



**AMERICAN  
BIOGAS  
COUNCIL**

# Are Manure Subsidies Causing Farmers to Milk More Cows?

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ABC Webinar

June 23, 2023

# Quick Notes



You should be able to hear me talking now. If you can't, use the questions module to describe your issue.

Two Audio Options: Phone or Computer  
Choose one and connect

Pro tip: Don't call in on our phone if your audio is set to "Mic and Speakers"

Ask questions using the Questions Panel on the right side of your screen at any time.

The recording of the webinar and the slides will be available after the event. We will post them online and send you a link.

The screenshot shows the GoToWebinar interface. At the top, there's a menu with 'File', 'Options', 'View', and 'Help'. Below that, a yellow banner reads 'Attendees still on hold' with instructions to 'Press \*1 to Start the Broadcast for all attendees.' and a checked box for 'Record on start'. A sidebar on the left contains icons for navigation. The main content area is divided into two sections. The top section, labeled 'Audio', shows options for 'Computer audio' (unselected) and 'Phone call' (selected). It also displays dialing information: 'Dial: +1 (415) 655-0052', 'Access Code: 147-638-497 #', and 'Audio PIN: 79 #'. Below this is a 'Problem dialing in?' link. The bottom section, labeled 'Questions', shows a table with columns for 'Question' and 'Asker'. The table is currently empty. At the bottom of the interface, there are options to 'Send Privately' or 'Send to All', and a status bar at the very bottom indicating 'Webinar Now' with 'Webinar ID: 815-417-091' and the 'GoToWebinar' logo.

Audio

Questions

# Speakers



**Dr. Aaron Smith**  
*DeLoach Professor of Agricultural  
& Resource Economics  
UC Davis*



**Patrick Serfass (Moderator)**  
*Executive Director  
American Biogas Council*

# Who We Are



## The voice of the biogas industry in the US

### All sectors represented

- Project developers/owners
- Equipment retailers and dealers
- Waste management companies
- Waste water companies
- Farms
- Utilities
- Municipalities
- Consultants and EPCs
- Financiers, accountants, lawyers and engineers
- Non-profits, universities and government agencies

**370+**  
**organizations**

**5,000+**  
**individuals**





# Are Manure Subsidies Causing Farmers to Milk More Cows?

**Aaron Smith**, DeLoach Professor of Agricultural Economics/UC Davis

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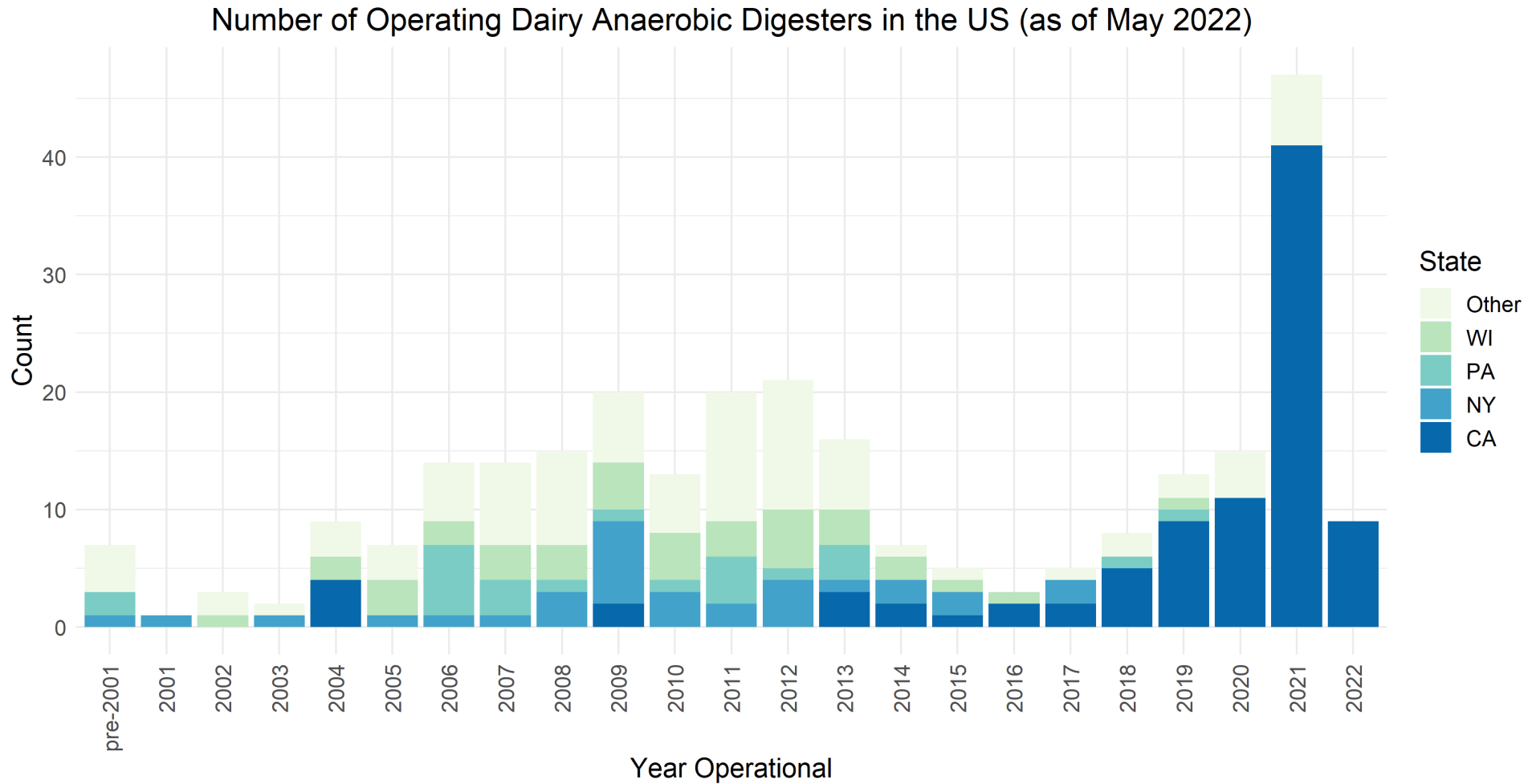
# The Cobra Effect

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- In colonial India, the British government wanted to reduce the number of cobras in Delhi, so it offered a bounty for dead cobras.
- Profit-seeking locals responded by breeding cobras to receive the bounty.
- What happens when we pay people to capture methane from cow manure?



# 70 of 91 CA Digesters Came Online Since 2019

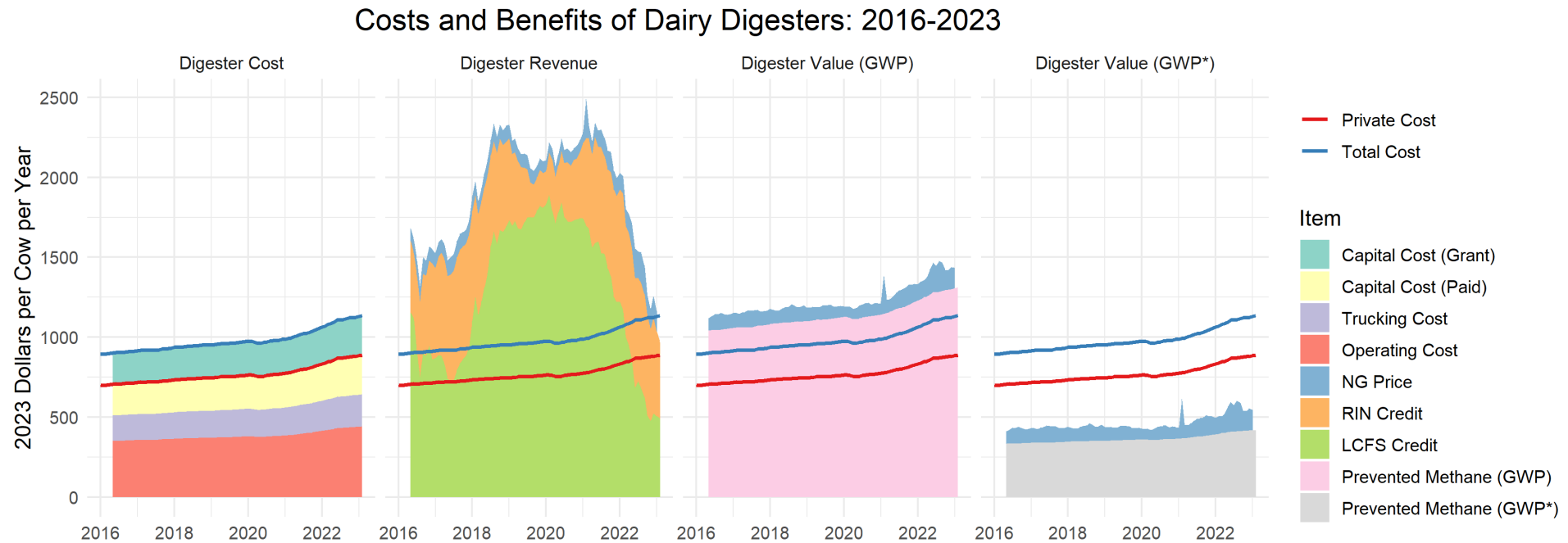


<https://agdatanews.substack.com>

Source: <https://www.epa.gov/agstar/livestock-anaerobic-digester-database>

# Value of Dairy Digesters is from Prevented Methane Emissions

- Digesters cost: **\$1,130** per cow. Market value of gas: **\$128** per cow.
- Social value of prevented methane emissions: **\$420-\$1,300** per cow.
  - depending method of accounting for climate damages
- CA and federal fuel programs pay **\$1,100-\$2,200** per cow

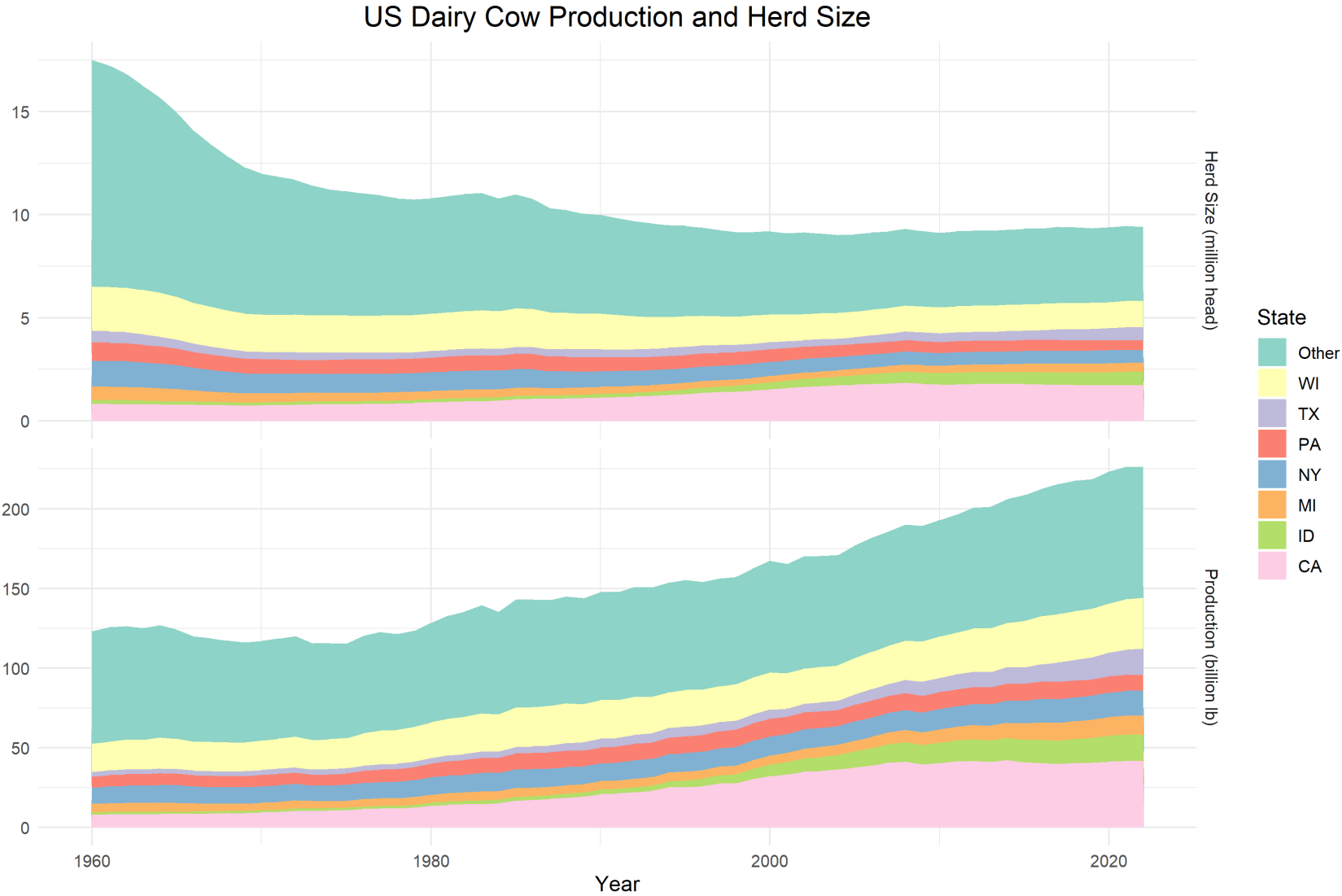


<https://agdatanews.substack.com>  
 Cost data source: Maas Energy; cost data are for 2023---other years approximated by discounting at rate of CPI inflation  
 LCFS Prices: <https://ww2.arb.ca.gov/resources/documents/weekly-lcfs-credit-transfer-activity-reports>  
 RIN Prices: <https://www.epa.gov/fuels-registration-reporting-and-compliance-help/rin-trades-and-price-information>  
 NG Prices: [https://www.eia.gov/dnav/ng/ng\\_pri\\_sum\\_dcu\\_nus\\_m.htm](https://www.eia.gov/dnav/ng/ng_pri_sum_dcu_nus_m.htm)  
 SCC = \$185 in 2020; All values adjusted for inflation using CPI

- Details: *The Value of Methane from Cow Manure* (Ag Data News, 4/15/23)

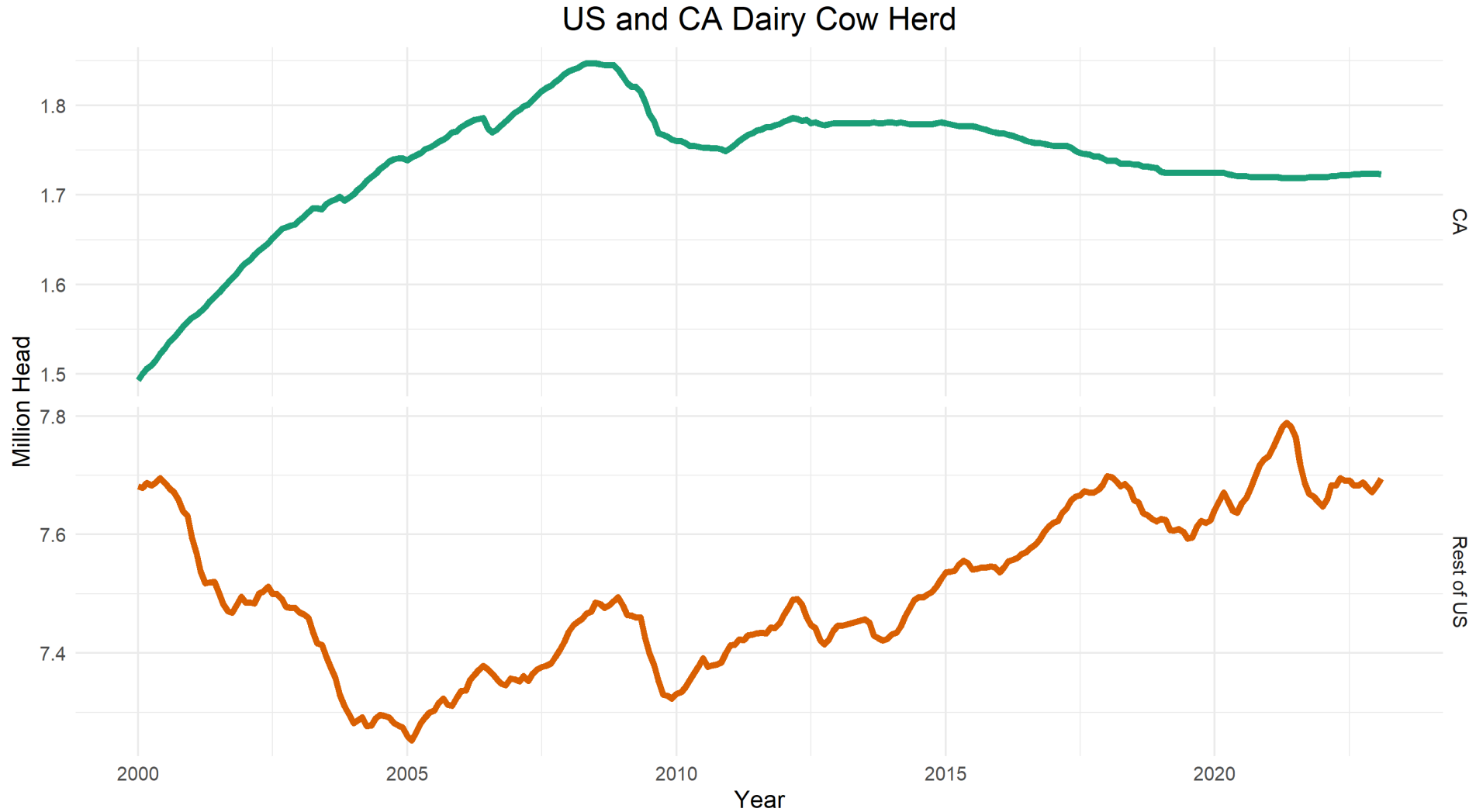


# Dairy Cows Now Concentrated in Fewer States

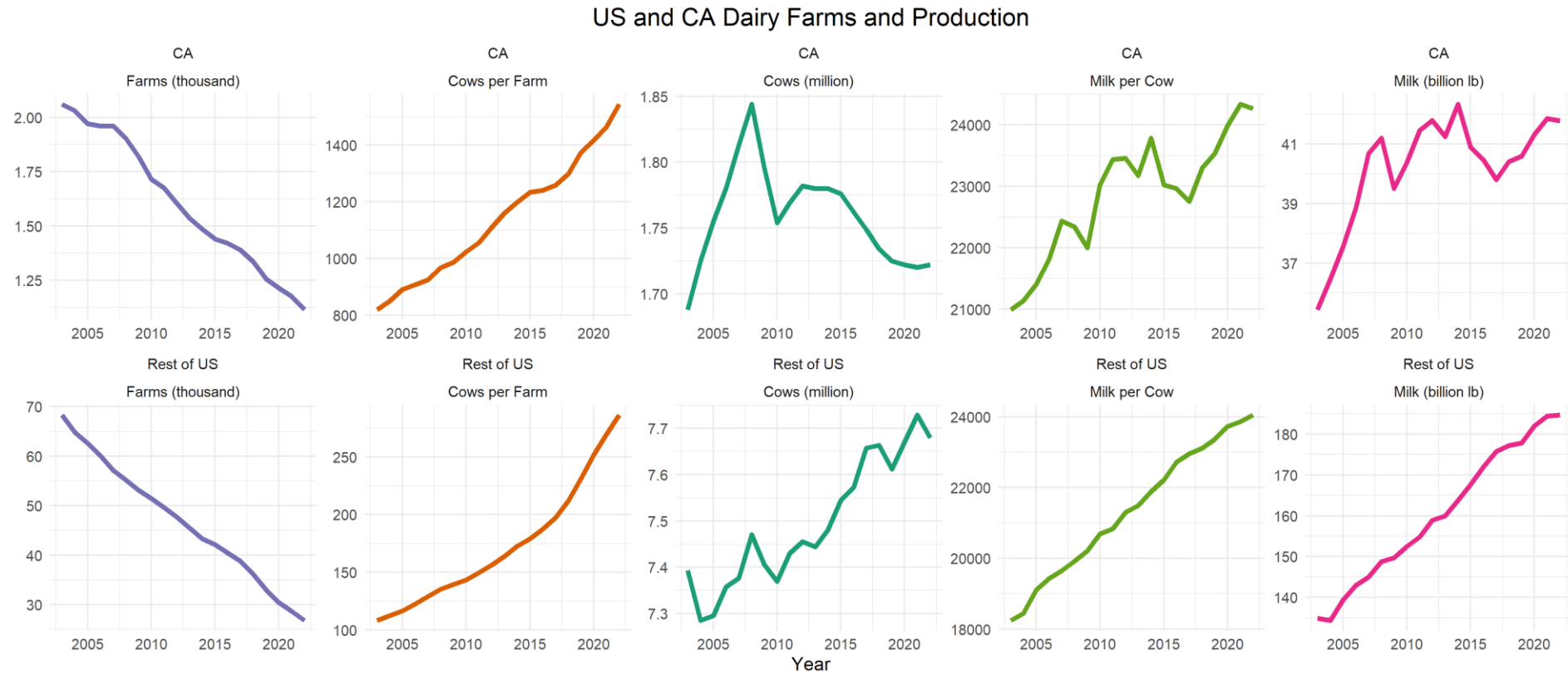


<https://agdatanews.substack.com>  
Source: <https://quickstats.nass.usda.gov>

# CA Dairy Herd Stopped Growing in 2007



# Dairy Farms are Getting Bigger



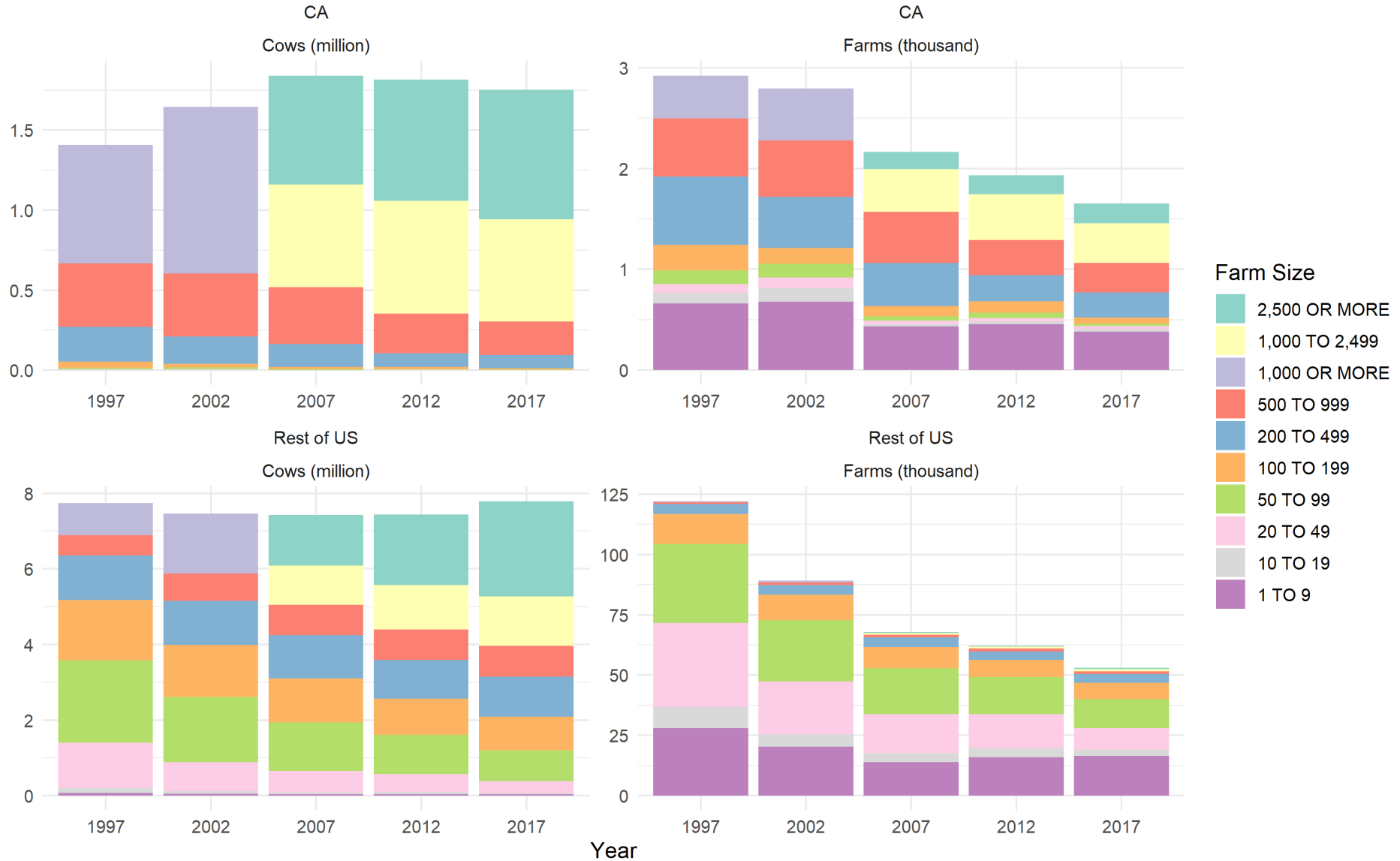
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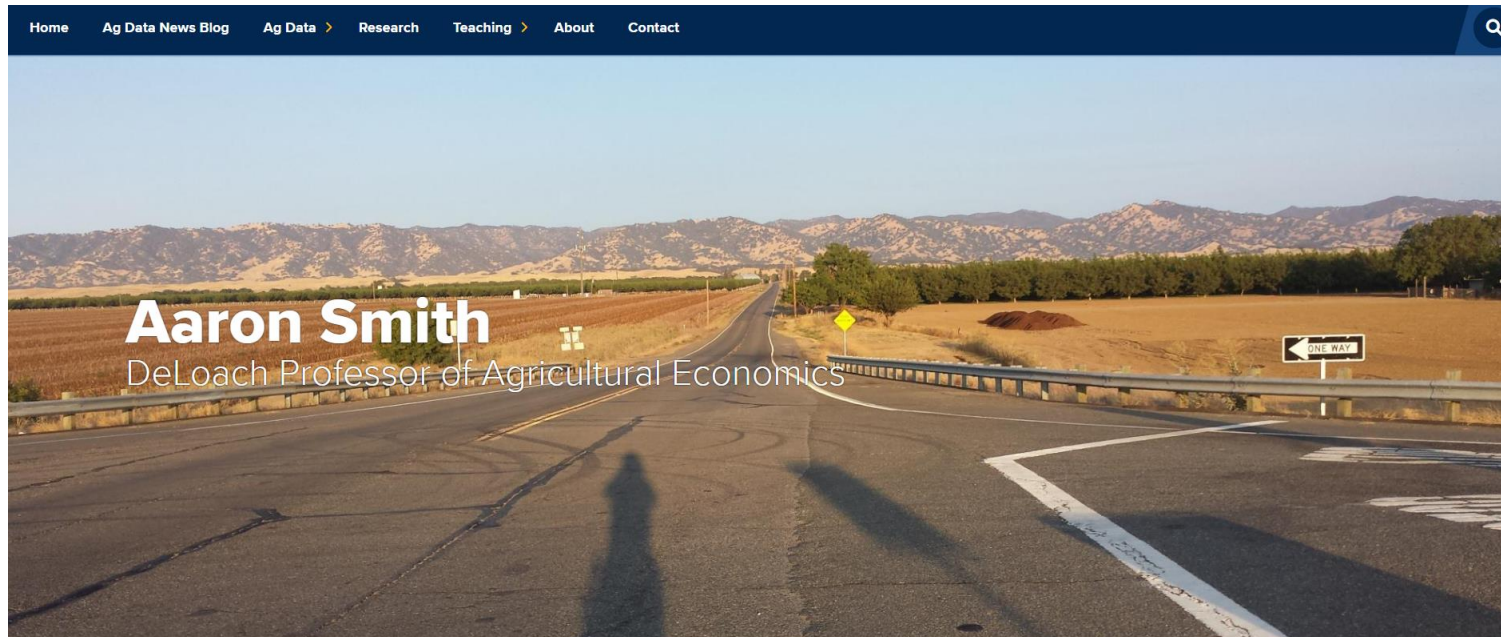
Q: Did the digester boom cause consolidation in dairy farms?

A: Trend in cows per farm accelerated in 2018, before the boom.

# 2022 Census Will Tell Us More

## California and US Dairy Cows and Farms





Ag Data News Blog



Ag Data



Research



Teaching

**Aaron Smith**, DeLoach Professor of Agricultural Economics/UC Davis

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# Questions and Answers



**Dr. Aaron Smith**

*DeLoach Professor of Agricultural  
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UC Davis*



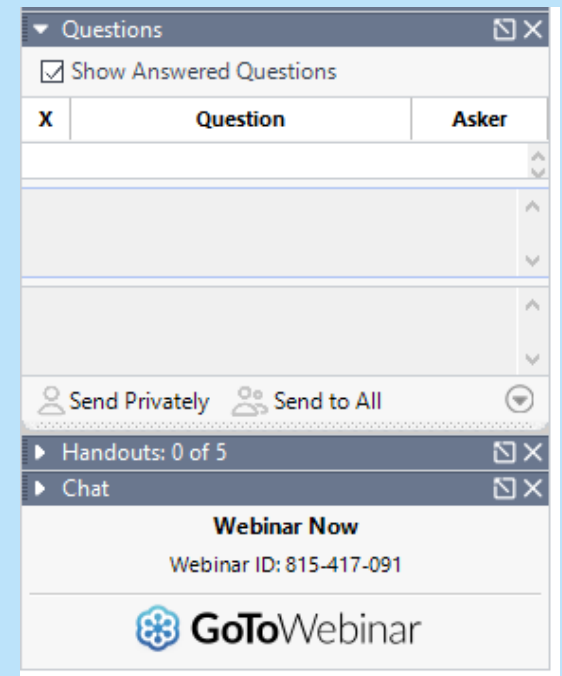
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Ask Questions  
using the  
Questions  
Panel on the  
right side of  
your screen.

All questions and  
comments will be  
recorded.

A recording of the  
webinar and  
slides will be  
available to  
attendees next  
week





# Thank you!

Don't forget to fill out the **survey** after the webinar

## Become a member!

- Receive regulatory and policy intelligence
- Connect with other biogas and anaerobic digestion leaders
- Support the industry's growth and outreach

See you at Operator School in August and BUSINESS OF BIOGAS in October!

Thanks for attending!