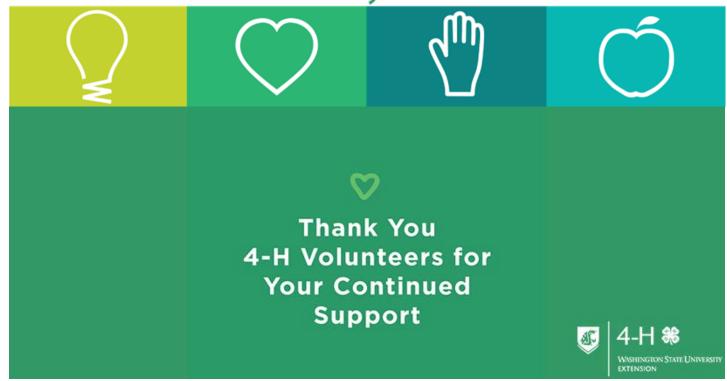
Tuesday News



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Vaccination Mandate Lifted For All 4-H Volunteers

In coordination with Washington State University, CAHNRS Extension and the State of Washington, Washington State 4-H will no longer require 4-H volunteers to receive either a COVID-19 vaccination or an approved Religious or Medical Exemption as of October 31, 2022.

The memorandum from WSU Extension Associate Dean and Director Vicki McCracken to all Extension faculty, staff and volunteers can be viewed **HERE**.

What does this mean for WSU 4-H Extension volunteers (Leaders)?

- Volunteers who chose to take a leave of absence during the 2021-22 4-H Year may return to active status in 2023.
- New volunteers who apply to become WSU Extension 4-H Volunteers during the 2022-23 4-H year are not required to be vaccinated against COVID-19.

Washington 4-H sincerely thanks the volunteers who have helped navigate the program through uncharted territory over the past couple of years and look forward to an exciting new 4-H year, full of increased opportunities for youths and volunteers.

You can view Governor Inslee's announcement here:

https://www.governor.wa.gov/news-media/inslee-announces-end-remaining-covid-19-emergency-orders-and-state-emergency-october-31

View Center for Disease Control recommendations here: https://www.cdc.gov/

View Washington State Department of Health recommendation here: https://doh.wa.gov/

Go Cougs! Mark Heitstuman WSU Interim State 4-H Program Director Save the Date - KYG 2023! Update: New Location!



4-H Fundraising and Service Opportunity Update

Denise Echelbarger



4-H Scholarship Committee Members are Needed

Scholarship committee volunteers are needed to measure—beyond academic merit—the heart, drive, desire, talent, and qualities of character built within the Washington State 4-H Youth Development program that allow individuals to become successful contributors to society. Scholarship committee members bring to the selection process the benefits of their life experience, their diverse outlooks, and their human connection. This rewarding experience helps Washington State 4-H Members reach educational goals that will benefit them personally as well as the 4-H statewide community.

Listed below are some qualifications and commitments necessary to be a member of The Washington State 4-H Scholarship Committee:

- Willingness to spend time individually evaluating and reviewing 20+ scholarship applications based on materials that will be supplied to you
- Open to learning a numerical rating system and submitting written notes to keep in files to document process and decisions that were made
- Available for two meetings (typically two hours) during the day in mid-April and early May
- · Ability to work with other reviewers in a team environment
- Openness in revealing any conflict of interest with potential scholarship applicants
- Understanding the need for fairness, objectivity, and nondiscrimination within the scholarship selection process
- Ability to focus on the specific selection criteria in determining the award winners

If you are interested in using your passion and energy to assist Washington State 4-H Members with pursuing higher education aspirations, please contact Denise Echelbarger at denise@wsu.edu or 509-358-7915.







We Can Do More with Your Support!

Washington 4-H Know Your Government Conference

Know Your Government (KYG) is a civic education program with a four-year rotating topic: The Legislative System, The Judicial System, Elections and Party Platforms, and Politics and the Media. In 2023 we will explore the topic of Politics and the Media. KYG is much more than learning about how the Legislative process works. KYG and 4-H are about learning the life skills our delegates will need to be responsible citizens and productive adults.

Please consider supporting the 4-H Know Your Government conference online at https://bit.ly/3SbTANG



Washington 4-H State Teen Association Convention

The Teen Convention is an opportunity for youth to experience college life, explore career opportunities and prepare for a lifetime of success with other Washington teens. 4-H youth will participate in a wide variety of activities, including:

- Educational workshops
- Community and campus tours
- Service-learning projects
- State Teen Association elections
- Networking with peers from across the state

Please consider supporting the 4-H State Teen Association Convention online at https://bit.ly/3cKWbOf



Washington 4-H State Livestock Judging Contest

Items that are paramount to this annual event include:

- Statewide access for more participation in this educational event.
- A higher number of quality livestock for judging options.

- Recognition of team members and volunteer coaches that give back to youth interested in the livestock community.
- Support for the top 3 teams offered a chance to represent Washington 4-H at a nationally sanctioned contest.

Please consider supporting the 4-H State Livestock Judging online at http://bitly.ws/spxe



What is the Washington State 4-H Foundation?

The Washington State 4-H Foundation's mission is to engage in activities that promote fundraising from private sources to support, enhance and expand the 4-H program for young people throughout the State of Washington. The Washington State 4-H Foundation Board of Trustees has a close working relationship with the Development Office of the College of Agricultural, Human, and Natural Resource Sciences (CAHNRS). The main liaison is with the 4-H Development Coordinator.

If you are interested in volunteering on the Washington State 4-H Foundation Board, please contact Denise Echelbarger at denise@wsu.edu or 509-358-7915.





Denise Echelbarger

DEVELOPMENT COORDINATOR | GO COUGS!

WSU Extension 4-H Youth Development Program

P.O. BOX 646228, Pullman, WA 99164-6228
c: 509-290-1505 | o:509-358-7915 | denise@wsu.edu

State 4-H Ambassadors Present the 4-H Youth of the Month for October!

The Washington State 4-H Ambassadors recognize the 4-H Youth of the Month honoree for October, Auna-Joy Mahan of Pierce County! The Ambassadors are proud to highlight 4-H youth monthly throughout the year!





Washington State 4-H

Auna-Joy Mahan

Intermediate
Pierce County

PROJECTS:

Chickens, Cavies, Goats, and Pets

<u>Auna-Joy Mahan</u>



What Animal Do You Show In Pets: Auna-Joy shows her gecko Drake. She has also shown sugar gliders and hedgehogs.

Favorite Part About 4-H: Auna-Joy loves to share her projects and what she's learned both with the public and younger 4-Hers. She's also passionate about showing the animals that she's bred and raised.

Favorite Hobbies: Auna-Joy is a goat 4-H leader, and is involved in the National Pygmy goat association. She also loves riding horses. **Favorite 4-H Memories:** This year, she had success with her home-bred pygmy goats, receiving best of class and champion in Dam & Daughter.

Biggest 4-H Achievement: Auna-Joy is proud to be the recipient of the Intermediate champion for both the small animal and large animal Round Robin this year, and was able to overcome her insecurities in judging animals.

Favorite Food: She loves her mom's fried chicken.

Future Career: She hopes to become a large animal veterinarian.

Favorite Dinosaur: Stegosaurus

Next 4-H Project: Auna-Joy would love to do the dog project with

her Berna-doodle Monte.

If you have any questions about the State Ambassadors, or are interested in joining, please email wa4hsa@gmail.com. We hope to hear from you!"

Snohomish County Offers Healthy Cooking Kids Learning Activity Kits!



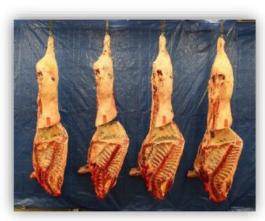
Are you interested in bringing a cooking project to your club or group??? If so, this is the project for you! Sign up to receive your free kit of video lessons, lesson plans, curriculum, and game materials for 8 educational cooking lessons that incorporate healthy living and eating concepts. Perfect for your club, family, or homeschool youth aged 8 to 14 (can be adapted for younger and older youth!).

Check our website (https://extension.wsu.edu/snohomish/4-h-healthy-cooking-kids/) for more information!

2023 Cougar Invitational Meat Judging Contest Open to 4-H and FFA Members in Washington State







Paul Kuber

In an effort to create more food animal science opportunities in Washington state for youth (4-H and/or FFA) I have great news to share about the First Annual Cougar Invitational Meats Judging Contest, to be held March 18, 2023. This event will begin with a learner engaged clinic the day prior to the competition on WSU campus in Pullman (see attached) to be held March 17th. Registration and contest details will be released in early January and will be shared at that time. For information or to inquire about sponsorship opportunities, contact Dr. Blake Foraker, blake.foraker@wsu.edu or (509) 335-4112. Dr. Foraker is also preparing Washington State University Animal Science students to compete in collegiate meats judging on the national stage in 2023.

Learn more about the Cougar Invitational **HERE**.

Holiday Prime Rib - Steak Fundraiser

A way that you can support the WSU team is through purchase of a Holiday Prime Rib or Steaks (see flyer <u>HERE</u>). The meat judging and meat animal evaluation teams are selling prime ribs during the holiday season. Proceeds from the sales will be used to offset costs incurred by the team to travel to and compete at the National Western, Fort Worth Stock Show, Houston Livestock Show and Rodeo, and National Meat Animal Evaluation Contest at Canyon, Texas.

PLAN NOW For Outbound International Exchange Opportunities Next Summer!



Carolyn Russo

Washington State 4-H aged youth have the opportunity to participate in the 4-H International Outbound exchanges taking place next summer to the countries of Costa Rica, South Korea and Japan.

Youth stay with host families to experience culture in ways that tourists are not able to. There are four programs being offered this summer in three countries. The traditional three-to-four-week cultural immersion experience will be offered in Costa Rica, South Korea and Japan. The fourth program is a unique opportunity to attend a Japanese language school in Tokyo. Youth will stay with a host family during the school for about a month and then change host families in another location for an additional 3-4 weeks.

Interested youth are invited to apply (online application can be found at https://smr.to/p84038 by December 15, 2022. An interview is also part of the selection process. For more information please contact Carolyn Russo, carolyn.russo@wsu.edu or (509) 754-2011 x4309.

A downloadable Flyer for opportunities in Japan can be found by clicking <u>HERE</u>
A downloadable Flyer for opportunities in Korea can be found by clicking <u>HERE</u>
A downloadable Flyer for opportunities in Costa Rica can be found by clicking <u>HERE</u>.



2023 State 4-H Fair Times For Western Games Ribbon Placings Now Available

Tom Gwin, State 4-H Fair Manager

The form with times for ribbon placings for the Western Games events for the 2023 Washington State 4-H Fair are now available. They can be found by clicking **HERE**.



Level 1 Shooting Sports Trainings Are Coming Up! Ashley Hernandez-Hall



Hello, WSU 4-H Shooting Sports Volunteers and Families!

We are excited to let you know we have three Level 1 training opportunities coming up for volunteers interested in getting certified as Archery, Rifle, or Shotgun project leaders.

Please sign up via this link below:

https://wsu.co1.qualtrics.com/jfe/form/SV_29P4dO6sABV5sN0

Here are the training options. Please let me know if you have any questions.

Eligibility for attending includes:

- 1. Be a fully enrolled 4-H volunteer in WA
- 2. Successful completion of the National 4-H Online Shooting Sports modules. The fee for the online course is **\$20.00**.

Required Range Training Options - Just One Left!

Puyallup WA

Cost: \$40

Date: November 18th & 19th, 2022

Discipline: Archery or Rifle only (both disciplines will occur concurrently, so you

need to pick one)

Times: November 18th, both disciplines 4:00pm - 7:00pm classroom training November 19th, Archery & Rifle, 9:00am - 6:00pm (with 1-hour working lunch)

Location: 2606 W Pioneer Ave, Puyallup, WA 98371

Notes: Dinner on 11/18 and lunch on 11/19 will be provided. If you are doing

rifle, please bring eye protection.

Ashley Hall, Ph.D. she/her/hers (why is this here?)
4-H Assistant Professor
Washington State University
Snohomish County Extension
C: 425-521-0357 (voice and text)

<u>a.hernandez-hall@wsu.edu</u>

4-H Livestock News

Paul Kuber

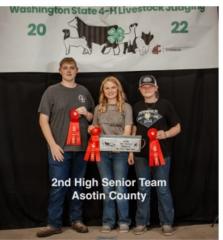
This year the State Livestock Judging Contest was held June 25th at the Grant County Fairgrounds. The contest was the first Livestock Judging event not tied to the Washington State Fair. It was positioned earlier in the year to facilitate selection of teams that would represent Washington 4-H at the BIG-3 national contests. As a result of this shift, Washington 4-H will be represented at the North American Livestock Exposition (NAILE) in Louisville, KY, the American Royal in Kansas City, MO, and at the National Western Stock Show in Denver, CO in the same year – possibly the first time this has happened.

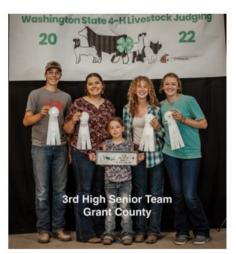
Teams that were selected to represent Washington from the senior 4-H division were the top three in that contest. The high team, Ritzville-Adams County had the first choice and elected to go to the National Western Stock Show; they will be competing in mid-January 2023. The reserve team from Asotin County elected to go to the American Royal, which is occurring in Kansas City this Sunday, October 16th. Lastly, our third-place team from Grant County will be competing

November 15th at the National 4-H Contest, held in conjunction with the North American International Livestock Exposition in Louisville, KY. We wish our teams the best of luck as the National contests will be underway very soon. We look forward to hearing of their successes and experiences on the road!

Here are the teams that will represent Washington 4 -H:







The State Livestock Judging Contest would not have been possible without the following sponsors:

Cash Sponsors - Nutrien Ag Solutions, Country Store, Washington Cattle Feeders Association, Washington Cattlemen's Association, Washington Pork Producers Association, and Harry Burcalow and Washington State 4-H Excellence Fund;

In-Kind and Goods Sponsors - Northwest Farm Credit Services, WSU - College of Agriculture, Human and Natural Resources Sciences (CAHNRS), and WSU Extension;

Livestock Supplied By – JR Ranch, Scott Wilson, Pure Country Pork Farms, Lori Bennett and 7W Livestock.

We thank all of our 2022 sponsors and are in the process of gearing up for 2023. If you know anyone that has interest in sponsoring Washington 4-H Livestock Judging, please share the following link. These funds will be used for the 2023 contest, as well as helping with travel for the teams selected to represent Washington State. Share this link http://bitly.ws/spxe or the attached PDF with information about supporting Washington 4-H Livestock activities. No gift or support is too small, and all contributions will be committed to supporting the next generation of livestock enthusiasts.



WSU EXTENSION IS ELEVATING THE EXPOSURE OF WASHINGTON 4-H LIVESTOCK JUDGING TEAMS ON THE NATIONAL STAGE

Items that are paramount to this annual event include:

- Statewide access for more participation in this educational event.
- A higher number of quality livestock for a better participant experience.
- Recognition of team members and volunteer coaches that give back to youth interested in the livestock community.
- Support for the top 3 teams offered a chance to represent Washington 4-H at a nationally sanctioned contest.

Areas that need sponsorship to facilitate the sustainability of this event, include but are not limited to:

- Travel for officials, volunteers, and livestock producers.
- Awards to recognize the youth participants and volunteer coaches.
- Travel for teams participating in the national learner engaged activities.

Please consider supporting 4-H state livestock judging online at http://bitly.ws/spxe or scan the QR code.







For more information on supporting WSU Extension 4-H Programs please contact Denise Echelbarger at denise@wsu.edu or 509-358-7915.

extension.wsu.edu/4h

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Do you wonder how honey lasts forever? Or how the moon was formed? Curious about what octopus ink is? Read on, cool cats!



Dr. Universe: How does honey last forever? Gillian, 7, Illinois

Dear Gillian,

Archaeologists exploring ancient Egyptian tombs sometimes find honey. It's thousands of years old, but you could still safely spread it on your toast! I talked to my friend **Brandon Hopkins**, professor in the WSU department of entomology, about why honey lasts so long. He told me honey is one of the only foods that never spoils. **Microbes** are a big reason other foods go bad. These living things are so small you need a microscope to see them. They include bacteria and fungi like mold. Just like you, they love a good meal.

Some microbes break down food. That changes the way it looks, smells and tastes. Microbes can make food look moldy, mushy or slimy. It will smell and taste gross. So, what's the difference between slimy, stinky food in the back of your fridge and ancient honey that's still yummy?

The main difference is that honey doesn't contain much water. Bees gather nectar from flowers to **make honey**. Nectar is very watery. In fact, it can be 70% water. Honey is about 18% water. Bees dry out the nectar by fanning their wings. This moves air over the nectar and causes water to evaporate.



"Bees can determine whether that nectar is ready to be called honey," Hopkins said. "When the moisture level is low enough, they put a thin layer of wax over each of the cells containing the honey. Then that honey is stable forever. If the moisture content isn't low enough, it doesn't stay stable forever. It can ferment and spoil."

Hopkins told me that bees use their tongues and antennas to taste the nectar. The taste tells them when the honey is ready. Then, they cover the honey with wax to store it for winter.

Like all living things, microbes need water to survive. If they try to live in honey, there simply isn't enough water to keep them alive.

Another thing that keeps away microbes is honey's pH. The **pH scale_shows** if something is an acid like vinegar, a base like soap or in between like water. Honey is an acid. That makes it an unpleasant or deadly place for most microbes to live. Honey also contains a tiny amount of hydrogen peroxide. Some people keep bottles of hydrogen peroxide to clean small wounds or rinse their mouths. That's because it kills some microbes.

Bees have a special pouch in their digestive system called the **honey stomach**. Proteins in the honey stomach and saliva help turn watery nectar into thick honey. That process releases hydrogen peroxide. It stays in the honey and gives it a little extra microbe-busting oomph.

In fact, honey is so good at keeping microbes away that it's been used as medicine to treat wounds and prevent infections. Archaeologists have found ancient prescriptions for honey. They even found an of humans collecting honey. Hopkins says you may notice crystals in your honey. This is normal and doesn't mean the honey is bad. You can eat honey with crystals. Or you can gently warm the honey to melt the crystals and make it smooth again. Now, that's sweet!

Sincerely, Dr. Universe



Dr. Universe: How was the moon formed? - Barbara, 10, Texas

Dear Barbara,

Why do moon rocks taste better than Earth rocks? They're a little meteor! In all seriousness, your question is something humans wondered about for a long time I talked to my friend Michael Allen, astronomy professor at WSU about how the moon formed. He told me we figured out the answer in 1972. That's shortly after humans visited the moon for the first time.



"The primary scientific goal of the <u>Apollo moon landings</u> was to determine the moon's origin," he said. "The astronauts collected moon rocks between 1969 and 1972. They thought the moon rocks were going to hold the answer to that question, and they were right!"

Once they got the moon rocks back to Earth, it was time to examine them. Scientists wanted to know how similar they were to Earth rocks. That would tell them if the moon formed at the same time and place as Earth.

When the **solar system** formed, objects closer to the sun were hotter than things farther away. They cooled differently and are made of different things.

So, scientists expected to be able to look at the composition of moon rocks and match them up with where they formed. If the moon formed with Earth, the moon should have an iron core, a rocky crust and some water—just like Earth. Its rocks would be identical to Earth's rocks. If it formed far away and wandered into Earth's orbit, the moon should be more like Mars or an asteroid.

"When they collected moon rocks, they discovered none of it was true," Allen said. "They discovered no iron. They discovered lots of ordinary grey rock and zero water. That combination didn't fit any of the expected origin places of the moon."

So back in 1972, planetary scientists William Hartman and A.G.W. Cameron looked at this evidence. They came up with the collision-ejection theory.

It goes like this. Shortly after Earth formed 4.5 billion years ago, it was hot, liquid rock. That was a wild time in the solar system. There were lots of rock-like objects called planetesimals banging around and bashing into everything. Those collisions formed larger and larger objects—like planets.



One planetesimal <u>smacked into Earth</u>. Allen said it was a glancing blow. That means it skimmed across Earth like a pebble across water. The collision sent some of Earth's liquid rock flying into space. It splashed out like a ring around the Earth.

Then, it began cooling and sticking together into the round shape the moon is today. It probably happened fast. The whole thing could have taken just a few orbits around Earth!

Allen told me that having a moon is rare. It also affects life on Earth. Having a moon slows down Earth's rotation. Without a moon, a day on Earth would be much shorter!

The next time you look at **the moon**, think about that random collision billions of years ago and the fearless astronauts who collected moon rocks so we could understand it.

Sincerely, Dr. Universe



Dr. Universe: What is octopus ink? - Henry, 6, Maryland

Dear Henry,

An octopus has **three hearts** and long arms with suction cups. It probably seems very different from you. But you have the main ingredients of octopus ink in your body, too!

I talked about octopus ink with my friend <u>Gretchen Rollwagen-Bollens</u>, associate professor in WSU's <u>School of the Environment</u>. She told me that ink isn't just an octopus thing. Most animals called cephalopods (sef-uh-luh-pods) make it. These include octopus, squid and cuttlefish.

Cephalopods including octopuses use color a lot. They have sacs of colored pigments all over their bodies. They use those sacs to change their body color. That helps them blend into their environment.

They also make and store a dark pigment in special ink sacs.

"Squid ink looks dark because it contains molecules of melanin, which is a pigment," Rollwagen-Bollens said. "It's the same pigment that you find in human skin. The more melanin skin cells contain, the darker they are."

There's also melanin in human hair and eyes. For octopuses, squid and cuttlefish, all that pigment usually makes their ink black. It can also look brown, grey, blue, or green.



The second ingredient of ink is also familiar: mucus. Yep, that mucus. The slimy texture of mucus affects how the ink squirts out.

An octopus will eject ink when threatened. But there's more than one way to do it. Sometimes they <u>release ink in a puff</u>. This ink has less mucus, so it spreads through the water quickly. The cloud of ink distracts enemies. Then, the octopus can escape.

Sometimes an octopus will squirt out <u>ink with more mucus</u>. That makes the ink thicker. It can look like long ropes. Some scientists think this ink looks like jellyfish tentacles. The octopus can hide behind the ink to escape.

Some octopuses, squids and cuttlefishes eject ink in thick spurts that look like their own body shapes. Then, they can dart away and leave the fake body behind to confuse their enemies. That fake-out is called a **pseudomorph**.



A few cephalopods go a step further. Their ink has a chemical that irritates an enemy's eyes. It can also make it hard for them to smell. One deep sea squid even makes ink that glows!

Rollwagen-Bollens told me that ink helps them survive.

"That individual who's able to use the ink to escape a predator one more time than some other guy will survive. Then they'll have babies with that same trait," she explained.

Releasing ink also helps other octopuses, squids or cuttlefish nearby. As the ink spreads through the water, it's an alarm signal. It tells the others to swim away to safer waters.

Ejecting ink must be a good strategy. Cephalopods have been cruising around the oceans for about 500 million years. That's a lot of ink!

Sincerely, Dr. Universe

P.S. To learn about a special (and adorable) squid that uses bacteria to light itself up, **check out this video**. If you watch closely, you can see the itty-bitty squid spew out ink twice.



Know a kid with a science question?

Help them submit it for a chance to be featured in a future Q&A.

Submit a question!

"Prepare2Respond" - Mitigating Disease Risk through a Learner Engaged Approach

Paul Kuber



As the 2022 fair season ends, it is time to engage with fair management and their employees and volunteers, encouraging them to participate in "Prepare2Respond", mitigating the risk of a serious disease outbreak at fairs and expositions. The summer of 2022 offered a glimpse of the impact that could potentially happen with High Pathogen Avian Influenza (HPAI). WSDA's immediate

call to action by limiting bird movement and asking fairs to keep domestic foul off the grounds helped limit the potential impact. What happens when diseases first point of discovery is during the event? Are fairs and fair management ready to respond? When a fair is the first point of contact, prior planning and awareness could speed up the response and minimize the effect that the disease has on the fair or exhibition, the spread of the disease, and the impact, if zoonotic, to attendees and participants.

Prepare2Respond is a national offering that has been developed by experts in the field of biosecurity and animal management and has been peer reviewed for accuracy. This free training opportunity aims to:

- Protect the livestock show and exposition participants, staff and attendees;
- Public perceptions of the livestock industry; and the
- · Economic stability of communities hosting fairs and expositions

Participants will be offered 3 learner engaged modules:

- Introductory
 - Audience all who are interested in disease response or an understanding of biosecurity. Livestock event personnel and first responders would be the primary target audience
 - Secondary audience would be anyone who has a need in understanding biosecurity and disease management spread.
- Livestock event Personnel
 - Primary audience anyone that helps execute the fair managers, boards, superintendents, veterinarians, livestock and/or animal directors
 - Secondary audience would be exhibitors (youth and adult), volunteers, and anyone interested in career exploration
- First Responder/Emergency Response
 - Primary audience anyone that helps execute the fair law enforcement, fire and rescue, and EMT
 - Secondary audience would be exhibitors (youth and adult), volunteers, and anyone interested in career exploration

Please share this website with your local fair management and staff including volunteers. Encourage them to act on this to prepare for disease mitigation through "Prepare2Respond".

https://prepare2respondprogram.org

For more information, please contact Paul Kuber at pskuber@wsu.edu.

You can also use this QR code for a factsheet on P2R and YQCA.



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Youth Livestock and Poultry Biosecurity Learning Modules Updated

Pam Watson, M.Ed., WSU Lewis County Extension 4-H Youth Development Agent, WSU Faculty

By JOANNA CUMMINGS

Livestock and poultry are susceptible to infectious diseases and many of these diseases are zoonotic, meaning they can be transmitted to people. A few more well-known zoonotic diseases include ringworm, rabies, and soremouth. The most effective strategy for protecting farm animal health is to prevent or reduce the chances of introducing a disease into a herd or flock.

An online learning experience about livestock biosecurity was developed during a five-year livestock biosecurity grant project, directed by Animal and Veterinary Sciences Research Associate Professor Julie Smith. The result was the **Healthy Farms Healthy Agriculture (HFHA) Biosecurity Learning Module Series.** The learning modules are appropriate for students in grades 6 to 12, FFA and 4-H participants, college students studying animal science, and other agriculturally related youth groups.

The link for the learning modules, teaching guide, certificates of completion and more is https://learn.healthyagriculture.org.

The goal of the series is to create a new generation of biosecurity advocates. The first four modules help youth in agriculture discover biosecurity, the preventative measures that protect farm animals from the spread of infectious diseases. The last two prepare youth to communicate what they have learned with others. Topics for the six modules—plus a hands-on activity—include:

1. What is animal biosecurity - an introduction to biosecurity concepts.

- 2. Routes of infection and means of disease transmission.
- 3. Finding sources of disease transmission students become biosecurity inspectors.
- 4. Farm biosecurity management plan students learn how to develop a biosecurity plan.
- 5. Public speaking for biosecurity advocates I students create a persuasive public presentation.
- 6. Public speaking for biosecurity advocates II students learn how to deliver a persuasive speech.
- 7. A "SCRUB Kit" was also developed during the project, with hands on activities that complement the learning modules.

Updated learning modules were released in 2022, incorporating interactive elements and accessibility improvements.

Discovery learning is key to the design of the learning modules' interactive curriculum. Students are presented with questions or tasks to complete to which they might not know the answers. They are also given supplemental information that introduces biosecurity concepts and helps the students make logical decisions. A printable guide is available for instructors with additional ideas and activities, career suggestions, and sets of homework and quiz bank questions. There are three paths available for interacting with the biosecurity learning modules:

- 1. A self-guided experience for students where the modules are hosted at Wisc-Online through Wisconsin's Technical Colleges system.
- 2. Learn as part of a course this option is for learners who are assigned one or more modules to complete on their own as a course requirement.
- 3. Learn with a leader club and group leaders guiding learners through any of the modules.

