



*Imperial County*

*Agricultural Briefs*



**Features from your Advisors**

*April 2020 (Volume 23 Issue 4)*

**Table of Contents**

**CORONAVIRUSES IN HUMAN AND ANIMAL HEALTH**  
 .....Gabriele Maier contributed by Brooke Latack - 48-

**YOUTH FAMILY AND COMMUNITY RESOURCES**  
 ..... Yu Meng - 50-

**HEALTHY SOIL GRANT WORKSHOP**  
 .....Kristian Salgado - 54-

**HEALTHY SOILS GRANT OPPORTUNITY ZOOM WORKSHOP FLYER.....** - 55-

**CANCELLED SAVE THE DATE FOR AGRONOMIC CROPS FIELD DAY.....** - 56-

**IMPERIAL VALLEY CIMIS REPORT AND UC WATER MANAGEMENT RESOURCES**  
 .....Ali Montazar - 57-

## CORONAVIRUSES IN HUMAN AND ANIMAL HEALTH

*Gabriele Maier, CE Specialist for Beef Cattle Herd Health and Production*

*Contributed by Brooke Latack, Livestock Advisor, UCCE Imperial, Riverside, and San Bernardino Counties*

April, 2020

Now that we are in the midst of the Covid19 outbreak, you might wonder about how this virus is different from coronaviruses that infect livestock and other animals. Let's try and answer some questions you might have with regards to this topic.

### **How widespread are coronaviruses?**

Disease from coronaviruses is very common in humans and animals. Many species have their own version of coronavirus. In fact, one of the causes of the common cold in people is a coronavirus. What's important to understand is that in general, these viruses stick with a species based on how their surface proteins fit receptors on the cells of their target species, in a lock and key fashion. The reason this novel coronavirus is such a threat is because it is new to our species, there is no immunity to it in the population, it spreads easily, and it can cause severe disease.

### **What is the source of the novel coronavirus?**

SARS-CoV-2, the official name of the new coronavirus, is thought to have jumped from animals to humans. The exact source is still unknown, but, at the moment, the most likely explanation is that it came from bats. You probably remember the SARS outbreak from 2003, which was caused by a similar coronavirus. Bats were found to be the likely source of the virus in the 2003 SARS outbreak, and probably passed it on to other animals that were sold in markets in China, such as the palm civet, a cat-like animal. Along the way the virus underwent mutations and finally was able to infect a new host – humans. Most importantly, it was able to spread from person to person. A similar mechanism was likely at play for this new coronavirus outbreak but with new information coming forward, this idea may change.

### **How is the novel coronavirus different from coronavirus in cattle?**

The good news is that the bovine coronavirus we have in the US belongs to a **different strain** of coronaviruses than the SARS-CoVs that have jumped to humans during the 2003 SARS and the current Covid19 outbreaks.

Bovine coronavirus is a cause of calf diarrhea, winter dysentery in adult cattle and is thought to cause respiratory disease, for example as part of the shipping fever complex. There is no expectation that the novel coronavirus can infect cattle or that the bovine coronavirus that is endemic in the US causes disease in people. There is also **no evidence** that imported animals or animal products pose a risk for spreading Covid19, according to the CDC. Overall, there is no connection between coronavirus in cattle and SARS-CoV-2.

### **What about coronaviruses in other animals?**

Epidemiologists are often worried about pigs as a mixing vessel for viruses that affect people and animals, e.g. for influenza viruses. Pigs have their own versions of coronaviruses that are the cause of Porcine Epidemic Diarrhea (PED) and Transmissible Gastroenteritis (TGE). However, just like in cattle, the coronaviruses in pigs are different and there is no evidence that pigs can get infected with SARS-CoV-2 or that they can transmit and spread it.

### **Should I worry about my pets?**

At this time, there are also no reports that pets can get infected with or transmit SARS-CoV-2. However, the CDC cautions to restrict contact with pets while you are sick from Covid19 because there is still a lot we don't know about this new virus.

### **Would the coronavirus vaccine we have for cattle work in people?**

Unfortunately, the corona virus vaccine for cattle would not work for people in the current pandemic because of the difference in strains. In fact, intentional or unintentional injections of animal vaccines in people can have adverse effects such as toxic inflammation or allergic reactions and must be avoided.

### **Additional resources**

It is hard to escape information about Covid19 during this time. While there is a lot of information out there, not everything may be accurate. A reliable and up to date source is the CDC webpage including a page about animals:

<https://www.cdc.gov/coronavirus/2019-ncov/daily-life-coping/animals.html>

As time goes by, we may find out more about the source of the virus and other important facts, so check back occasionally for the latest information and recommendations.

## YOUTH FAMILY AND COMMUNITY RESOURCES

*Yu Meng, Youth Family and Community Advisor, UCCE Imperial County*

University of California, Cooperative Extension (UCCE) Imperial is the connection between Imperial County residence to larger university resources. The Youth Family and Community (YFC) program focuses on the intersection of community development related to youth and families, which including healthy living program like CalFresh Healthy Living, UC, and Positive Youth Development program like 4-H. We deliver direct education and training to schools, youth, volunteers and other organization staffs on various topics, and also deliver educational information through indirect methods like newsletter and social media. This article serves as one way to stay in touch with the communities and support all families during the COVID-19 pandemic. We sent out a need assessment survey to all the school principals and our social medias on the first day of school closure and this article included all the resources that were requested by the participants.

### Information on COVID-19

There is no shortage of information online and sometimes you may be even overwhelmed with all the different sources of information related to the COVID-19. We recommend you follow the most reliable sources and the information most applicable to you. Here is a list of information sites that are providing trustworthy facts. Children may respond different with adults based on their ages. Check out list No. 3 to find out how to communicate COVID-19 with your children based on their ages.

1. **California Department of Public Health:** <https://www.cdph.ca.gov/covid19>
2. **Centers for Disease Control and Prevention:** <https://www.cdc.gov/coronavirus/2019-ncov/>
3. **COVID-19 Guidance for Older Adults.** CDC Video: What older adults need to know <https://www.cdc.gov/aging/covid19-guidance.html>.
4. Talking with children about Coronavirus Disease 2019: Messages for **parents, school staff, and others working with children:** <https://www.cdc.gov/coronavirus/2019-ncov/community/schools-childcare/talking-with-children.html>
5. **Pregnant and Breastfeeding Women** from the World Health Organization (WHO): <https://www.who.int/news-room/q-a-detail/q-a-on-covid-19-pregnancy-childbirth-and-breastfeeding> and the U.S. Breastfeeding Committee: <http://www.usbreastfeeding.org/p/cm/ld/fid=33?eType=EmailBlastContent&eId=ec03feb3-89d5-4aa8-9873-fc2fab0cdf34>
6. **California Workers** During COVID-19 Crisis: Filing for Supplemental Pay due to Impacts on Wages: <https://ucanr.edu/sites/SLO/files/321854.pdf>
7. **Imperial County** Public Health Updates: <http://www.icphd.org/health-information-and-resources/healthy-facts/covid-19>

## Emergency Food Assistance

USDA intends to use all available program flexibilities and contingencies to serve program participants across their nutrition programs to help individuals and families in need to emergency food access:

<https://www.fns.usda.gov/disaster/pandemic/covid-19>. You can apply for **CalFresh** online (also known as food stamps or SNAP): <https://www.getcalfresh.org/> or go to the **Food Banks & Other Emergency Food Sites** <http://www.ivfoodbank.com/programs/> in Imperial County. They can also help you apply for the CalFresh onsite or by phone. Here you can find the **Distribution Sites**: <http://www.ivfoodbank.com/programs/partner-agencies/> or follow Imperial food bank for schedules: <https://www.facebook.com/IVFoodBank/>. **For students**, there are free meal program at school sites. Please check the **School Meal** Distribution Map: <https://www.icoe.org/news/meal-distribution-map-during-school-closures>. For **Women, Infants & Children (WIC)**, the assistant nutrition program can be find at this website: <https://www.womeninfantschildrenoffice.com/imperial-wic-clinics-california-wcn2836>

## COVID-19 and Food Safety

While people are panic about COVID-19 and started panic shopping, it is also important to keep food safely stored and consume them within their expiration date. Another food safety concern is food handling which includes whether it is safe to shop in store, eat a takeout, or if I need to store up water. The following sources will answer your questions based on your concerns. They are all reliable sources from university or government websites. At last, don't waste your food if you think we can't finish them before their expiration date, please consider donate to people who needs them.

1. For **consumers** to enhance personal hygiene and safe food handling: [https://mdc.itap.purdue.edu/item.asp?Item\\_Number=FS-36-W](https://mdc.itap.purdue.edu/item.asp?Item_Number=FS-36-W)
2. For **takeout concerns**: [https://foodsafety.ces.ncsu.edu/wp-content/uploads/2020/03/Takeout\\_COVID-19\\_Flyer\\_032320.pdf?fwd=no](https://foodsafety.ces.ncsu.edu/wp-content/uploads/2020/03/Takeout_COVID-19_Flyer_032320.pdf?fwd=no)
3. For **infant feeding**: <https://anrcatalog.ucanr.edu/pdf/8662.pdf>
4. For organization and **food facilities**: [http://www.icphd.org/media/managed/2019coronavirus/Novel\\_COVID\\_19\\_Food\\_Facility\\_Guidance\\_3\\_20\\_20.pdf](http://www.icphd.org/media/managed/2019coronavirus/Novel_COVID_19_Food_Facility_Guidance_3_20_20.pdf)
5. **Cleaning and Disinfect**: [https://foodsafety.ces.ncsu.edu/wp-content/uploads/2020/03/Cleaning-and-disinfection\\_COVID-19\\_Flyer\\_031520.pdf?fwd=no](https://foodsafety.ces.ncsu.edu/wp-content/uploads/2020/03/Cleaning-and-disinfection_COVID-19_Flyer_031520.pdf?fwd=no)
6. For **safe water**: <https://www.cdc.gov/healthywater/drinking/index.html>
7. Food safety factsheet: <https://www.fsis.usda.gov/wps/portal/fsis/topics/food-safety-education/get-answers/food-safety-fact-sheets>
8. **Food Storage**: SavetheFood.org has a comprehensive guide on how to store different kinds of food: <https://savethefood.com/storage>
9. Reduce **food waste**: [Ideas for Food Waste Reduction](#)

## Support Positive Youth Development

The 4-H Youth Development Program offers research based, experimental programs for diverse youths ages 5-19. Imperial County 4-H projects and programs are focused around the core content of Civic Engagement, Healthy Living, Agriculture, Leadership, and STEM using a "learn-by-doing" educational model. You can find our free online resources at **4-H Youth Projects:** [http://4h.ucanr.edu/Projects/Project\\_Sheets/](http://4h.ucanr.edu/Projects/Project_Sheets/) or our **Imperial County 4-H Resource Library:**

[https://docs.google.com/spreadsheets/d/1HA2K\\_pfe1JBWU659GhqUFkGhfyLrwm5XHztBfIdTpFE/edit?usp=s](https://docs.google.com/spreadsheets/d/1HA2K_pfe1JBWU659GhqUFkGhfyLrwm5XHztBfIdTpFE/edit?usp=s)  
[haring](https://docs.google.com/spreadsheets/d/1HA2K_pfe1JBWU659GhqUFkGhfyLrwm5XHztBfIdTpFE/edit?usp=s). We also committee to find other resources on **STEM**. Here you can find a growing list of online resources shared by members of the Community of Practice to help families keep the learning going during these challenging times: <https://stemecosystems.org/covid19-resource-library/>.

We post information of positive youth development daily on our Facebook to keep our youth busy, including mental health, cooking lives, stem projects, and so on. You don't need to be a 4-H member to access it. **Please follow us for daily update on activities youth and families can do at home:**

<https://www.facebook.com/ImperialCounty4H/>.

## Physical Activity at Home & Nutrition

Teach children the importance of nutrition and physical activity using interactive websites and games. **Physical Activity for Families:**

<https://www.youtube.com/watch?v=zNs8srnJ95U&feature=youtu.be>

Here are the **Tips for getting active indoors** (Video)

<https://www.youtube.com/watch?v=99Grz6zrzil&feature=youtu.be>

CATCH is teacher's favorite physical activity curriculum based on our school partner feedback and now they are offering free **Google classroom** at

<https://www.catch.org/pages/health-at-home>

**Gardening** is also a good activity to reduce screen time and active way for children: Slow Food USA's "Clean" curriculum is a flexible resource that includes tips on starting a garden, activities, worksheets, recipes, and more: <http://slowfoodusa.org/wp-content/uploads/Slow-Food-USA-Clean-Curriculum-Low-Res.pdf>.

Kidsgardening.org has easy gardening activities to do with kids: <https://kidsgardening.org/news-kidsgardening-offers-easy-parent-and-kid-activities/>

## Great Garden Detective Adventures

<https://www.fns.usda.gov/tn/great-garden-detective-adventure-standards-based-gardening-nutrition-curriculum-grades-3-and-4>

Healthy eating is as important as physical active. For **nutrition** information, USDA guidance, choose my plate: <https://www.choosemyplate.gov/eathealthy/dietary-guidelines>. If you want more activities, materials, and infographics: <https://www.choosemyplate.gov/resources/all-resources>

**For more daily cooking and ideas: follow us on Facebook:**

Farm Smart: <https://www.facebook.com/UCfarmsmart/>

CalFresh Healthy Living, UC: : <https://www.facebook.com/uccalfreshimperial/>

The resources list is developed by Yu Meng based on her survey on community needs. If you want more specific information or question and concerns, please email [ucmeng@ucanr.edu](mailto:ucmeng@ucanr.edu).

## HEALTHY SOIL GRANT WORKSHOP

### *Kristian Salgado, Community Education Specialist 2 – Climate Smart Agriculture*

There is still an opportunity for farming operations to apply for the California Department of Food and Agriculture (CDFA) Healthy Soil Incentive Program (HSP) that will be accepting grant applications until June 26, 2020. The Healthy Soils Program funds California implementation of conservation management practices that improve soil health, sequesters carbon, and reduce atmospheric greenhouse gases. The HSP is a competitive grant with the maximum award of \$100,000 that funds 28 eligible soil management practices, such as cover crops, whole orchard recycling, compost application, and nutrient management just to name a few.

The Imperial County Farm Bureau in partnership with the University of California Cooperative Extension (UCCE) – Imperial County will be hosting its third HSP workshop on Wednesday, April 22<sup>nd</sup>, 2020 from 12pm – 2pm. However, due to the social distancing requirement of COVID-19 this meeting will be held via Zoom, an online video conferencing system. We are asking all the individuals that would like to attend contact Kristian Salgado, UCCE- Imperial- Community Education Specialist to get access to the Zoom link.

The HSP workshop is an opportunity to learn how to complete the online grant application process and receive one-on-one technical assistance. If you have any questions about the HSP grant or would like to know more information, please contact:

Brea Mohammed, Executive Director, [brea@icfb.net](mailto:brea@icfb.net)

Kristian Salgado, Community Education Specialist, [kmsalgado@ucanr.edu](mailto:kmsalgado@ucanr.edu).

Additionally, if you would like to participate and need assistance in Spanish, please email [rachel@icfb.net](mailto:rachel@icfb.net).



# HEALTHY SOILS GRANT OPPORTUNITY ZOOM WORKSHOP

**Cosponsored by  
UCCE-Imperial County, UCANR, and  
Imperial County Farm Bureau**

The Healthy Soils Grant Funding Program provides financial assistance for the implementation of conservation management practices that improve soil health, sequester carbon and reduce greenhouse gas (GHG) emissions. Applications will be open for four months on a rolling bases online at <https://www.cdfa.ca.gov/oefi/healthysouils/>, and applicants are eligible to receive up to \$100,000 in grant funding.

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Imperial County Farm Bureau, UCCE-Imperial County, and UCANR will be hosting their final Healthy Soils Workshop to provide information and assistance to growers who are interested in applying. Potential applicants are encouraged to attend at least one workshop.

Wednesday, April 22, 2020, 12:00 pm – 2:00 pm  
Zoom Conference Call

In order to maintain social distancing as required due to COVID-19, this workshop will be hosted via Zoom Conference Call. The date and time will remain the same, the only change will be the workshop being hosted remotely.

If you would like to join the workshop through Zoom, please email [kmsalgado@ucanr.edu](mailto:kmsalgado@ucanr.edu) for the call in number and assistance with connecting if needed.

Also, if you need assistance with the Healthy Soils Program and workshop in Spanish, please email [rachel@icfb.net](mailto:rachel@icfb.net) so that we may make necessary arrangements.

For questions about the program please contact:  
Brea Mohamed, 760-352-3831, email: [brea@icfb.net](mailto:brea@icfb.net) or  
Oli Bachie, 442-265-7700, email: [obachie@ucanr.edu](mailto:obachie@ucanr.edu)

Please feel free to contact us if you need special accommodations.





# CANCELLED

## Save the Date... Agronomic Crops & Irrigation Water Management Field Day

Presented by  
University of California  
Cooperative Extension  
Imperial County

\* Trial Updates \* Industry Updates \* Irrigation Mgmt. & Practices \*

### Schedule:

- 6:30am - 7:00am Registration
- 7:00am - 8:50am Field Demonstrations
- 9:00am - 12:00pm Indoor Workshops
- 12:00pm - 12:20pm Industry Updates

\* Light refreshments & lunch provided

**NO COST TO ATTEND!!!**



*More Information to follow regarding the event; topics, agenda, CEU's, etc.*

**TUESDAY,  
APRIL 14, 2020**

University of California Desert Research  
Center  
(1004 E. Holton Road, Holtville, CA 92250)

For more information regarding event  
you can contact Ali Montazar,  
amontazar@ucanr.edu or the  
office at (442) 265-7700

PRE-REGISTER  
to Andrea  
aiestrada@ucanr.edu

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## IMPERIAL VALLEY CIMIS REPORT AND UC WATER MANAGEMENT RESOURCES

*Ali Montazar, Irrigation and Water Management Advisor, UCCE Imperial and Riverside Counties*

The reference evapotranspiration ( $ET_o$ ) is derived from a well-watered grass field and may be obtained from the nearest CIMIS (California Irrigation Management Information System) station. CIMIS is a program unit in the Water Use and Efficiency Branch, California Department of Water Resources that manages a network of over 145 automated weather stations in California. The network was designed to assist irrigators in managing their water resources more efficiently. CIMIS  $ET$  data are a good guideline for planning irrigations as bottom line, while crop  $ET$  may be estimated by multiplying  $ET_o$  by a crop coefficient ( $K_c$ ) which is specific for each crop.

There are three CIMIS stations in Imperial County include Calipatria (CIMIS #41), Seeley (CIMIS #68), and Meloland (CIMIS #87). Data from the CIMIS network are available at:

<http://www.cimis.water.ca.gov/>. Estimates of the average daily  $ET_o$  for the period of April 1<sup>st</sup> to June 30<sup>th</sup> for the Imperial Valley stations are presented in Table 1. These values were calculated using the long-term data of each station.



Table 1. Estimates of average daily potential evapotranspiration ( $ET_o$ ) in inch per day

Station	April		May		June	
	1-15	16-30	1-15	16-31	1-15	16-30
Calipatria	0.22	0.25	0.27	0.29	0.31	0.32
El Centro (Seeley)	0.24	0.28	0.29	0.31	0.34	0.36
Holtville (Meloland)	0.23	0.27	0.29	0.31	0.33	0.34

For more information about  $ET$  and crop coefficients, feel free to contact the UC Imperial County Cooperative Extension office (442-265-7700). You can also find the latest research-based advice and California water & drought management information/resources through link below:

<http://ciwr.ucanr.edu/>.

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University of California, Davis, Agriculture and Natural Resources, One Shields Avenue, Davis, CA 95616, (530) 752-1397.*