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SUPERIOR CALIFORNIA DAIRY REVIEW

Serving the Northern Sacramento Valley

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In This Issue . . .

Barbara Reed
Farm Advisor

Update on NPDES Permits and the Irrigated Ag. Waiver

At this time, the Regional Water Quality Control Board has not finalized dairy regulatory language. According to Deanne Meyer in her July 30th notice from the CDQAP, dairy operators are being advised to obtain a conditional waiver for irrigated agricultural land. This recommendation is being made because there is not agreement on a technical finding (R5-2003-0105 finding 34) related to the Irrigated Ag. Waiver. Dairy operators may still have to have both an NPDES permit and an Irrigated Ag. Waiver. We won't know what the final interpretation is until the NPDES permit language is adopted and it will clarify what is covered under the permit.

If you want to get on the Region 5 notification list go to this link, fill out your email information and click on the box(es) to have notices and information sent to you.

http://www.swrcb.ca.gov/lyrisforms/reg5_subscribe.html

Dairy Amendment for the Glenn County General Plan - An Update

Quad Knopf consulting firm is still in the data collection phase in the development of the Confined Livestock/Dairy Facilities Element for Glenn County. They have assembled overlay maps and environmental analyses of the county that include surface waters, flood plains, ground water tables, existing dairies, community and subdivision maps and other agricultural operations. They are also gathering information about air quality and "wind shed" data. Once all of the information has been compiled, it will used to develop a dairy element (as an amendment) to the Glenn County General Plan and an environmental impact review (EIR).

The element may describe where new dairies can be sited, prescribe operational standards necessary in order to operate, or recommend a combination of the two. Both the dairy element and the EIR will be subject to public review and comment. If revisions following public comment are extensive, the modified element will be submitted to the public again for comment. All of the above is done prior to the Board of Supervisors voting to adopt the element. The consultants' progress is being reviewed monthly by the Confined Animal Facilities Committee which is made of dairy producers and Glenn County Departments that work with dairy operations (Planning, Environmental Health, Public Works, etc.). It will still be several months before the element and EIR are ready for review.

Air Quality and Regulations

The following is excerpted from Carol's newsletter. Because Glenn and Tehama are outside the San Joaquin Valley Air Pollution Control Control District, local dairies will not be subject to these regulations at this time. Given the population growth that is occurring in our region and that new dairies are moving into the area, it may only be a matter of time before local air emission controls may be a reality.

Dairy air emissions science, technology and regulation, (it could happen here).

Carol Collar, Kings County Farm Advisor

Dairies in the San Joaquin Valley submitted documents to the San Joaquin Valley Air Pollution Control District recently as required by new laws. Unfortunately, the new regulations were implemented before solid, science based information was available. Other requirements for dairies related to emission controls are being considered. Dairy producers are concerned about air quality just like other people who live and work in the valley, and they are willing to be a part of the solution. However, imposing costly requirements with questionable benefits is unwise and wasteful. Following are key points relating to this important issue.

- The San Joaquin air district's permit for dairies is based on the assumption that dairies produce large amounts of reactive gases that help form ozone (smog).
- The district reports that dairies contribute 10 % of the total amount of these precursors in the valley.
- In fact, these ozone precursors from dairies have never been measured. The current estimate is based on a well-documented error - a U.S. EPA technical manual published in 1980 included an analysis based on a misreading of source documents. Independent university scientists have confirmed this error, also widely reported in the press.
- Despite this and in addition to requiring permits, the air district plans to require anaerobic digesters for manure on new or expanding dairies - solely to control ozone precursors.
- Digesters only capture some emissions. A digester can't capture gas emissions directly from animals or from manure in corrals. The share of overall dairy emissions a digester could control is unknown.
- Until we know the overall emissions from a dairy, and the share of those a digester can control, we can't evaluate whether a digester can effectively control ozone precursors.
- Nearly $2 million has been invested in ongoing studies of dairy emissions. Answers are expected within months. A new law requires the state to review these studies and adopt a new emission factor by July 2005. So why base regulations on an estimate known to be wrong?
- We must know if digesters are an effective control method before they are required. Digesters cost from $500,000 to $4 million to construct.
- We must also know digesters are reliable. There are only four digesters in operation among the state's 2,200 dairies. Nationwide, manure digesters have an average failure rate of 50 percent.
- Significant amounts of government funding helped build the four existing digesters. Programs that provided the funds will be unavailable for future projects because they have ended or are scheduled to end soon.
- The dairy industry supports digesters as a method for generating electricity. Wider adoption will occur as technology improves and issues are resolved, so requiring digesters is not necessary.

- Dairy producers are already taking many steps to improve air quality. San Joaquin Valley dairy farmers this year adopted special Conservation Management Practices to reduce dust emissions. Other standard practices are commonly employed to reduce odors and dust.
- Many dairy farmers use electric pumps to irrigate crops and to supply their milking facilities. The dairy industry and all of agriculture is actively working to convert more engines to cleaner burning fuels and electricity.
- Dairies help other farmers by providing an alternative to open-field burning of agricultural waste. For example, by-products such as almond hulls and rice straw are used for feed and bedding.

Science must come before regulation.

Dairy Herdsman Short Course

October 19-21 in Tulare

Register early - it fills up quickly!!

The UCCE Dairy Herdsman Short Course well be held at the UC Veterinary Medicine Teaching and Research Center (also known as the VMTRC) in Tulare in October. This program is designed for working dairy employees. The purpose of the program is to provide the people who do the actual work on dairies an opportunity to receive information about the latest technologies and to offer training in all aspects of dairy management. A brochure with registration information and more details is included with this newsletter. The registration fee of $175 is very reasonable and includes the 3-day training, a notebook with handouts, lunches, a shirt and other perks. Join the nearly 200 people from throughout the state who have benefited from attending previous short courses. Pre-registration is required and space is limited, so if you would like to improve the skills of your dairy employee, register today! See enclosed program and registration form.

Advanced Dairy Herd Reproduction Management

October 22 in Tulare

A special one-day advanced program for herdsmen who manage reproductive programs on dairies will be held following the Dairy Herdsman Short Course. This course is designed to provide a comprehensive review and update on the latest reproduction techniques and strategies for maintaining a high level of reproductive efficiency on dairies. It is NOT intended for herdsmen at the entry or beginning level. A brochure with registration information and more details is included with this newsletter. Again, pre-registration is required and space is limited, so register early if you want to take advantage of this opportunity.

The Impact of Contaminated Colostrum

John H. Kirk, DVM, MPVM

Everyone knows that colostrum provides the nutrients and maternal antibody protection for the young calf. However, colostrum on some dairies can be highly contaminated with bacteria. When not properly handled, colostrum may contain coliforms, salmonella, cryptosporidia and other intestinal pathogens. Even when collected using recommended practices, colostrum may contain the Johne's bacteria, bacterial mastitis pathogens or mycoplasma.

Here are some places to look for possible sources of contaminated colostrum:

Cow preparation - When the udder and teats are not completely cleaned and sanitized prior to collection of colostrums at calving, fecal coliforms can easily be added to the colostrums. Great care should be taken to prepare the cow prior to collection of colostrum. The udder and teat should clean and dry prior to collection…just like a cows being milked in the parlor. Colostrum will never be any cleaner than at the first moment following collection.

Cleaning and sanitizing of equipment - Buckets or pails used to collect colostrum should be very clean. After each use, they should be cleaned with detergent and hot water. This should be followed with a sanitizer. Steps similar to care of the milking equipment in the parlor should be followed. When not properly cleaned, equipment may serve as a place where bacteria can multiply to high numbers in between uses.

Milking equipment - The milking equipment used to milk the fresh cows should be just as clean, or cleaner than the milking equipment used to milk the rest of the herd. This equipment should be inspected and maintained on the same schedule as the main milking parlor. The best trained and most trusted employee should milk the fresh cows to ensure collection of high quality colostrum.

Cooling and storage - Like the milk going into the bulk tank for sale, colostrum should be rapidly cooled to less than 40º F and kept cold until used. The number of bacteria will double every 20 minutes or so at improperly high temperatures. This is particularly true for contaminated colostrum. In just a few hours, colostrum can contain lethal amounts of bacteria.

Cows with mastitis - Cows that freshen with mastitis may be putting large numbers of Streps, Staphs or environmental bacteria into their colostrum. Colostrum from cows with clinically evident mastitis should not be fed to calves.

Bottles, nipples and buckets - The equipment used to feed calves should be clean and sanitized just like the bottles used to feed the human babies at home. After each feeding, the calf feeding equipment must be thoroughly cleaned followed by sanitization. Remember that for a sanitizer to be effective, it must be used in a clean bottle and have sufficient time to act on any residual bacteria. Sanitizers are like teat dips; they need contact time to be effective.

It is possible to culture colostrum to determine if significant contamination has occurred. Samples of colostrum can be cultured by your veterinarian or your milk quality laboratory where you submit mastitis samples. Dr. McGuirk of the University of Wisconsin, School of Veterinary Medicine gives the following guidelines for colostrum's quality[1]:

Total bacteria count:	<100,000 cfu/ml.
Fecal coliform count:	<10,000
Other gram-negatives:	<50,000
Strep. ag.	0
Strep. non-ags	<50,000
Staph aureus	0
Other Staphs	<50,000
Salmonella	0

When newborn calves suffer from diarrhea or other intestinal problems, colostral contamination should be considered as a possible source. Colostrum quality and handling should be reviewed. If you are feeding waste milk to calves, keep in mind that when properly done, pasteurization can virtually eliminate these problems.

[1] S. M. McGuirk. 2003. Solving calf morbidity and mortality problems. Pre-Convention Seminar. Proceedings of the 36th Annual Conference of The American Association of Bovine Practitioners. Columbus, OH

Professional Dairy Heifer Growers - Southwest Regional Meeting

Date:	November 5, 2004
Time:	9:00 a.m. to 4:00 p.m.
Place:	Stanislaus Agricultural Center 3800 Cornucopia Way Modesto, CA
Event:	Professional Dairy Heifer Growers Southwest Regional Meeting
Registration:	$35 per person

For additional information, contact Rochelle Koch, Chair, Southwest Professional Dairy Heifer Association. (209)725-8253. Presented by Southwest Professional Dairy Heifer Association and University of California Cooperative Extension.

Southwest Professional Dairy Heifer Growers Association

Please send one form for each participant.

Name _____

Address _____

_____

Company _____

Work Phone _____

Enclosed is $ _____for _____people to attend the meeting at $35 per person.

Make check or money order payable to: PDHGA.
Mail to: Gerald Higginbotham, UCCE, 1720 S. Maple Ave., Fresno, CA 93702

DHIA Data for July

July DHIA Averages for N. Sacramento Valley Herds

ROLLING HERD AVERAGE	BREED					Overall Average
	Brown Swiss	Holstein	Jersey	Milking Shorthorn	Other	
# of Cows	49	380	294	14	125	322
Lbs Milk	21144	20425	14455	16960	15479	18309
% Fat	4.01	3.59	4.48	2.97	4.38	3.89
Lbs Fat	847	734	649	504	678	702
% Protein	3.33	2.99	3.60	3.02	3.44	3.22
Lbs Protein	704	603	522	512	532	574
Somatic Cell Count (1,000)	424	327	324	564	315	335
% Cull	35	32	26		42	31
Calving Interval	14.2	14.8	13.9		14.4	14.1
Average Services/Conception	6	3	3		2	3
Percent conception at 1st service	32	29	36		38	32
Average days open	194	166	148		164	161
Average Days in Milk at 1st service	63	81	77		94	80

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