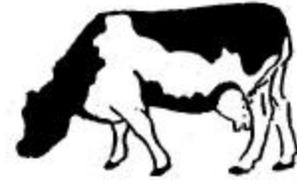


# DAIRYNOTES

UNIVERSITY OF CALIFORNIA

COOPERATIVE EXTENSION

KINGS COUNTY



October, 1999

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## Environmental Stewardship Short Course

Dates have been determined for the next local environmental stewardship short course.

Date: Class 1 - Wednesday, October 27, 1999  
Class 2 - Wednesday, November 3, 1999  
Class 3 - Wednesday, November 10, 1999

Time: 10 am – Noon

Location: UCCE - Multi-purpose Room  
680 N. Campus Drive, Hanford

The course is sponsored by the University of California Cooperative Extension. It consists of three two-hour classes. The instructors are Deanne Meyer, Carol Collar and Gary Vesperat. The program was developed to increase the awareness of dairy operators and associated individuals of the potential impacts of manure management practices on ground and surface water.

Participants will review pertinent laws related to manure management and water quality, assess the risk of water contamination from manure sources, calculate needed storage for their manure, develop a pollution prevention plan, identify facilities that need alterations, develop an emergency plan, and learn how to sample manure for nutrient content and incorporate results into the farm management plan. Topics to be covered in each of the three classes are as follows:

## Class 1 Agenda

- Introduction and Background
- Manure Management Requirements
- Making an Assessment of Your Operation
- How to Calculate Storage Space
- Questions and Answers
- Adjourn

## Class 2 Agenda

- Review of Space Needed for Liquid Storage
- Review of Home Work
- Discussion of Manure Management
- Introduction to Pollution Prevention Plans
- Begin Filling Out Pollution Prevention Plans
- Questions on Pollution Prevention Plans

## Class 3 Agenda

- Develop an Emergency Plan
- Sampling Manure Sources for Nutrient Content
- Using Results from Nutrient Analysis to Determine Application Rate
- Calculating How Much Fertilizer Equivalent is Applied During Irrigation or Spreading

If you have attended previous sessions of the short course and missed one of the classes, you only need to take the session that you missed to receive your certification of completion. If an afternoon class would fit your schedule better, the same classes will be offered

at the UCCE office in Visalia from 2 to 4 PM on Oct. 26, Nov. 3 and Nov. 9. The three class series is free and it is only for dairy producers and their employees. A special class for allied industry people will be held in Hanford on Wednesday, October 27 from 1:00 to 5:30 PM. This one time class covers all the same topics in a more condensed version for veterinarians, bankers, nutritionists and other consultants who serve the dairy industry. A pre-registration fee of \$125.00 is required for the allied industry class. Please contact Carol Collar at (559)582-3211, ext. 2730, for more information and to RSVP.

### **California Dairy Quality Assurance Program**

The Environmental Stewardship Shortcourse is just one part of a more encompassing California Dairy Quality Assurance Program (CDQAP). Following is information that may help you understand the intent of the CDQAP.

**What is the CDQAP?** The CDQAP is a voluntary program that allows producers to become certified in food safety, animal health and welfare, and environmental stewardship.

**Who runs the CDQAP?** The program is a collaborative effort by the dairy industry, the University of California, and state and federal regulatory agencies. A committee of dairy industry representatives must approve all program activities.

**Who is eligible to become certified?** Any dairy producer in California can become certified, regardless of marketing or trade association affiliation. This program is offered statewide.

**Do I have to certify in all three components (animal health, food safety and environmental stewardship?)** No. Producers may become certified in any or all components of this program.

**Which components are available?** The environmental stewardship is available now. The animal health and food safety components will be available for certification in 2000.

**Will dairy producers be required to participate in the components of CDQAP?** No. The CDQAP is strictly a voluntary program. No producer is required to participate.

**How much will this program cost me?** The environmental stewardship component of the program has been funded through various grants and agencies through June 2002.

**What do I need to do to be certified in environmental stewardship?** Producers will attend all three classes of the University of California Cooperative Extension's (UCCE) Environmental Stewardship Short Course I (ESSC), develop an environmental stewardship farm management plan, and successfully complete an on-site evaluation by a non-regulatory third party.

**Who will do the third party evaluations?** Currently, the designated third party evaluator is employed by the California Department of Food and Agriculture (CDFA). The local milk inspector will not be used as the third party evaluator. Provisions are being made to identify other third party evaluators.

**Can my dairy field representative certify my facility?** No. Your field representative can be very helpful in helping you prepare for your on-site evaluation. A third party evaluator cannot have a vested interest in the outcome of the evaluation.

**Can the environmental stewardship on-site evaluation hurt me?** No. The evaluation checklist and records involved with the evaluation will remain on the dairy and are the property of the dairy producer.

**Will participating in the CDQAP keep me from being inspected by the Environmental Protection Agency (EPA)?** No. USEPA already knows where all dairies in California are located and are committed to inspect each facility by 2005. The CDQAP evaluation is your best management tool to prepare for EPA (regulatory) inspections.

**Why should I certify in environmental stewardship?** Certification reassures my neighbors, any passersby, and me that my facilities meet federal, state and local environmental regulations.

**What happens if, during the on-site evaluation, deficiencies are identified?** No legal actions will be taken. You and your evaluator will work together to determine what alterations need to be made and arrange a date for re-evaluation. You can always choose to discontinue the certification process. Again, the program is strictly voluntary.

**How does certification help the California dairy industry?** Participation in this program may reduce or eliminate the need for additional government regulations. It will give trade associations and the California Milk Advisory Board a positive story to tell and provide evidence that California dairy producers are working to protect the environment. Voluntary participation should result in compliance with regulations. This should prevent situations that result in fines. Additionally, some processors may choose to use this program as a marketing tool.

**How much is this program worth to me?** The information obtained in the educational process is invaluable. Preliminary estimates indicate this is worth in excess of \$8,000 per producer.

**Are there other financial benefits?** Already mentioned above is prevention of fines and potential use by your processor as a marketing tool. In addition, classroom training and on-site evaluation may identify improvements that could reduce dairy management costs, increase revenue, minimize disease and increase production.

### **Study Showed No Relationship Between Stray Voltage and Mastitis**

Voltages appearing at various cow contact points, such as livestock waterers, feeders and animal restraining/living or holding areas have been claimed to cause increases in somatic cell counts. However, several studies focusing on the effects of stray voltage

on animal health have shown no relationship between voltage exposure and mastitis.

Some individuals have conjectured that voltage causes mastitis by lowering the animal's immune defenses against bacteria in the environment. No one has shown this mechanism occurring in controlled scientifically designed experiments, however. On the contrary, research has shown that voltages of up to 4 volts RMS failed to significantly alter blood born stress hormone (cortisol) and immune globulins. Another study showed that cows with chronic subclinical mastitis did not show clinical signs when exposed to steady state voltages of either 0, 1, 2 or 4 volts RMS AC on water bowls. This strongly suggests that steady state cow contact voltages do not lower the resistance of cows making them more susceptible to mastitis. If this were the case, the chronic mastitis cows would be stressed, the immune system compromised, and the cows could conceivably develop clinical mastitis.

A recent Cornell University study was conducted to determine if steady state voltages would cause cows to develop clinical signs of mastitis to a greater degree if they received voltages at the water bowl, and had their teats dipped in a solution of mastitis pathogens after milking (to increase exposure of teats to pathogens). One might expect that cows would develop mastitis more readily if their immune resistance were lowered by voltage.

Sixteen cows were exposed to either 0, 1, 2 or 4 volts RMS. All cows teats were dipped in *Streptococcus uberis* after milking. Milk production, feed and water intake, somatic cell counts and milk fat and protein percentages were compared between treatments. Data showed that voltages did not significantly influence any of the variables studied. Results suggest that steady state voltages of up to 4 volts applied to drinking cups for a period of seven days do not result in an increase in mastitis when teats are exposed to mastitis pathogens.

*Source: Summarized in the NMC's newsletter Udder Topics, Vol 22, No. 4, Aug/Sept 1999 from Paper 993151, presented at the ASAE/CSAE-SCGR Annual International Meeting, Toronto, Ontario, July, 1999.*

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**Stray Voltage and Mastitis**

*Coming Soon In The Next Issue . . .*  
**Winter Forage Selection And Planting**

*Carol Collar*

*UC Cooperative Extension Farm Advisor*