



**University of California**  
Agriculture and Natural Resources

Making a Difference for California

# By-product feeding practices on California Dairies

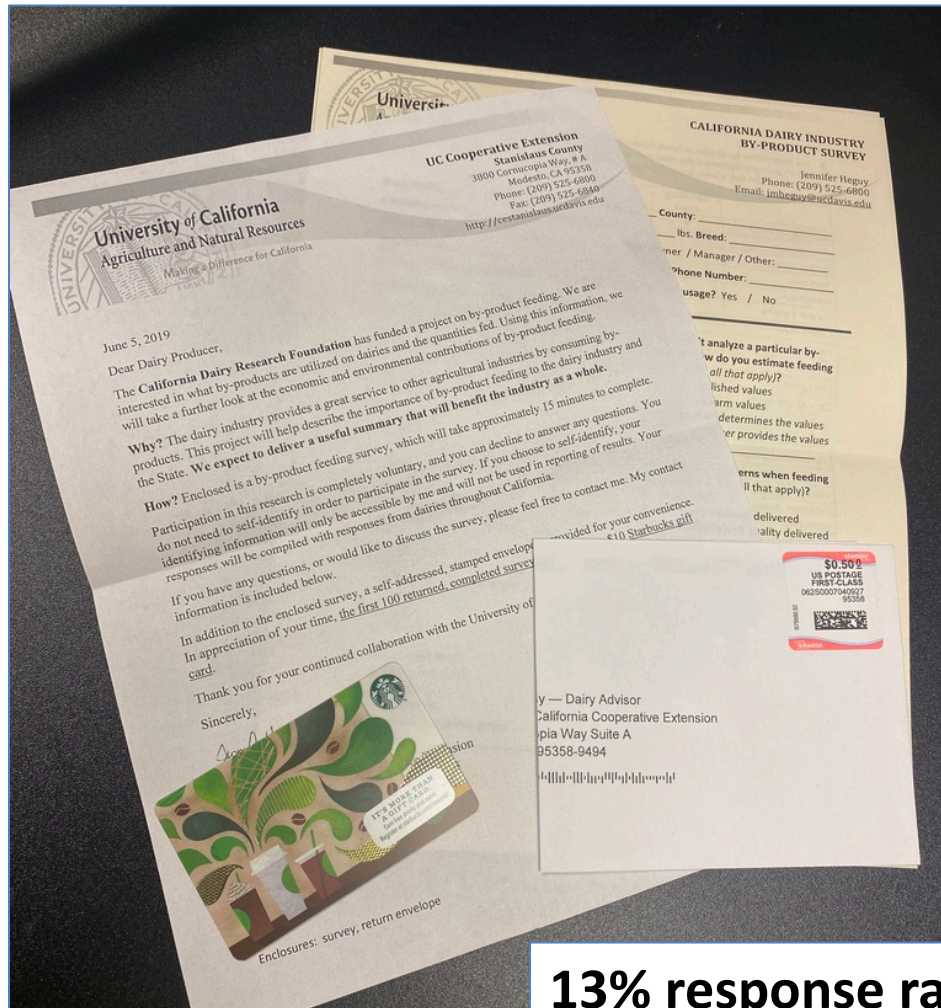
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**Jennifer Heguy** – UC Cooperative Extension Farm Advisor  
Merced, Stanislaus & San Joaquin Counties



Golden State Dairy Management Conference, March 4, 2020, Modesto

# Survey



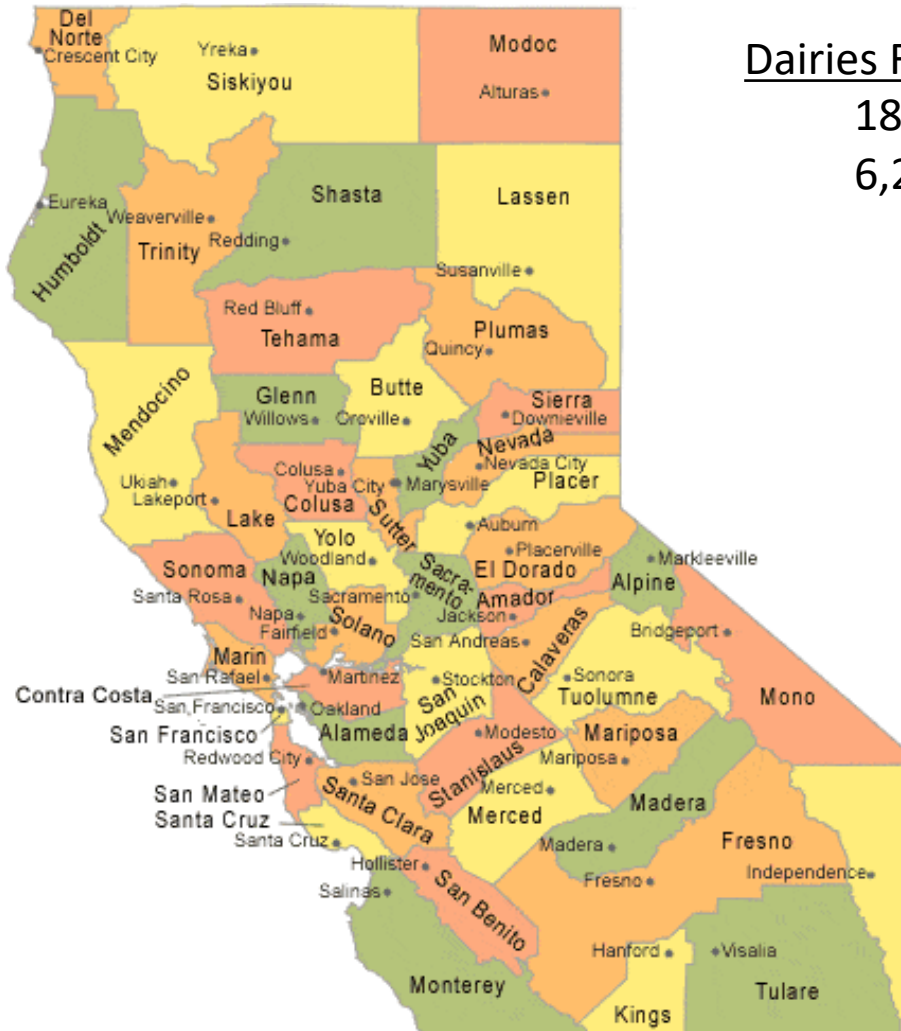
**13% response rate, 156 dairies**

# Demographics

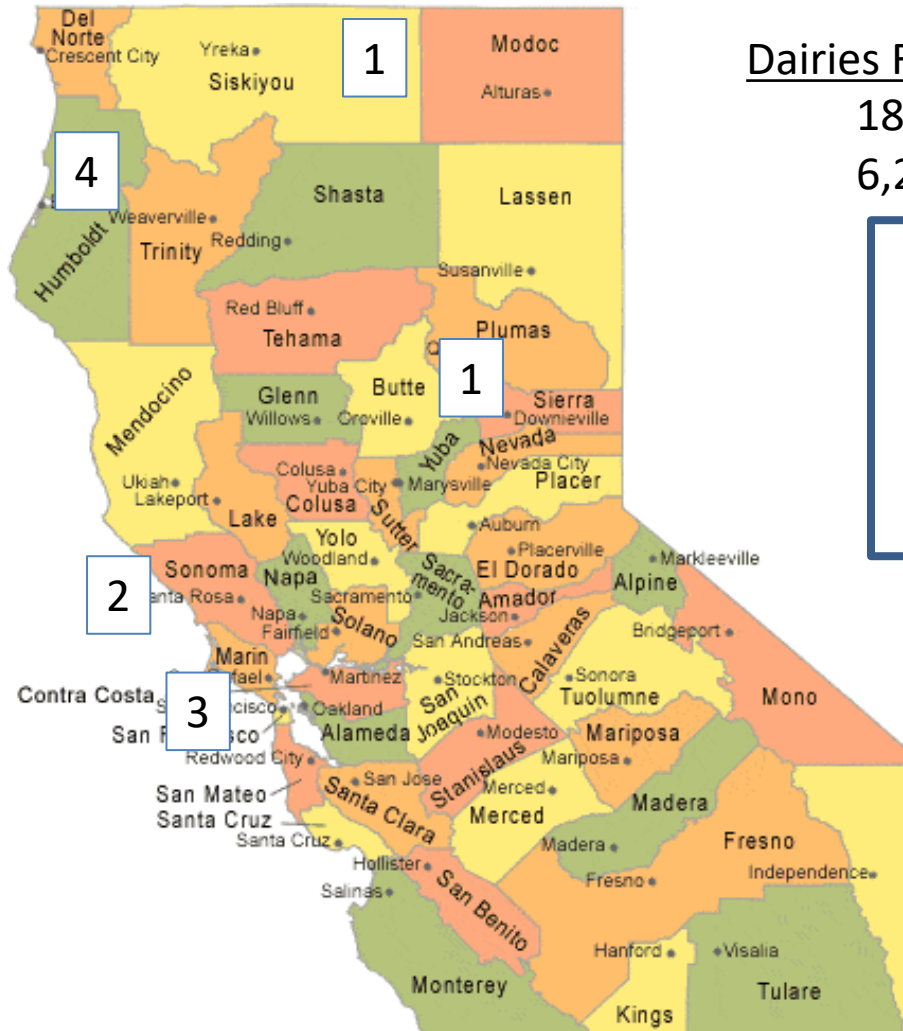
## Dairies Feeding **NO** By-Products:

18 dairies, 11.5%

6,240 lactating cows (15 dairies)



# Demographics



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18 dairies, 11.5%

6,240 lactating cows (15 dairies)

## Coastal/Northern California Herd Size:

Average: 279 lactating cows/dairy

Smallest: 70 lactating cows/dairy

Largest: 600 lactating cows/dairy



# Demographics

## Dairies Feeding **NO** By-Products:

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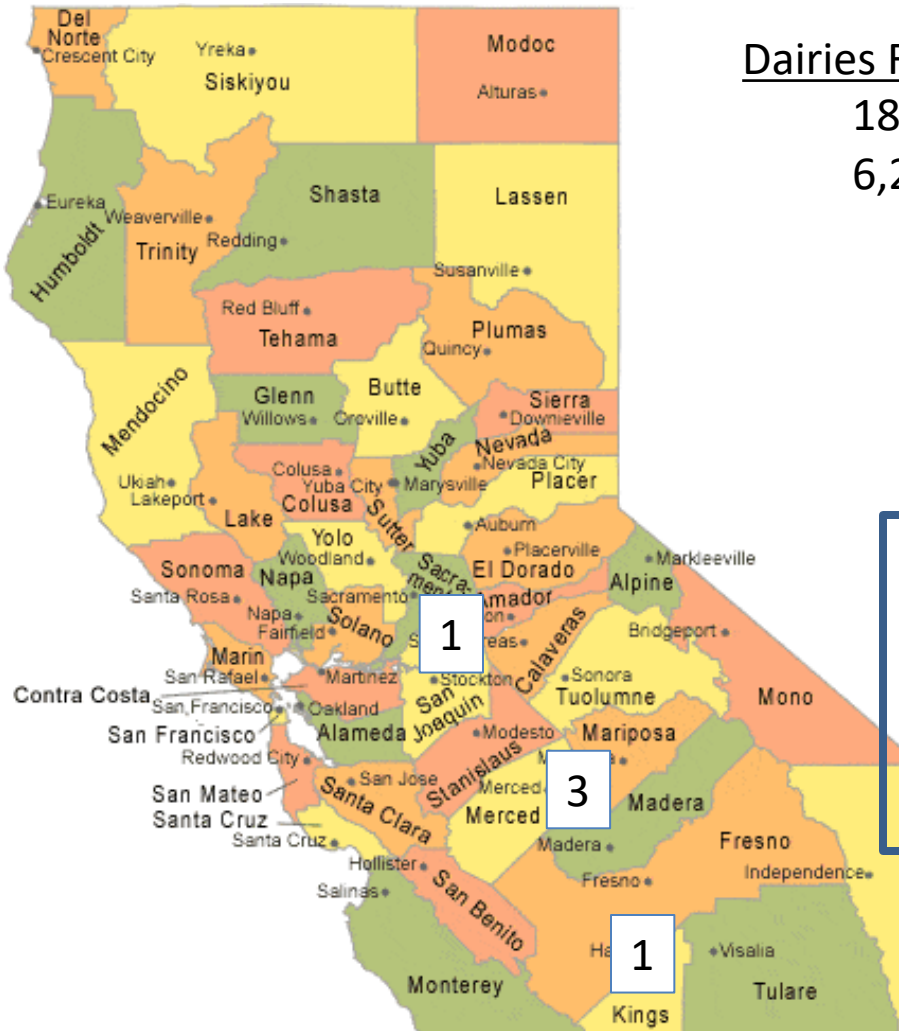
Largest: 600 lactating cows/dairy

## San Joaquin Valley Herd Size:

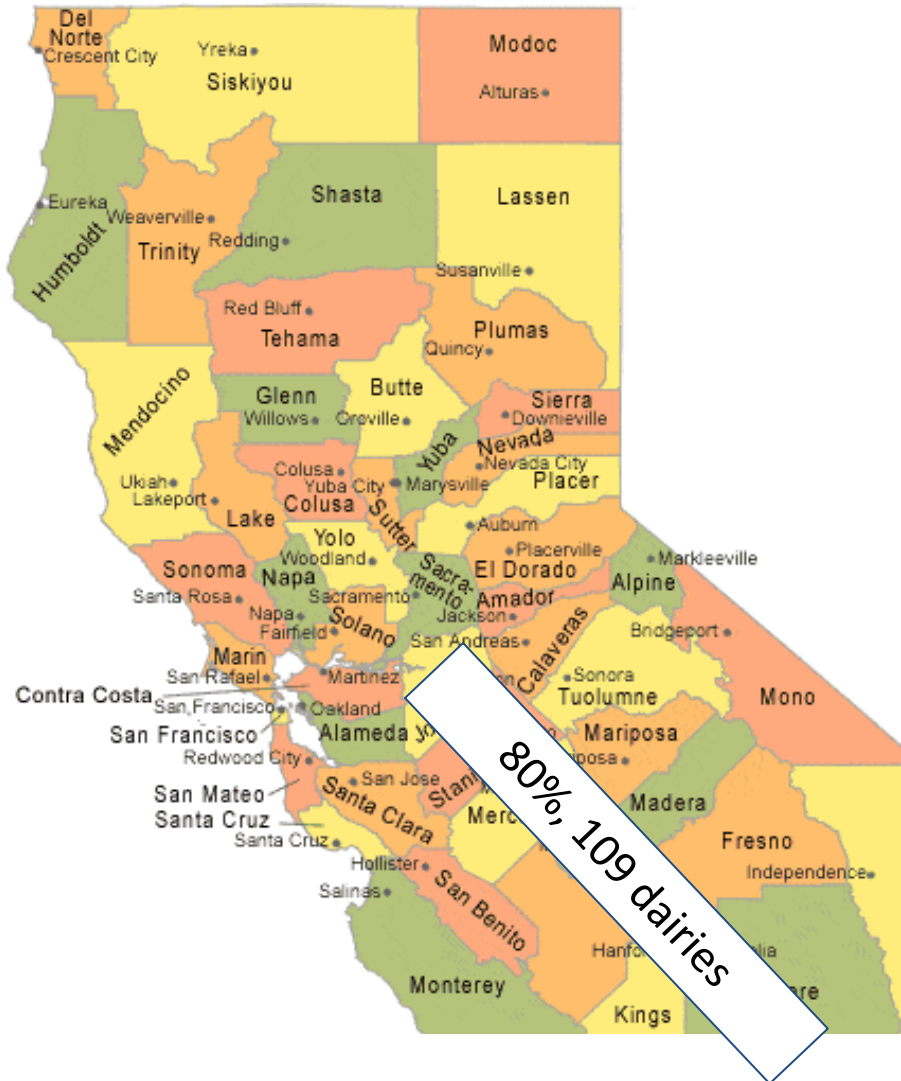
Average: 690 lactating cows/dairy

Smallest: 400 lactating cows/dairy

Largest: 1,200 lactating cows/dairy



# Demographics



## Dairies Feeding By-Products:

138 dairies, 88.5%

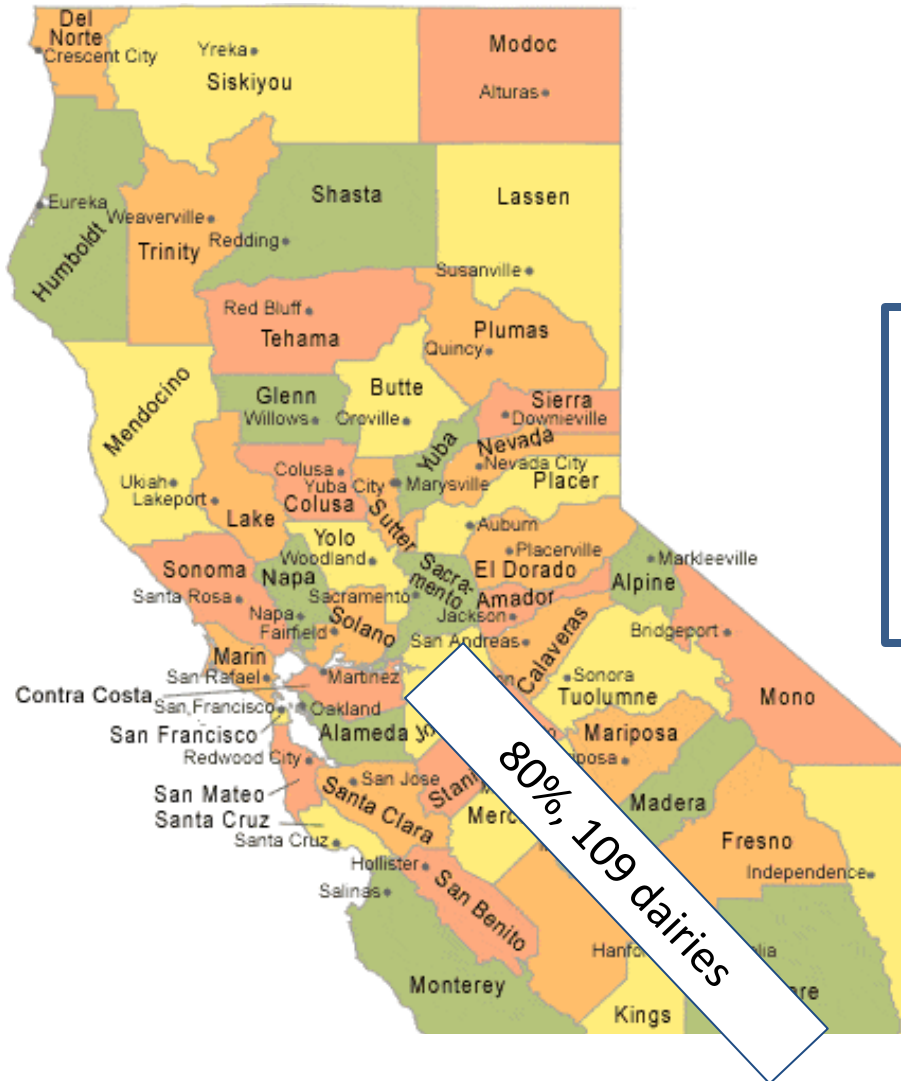
195,276 lactating cows (131 dairies)

1,490 lactating cows/dairy

# Demographics



# Demographics



## Dairies Feeding By-Products:

138 dairies, 88.5%

195,276 lactating cows (131 dairies)

1,490 lactating cows/dairy

## Herd Breed Break-down:

Holstein herds = 69%

Jersey herds = 3%





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# Management Practices

Dairy name: \_\_\_\_\_ County: \_\_\_\_\_

# Milking cows: \_\_\_\_\_ Milk/cow/day: \_\_\_\_\_ lbs. Breed: \_\_\_\_\_

Your name: \_\_\_\_\_ Role: Owner / Manager / Other: \_\_\_\_\_

Email address: \_\_\_\_\_ Phone Number: \_\_\_\_\_

May we contact you with follow-up questions on by-product usage? Yes / No

**1. Do you feed agricultural by-products?**

- a. Yes
- b. No (*You're done – please submit!*)

**2. Do you purchase pre-mixed feed that contain by-products?**

- a. Yes
- b. No

**3. Why do you incorporate by-products in rations (select all that apply)?**

- a. Price
- b. Availability
- c. Advised by nutritionist
- d. Other: \_\_\_\_\_

**6. If you don't analyze a particular by-product, how do you estimate feeding value (select all that apply)?**

- a. Book/published values
- b. Historical farm values
- c. Nutritionist determines the values
- d. Supplier/broker provides the values
- e. Other: \_\_\_\_\_

**7. What are your concerns when feeding by-products (select all that apply)?**

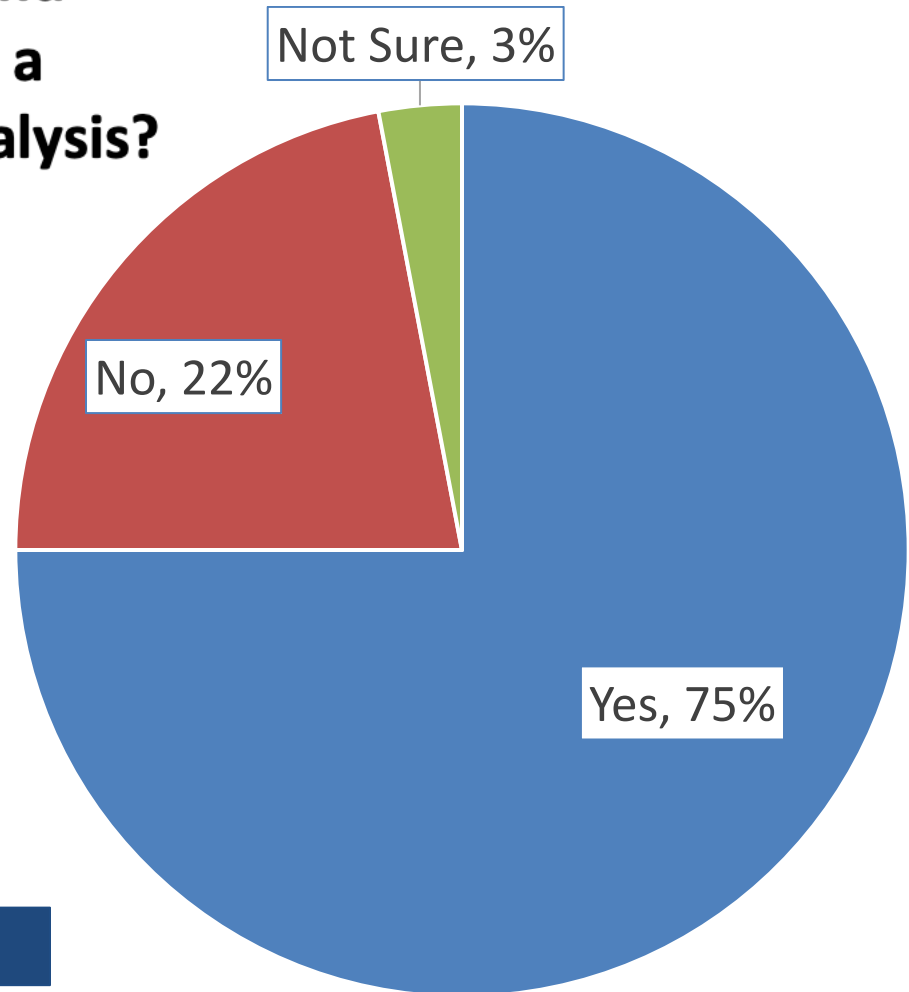
- a. Availability
- b. Quality of material delivered
- c. Variability in load quality delivered
- d. Variability in load moisture content
- e. Not getting what you paid for

**Do you (or your nutritionist) send  
samples of by-product feeds to a  
commercial lab for nutrient analysis?**

- a. Yes
- b. No
- c. Not sure

**Do you (or your nutritionist) send samples of by-product feeds to a commercial lab for nutrient analysis?**

- a. Yes
- b. No
- c. Not sure



138 responses

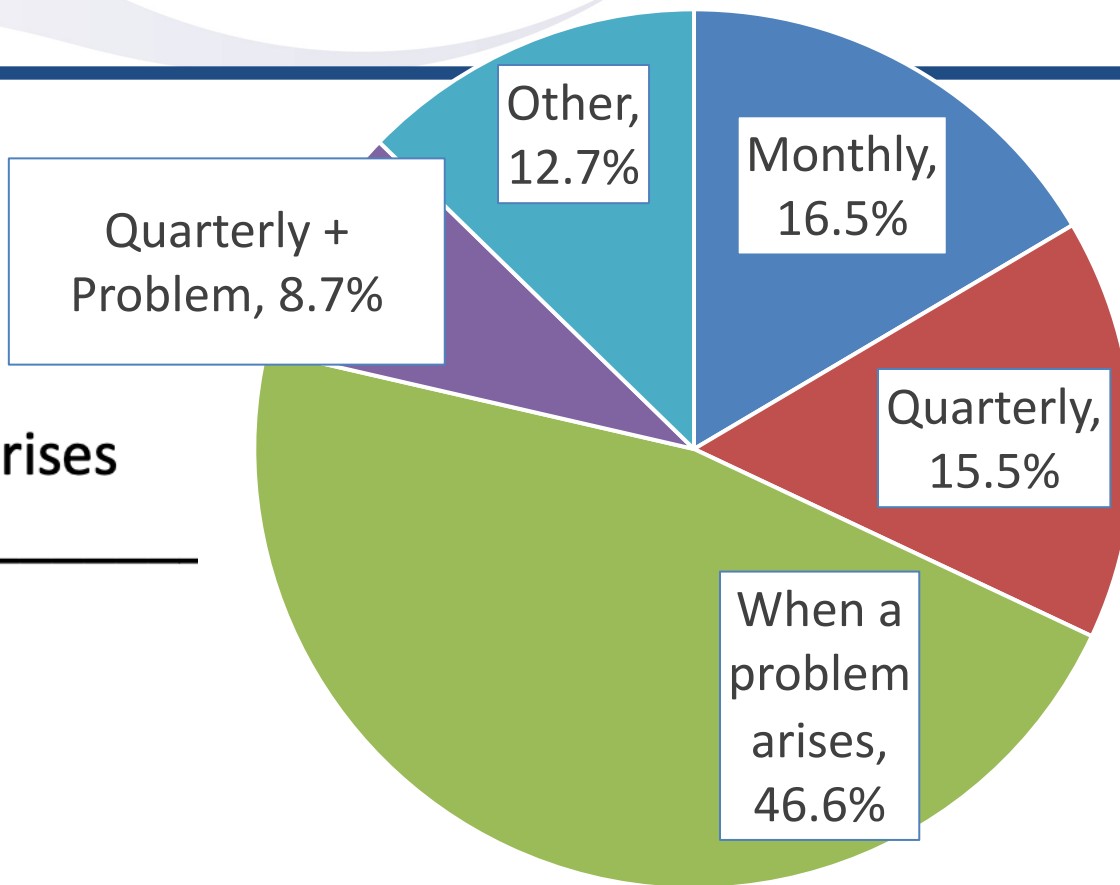
## **If yes, how often?**

- a. On arrival only
- b. Monthly
- c. Quarterly
- d. When a problem arises
- e. Other: \_\_\_\_\_



## If yes, how often?

- a. On arrival only
- b. Monthly
- c. Quarterly
- d. When a problem arises
- e. Other: \_\_\_\_\_



103 responses

**If you don't analyze a particular by-product, how do you estimate feeding value (*select all that apply*)?**

- a. Book/published values
- b. Historical farm values
- c. Nutritionist determines the values
- d. Supplier/broker provides the values
- e. Other: \_\_\_\_\_

**If you don't analyze a particular by-product, how do you estimate feeding value (*select all that apply*)?**

- a. Book/published values
- b. Historical farm values
- c. Nutritionist determines the values
- d. Supplier/broker provides the values
- e. Other: \_\_\_\_\_

123 responses

Nutritionist determines the values	80%
Book/published values	18%
Supplier/broker provides the values	12%
Historical farm values	11%
Other: "trial and error"	1%

## **What are your concerns when feeding by-products (select all that apply)?**

- a. Availability
- b. Quality of material delivered
- c. Variability in load quality delivered
- d. Variability in load moisture content
- e. Not getting what you paid for
- f. Molds, yeasts, other undesirable products
- g. Storage
- h. Ability to feed wet-products in a timely manner
- i. Other: \_\_\_\_\_

## What are your concerns when feeding by-products (select all that apply)?

133 responses

Availability	82%
Quality of material delivered	69%
Variability in load quality delivered	50%
Molds, yeasts, other undesirable products	47%
Variability in load moisture content	43%
Ability to feed wet-products in a timely manner	38%
Not getting what you paid for	35%
Storage	24%





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# **By-Products Fed**

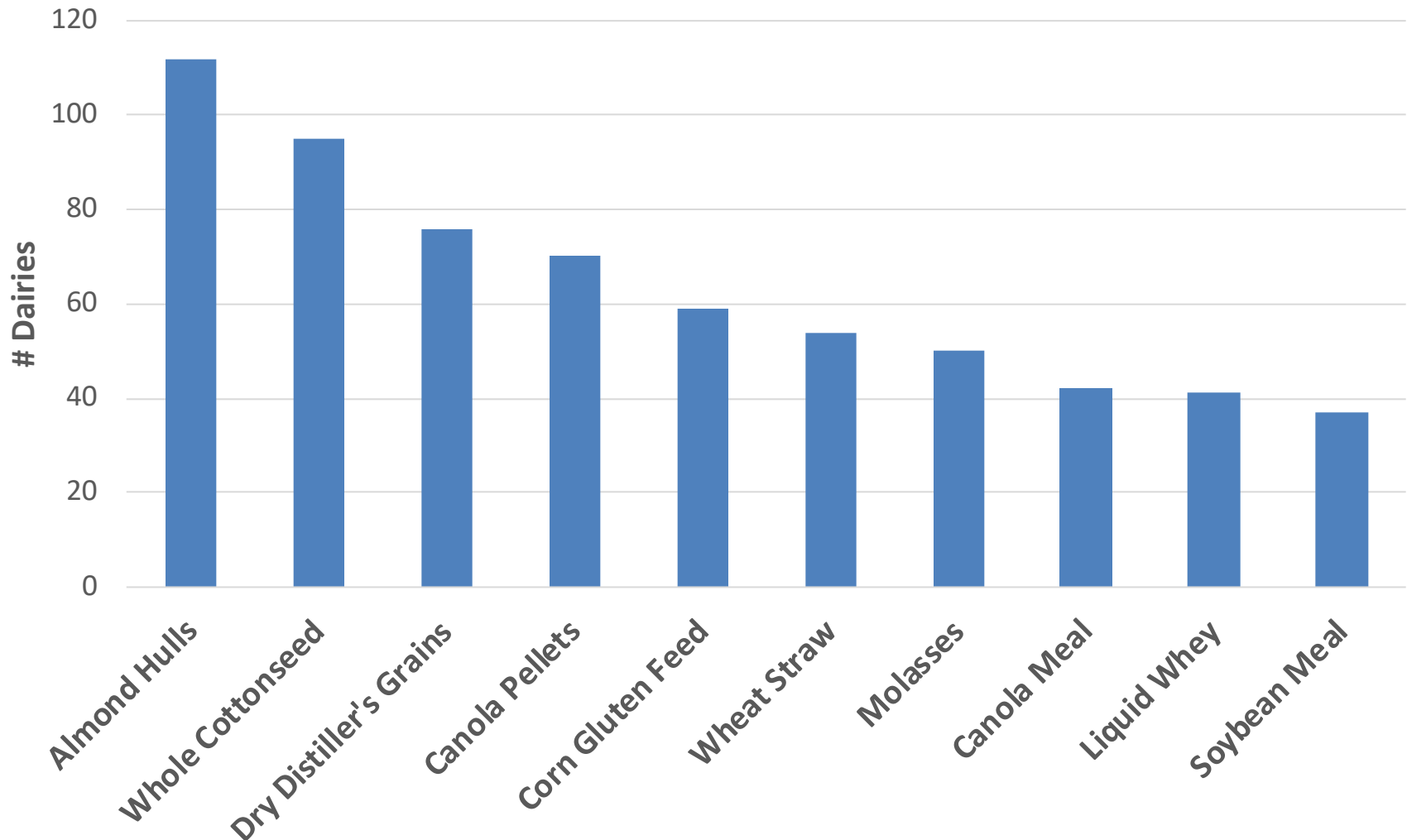
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8. For each of the by-products listed below (or ones you fill in at the end), please indicate which animals consumed the feedstuff and approximate usage for 2018. If a by-product listed was not fed, please leave that row blank.

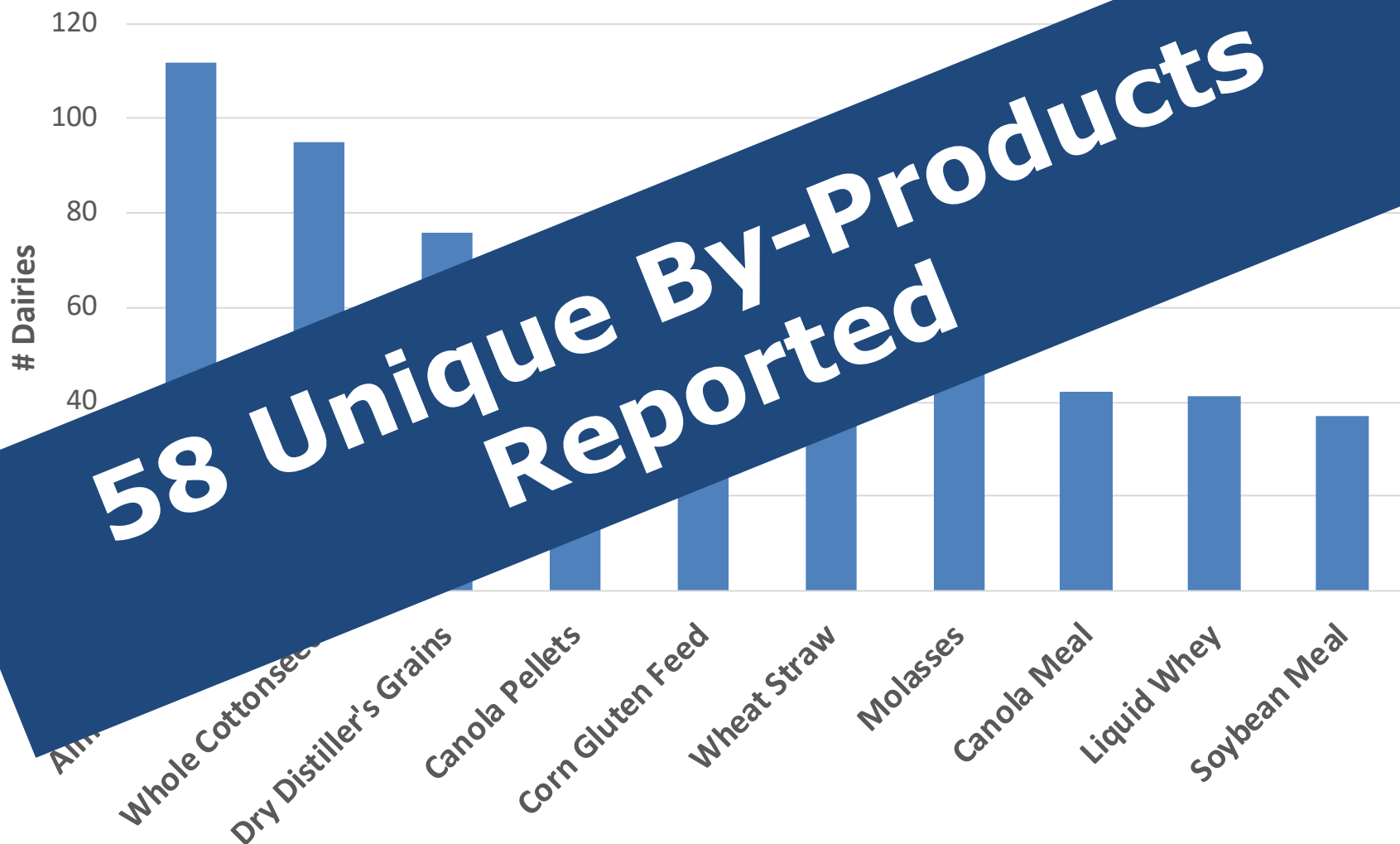
	Lactating Cows	Dry Cows	Heifers	Approximately how many tons did you purchase in 2018?
<b>Ex: Almond Hulls</b>	<b>x</b>	<b>x</b>		<b>25 tons</b>
Almond hulls				
Bakery waste				
Beet pulp				
Bloodmeal				
Brewer's grains				
Canola meal				
Canola pellets				
Citrus pulp				
Corn germ				
Corn gluten feed				
Cottonseed meal				
Cottonseed, whole				
Cottonseed, pima				
Distiller's grains, dry				
Distiller's grains, wet				
Eat (inert animal)				

# Top 10!





# Top 10!





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**What's Next?**



# What's Next?

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## Formulating rations (theoretically) with and without by-products

- Environmental and Economic benefits of feeding by-products to...

the dairy industry, other ag industries (source of by-products) and California

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# THANK YOU!

- Dairy producers for answering our survey
- CDRF for funding

## Project Team

**Ed DePeters**

Jim Fadel

Dan Sumner



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# Thank You!

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