

## **Golden State Dairy Management Seminars at the World Ag Expo**

Don't miss out! Join us February 14<sup>th</sup> and 15<sup>th</sup> in Tulare for the latest in California dairy research. We've designed the seminars with the producer in mind, delivering information in a "news you can use" format. Our speaker line-up includes University of California Farm Advisors and Specialists on topics relevant to California dairying. Most importantly, the research presented is derived from California data.

### **Session 1: Animal Management and Health - Tuesday, February 14<sup>th</sup>, 11am – 12pm**



Research update on flies and dairy production - Dr. Alec Gerry  
Navel disease – the silent killer – Dr. Noelia Silva-del-Rio  
Lessons learned from raising calves in small groups - Betsy Karle

### **Session 2: Feeds & Feeding – Wednesday, February 15<sup>th</sup>, 11am – 12pm**



Selecting sorghum varieties for agronomic considerations - Dr. Bob Hutmacher  
Emerging Weed Issues in San Joaquin Valley Small Grains? - Nicholas Clark  
Byproduct trends & opportunities for the California dairy industry - Jennifer Heguy

For more information, scan the QR codes or contact Jennifer Heguy ([jmheguy@ucdavis.edu](mailto:jmheguy@ucdavis.edu)).

**We hope to see you in Tulare at the Farm Show!**

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**Next Issue: February 2023**

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## Sludge: What it's Worth

Joyce Pexton – UC Davis, Deanne Meyer – UC Davis & UC ANR &  
Nicholas Clark – UCCE Kings, Tulare & Fresno

Sludge is a nutrient dense product that results from flushing manure. It accumulates in ponds over time and must be removed to make room for water storage. Attention to nutrient management is important during pond cleanout and land application of sludge. Sludge has value on-farm as a fertilizer with appropriate testing and application.

We tested the physical and chemical properties of sludge removed from two ponds to describe its value as a fertilizer for crops.

### The Ponds:

Pond 1 contained 10 years of accumulated solids. It was de-watered, evaporated and excavated for drying.

Pond 2 had slurry removed annually with a power take-off agitator pump. Slurry was transferred to a vacuum tanker after thinner water was removed.

### The Sludge:

The physical and plant macronutrient information from sludge sampled out of the two ponds is shown in **Table 1**.

Table 1. Solids content and nutrient composition of sludge (averages & standard deviations presented)						
Source	Total Solids % as-is	Fixed Solids (Ash) - % dry matter basis -	N ----- % dry matter basis-----	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	N:P <sub>2</sub> O <sub>5</sub> :K <sub>2</sub> O ratio
Pond 1	26.01 +/- 4.23	52.97 +/- 7.31	2.78 +/- 0.29	3.04 +/- 0.91	0.7 +/- 0.07	4.00 : 4.38 : 1
Pond 2	8.86 +/- 1.50	Data not available	3.24 +/- 0.13	2.29 +/- 0.29	1.82 +/- 0.70	1.80 : 1.26 : 1

On a dry matter basis both ponds had similar values for nitrogen (N) and phosphate (P<sub>2</sub>O<sub>5</sub>). Pond 1 had lower potash (K<sub>2</sub>O). Keep in mind these are dry matter numbers, and the total amount of nutrients applied, as-is, may be very different between these products due to the difference in their water content.

The N:P<sub>2</sub>O<sub>5</sub>:K<sub>2</sub>O ratios indicate that sludge can be used as a fertilizer, providing value on farm due to its low cost and reduced need for commercial fertilizers. Note the higher potash concentration in Pond 2 slurry. Fertilizing for crop N with this product would apply more than twice the potash than would fertilizing with solids from Pond 1, while meeting the same crop N demand. Work with your certified crop adviser to utilize sludge as a fertilizer on farm and keep your nutrient budget balanced. Sludge needs special attention due to high nutrient density and variability of water content.



## Check it Out: Golden State Dairy Management Website

Our website has been updated with content from the UCCE Dairy Team.

Check it out, today: <https://ucanr.edu/goldenstatedairy>

- Current conference information
- Past conference and webinar presentations
- Golden State Dairy Newsletter (current and past editions)
- Research project information (AMMP factsheets, almond hull feeding info, etc.)
- Dairy Team contact information
- Links to our partner websites



## Do You Feed High Byproduct Diets?

I have a project funded by the California Dairy Research Foundation looking at high levels of byproduct feeding. I'm in search of "case study" dairies that are feeding 50% + byproducts in their lactating ration.

Almond hulls, cottonseed, canola, soybean, straws...all these feedstuffs would be considered byproducts for the purpose of this project.

If you're feeding a high level of byproducts, and are potentially interested in participating (or hearing more about the project), I'm happy to share details of what the study entails. My contact information is included below.

Jennifer Heguy  
UC Dairy Farm Advisor  
Merced, Stanislaus & San Joaquin Counties  
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**THANK YOU!**

From the entire UC Dairy Team, thank you for your continued support of our dairy research and extension programs. We wish you the best in the year ahead and look forward to working with you in 2023.

University of California Cooperative Extension  
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Merced, Stanislaus & San Joaquin Counties

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Merced, Stanislaus & San Joaquin Counties



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