



A quarterly newsletter detailing poultry related work, research, and events in California

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## UC Davis Cooperative Extension goes to Canada



Ms. Theresa Valdez, Creative Director, Pitesky Lab at UC Davis

Back in April, some members of the Population Health and Reproduction department at UC Davis School of Vet Med had the opportunity to attend the Western Poultry Disease Conference in Vancouver, Canada.

Run by the American College of Poultry Veterinarians, this conference invites poultry disease experts to present oral and poster presentations to share insight into their specialties surrounding infectious diseases in the poultry industry. This year's theme was "Poultry Diseases of Concern in Modern Production Systems".



Above: Downtown Vancouver cityscape Right: Brock Riggs presents on the Prevalence and viral ecology of avian influenza in wetlands of high versus low waterfowl use in the Central Valley of California



Photo credit: Myrna Cadena

### Questions or Comments?

Contact Maurice Pitesky at:

[mepitesky@ucdavis.edu](mailto:mepitesky@ucdavis.edu)  
(530) 752-3215  
<https://ucanr.edu/sites/poultry/>

OR

Reach out to our editor  
Theresa Valdez at:  
[tvaldez@ucdavis.edu](mailto:tvaldez@ucdavis.edu)

### Poultry? We have an app for that!

Backyard Poultry Central is your hub for the latest information on husbandry practices for new and experienced backyard owners. Get notified of outbreaks as soon as they happen, and receive critical information at your fingertips.

Download the "Backyard Poultry Central" app on the Google Play Store



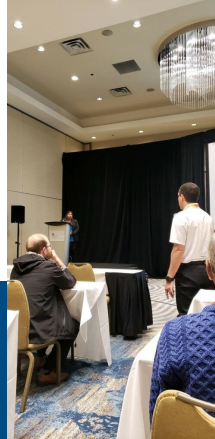
Scan Me!



# UC Davis Cooperative Extension goes to Canada continued...

The team from the Cooperative Extension Poultry lab that attended included: Ms. Myrna Cadena, a PhD student in animal biology who presented her most recent work on [Traditional survey-based methods for mapping backyard and game fowl poultry movement in California](#), Mr. Joseph Gendreau, a Research Data Analyst who presented [Understanding spatio-temporal trends of non-commercial poultry sales in California using online classified advertisement data](#), Mr. Brock Riggs, a Junior Specialist researching waterfowl who presented his recent work:

[Prevalence and viral ecology of avian influenza in wetlands of high versus low waterfowl use in the Central Valley of California](#), and Ms. Theresa Valdez, a Creative Director gathering information for the lab's first documentary project.



Left: Ms. Cadena answering questions after her presentation. Pictured: Myrna Cadena, Patrick Montine, Dr. Rodrigo Gallardo  
Photo credit: Theresa Valdez



Not to worry, those minds do take breaks every once in a while! While they were visiting, they figured it was the perfect opportunity to go see a hockey game together and do some sight-seeing along downtown Vancouver. The remote branch of the lab was also glad to get some quality time with the main crew, especially during the road trip across the US/Canada border.



Above: The team at a minor league hockey game. (The score was 4:1 Spokane Chiefs vs Vancouver Giants)

Left to right: Dr. Pitesky, Theresa Valdez, Joseph Gendreau, Brock Riggs  
Photo credit: Myrna Cadena

Left: Theresa Valdez, Myrna Cadena at Emery Barnes Park  
Photo credit: Joseph Gendreau

## Community Corner

An interview with Amina Wilson, an undergraduate intern from the Pitesky lab

### What project were you working on, and what did you do?

"I worked on the tomato cover crop and pastured poultry project. The important part of what I did was taking canopy cover measurements of each of the plots. We would use an app called canopeo which would give us an estimated % cover of each plot. Our plot had a lot more weeds than others for some reason, so I also had a lot of manual weeding. I also collected whole leaf samples for total nitrogen analysis and took soil samples to measure nutrient levels. During the chicken's rotation in the fall, our responsibilities included rotating the mobile coops, weighing the birds and feed to keep track of how much mass they put on and making sure they were unharmed."

### What was your favorite part of the project?

"Observing the chickens grow up and seeing how fast they grew to processing age was interesting. It was fun to find that some flocks learned quickly to stay away from the [mobile] coop when it was being moved, and others weren't so bright. It was my first experience with chickens. Chasing them down was quite a challenge, but I feel more comfortable now than I did before working with them."

***"The project made me think more about sustainable agriculture [than animal science]...it wasn't really a field I had considered before..."***

# Integrating Pastured Poultry with Vegetable Production : Year 2

Ms. Faye Duan, graduate student, Pitesky Lab at UC Davis

This summer, the USDA Organic Agriculture Research and Extension (OREI) grant for integrative cropping and poultry production is in full swing into producing a crop of butternut squash on our one-acre experimental field at the Russell Sustainable Agriculture Research Ranch in Davis.



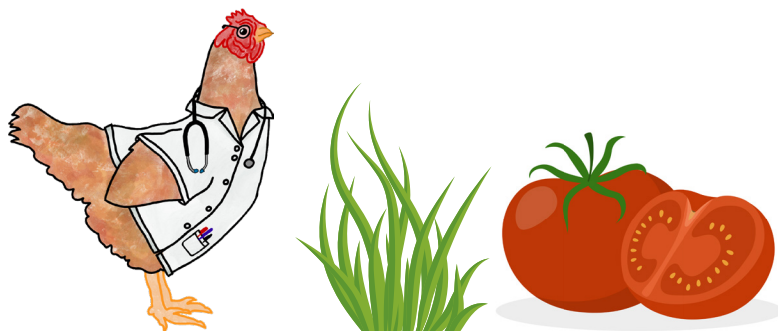
In collaboration with University of Kentucky and Iowa State University, the goals of this study are to successfully integrate crop and poultry production in order to improve soil quality and fertility, reduce off-farm input, enhance on-farm diversity and increase farmer profitability.

## UC DAVIS



In 2021, our integrated production system at Russell Ranch produced a fall and a spring flock of broiler chickens, with a rotation of processing tomatoes over the summer, and cover crop over the winter. In 2022, our most recent spring flock continued to deposit nutrient rich droppings as they were rotationally grazed on the cover crop during the months of March and April.

Cover crop and chicken droppings will not only boost the soil nutrient levels, but, compared with mineral fertilizers used in conventional crop production, they will do a better job of revitalizing healthy soil structure and soil microbial communities—boosting the yield and health of the crop in a more holistic, ecologically-friendly way.



**What was the most stark difference that the pandemic made through your education?**

“Getting lab experience was hard. I’m very lucky to have been able to catch up [through the internship], but I know many others who weren’t as fortunate.”

Amina just graduated from UC Davis College of Biological Sciences with a B.S. in Evolution, Ecology and Biodiversity with a minor in Anthropology. Their hometown is Reno, Nevada and is a 3rd degree blackbelt in taekwondo. They hope to pursue a Masters in Ecology or Environmental Policy at UC Davis after taking a year off to gain some work experience in the sustainable horticulture field. Do you or someone you know have an open position?

## Avian Influenza Updates

Highly Pathogenic Avian Influenza has been detected in surrounding states throughout the spring season. While rates are steadily declining as we enter warmer months, this is an *eggcellent* opportunity to brush up on good biosecurity practices for your flocks. If you could use a boost, check out our instagram and facebook pages for some easy-access graphics to serve as reminders to wash up and keep the coop clean. For specific HPAI updates, check our website at [www.ucanr.edu/sites/poultry/](http://www.ucanr.edu/sites/poultry/) for the latest state and federal updates.



# Integrating Pastured Poultry with Vegetable Production: Year 2 continued...

So far, we've collected a variety of data on the performance of our integrated system, including:

- » Soil-related metrics such as levels of key crop micro and macro-nutrient, soil organic matter, soil cation exchange capacity, and changes in soil microbial communities over time
  - » Crop development and production metrics such as yield, fruit quality, and biomass
  - » Poultry related metrics such as meat quality and feed-weight-conversion ratio
  - » Food safety metrics such as soil and carcass salmonella presence
  - » Economic data on the inputs and outputs we used and produced
- Going forward into the season, data on additional replications of our treatments will be collected and compared to data from our experimental controls (vegetable and cover crops without chickens, and indoor-housed chickens) to better understand the potential benefits and challenges of integrating chicken with vegetable production.

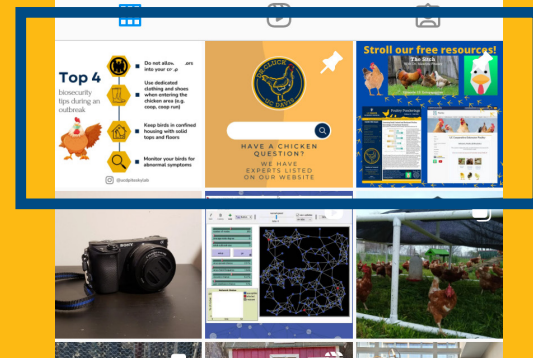
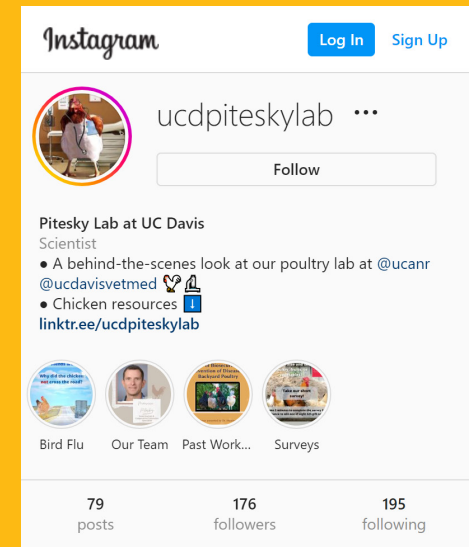


Above: Pastured Poultry at Russel Ranch housed in mobile chicken coops that allow access to forage

## Pitesky Lab is on Instagram!

Here's the latest in the social media world from Ms. Myrna Cadena, PhD Student and Social Media Manager at the Pitesky Lab at UC Davis!

Follow the account at [www.instagram.com/ucdpiteskylab/](http://www.instagram.com/ucdpiteskylab/) or follow [this link!](#)



Hello peeps! We are happy to report we have over 100 followers on Instagram (Instagram @ucdpiteskylab). As of June 8, 2022, we have 161 followers and 68 posts.

Our goal is to share our work and our progress along the way. So our posts vary from biosecurity tips to behind the scenes content. But important bird flu updates and resources are highlighted in our highlights section. In addition, we have pinned relevant bird tips and resources at the top our profile (see picture to the right).

If you are following us, thank you so much for your support! I am eggcited to see our community grow.

Big thank you to my lab mates who have been willing to share their story (I hope they are not too tired of me asking for their picture...). The account would not be where it is today without their support. I am beyond grateful for all their help.

# Top 4

biosecurity tips during an outbreak



■ Do not allow visitors into your coop



■ Use dedicated clothing and shoes when entering the chicken area (e.g. coop, coop run)



■ Keep birds in confined housing with solid tops and floors

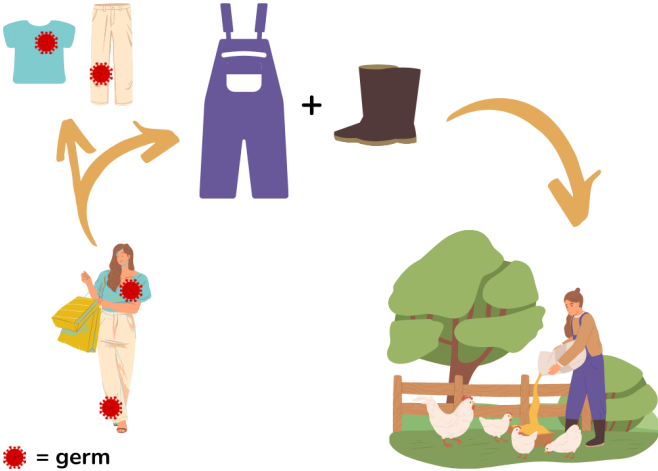


■ Monitor your birds for abnormal symptoms

@ucdpiteskylab



Use dedicated clothing and shoes when entering the chicken area to avoid tracking in germs.



There are lots of ways we can interact with other chicken owners. Going to the same feed store is one example.



Monitor your birds for abnormal symptoms.

Symptoms to look out for include:

- Inflamed heads
- Trouble breathing
- Diarrhea
- Lethargic or droopy
- Eating or drinking less
- Sudden death



Examine your birds at least once a week.



Example of a lethargic or droopy bird.



If you think your birds are sick please immediately call the California Department of Food and Agriculture's Sick Bird Hotline at: **1-866-922-BIRD (2473)**.

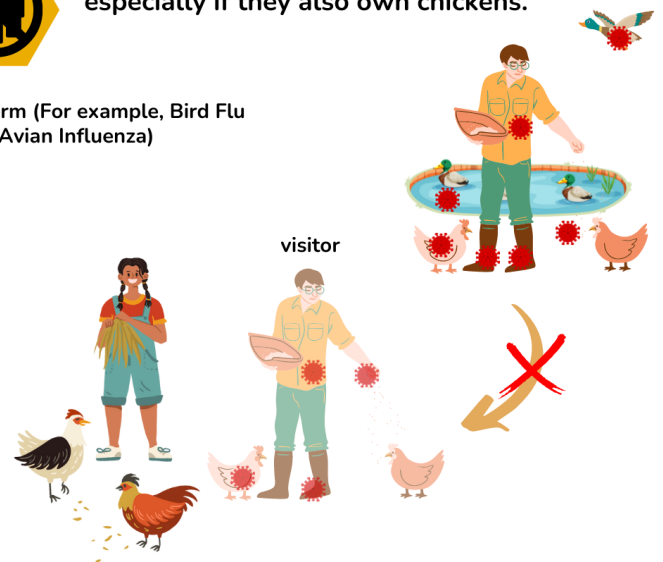
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Here is a closer look at our biosecurity post. The post was viewed at least once by 91 individuals, liked 17 times, and shared 5 times.



Do not allow visitors into your coop especially if they also own chickens.

🦠 = germ (For example, Bird Flu aka Avian Influenza)

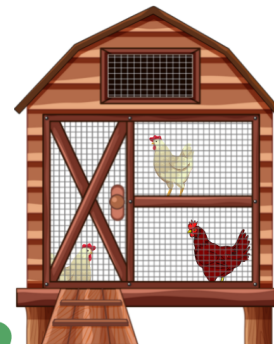


Clothing and shoes can carry germs into your coop. Please note items may appear clean but be contaminated.



Keep birds in confined housing with solid tops and floors.

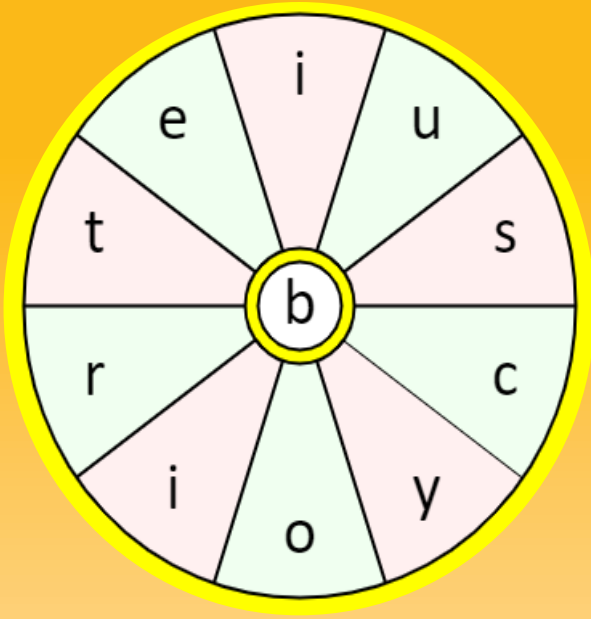
A big plus about this tip is that your chickens will also be more protected against predators.



Wildlife can carry diseases without showing signs of illness. So it is best to prevent your birds from interacting with wildlife even if wildlife appear healthy.

Slow your roll...

...with a Word Wheel!



How many words can you make?

Rules:

1. Include the central letter in each word you make
2. You don't need to use every letter, but you can't use extra letters if they're not on the wheel!

Example words:  
boy, cyber, scrub, obscure, tube...

## Have you seen our new series, 'The Sitch'?

Sit down with Dr. Maurice Pitesky as he answers the most common questions for new and experienced backyard poultry owners alike. Get insightful and accurate information on the best practices for raising your own birds.

Visit our channel at:

<https://www.youtube.com/c/UCDavisVetMedPoultryUniversity>

