



RHDV Frequently Asked Questions Guidance

Developed by the NASAHO RHDV2 Subcommittee 6/26/20

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Rabbit Hemorrhagic Disease Questions

What is rabbit hemorrhagic disease (RHD)?

RHD is a highly contagious, fatal viral disease in rabbits caused by multiple virus strains. It is an internationally reportable disease to the world organization for animal health (OIE).

What are the differences between the different RHD virus types?

Rabbit hemorrhagic disease is caused by rabbit hemorrhagic disease virus (RHDV), a member of the genus Lagovirus and family Caliciviridae. There are many strains of RHDV, and three major viral subtypes: RHDV (“classical RHDV”), the antigenic variant RHDVa, and the recently emerged virus RHDV2 (also called RHDVb). Related lagoviruses, called rabbit caliciviruses, circulate in healthy rabbits. These viruses can confer varying degrees of cross-protection to RHDV.

While most rabbit caliciviruses do not appear to cause any illness, two potentially pathogenic strains have been reported. One virus identified in the U.S. (proposed name “Michigan rabbit calicivirus”) was isolated from an outbreak that resembled rabbit hemorrhagic disease, although an attempt to reproduce the disease in experimentally infected rabbits resulted in little or no illness. A related strain, the Ashington strain of rabbit calicivirus, was recovered from dead wild rabbits during an outbreak in Europe.

What are the differences between the different RHDV1 and RHDV2 virus types?

There are many strains of the RHD virus, but three are of most concern. RHD Type 1 has two forms, RHDV and RHDVa. RHD Type 2 has just one form, RHDV2. The two forms of Type 1 are quite similar and their vaccines are cross-protective. They tend to not affect young bunnies but have a very high mortality rate for adult rabbits. RHDV2, on the other hand, seems less deadly than the Type 1 strains, but affects all ages of rabbits. The RHDV2 vaccine only protects against that type. All RHD virus types are in the viral family Caliciviridae and genus Lagovirus.

How can I tell if my rabbit has RHD?

Only laboratory tests can confirm a diagnosis of RHD. However, RHD should be suspected if a rabbitry experiences illness in most/all rabbits, high fevers, poor appetites, depression, inactivity, bloody discharges, seizures, and/or sudden death. Call your veterinarian right away if you have any concerns about your rabbit's health. Usually RHDV2 is associated with mass morbidity (illness) and mortality (death) in a colony or herd.

How is RHD transmitted?

Rabbit hemorrhagic disease spreads between rabbits mostly by ingestion and inhalation of the virus. The virus is present in urine and feces from infected rabbits, so contaminated bedding, food or forage can be a source of infection. The virus can be moved from place to place mechanical vectors and fomites (flies, predators, scavengers, feral domestic and wild rabbits, vehicle tires, clothing, footwear, cages, equipment, and wind and water movement).

Can humans, dogs or other animals contract RHD?

RHD is not a zoonotic disease and there is no public health significance. RHD is specific to rabbits. Dogs, cats, and other pets cannot contract the disease, but can transport the virus just like vehicles, shoes, and equipment can.

Can rabbits that have been exposed and recover or never become ill carry the virus?

Exposure to the virus does not necessarily mean a rabbit is infected with the virus. Some rabbits will just be exposed; others will be exposed and become infected and either die or recover. Recovering rabbits will develop antibodies to the virus and become resistant to related calicivirus strains for an unknown period. Infected rabbits can "carry" or shed the virus for over a month, perhaps up to four months (when experimentally infected); they are not believed to be infected and shed for life.

Where did the virus come from?

The RHD virus was first identified in China in the early 1980s. Outbreaks occur periodically throughout the world and continually in some countries but have been quite rare in North America. Since 2019 RHDV2 has been an emerging disease issue in North America; British Columbia experienced outbreaks of RHDV2 in 2018-2019, primarily on Vancouver Island. Isolated cases were reported in OH in 2018 and NY in 2020. WA had an outbreak in 2019-2020. A multistate outbreak in NM, AZ, CA, CO, TX, NV and UT started in 2020 and is ongoing. Mexico has also confirmed detection of RHDV2 virus in 6 northern states. The source of the recent RHDV2 outbreaks has not been identified.

Will the virus be here from now on?

The presence of RHDV2 in feral domestic and multiple wild lagomorph species (including jack rabbits and cottontails) complicates disease control and eradication efforts. It is difficult to control and eliminate diseases that can be spread and maintained in wildlife populations and the disease will likely become endemic in some US states. Perhaps RHD will manifest as periodic die offs of feral domestic and wild rabbit populations. Those who own rabbits and live in states with infected feral domestic and wild populations should plan on enacting recommended biosecurity practices from here on and consider vaccinating if allowed in the state.

Are all RHDV2 viruses the same?

The RHDV2 viruses in the North American outbreak are phylogenetically different. The NVSL Foreign Animal Disease Diagnostic Laboratory completed full genome sequencing and analysis of rabbit hemorrhagic disease virus 2 (RHDV2) isolates detected in the United States from 2018 through 2020, including from the ongoing outbreak in the southwestern United States.

The phylogenetic analysis indicates isolates cluster by geographical region (NY, OH, and WA are all different from SW states). The most recent southwestern isolates form a single genetic cluster suggesting that the outbreak of RHD in these states was caused by the introduction of a single genetic isolate into the region; this virus is responsible for the disease in both wild rabbits and hares and domestic rabbits.

Is it true wild rabbits are susceptible to the RHDV2 strain of virus?

RHDV2 has a wide host range and can infect wild rabbit species. The SW US outbreak of RHDV2 has affected native North American rabbits and hares including black-tailed jackrabbits, desert cottontail rabbits, mountain cottontail rabbits, and antelope jackrabbits. Eastern cottontail rabbits have been shown to be susceptible in experimental studies. As the disease spreads, RHDV2 may be confirmed in additional North American lagomorph species.

How long can RHD persist in the environment?

The virus can survive for long periods outside the host. Environmental temperature, humidity, and protection by organic material are important factors in virus survival. Viable virus has been detected for as long as 105 days on a fomite at room temperature and in decaying tissue of infected carcasses for up to 90 days; it persists in chilled or frozen rabbit meat. The virus can remain viable for 22-35 days at 72°F. It survives freeze-thaw cycles. Pelts from dead wild or domestic rabbits in premises or geographic areas during an RHDV outbreak should not be processed, transported or sold.

[Hunting Rabbits \(see guidance document\)](#)

What precautions should I take if I hunt rabbits or harvest domestic rabbits for food (see DFW guidance for hunting)?

RHDV2 can persist in chilled or frozen rabbit meat for an undetermined period of time and may be a source of infection for domestic and wild rabbits. If you find a wild dead rabbit in an area with known infection of RDHV, do not take the carcass home for human or animal consumption and do not process the pelt for sale or use. Follow the SAHO disposal guidance.

Careful biosecurity considerations for handling meat should be taken. Meat should be cooked thoroughly, all surfaces in contact with meat should be cleaned and disinfected and effective hand washing practices should be employed. Rabbits that die of RHD should not be frozen for human consumption due to the risk of virus persistence in the frozen meat and risk of herd reinfection.

Check with your State Department of Fish and Wildlife regarding recommendations or restrictions around wild rabbit carcass movement when hunting.

Response and Disease Containment ([see guidance document](#))

***How many cases of RHD have been confirmed in (YOUR STATE)?**

We appreciate being contacted by concerned citizens regarding sick or dead wild or feral domestic rabbits and will pursue a diagnosis if rabbits are found in a geographic area/county where RHD has not yet been diagnosed. We will follow up on all cases of reported domestic rabbit mortalities. Find the most recent information about detection of RHDV2 on this interactive map: <https://usda-aphis.maps.arcgis.com/apps/webappviewer/index.html?id=37791da88ef04cd08404a5794aaf0be3>

What will happen to my herd if RHDV2 is confirmed? Is euthanasia required? (see *RDHV2 Guidance Document for SAHOs*)

The two options for management of infected domestic premises include euthanasia with an observed fallow period prior to restocking or no euthanasia with an observed quarantine period prior to restocking. Both options require premises quarantine, proper disposal, strict cleaning and disinfection protocols and biosecurity implementation. Your SAHO will work with you to customize the best plan for your premises based on your individual facility, biosecurity plan and identified risk factors.

Some states will not euthanize domestic or feral rabbit colonies where rabbits have been exposed and recovered from RHD. In areas where the disease is present in wild or feral domestic rabbits, there will be continued high risk for reintroduction of disease into domestic rabbit premises. Decisions around colony euthanasia will vary based on risk (indoor vs outdoor, location of the infected premises, biosecurity risk factors, etc). States and USDA also have no funding for indemnity to reimburse rabbit owners for their losses. In addition, mandatory euthanasia could dissuade owners from coming forward and reporting suspected cases, which would make controlling this serious disease even more difficult.

Disposal Questions ([see guidance document](#))

What should I do if I find a dead feral domestic or wild rabbit (see disposal guidance)?

- If an owned rabbit dies and RHD could be the cause, double bag the carcass in plastic bags and refrigerate it until given more instructions. Disinfect the outside of the bag with 10% bleach or 1% Virkon-S. Do not freeze it. Contact your State Veterinarian's office at (*YOUR STATE phone number or email address*) for more information.
- If you find a dead feral domestic or wild rabbit, contact your State Veterinarian or the Department of Fish and Wildlife to determine whether this carcass should be submitted for testing or properly disposed of. Remember that handling dead rabbits increases your risk of bringing disease back to your domestic herd.
- Always wear disposable gloves when handling a dead animal; dispose of them when done and wash your hands.

Rabbits that do not qualify for testing should be double bagged and disposed of.

Can I use a rabbit that has died of RHDV for human or animal consumption?

No. Although there is no public health concern with RHDV, the virus can persist for long periods of time and could infect or reinfect a premises. Viable virus has been detected in the tissue of infected carcasses for up to 90 days; it persists in chilled or frozen rabbit meat for years. Meat and pelts from wild or domestic rabbits that died from RHDV during an outbreak should not be processed, transported or sold. If you have frozen rabbits that have later been confirmed with RHDV, you should clean out your freezer and dispose of carcasses of animals that likely died of RHDV.

Can I process, sell or transport pelts from rabbits that died of RHDV?

No. Pelts from wild or domestic rabbits that died from RHDV during an outbreak should not be processed, transported or sold.

How do I dispose of a dead rabbit?

Options for disposal include incineration, double bagging with disposal in landfill/garbage, or double bagging with deep burial. Burial must be deep enough to discourage scavenging by wildlife. Check with your State Veterinarian and your local Department of Health to comply with your county regulations and acquire more specific guidance.

Quarantine and Control Area Questions (*answers will vary by State)

***What does an emergency rule do?**

The authority and implementation of emergency rules, quarantine and control areas will vary from state to state. An emergency rule restricts movement of rabbits, rabbit products, and equipment from the infected geographic areas determined by the State Veterinarian.

Emergency rules may be used as a tool to quarantine geographic areas where domestic feral rabbits or wild rabbits have been found to be positive in an effort to contain the outbreak.

Although the positive test results are associated with isolated pockets in certain counties, the

quarantine covers large geographic areas because the virus can be spread through movement of feral rabbits, related predators, and scavengers.

***What is the difference between the quarantine area and control area on the map?**

The control area is a designated radius from the border of the geographic locations specifically outlined in the emergency rule or surrounding an individual quarantined premises. The control area is NOT part of the quarantine area, but rather an area of higher risk because it is adjacent to an infected area. Your State Veterinarian will give guidance specific to disease surveillance, vaccination and other risk reduction recommendations. .

***Do any restrictions apply to those in the control area and not the quarantine zone?**

No. There are no movement restrictions in the control areas. In the quarantine zone, the movement restriction only applies to rabbits, rabbit products, and equipment; it does not restrict the movement of people. Here is an example of emergency rule language at <https://agr.wa.gov/services/rulemaking/wac-16-51-quarantine-zones-for-rabbit-hemorrhagic-disease>.

***Are there movement restrictions in the control areas?**

The State Veterinarian will determine if there are movement restrictions of rabbits in control areas.

***What are the timeframes for the quarantines (*tailor to YOUR STATE*)?**

Individual premises quarantines may be imposed for 30-120 days depending on the individual facility, biosecurity plan and identified risk factors.

[Vaccination Questions \(see guidance document\)](#)

Is a vaccine available?

Yes, but commercial RHD vaccines are manufactured in Europe but not currently authorized for widespread use in the U.S. In situations such as the current outbreak, the USDA may issue a license to veterinarians to import the vaccine if these veterinarians complete a federal application process. The available vaccine requires an annual booster.

***Is the vaccine available in our state (*tailor to YOUR STATE*)?**

Although RHD vaccines are readily available in countries where the disease is routinely present, the vaccine is unlicensed in the U.S. and must be approved by APHIS for importation and use. APHIS will conditionally approve limited importation of the vaccine to authorized veterinarians in geographic areas in or near an area where RHD has been diagnosed. Along with biosecurity vaccination is a tool for disease control.

Limited production capacity and supply of the vaccine restricts vaccine use to rabbits at immediate risk, in or near a quarantine area, or where wild rabbits are infected and maintain the virus. The permit does not allow widespread use of the vaccine in unaffected areas.

. Contact your State Veterinarian to determine which veterinarians have obtained a license to import the vaccine in the State and offer vaccination. Vaccination will be prioritized for rabbits in areas with confirmed RHDV2 cases until a domestic product becomes available.

Why is the vaccine so difficult to obtain?

The USDA's Animal and Plant Health Inspection Service (APHIS) classifies RHD as a foreign animal disease (FAD), a serious animal disease present in other countries but not the U.S. State Animal Health Officials work together and with Federal partners to identify and prevent FADs, including RHD, from spreading to animals in the U.S.

The vaccine is unapproved and unlicensed in the U.S. and must be imported from Europe. The importation of vaccine requires special permits, port brokers and people to maintain the vaccine in the cold supply chain to ensure efficacy. In addition, the vaccine companies that manufacture those vaccines have limited production capacity and cannot keep up with U.S. demand.

The production process that is necessary to manufacture the killed vaccines includes the use of live rabbits. However, Filavac and Eravac are the only viable vaccine options we have at this time. The USDA Center for Veterinary Biologics (CVB) will only approve the use of these killed vaccines for conditional use in the US as a tool in the face of an outbreak. The Nobivac Myxo-RHD Plus includes myxomatosis, another serious and fatal disease of rabbits. USDA CVB will not authorize the importation of any vaccines that include Myxomatosis, because those vaccines are live, recombinant viruses and environmental laws prohibit release without extensive testing and risk assessment in the United States.

Will we ever have an approved vaccine in the US?

Currently, a US manufacturer is working with a University to develop a domestic, FDA approved, new-generation vaccine for RHDV. The vaccine would not require the use of live rabbits for vaccine production and could be scaled up much easier. Once the product is approved, anyone will be able to access the vaccine without special federal or state permission. A domestic vaccine may be available as soon as November 2020.

Are vaccinated rabbits considered "infected" and shedding virus for life?

The RHDV vaccine is a killed vaccine; it will not cause the disease and rabbits will not shed live virus after vaccination. It will stimulate vaccinated animals to produce protective antibodies against the RHDV2, thereby preventing illness. If vaccinated rabbits are tested for antibodies by the ELISA laboratory test, antibodies to the vaccine will be detected. In the U.S., the only test available to detect viral DNA is PCR. The PCR test cannot be performed for live animals. This test is only available at the Foreign Animal Disease Diagnostic Lab on Plum Island, NY, because RHD is a foreign animal disease. A test is available to distinguish antibodies resulting from vaccination vs. infection.

Can vaccinated rabbits infect other rabbits after vaccination through their saliva?

No. Killed vaccines are inactivated, so there's no chance of the vaccine causing disease spread to other rabbits via saliva, feces, hair, etc. However, vaccinated or unvaccinated rabbits can passively carry the virus on their feet, hair, whiskers, etc. and move it that way, just as with human feet, car tires, shovels, etc.

Should all rabbits in the quarantine or control area be vaccinated?

Vaccination is a tool to protect owned rabbits in high risk areas. Vaccine doesn't prevent infection; it boosts the immune system so rabbits do not die if exposed. Vaccinations are like insurance--one's use of them reflects one's willingness to accept risk. Because of the seriousness of this disease and how contagious it is, it would be best for all owned rabbits to be vaccinated where infected feral domestics or infected wild rabbits have been detected. However, the vaccine is not 100% effective, must be given every year, and may be more expensive than some owners can afford. In that case, rabbit owners must rely on stringent biosecurity to reduce risk.

Do I have to vaccinate my rabbits if I live in an areas with infected wild rabbits? What if I live in a quarantine or control area under an emergency rule?

No in both cases.

What about rabbits living in areas not in the designated zones? Can they be vaccinated?

Until/unless a vaccine is approved in the U.S., the imported vaccine will only be allowed into the U.S. in limited quantities, so priority must go to rabbits at highest risk, which means those in the quarantine and control areas (see map). The vaccine is unlicensed, conditionally approved, and only intended to be used to control diseases in infected and adjacent zones.

Will rabbit owners in the control area be eligible for the vaccine?

Yes.

***Where can I get my rabbits vaccinated?**

Only veterinarians who apply to import the vaccine through the USDA can obtain the vaccine. Contact your veterinarian to see if he/she has gone through this process or knows another veterinarian who has. You may also contact your State Veterinarian for a list of these veterinarians at (*YOUR STATE*).

Biosecurity Questions ([see guidance document](#))

How should I clean and disinfect cages, etc.?

Remove all visible debris from items to be disinfected (cages, feeding equipment, waterers, etc.). Items made of wood are best discarded or burned. First you must clean by washing items thoroughly with soap and water; rinse well and let dry. Then to disinfect, you should submerge

or saturate with spray or 10% household bleach solution (1 cup bleach to 1 gallon of water). Allow 10 minutes of contact, then rinse and let dry before allowing animal contact.

See [USDA C&D guidance](#).

The RHD calicivirus is inactivated by 10 minutes of exposure to:

- Household bleach (sodium hypochlorite) at 1:10 dilution
- 1% Virkon-S (by DuPont)
- Accelerated hydrogen peroxide products (Rescue, Accel, Virox 5).

***What biosecurity recommendations should I familiarize myself with?**

Biosecurity for Rabbit Owners

Rabbit owners and commercial operations should work with their veterinarian or state animal health official to identify their biosecurity risk factors. Customized site specific biosecurity plans should identify key risk factors, establish best practices and make considerations for vaccination or other tools for disease mitigation and control. Plans may vary based on geographic location, OIE status, confirmation of infection in wildlife or access to vaccine. Key areas for consideration include:

- **Human Best Practices**
 - Have indoor and outdoor footwear; don't wear outdoor shoes indoors and vice versa.
 - Wash hands before and after handling or caring for rabbits and between groups.
 - Don't allow visitors who also have rabbits.
 - Don't handle others' rabbits.
 - Handle sick rabbits last.
 - Follow disposal guidance for dead rabbits.
- **“Line of Separation” and “Perimeter buffer area”**
 - Commercial operations may apply these concepts during periods of heightened risk, especially in areas where RHDV has affected wild rabbits.
- **Housing**
 - Keep rabbits inside if possible on an impermeable surface.
 - If rabbits are housed outdoors, double fence to avoid direct contact with wildlife.
 - Prevent direct or indirect contact with wild rabbits.
 - House rabbits in hutches or cages off the ground.
 - Do use forage, tree branches or grass for bedding from areas with infected wildlife.
- **Isolate new rabbits or rabbits returning from a show** (see Show/ Exhibition guidance)
 - Keep rabbits in separate area for 30 days before allowing contact with your colony.
 - Be aware of animal health and CVI requirements for the state of destination.
- **Clean and Disinfect Equipment** (See [USDA C&D guidance](#))
 - Cleaning

- Remove all visible organic debris from items to be disinfected (cages, feeding equipment, waterers, etc.). Items made of wood are best discarded or burned.
 - Wash items thoroughly with soap and water; rinse well and let dry.
- Disinfection
 - Saturate by submersion or spray with 10% household bleach (sodium hypochlorite) OR 1% Virkon-S (by DuPont) OR accelerated hydrogen peroxide products (Rescue, Accel, Virox 5).
 - Allow 10 minutes of contact, then rinse and let dry before allowing animal contact.
- **Control disease vectors**
 - Flies, rats, cats, dogs, birds, etc. that can move the virus around on their feet or body.
 - Fence out scavengers and wildlife (including wild rabbits).
- **Feeding**
 - Do not put rabbits down on the ground to eat grass, etc.
 - Do not collect outdoor forage and browse to feed rabbits; stay with pelleted feed for now in areas where wild rabbits are infected. Treats can include raw vegetables from grocery stores.
 - Source hay from unaffected areas.
- **Rabbit Health**
 - Monitor your rabbits closely for going off feed, looking limp/depressed, or behaving differently in any way.
 - Call your vet ASAP if you note signs of illness in your rabbits.
 - Consider vaccination for RHDV2 where available (see vaccine guidance).
- **Report all unusual mass morbidity (sickness) and/or mortality (death) events to your State Veterinarian.**

Shows and Exhibitions ([see guidance document](#))

***What should we do about large rabbit gatherings like ARBA rabbit shows, 4-H rabbit shows, and fairs?**

If a premises or geographic region is under quarantine, movement of rabbits, rabbit products, and equipment from quarantine areas to shows is prohibited. After the quarantine expires, show/fair management will need to establish policies for exhibitors from the previous quarantine and control areas who wish to attend their show. It is up to each rabbit show's management to evaluate their risks and decide what parameters they would like to establish and enforce.

Each state has different interstate movement rules for rabbits. Some require a Certificate of Veterinary Inspection. ARBA rabbit shows, 4-H rabbit shows, and fairs can determine if they

choose to add additional requirements to attend an event (ie vaccination). It is recommended that a veterinarian inspect all rabbits prior to entry. Strict biosecurity should be observed.

What are specific biosecurity recommendations for events?

Quarantined premises or Premises under Emergency Rule Restrictions

- If a premises or geographic region is under official quarantine (authorized by the State Veterinarian), movement of rabbits, rabbit products, and equipment from quarantine areas to shows is prohibited.
- After the official quarantine expires, show/fair management will need to establish policies for exhibitors from the previous quarantine and control areas who wish to attend their show.
- NOTE: ARBA established “quarantine” areas (ie: 150 miles from infected premises) are member recommendations without legal authority.

Fair, Show and Exhibition Requirements

- Consider postponing or cancelling shows in infected states during an outbreak.
- It is up to each rabbit show’s management to evaluate their risks and decide what parameters they would like to establish and enforce.
- ARBA rabbit shows, 4-H rabbit shows, and fairs can determine if they choose to add additional requirements to attend an event (ie: RHDV2 vaccination).
- It is recommended that a veterinarian inspect all rabbits prior to entry or that a Certificate of Veterinary Inspection (CVI) is issued prior to arrival.
- Check with your State Veterinarian for guidance or recommendations based on risk.

Interstate Movement

- Each state has different interstate movement rules for rabbits.
- Each state will have differences in their OIE declared status (ie: “free”, “stable endemic”)
- Some States require a Certificate of Veterinary Inspection or have additional restrictions for states with outbreaks of RHDV.
- Check with the state of destination.

What are specific biosecurity recommendations for events?

In addition to the biosecurity guidance document, special additional considerations should be included for exhibition animals:

- Showing
 - Judges and veterinarians should change gloves or wash hands/arms between animals.
 - Judges should wear short sleeves and not pick up rabbits to avoid contamination of their clothing.
 - Do not share show carpets and designate one per animal.

- Be sure the show has excellent vector control. Flies, rats, cats, dogs, birds, etc. can move the virus around on their feet or body.
- Animal Health
 - Monitor your rabbits closely for signs of illness (going off feed, looking limp/depressed, or behavioral changes) and seek immediate veterinary care.
 - Remove sick rabbits from the premises, and keep in designated isolation area.
- Housing
 - Keep show rabbits in cages off the ground.
 - Do not allow nose to nose contact between rabbits.
 - Clean and disinfect daily whenever possible.
 - Do not allow your rabbit to exercise in common areas on the ground.
 - Do not allow non-showing spectators into the rabbit areas: fence off the show area
- Human Best Practices
 - Wash your hands frequently.
 - Wear different clothes and shoes at the show than you do at home and before contacting the rest of your herd.
 - Do not share equipment, grooming tools, feeding implements.
 - Wash hands before and after handling or caring for rabbits and between groups.
 - Don't handle others' rabbits.
- Clean and Disinfect Equipment and common grooming stations (**See [USDA C&D guidance](#)**)
 - Cleaning
 - Remove all visible organic debris from items to be disinfected (cages, feeding equipment, waterers, etc.). Items made of wood are best discarded or burned.
 - Wash items thoroughly with soap and water; rinse well and let dry.
 - Disinfection
 - Saturate by submersion or spray with 10% household bleach (sodium hypochlorite) OR 1% Virkon-S (by DuPont) OR accelerated hydrogen peroxide products (Rescue, Accel, Virox 5).
 - Allow 10 minutes of contact, then rinse and let dry before allowing animal contact.
- Feeding
 - Source hay from unaffected areas.
 - Keep feed covered or in a container with a lid while at the show.
 - Do not share feed, water or treats with other exhibitors.
- Going Home
 - Clean and disinfect all cages, equipment and transportation after the show.
 - Isolate all rabbits returning from the event for 30 days prior to reintroduction to the herd.
 - Feed and care for returning rabbits last.

- Report any mortality or morbidity events to your veterinarian.

Should rabbit owners consider not bringing rabbits to events or meetings for biosecurity reasons?

Rabbit events or meetings with live rabbits can contradict several biosecurity recommendations. Biosecurity practices are always a good idea, not just for RHD, but more common contagious conditions such as Pasteurella, mites, etc. The highest risk areas are those with infected feral domestic or wild rabbits. Indoor rabbits cared for with excellent biosecurity practices are at very low risk.

Rabbits co-mingled at club meetings or shows have greater risk of contracting snuffles from an infected rabbit compared to RHD. Risk of disease transmission could be reduced at club meetings by only having rabbits from one premises present per meeting.

All club members must wash hands before and after handling rabbits and arrive at the meeting site with clean clothing and clean/disinfected footwear. After returning home, they should change clothes and footwear and wash their hands before caring for their own rabbits. We all have different levels of risk we are willing to accept; the most conservative will not take animals away from home or allow them to contact other animals. Not every 4-H'er is required to show his/her animal if they do not want to for whatever reason.

Resources and Information on RHD

***How can I keep updated on RHD information in Washington State? (*tailor to your state website/ resources*)**

Sign up for the WSDA animal health list serve at <https://listserv.agr.wa.gov/scripts/wa-AGRWA.exe?SUBED1=WSDA-ANIMAL-HEALTH&A=1>. You will receive prompt notification of RHD-related news or events. Please check our website regularly as well: <https://agr.wa.gov/departments/animals-livestock-and-pets/animal-health>.

***Where can I get more information on RHD?**

Sources of more information intended for various audiences include:

- http://www.cfsph.iastate.edu/Factsheets/pdfs/rabbit_hemorrhagic_disease.pdf
- <https://cms.agr.wa.gov/getmedia/36442c2c-caac-4c13-a99e-774e0cea6744/809-RHDVaccineFactSheet>
- <https://cms.agr.wa.gov/getmedia/07915d2d-bfd5-4cbb-b443-ab3b42b72722/RHDFactsheet>
- <https://agr.wa.gov/departments/animals-livestock-and-pets/animal-health/animal-diseases/rabbit-disease>
- https://www.oie.int/fileadmin/Home/eng/Animal_Health_in_the_World/docs/pdf/Disease_cards/RHD.pdf
- https://www.oie.int/fileadmin/Home/eng/Health_standards/tahm/3.06.02_RHD.pdf
- https://www.aphis.usda.gov/animal_health/emergency_management/downloads/sop/sop_rhd_e-e.pdf

- https://www.aphis.usda.gov/animal_health/downloads/Rabbit-Hemorrhagic-Disease_062018.pdf
- https://www.aphis.usda.gov/animal_health/downloads/emerging-risk-notice-rabbit.pdf
- <https://wastatedeptag.blogspot.com/2019/11/additional-rules-to-contain-deadly.html>
- https://www.aphis.usda.gov/animal_health/emergency_management/downloads/disinfection-options-for-rabbit-hemorrhagic-disease.pdf

USDA APHIS VS (*Dr. Creekmore to update hyperlinks below*)

- Rabbit Hemorrhagic Disease in the United States (April 2020)
- Rabbit Hemorrhagic Disease Factsheet
- General Guidance for Cleaning and Disinfection of Rabbit Hemorrhagic Disease
- RHDV2 Vaccine Frequently Asked Questions (FAQs)

Government of Mexico

RHDV Questions and Answers

www.gob.mx/cms/uploads/attachment/file/504252/Enfermedad_hemorr_gica_del_conejo.pdf

USGS National Wildlife Health Center

Wildlife Health Bulletins regarding RHDV2 available at

https://www.usgs.gov/centers/nwhc/science/wildlife-health-bulletins?qt-science_center_objects=0#qt-science_center_objects

Non-Government Organizations

American Rabbit Breeder's Association <https://arba.net/announcements/>

House Rabbit Society <https://rabbit.org/rhdv/>

*Modify or add information for each state