	All Herds	Georgia Herds	Florida Herds
No. of Herds	185	131	54
No. of Cows per Herd	415	270	767
PCT in Milk on Test Day	79	78	80
Daily Milk-Milk Cows	52	52	50
Value of Milk \$	6.00	6.06	5.86
Rolling-Milk lbs	18,524	18,553	18,452
Days in Milk	217	217	216
Proj 305 day ME milk-1st Lact	21,013	20,942	21,186
Sire PTA\$-1st Lact	255	253	262
Proj 305 day ME Milk-2nd Lact	21,245	21,371	20,938
Sire PTA\$-2nd Lact	210	211	208
Proj 305 day ME Milk-3rd Lact	20,506	20,708	20,014
Sire PTA\$-3rd+ Lact	133	129	142
Days to 1st Serv (%herd, VWP to 100d)	49	47	53
Days to 1st Serv (%herd, > than 100d)	37	39	33
Days Dry-All Lact	72	73	72
Days 1st Serv-total herd	106	107	103
Conception Rate-1st serv	54	53	55
Std 150 day milk	63	63	61
SCCS < 4 (% of cows)	50	51	45
SCCS = 4 (% of cows)	17	17	18
SCCS = 5 (% of cows)	13	13	13
SCCS = 6 (% of cows)	9	8	9
SCCS > 6 (% of cows)	12	11	14
Current Month SCC Score	3.57	3.51	3.89

Herds in Georgia tend to milk fewer cows per herd than those in Florida. Somatic cell counts are noticeably lower in Georgia herds. Some larger herds find it

profitable to milk 3 times per day. Table 2 is a comparison of 2X versus 3X herds.

Table 2. Milking frequency: 2x vs. 3x herds.

Item	All Herds	2X Herds	3X Herds
No. of Herds	185	162	23
No. of Cows per herd	415	305	1,189
PCT in Milk on Test Day	79	78	85
Milk lbs-All Cows	41	40	49
Value of Milk \$	6.00	5.83	7.24
Rolling-Milk lbs	18,524	18,222	20,650
Summit milk-1st Lact	64	62	72
Summit milk-2nd Lact	80	79	89
Summit milk-3rd+ Lact	86	84	94
Days to 1st Serv (%herd, VWP to 100d)	48	47	59
Days to 1st Serv (%herd, > 100d)	37	38	27
Days Dry-All Lact	72	73	67
Days 1st Serv-total herd	106	107	96
Concep Rate-1st serv	53	55	45
Std 150-day milk	62	61	68
SCCS < 4 (% of herd)	50	49	60
SCCS = 4 (% of herd)	17	17	15
SCCS = 5 (% of herd)	13	13	9
SCCS = 6 (% of herd)	9	9	7
SCCS > 6 (% of herd)	12	12	9
Current Month SCC Score	3.57	3.6	3.16

Larger herds use 3X milking more often than smaller herds. As usually seen, milk production is higher in herds milked 3X. In this case, 3X herds have a 13% advantage. Average days dry was higher in the 2X herds. Cows in 3X herds had lower average somatic cell count (SCC) and 3X herds had more cows with low SCC scores.

Contact Dan Webb at [dwwebb@ufl.edu](mailto:dwwebb@ufl.edu) or call (352) 392-5592.

## Video: Dairy-Beef Meat Quality Workshop Presentations

A successful workshop titled "Dairy-Beef Quality Workshop: Focus on Culling Management" was held in September at the UF Animal Sciences Building in Gainesville, FL. About 45 people attended. This workshop aimed to help dairy producers get the most out of animals removed from the herd. Topics included: culling strategies, residue avoidance, factors affecting carcass value, etc. Especially interesting was the hands-on work with carcasses in the meats laboratory.

Videos of the presentations, including audio, can be seen again on <http://dairy.ifas.ufl.edu>. This workshop was sponsored by the National Cattlemen's Beef Association.



## Upcoming Dairy Meetings

- The **Quarterly South Georgia – North Florida Dairy Meeting and Lunch** will be held on **October 27, 2009** at the Brooks County Extension office in Quitman, GA, from 11 am to 1 pm. Mary Sowerby will be leading the discussion on “Using genomics and new selection traits to optimize bull selection for both AI and natural breeding”. Please call the Books County Extension office at (229) 263-4103 to pre-register for lunch.
- Contemplating a change to your current dairy production system? Or looking for new ideas to lower production costs and improve efficiency. Either way, plan to join the **Dairy Alternatives Tour – High Tech or Low**, on **November 4, 2009** from 9 am to 3 pm (the day after the SMI board meeting). The tour will include Sunset Dairy in Dixie, GA, where Claus Haaren’s cows have been rotationally grazing since December 2008. In addition, we’ll tour Calvin Moody and Doyle Weltzbarker’s conventional Brookscow Dairy and the under construction (but soon to be completed) Westbrook Dairy near Quitman, GA. Lunch and discussion about both dairy operations will be held at the Books County Extension office in Quitman, GA. There will be a \$10 registration fee to cover lunch. For more information and to pre-register please call Mary Sowerby at (386) 362-2771 on or before Thursday October 29.
- The annual **Southeast Dairy Herd Management Conference** is planned for **November 11-12, 2009**. Location is again the Farm Bureau Building on 1620 Bass Road off I-75 in Macon, GA. A wide variety of topics will be presented and discussed, including crossbreeding in the Southeast, conventional vs. grazing, New Zealand style dairies, waste management, team building, reproduction and culling, calf health, DHIA update and new tools, and a silage hybrid update. A PCDART workshop precedes the start of the conference and starts at 9:30 am on Wednesday November 11. The Southeast Dairy Herd Management Conference is a joint conference planned by Auburn University, Clemson University, University of Florida, University of Georgia, Fort Valley State University, the U.S. Department of Agriculture, and Counties of the cooperating states. For more information, including the program, visit <http://dairy.ifas.ufl.edu>.

## Sign up for UFL-DAIRYUPDATE-L

[UFL-DAIRYUPDATE-L@LISTS.UFL.EDU] is the new electronic mailing list of Dairy Extension at the University of Florida. The electronic mailing list will be used by UF Dairy Extension to send subscribers timely emails about dairy extension programs, new factsheets, newsletters or other dairy news from the University of Florida that we believe are of interest to those involved in the Florida Dairy industry.

We have populated the list with email addresses of many dairy producers in Florida and allied industry folks that serve the Florida dairy industry. Subscription to the list is voluntary. You can subscribe and unsubscribe by visiting <http://dairy.ifas.ufl.edu/dairyupdate-L.shtml>.

UFL-DAIRYUPDATE-L is solely used for messages related to dairy programs for adults from the University of Florida. Only the list owners can send emails to the electronic mailing list. We will not forward announcements from third parties. The number of messages sent to UFL-DAIRYUPDATE-L will be restricted to no more than twenty per year.

UFL-DAIRYUPDATE-L is owned by Dr. Daniel W. Webb and Dr. Albert De Vries. To contact the owners of this list, send an email to [DAIRYUPDATE-L-request@LISTS.UFL.EDU](mailto:DAIRYUPDATE-L-request@LISTS.UFL.EDU).

