

# CDQAP Quality Assurance Update - August 2019

## New Information and Resources

### Helping Dairies Reduce Antibiotic Resistance

By Dr. Michael Payne, UC Davis, School of Veterinary Medicine and Director, CDQAP



Until recently, efforts to stem antibiotic resistance have taken place almost entirely on the human side. Recognizing that drug resistance is not just a human issue, UC Davis researchers are exploring ways to mitigate resistance while at the same time promote herd health and decrease medication costs.

While commercial milk replacers containing antibiotics are no longer available over the counter, bacterial resistance in calves can still be caused by hospital milk containing low levels of antibiotics. Looking for alternatives, Dr. Richard Pereira found that pasteurization of hospital milk did not greatly reduce antibiotic concentrations, but did help prevent calves from consuming resistant bacteria.

Another method of reducing resistance and medication costs might be selective—rather than blanket—dry cow therapy. Dr. Emmanuel Okello is examining the risks and benefits of dry treating only those cows with subclinical mastitis. In his current study of nearly 1,200 cows, he is evaluating the effects of no treatment, dry treatment, an internal teat sealant, and both internal teat sealant and dry treatment.

Dr. Fernanda Ferreira is also collecting mastitis data from California dairies. The extensive data set will be used to develop an economic tool to help producers make informed decisions about which facilities are good candidates for selective dry cow therapy and which are not.

University researchers often seek to enroll commercial dairies in research projects, which helps generate California-specific data. Producers with questions about the goals or data security of specific projects can engage not only will the researcher, but also their processor or trade organization representatives.

Several resources are available to keep producers informed about the developing research and outreach efforts. The CDFA's Antibiotic Use & Stewardship program (AUS) [website](#) contains guidelines for both producers and veterinarians as well as progress reports to the legislature. On April 17, 2020, a conference held in Portland, Oregon, Partnering for Dairy Antimicrobial Stewardship, will be live streamed to viewing locations in Orland, Tulare, and Modesto.

Another great resource is a series of [four videos](#) created by CDQAP and the UC Davis School of Veterinary Medicine. The two to five-minute videos explain how dairy producers can reduce both antibiotic resistance and treatment costs. CDQAP continues to partner with researchers and CDFA to help support dairy farmers in these efforts. Please don't hesitate to contact me with any questions: [mpayne@ucdavis.edu](mailto:mpayne@ucdavis.edu) or 530-304-9306.

## Choppers in Full Swing Tips for Successful Sampling

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It's corn season throughout the Central Valley. Here's a quick refresher on taking representative samples and recording the amount of forage harvested from each field where manure was applied. Your consultant will use this information to calculate how many pounds of nitrogen, phosphorus, and potassium were removed by each harvested crop.

### Sampling Strategies

- Your best representative sample is one where 10 grab samples are collected during each field's harvest (this can be done once hourly).
- Chill or refrigerate individual grab samples.
- Mix these chilled grab samples, and make a composite as soon as possible.

### Record Keeping is Key

Your lab results from your composite are very important. Maintain up-to-date records of applications and harvests so any potential water board inspection will run more smoothly.

May you put up high quality forage in your silage piles!

