



Rabbit Hemorrhagic Disease: Assessing the Threat

Pennsylvania Game Commission, Bureau of Wildlife Management &
Penn Vet, Wildlife Futures Program

Revised 08 January 2021



Executive Summary

In early 2020, rabbit hemorrhagic disease (RHD) was detected for the first time in free-ranging wild hares or rabbits in the United States. RHD is considered a notifiable foreign animal disease and is a serious threat to both domestic and wild lagomorph populations. The virus responsible for the current outbreak in the Southwestern United States is RHD virus serotype 2 (RHDV2). Previous detections of RHDV2 in the United States were limited to domestic (2018 in Ohio, 2020 in New York) and feral rabbits (2019 in Washington); the current strain circulating in Arizona, California, Colorado, Nevada, New Mexico, Texas, and Utah is unique and unrelated to these previous detections. To date, the source of the outbreak remains unknown. The only previous case of RHD in Pennsylvania was linked to RHD virus serotype 1 (RHDV1) in 2018; officials believed that a chef who owned the infected domestic rabbits had imported and handled infected rabbit meat from France. RHDV1 was originally detected in China in 1984 but is thought to have been present potentially as early as the 1960s in Europe. RHDV2 was first characterized in domestic and wild rabbits in France in 2010. Over the past few decades, different strains of RHD virus have circulated throughout Europe, Australia, Africa, New Zealand, and the Americas, causing extensive losses in both domestic and wild populations.

Both RHDV1 and RHDV2 are extremely contagious and in addition to being spread between hares or rabbits via direct contact, the virus can be transmitted via fomites (e.g., equipment, tools, enclosures), insects, birds, and scavenging mammals. The disease is controlled and prevented through strict biosecurity measures and health management of domestic rabbits. Once the disease is detected, eradication can only be accomplished by depopulation, cleaning and disinfection, surveillance, and quarantines of domestic rabbits. When RHD emerges in wild populations, eradication becomes nearly impossible. Therefore, it is of utmost importance that the PA Game Commission (PGC) take proactive measures.

In Pennsylvania and other uninfected areas, prevention must be the top priority. Preventive strategies may include educating permittees (e.g., falconry, rabbit trapping) and the general public about the virus and wildlife health implications, providing precautionary guidelines and recommendations, restricting the importation of wildlife or wildlife parts from endemic areas, and conducting extensive disease surveillance. Due to its foreign animal disease status, RHD surveillance efforts by the PGC are closely coordinated with the PA Department of Agriculture and United States Department of Agriculture (USDA). Should there be RHD detections in any domestic or wild hares or rabbits within the Commonwealth, the PGC will continue to collaborate with local, state, and federal wildlife and agriculture agencies. Materials and references for the USDA Animal and Plant Health Inspection Service's (APHIS) Foreign Animal Disease Preparedness and Response Plan can be found here: <https://www.aphis.usda.gov/fadprep>.

Table of Contents

PGC Memo (Internal) on Rabbit Hemorrhagic Disease 4

PGC Memo to Nuisance Wildlife Control Operator Permittees on Rabbit Hemorrhagic Disease 6

PGC Memo to Wildlife Rehabilitation Permittees on Rabbit Hemorrhagic Disease 8

PGC Memo to Permittees (Multiple) on Rabbit Hemorrhagic Disease10

USDA-APHIS Multistate RHDV2 Situation Report from 24 September 2020 12

USDA-APHIS Multistate RHDV2 Situation Report from 07 January 2021 (most recent).....27

Date: Wednesday, June 17, 2020
From: Bureau of Wildlife Management (Game Mammal Section & Wildlife Health Division)
Re: Rabbit Hemorrhagic Disease Virus

Dear Wildlife Rehabilitation Permittee:

Earlier this year, Rabbit Hemorrhagic Disease Virus 2 (RHDV2), a notifiable foreign animal disease, was detected for the first time in wild hares and rabbits in the United States. As of June 17, 2020, it has been detected in wild populations in Arizona, California, Colorado, New Mexico, and Texas. RHDV2 poses a threat to the Commonwealth's cottontail rabbit and snowshoe hare populations, and as such, the Pennsylvania Game Commission is taking the ongoing outbreak very seriously. As we continue to carefully monitor wild hare and rabbit mortality events, we wanted to share disease information with you and provide some general recommendations.

What is RHDV2? RHDV2 is a highly pathogenic and contagious calicivirus affecting hares, rabbits, and closely-related species; it is not known to infect other animals or people and is **not related to the coronavirus responsible for COVID-19**. RHDV2 was first identified in domestic rabbits in France in 2010. The disease has been responsible for mass die-offs in wild populations in Europe, Australia, the United States, and has the potential to cause significant population declines in Pennsylvania's native cottontail rabbits and snowshoe hares.

How does RHDV2 spread? The virus is extremely hardy and highly contagious. It can spread between hares and rabbits via many pathways that include: direct contact with an infected live or dead individual; ingestion of contaminated food or water; inhalation; contact with contaminated equipment, tools, and enclosures; viral movement by flies, birds, biting insects, predators, scavengers, and humans; and contact with urine, feces, and respiratory discharges from infected individuals. There is no specific treatment for the disease and it is often fatal (potentially 75%-100%). Hares or rabbits that do not immediately die following infection may present with poor appetites, lethargy, and blood coming from their mouths or noses.

Where exactly has RHDV2 been detected in wild hares and rabbits? The United States Department of Agriculture's Animal and Plant Health Inspection Service maintains an up-to-date map at the following URL:

<https://www.arcgis.com/apps/webappviewer/index.html?id=37791da88ef04cd08404a5794aaf0be3>

What can I do? The Pennsylvania Game Commission has the following recommendations for wildlife rehabilitators intaking any wild hares or rabbits to their facilities:

- Carefully triage all wild hares and rabbits upon arrival and separate the ones with injuries from those that appear ill.
- Record the source and location of any wild hare or rabbit admitted to your facility.

- Report suspicious wild hare and rabbit mortalities to your regional Pennsylvania Game Commission office. Contact information can be found at the following URL:
<https://www.pgc.pa.gov/InformationResources/AboutUs/ContactInformation/Pages/default.aspx>.
- If the mortality event is suggestive of RHDV2, a foreign animal disease investigation will need to be conducted by the Pennsylvania Department of Agriculture (PDA). Following consult with the Wildlife Veterinarian, the Game Commission will contact the PDA's Bureau of Animal Health & Diagnostic Services to initiate the investigation.
- Use proper PPE (i.e., gloves, gowns) when handling any hares or rabbits. Clean and disinfect (after thoroughly cleaning, disinfect with a 1:10 solution of household bleach to water) all surfaces and equipment used while handling hares or rabbits. These precautions are incredibly important as the disease can be easily transmitted amongst and between wild and domestic populations.
- Protect wild hare and rabbit feed from flies, birds, and rodents.
- Control biting flies and other insects.
- If instructed to dispose of wild hare or rabbit carcasses, either incinerate or bury them deep enough to prevent scavenging (> 3 ft). Carcasses can also be disposed of in the commercial trash.

Additional inquiries can be directed to:

Emily Boyd (eboyd@pa.gov), Small Game Mammal Biologist, PA Game Commission
Dr. Andrew Di Salvo (andisalvo@pa.gov), Wildlife Veterinarian, PA Game Commission

Date: Wednesday, June 17, 2020
From: Bureau of Wildlife Management (Game Mammal Section & Wildlife Health Division)
Re: Rabbit Hemorrhagic Disease Virus

Dear Nuisance Wildlife Control Operator (NWCO) Permittee:

Earlier this year, Rabbit Hemorrhagic Disease Virus 2 (RHDV2), a notifiable foreign animal disease, was detected for the first time in wild hares and rabbits in the United States. As of June 17, 2020, it has been detected in wild populations in Arizona, California, Colorado, New Mexico, and Texas. RHDV2 poses a threat to the Commonwealth's cottontail rabbit and snowshoe hare populations, and as such, the Pennsylvania Game Commission is taking the ongoing outbreak very seriously. As we continue to carefully monitor wild hare and rabbit mortality events, we wanted to share disease information and provide some general recommendations.

What is RHDV2? RHDV2 is a highly pathogenic and contagious calicivirus affecting hares, rabbits, and closely-related species; it is not known to infect other animals or people and is **not related to the coronavirus responsible for COVID-19**. RHDV2 was first identified in domestic rabbits in France in 2010. The disease has been responsible for mass die-offs in wild populations in Europe, Australia, the United States, and has the potential to cause significant population declines in Pennsylvania's native cottontail rabbits and snowshoe hares.

How does RHDV2 spread? The virus is extremely hardy and highly contagious. It can spread between hares and rabbits via many pathways that include: direct contact with an infected live or dead individual; ingestion of contaminated food or water; inhalation; contact with contaminated equipment, tools, and enclosures; viral movement by flies, birds, biting insects, predators, scavengers, and humans; and contact with urine, feces, and respiratory discharges from infected individuals. There is no specific treatment for the disease and it is often fatal (potentially 75%-100%). Hares or rabbits that do not immediately die following infection may present with poor appetites, lethargy, and blood coming from their mouths or noses.

Where exactly has RHDV2 been detected in wild hares and rabbits? The United States Department of Agriculture's Animal and Plant Health Inspection Service maintains an up-to-date map at the following URL:

<https://www.arcgis.com/apps/webappviewer/index.html?id=37791da88ef04cd08404a5794aaf0be3>

What can I do? The Pennsylvania Game Commission has the following recommendations for NWCOs who may handle wild hares or rabbits:

- Report suspicious wild hare and rabbit mortalities to your regional Pennsylvania Game Commission office. Contact information can be found at the following URL:
<https://www.pgc.pa.gov/InformationResources/AboutUs/ContactInformation/Pages/default.aspx>

- If the mortality event is suggestive of RHDV2, a foreign animal disease investigation will need to be conducted by the Pennsylvania Department of Agriculture (PDA). Following consult with the Wildlife Veterinarian, the Game Commission will contact the PDA's Bureau of Animal Health & Diagnostic Services to initiate the investigation.
- Use proper PPE (i.e., gloves, gowns) when handling any hares or rabbits. Clean and disinfect (after thoroughly cleaning, disinfect with a 1:10 solution of household bleach to water) all surfaces and equipment used while handling hares or rabbits. These precautions are incredibly important as the disease can be easily transmitted amongst and between wild and domestic populations.
- If instructed to dispose of wild hare or rabbit carcasses, either incinerate or bury them deep enough to prevent scavenging (> 3 ft). Carcasses can also be disposed of in the commercial trash.

Additional inquiries can be directed to:

Emily Boyd (eboyd@pa.gov), Small Game Mammal Biologist, PA Game Commission
Dr. Andrew Di Salvo (andisalvo@pa.gov), Wildlife Veterinarian, PA Game Commission

Date: Tuesday, October 13, 2020 (original 09/08/20)
From: Bureau of Wildlife Management (Game Mammal Section & Wildlife Health Division)
Re: Rabbit Hemorrhagic Disease

Dear Permittee:

Earlier this year, Rabbit Hemorrhagic Disease Virus 2 (RHDV2), a notifiable foreign animal disease, was detected for the first time in wild hares and rabbits in the United States. As of September 8, it has been detected in wild rabbit populations in Arizona, California, Colorado, Nevada, New Mexico, Texas, and Utah. RHDV2 poses a threat to the Commonwealth's cottontail rabbit and snowshoe hare populations, and as such, the Pennsylvania Game Commission is taking the ongoing outbreak very seriously. As we continue to carefully monitor wild hare and rabbit mortality events, we wanted to share disease information and provide some general recommendations.

What is RHDV2? RHDV2 is a highly pathogenic and contagious calicivirus affecting hares, rabbits, and closely related species; it is not known to infect other animals or people and is **not related to the coronavirus responsible for COVID-19**. RHDV2 was first identified in domestic rabbits in France in 2010. The disease has been responsible for mass die-offs in wild populations in Europe, Australia, the United States, and has the potential to cause significant population declines in Pennsylvania's native cottontail rabbits and snowshoe hares.

How does RHDV2 spread? The virus is extremely hardy and highly contagious. It can spread between hares and rabbits via many pathways that include: direct contact with an infected live or dead individual; ingestion of contaminated food or water; inhalation; contact with contaminated equipment, tools, and enclosures; viral movement by flies, birds, biting insects, predators, scavengers, and humans; and contact with urine, feces, and respiratory discharges from infected individuals. There is no specific treatment for the disease and it is often fatal (potentially 75%-100%). Hares or rabbits that do not immediately die following infection may present with poor appetites, lethargy, and blood coming from their mouths or noses.

Where exactly has RHDV2 been detected in wild hares and rabbits? The United States Department of Agriculture's Animal and Plant Health Inspection Service maintains an up-to-date map at the following URL: <https://www.aphis.usda.gov/aphis/maps/animal-health/rhd>

What can I do? The Pennsylvania Game Commission has the following recommendations for permittees who may handle wild hares or rabbits:

- Report suspicious wild hare and rabbit mortalities to your regional Pennsylvania Game Commission office. Contact information can be found at the following URL: <http://bit.ly/PGCContactUs>
 - If the mortality event is suggestive of RHDV2 (i.e., multiple dead hares or rabbits in one

location), a foreign animal disease investigation will need to be conducted by the Pennsylvania Department of Agriculture (PDA). The Game Commission will contact the PDA's Bureau of Animal Health & Diagnostic Services to initiate the investigation.

- Use proper PPE (i.e., gloves, gowns) when handling any hares or rabbits. Clean and disinfect (after thoroughly cleaning, disinfect with a 1:10 solution of household bleach to water, soaking for at least 10 minutes) all surfaces and equipment that may have contacted hares or rabbits. These precautions are incredibly important as the disease can be easily transmitted amongst and between wild and domestic populations.
- Falconers and individuals performing field dog trials should prevent their birds and dogs from contacting or consuming dead or diseased hares or rabbits.
- Prevent contact between domestic and wild hares or rabbits.
- If instructed to dispose of wild hare or rabbit carcasses, either incinerate or bury them deep enough to prevent scavenging (> 3 ft). Carcasses can also be disposed of in the commercial trash.

For additional information: <http://bit.ly/PGCRabbitHDVirus2>

Any inquiries can be directed to:

Emily Boyd (eboyd@pa.gov), Small Game Mammal Biologist, PA Game Commission
Dr. Andrew Di Salvo (andisalvo@pa.gov), Wildlife Veterinarian, PA Game Commission

Date: Wednesday, November 4, 2020
From: Bureau of Wildlife Management (Game Mammal Section & Wildlife Health Division)
Re: Rabbit Hemorrhagic Disease

Earlier this year, **Rabbit Hemorrhagic Disease Virus 2 (RHDV2)**, a notifiable foreign animal disease, was detected for the first time in wild hares and rabbits in the United States. As of early November 2020, it has been detected in wild populations in Arizona, California, Colorado, Nevada, New Mexico, Texas, and Utah. RHDV2 poses a threat to the Commonwealth's cottontail rabbit and snowshoe hare populations, and as such, the Pennsylvania Game Commission is taking the ongoing outbreak very seriously.

What is RHDV2? RHDV2 is a foreign animal disease, meaning it is not typically found in the United States and is of high concern to domestic and wild animal health. It is a highly pathogenic and contagious calicivirus affecting hares, rabbits, and closely related species; **it is not known to infect other animals or people and is not related to the coronavirus responsible for COVID-19.** RHDV2 was first identified in domestic rabbits in France in 2010. Since then, the disease has been responsible for mass die-offs in wild hare and rabbit populations in several countries which now includes the United States.

How does RHDV2 spread? The virus is extremely hardy and highly contagious. It can spread between hares and rabbits via many pathways that include: direct contact with an infected live or dead individual; ingestion of contaminated food or water; inhalation; contact with contaminated equipment, tools, and enclosures; viral movement by flies, birds, biting insects, predators, scavengers, and humans; and contact with urine, feces, and respiratory discharges from infected individuals. The virus can survive on clothing, plant material, or other items that may be accidentally moved from an infected area. People can also spread the virus indirectly by carrying it on their clothing and shoes.

How does RHDV2 affect hares and rabbits and what can we look for? There is no specific treatment for the disease and it is often fatal (potentially 75%-100%) with the potential to result in large, localized mortality events. Hares or rabbits that do not immediately die following infection may present with poor appetites, lethargy, and blood coming from their mouths or noses.

Is RHDV2 a public health concern? RHDV2 is not infectious to people or domestic animals other than hares or rabbits. However, multiple dead or sick hares or rabbits can also be a sign of tularemia or plague, diseases that can cause serious illness in people. Therefore, it is important that the public does not handle or consume sick or dead wildlife, as well as prevent pets from contacting or consuming wildlife carcasses.

Where exactly has RHDV2 been detected in wild hares and rabbits? The United States Department of Agriculture's Animal and Plant Health Inspection Service maintains an up-to-date map at the following URL: <https://www.aphis.usda.gov/aphis/maps/animal-health/rhd>

Recommendations and information for Pennsylvania Game Commission Staff:

- Early detection and removal of suspect carcasses will be our best bet to mitigate any RHDV2 outbreaks.
- We encourage members of the public to report any lagomorph mortality events (two or more dead hares or rabbits at the same location) to their local Game Commission office for further investigation. The public should not be encouraged to touch any dead hares or rabbits.

- If the mortality event is suggestive of RHDV2, a foreign animal disease investigation will need to be conducted by the Pennsylvania Department of Agriculture (PDA). Following consult with the Wildlife Veterinarian, the Game Commission will contact the PDA's Bureau of Animal Health & Diagnostic Services (717-772-2852, Option 1; **do not share this number with the public**) to initiate the investigation.
- While RHDV2 is a threat to domestic rabbits, PGC is not involved with domestic animals. PDA is involved with domestic rabbits to the extent that they are raised and slaughtered for meat and such facilities are not voluntarily consenting to USDA and/or FDA oversight. In addition to PDA, USDA, and FDA, private veterinary practices would also provide some oversight of domestic/pet rabbits. Any questions regarding disease surveillance in domestic rabbits should be directed to those non-PGC entities.
- Veterinary diagnostic laboratories are aware of the issue and any detections of RHDV2 in domestic lagomorphs in PA will be reported to the PGC.
- While spread through natural means in the environment is a concern, relocation and establishment of the virus by people transporting infected rabbits and contaminated materials is the main risk of RHDV2 being introduced and spreading throughout our native wild rabbit populations.
- When collecting a hare or rabbit carcass for testing, always wear gloves and double bag the carcass. Place the carcass in a refrigerator or cooler until it is transported to a PADLS lab for preliminary testing. Any preliminary findings that are suggestive of RHDV2 will be sent to Plum Island in NY for confirmatory testing at the *Foreign Animal Disease Diagnostic Laboratory (FADDL)*.
- Use proper PPE (i.e., gloves, gowns) when handling any hares or rabbits. Clean and disinfect (after thoroughly cleaning, disinfect with a 1:10 solution of household bleach to water, soaking for at least 10 minutes) all surfaces and equipment that may have contacted hares or rabbits. These precautions are incredibly important as the disease can be easily transmitted amongst and between wild and domestic populations.
- Any staff that has handled suspect carcasses should change clothes and shower as soon as possible. If staff member has domestic rabbits at home, preventing contamination from the field will be especially of concern.
- If instructed to dispose of carcasses, either incinerate or bury them deep enough to prevent scavenging (> 3 ft). Carcasses can also be disposed of in the commercial trash.
- The virus is resilient and may remain on the landscape for weeks or months. Staff should be cautious not to spread the disease from a suspected infection site.

For additional information: <http://bit.ly/PGCRabbitHDVirus2>

Any inquiries can be directed to:

Emily Boyd (eboyd@pa.gov), Small Game Mammal Biologist, PA Game Commission
 Andrew Di Salvo (andisalvo@pa.gov), Wildlife Veterinarian, PA Game Commission

Strategy and Policy (S&P)

USDA, APHIS,
Veterinary Services

Field Operations (FiOps)



Safeguarding Animal Health

**SITUATION REPORT
FOR OFFICIAL USE ONLY**

Submitted 24 September 2020

Updates and corrections are in underlined red font.

Situation reports are issued every two weeks. The next situation report will be on October 8.

Information current as of 16:00 Mountain Time, 09/22/2020

Multistate Outbreak of Rabbit Hemorrhagic Disease Virus 2 (RHDV2) Arizona, California, Colorado, Nevada, New Mexico, Texas, and Utah – Situation Report # 22

Prepared by:

Lynn H. Creekmore, DVM, MS
USDA APHIS VS
Epidemiologist – Aquatic Animal Health and
Non-program Species
Lynn.H.Creekmore@usda.gov

To: APHIS-VS S&P Leaders, APHIS-VS FiOps Directors and AVICs, APHIS-VS D&B Leaders and VS Deputy Administrator

Summary:

On March 24, 2020, National Veterinary Services Laboratories, Foreign Animal Disease Diagnostic Laboratory (NVSL-FADDL) notified the NM AVIC of positive PCR results for Rabbit Hemorrhagic Disease (RHD) virus Type 2. This detection was from liver tissue submitted from two domestic rabbits on March 23, 2020. Positive antigen ELISA results for RHDV and consistent histopathology findings followed on March 25. The affected premises is located in Cibola County, NM. This represents the first detection of RHDV2 in NM.

Concurrent to the events in privately owned rabbits in NM, mortality also was reported in wild rabbits and hares in the region. Since March 1, there were reports of wild rabbit deaths in southern New Mexico. A private practitioner in Eddy County submitted samples from a wild black-tailed jackrabbit (*Lepus californicus*) to FADDL and New Mexico Department of Game and Fish

submitted five desert cottontail rabbits (*Sylvilagus audubonii*) to FADDL. These animals were all positive for RHDV2 and are the first detections of RHDV2 in wild North American hares (black-tailed jackrabbit) and rabbits (desert cottontail rabbits). In the RHDV2 outbreak in Washington State in late 2019 and 2020, RHDV2 was detected in free-ranging feral domestic rabbits but not native wild rabbits.

Reports of domestic and wild lagomorph mortality in additional States in the region soon followed these initial detections. From the beginning of April 8 to present, RHDV2 has been confirmed in domestic rabbits from New Mexico, Arizona, Texas, Colorado, Nevada, Utah, and California, in wild rabbits and hares in New Mexico, Arizona, Texas, Colorado, California, Nevada, and Utah, and in feral rabbits in Colorado and Utah (see timeline). To date, all testing has been conducted at NVSL-FADDL.

Additional investigations of wild and domestic rabbit mortality are underway in all affected States and detections are reflected in the situation report State specific tables.

To date, most of the domestic rabbit detections are in privately owned, non-commercial domestic rabbits. There has been one detection in a commercial meat farm in UT.

Timeline:

3/23 – FAD investigation 20NM0007 by NMLB FADD for increased mortality in domestic rabbits.

3/24 – Partial results received from NVSL-FADDL for 20NM0007 (First Case) – Samples from 2 rabbits RT-PCR positive for RHDV2.

4/1 – First detection of RHDV2 in a wild lagomorph and in a black-tailed jackrabbit in the United States - RHDV2 was detected by RT-PCR in samples from 1 black-tailed jackrabbit collected in Eddy County, NM. Samples were also AG-ELISA positive for RHD virus.

4/2 – First detection of RHDV2 in wild desert cottontail rabbits in the United States - RHDV2 was detected by RT-PCR in samples from 5 desert cottontail rabbits collected in Dona Ana County, NM. Samples were also AG-ELISA positive for RHD virus.

4/8 – First detection of RHDV2 in wild lagomorphs in Arizona - RHDV2 was detected by RT-PCR in a wild black-tailed jackrabbit and a wild desert cottontail rabbit from Cochise County, AZ.

4/9 – First domestic rabbit detection in Arizona - RHDV2 was detected by RT-PCR in two domestic rabbits on a premises in Navajo County, AZ.

4/9 - First domestic rabbit detection in Texas - RHDV2 was detected by RT-PCR in a domestic rabbit on a premises in Hockley County, Texas.

4/15 – First wild rabbit detection in Texas - RHDV2 was detected by RT-PCR in a black-tailed jackrabbit in Lubbock County, Texas.

4/17 – First detection of RHDV2 in wild rabbits in Colorado - RHDV2 was detected in a pooled sample of livers from 3 cottontail rabbits (*Sylvilagus* sp.) found dead on rural property in southern Colorado (Alamosa County) over a 48 hour period.

4/29 – First detection of RHDV2 in a wild mountain cottontail rabbit (*Sylvilagus nuttallii*) collected in Coconino County, AZ - This is the first detection in this wild rabbit species.

4/30 – First detection of RHDV2 in domestic rabbits in Nevada – RHDV2 was detected by RT-PCR in a domestic rabbit on a premises in Clark County, NV.

5/1 – First detection of RHDV2 in a wild antelope jackrabbit (*Lepus alleni*) collected in Pima County, AZ - This is the first detection in this wild hare species.

5/7 – First feral rabbit detection in Colorado – RHDV2 was detected by RT-PCR in two feral domestic rabbits from El Paso County, Colorado.

5/11 - First detection in wild lagomorphs in California - RHDV2 was detected by RT-PCR in a wild black-tailed jackrabbit from Riverside County, California.

5/22 – First detection in domestic rabbits in Colorado - RHDV2 was detected by RT-PCR in a domestic rabbit on a premises in El Paso County, Colorado.

6/4 - First detection in domestic rabbits on tribal lands in New Mexico – RHDV2 was detected by RT-PCR in two domestic rabbits on a premises in Isleta Pueblo in Bernalillo County, NM.

6/22 – First detection of RHDV2 in wild lagomorphs in Nevada – RHDV2 was detected by RT-PCR in a wild desert cottontail rabbit from Clark County, NV.

6/22 – First detection of RHDV2 in domestic rabbits in UT and the first detection on a commercial meat rabbit premises – RHDV2 was detected by RT-PCR in a domestic rabbit on a commercial premises in Sanpete County, UT.

6/30 – First detection of RHDV2 in feral domestic rabbits in UT – RHDV2 was detected by RT-PCR in a feral domestic rabbit in Sanpete County, UT.

7/2 – Final OIE follow-up report was submitted - Because the event cannot be considered resolved, but the situation is sufficiently stable, reporting will shift to 6-month reporting. RHDV2 remains a federally reportable disease. If there is a detection in a new State or species, an immediate report will be submitted. Data collection required for OIE 6-month reporting is a slightly more summarized version of the data collected for OIE weekly reports. Information to be reported will include: month of detection; affected species; and numbers for total population; sick; dead; and depopulated.

7/10 – First detection of RHDV2 in domestic rabbits in CA – RHDV2 was detected by RT-PCR in a domestic rabbit on a backyard premises in San Bernardino County, CA. This premises is located in an area where RHDV2 was previously confirmed in wild jackrabbits and cottontail. Reports of die-offs in wild lagomorphs continued over the previous month.

7/20 – First detection of RHDV2 in wild rabbits in UT – RHDV2 was detected by RT-PCR in 2 wild cottontail rabbits (*Sylvilagus* sp.) in Wayne County, UT.

Section1: RHDV2 Detections by State

ARIZONA		Positive Domestic Rabbit Premises			Positive Wild Lagomorph Detections (Species)
County	Total Positive	Released From Quarantine	Currently Quarantined		
Apache	2	2	0		1 (mountain cottontail rabbit)
Cochise	12	6	6		7 (desert cottontail rabbit, black-tailed jackrabbit)
Coconino	1	0	1		5 (mountain cottontail rabbit, desert cottontail rabbit, black-tailed jackrabbit)
Graham	1	0	1		1 (black-tailed jackrabbit)
Greenlee					1 (black-tailed jackrabbit)
Maricopa	5	3	2		
Mohave	2	<u>1</u>	<u>1</u>		1 (desert cottontail rabbit)
Navajo	8	6	2		1 (black-tailed jackrabbit)
Pima	2	1	1		5 (desert cottontail rabbit, antelope jackrabbit, black-tailed jackrabbit)
Pinal	1	1	0		1 (black-tailed jackrabbit)
Yavapai					2 (desert cottontail rabbit)
34 positive domestic rabbit premises in nine counties					25 wild lagomorph detections in 10 counties

CALIFORNIA		Positive Domestic Rabbit Premises			Positive Wild Lagomorph Detections (Species)
County	Total Positive	Released from Quarantine	Currently Quarantined		
Los Angeles					2 (desert cottontail rabbit)
Orange					1 (desert cottontail rabbit)
Riverside					1 (black-tailed jackrabbit)
San Bernardino	<u>3</u>	0	<u>3</u>		5 (black-tailed jackrabbit, desert cottontail rabbit)
San Diego					1 (desert cottontail rabbit)
<u>Three</u> domestic rabbit premises in one county					10 wild lagomorph detections in five counties

COLORADO	Positive Domestic Rabbit Premises			Positive Feral Domestic Rabbit Detections	Positive Wild Lagomorph Detections (Species)
County	Total Positive	Released from Quarantine	Currently Quarantined		
Adams					1 (black-tailed jackrabbit)
Alamosa					2 (cottontail rabbit - <i>Sylvilagus</i> sp., jackrabbit - <i>Lepus</i> sp.)
Arapahoe	1	0	1		
Custer	1	0	1		
Denver					1 (cottontail rabbit – <i>Sylvilagus</i> sp.)
El Paso	3	0	<u>3</u>	<u>2</u>	<u>2</u> (black-tailed jackrabbit, <u>1</u> (cottontail rabbit – <i>Sylvilagus</i> sp.))
Larimer					1 (cottontail rabbit - <i>Sylvilagus</i> sp.)
Mesa					1 (cottontail rabbit – <i>Sylvilagus</i> sp.)
Montezuma	2	0	2		
Prowers					1 (cottontail rabbit - <i>Sylvilagus</i> sp.)
Pueblo					1 (cottontail rabbit – <i>Sylvilagus</i> sp.)
Weld	1	0	1		
Eight domestic rabbit premises in five counties				One feral domestic rabbit detection in one county	Ten wild lagomorph detections in <u>eight</u> counties

NEVADA	Positive Domestic Rabbit Premises			# of Positive Wild Lagomorph Detections (Species)
County	Total Positive	Released from Quarantine	Currently Quarantined	
Clark	1			1 (desert cottontail rabbit)
One positive domestic rabbit premises in one county				One wild lagomorph detection in one county

NEW MEXICO	Positive Domestic Rabbit Premises			Positive Wild Lagomorph Detections (Species)
County	Total Positive	Released from Quarantine	Currently Quarantined	
Bernalillo	5	<u>4</u>	<u>1</u>	2 (black-tailed jackrabbit, cottontail rabbit – <i>Sylvilagus</i> sp.)
Catron				1 (desert cottontail rabbit)
Chaves	1	1	0	
Cibola	3	3	0	1 (desert cottontail rabbit)
Colfax				1 (desert cottontail rabbit)
Curry	1	1	0	
Dona Ana	3	3	0	1 (desert cottontail rabbit)
Eddy	3	3	0	1 (black-tailed jackrabbit)
Grant	1	1	0	
Lincoln	1	1	0	
Los Alamos	1	<u>1</u>	<u>0</u>	
Luna	2	2	0	
McKinley	3	<u>3</u>	<u>0</u>	
Otero	1	1	0	
Roosevelt	1	1	0	
San Juan	1	0	1	
Sandoval	2	<u>2</u>	<u>0</u>	
Santa Fe	5	<u>2</u>	<u>3</u>	1 (desert cottontail rabbit)
Sierra	2	<u>2</u>	<u>0</u>	
Socorro	2	<u>2</u>	<u>0</u>	1 (desert cottontail rabbit)
Taos	1	<u>1</u>	<u>0</u>	
Torrance	1	1	0	
Valencia	2	1	1	
42 positive domestic rabbit premises in 21 counties				Nine wild lagomorph detections in eight counties

TEXAS	Positive Domestic Rabbit Premises			Positive Wild Lagomorph Detections (Species)
County	Total Positive	Closed/Negative	Currently Open	
Brewster				2 (black-tailed jackrabbit, cottontail rabbit – <i>Sylvilagus</i> sp.)
Culberson				1 (black-tailed jackrabbit)
El Paso	2	0	2	1 (desert cottontail rabbit)
Gaines				1 (desert cottontail rabbit)
Hale				1 (black-tailed jackrabbit)
Hamilton	1	0	1	
Hockley	1	0	1	1 (black-tailed jackrabbit)
Hudspeth				1 (desert cottontail rabbit)
Jeff Davis				3 (black-tailed jackrabbit; cottontail rabbit– <i>Sylvilagus</i> sp.)
Kimble	1	0	1	
Lampasas	1	0	1	
Lubbock	2	0	2	1 (black-tailed jackrabbit)
Midland	1	0	1	
Pecos				2 (desert cottontail rabbit; black-tailed jackrabbit)
Potter				1 (cottontail rabbit – <i>Sylvilagus</i> sp.)
Presidio				1 (black-tailed jackrabbit)
Randall				1 (black-tailed jackrabbit)
Terrell				1 (black-tailed jackrabbit)
Ward				1 (cottontail rabbit– <i>Sylvilagus</i> sp.)
Nine positive domestic rabbit premises in seven counties				19 wild lagomorph detections in 15 counties

UTAH	Positive Domestic Rabbit Premises			Positive Feral Domestic Rabbit Detections	Positive Wild Lagomorph Detections (Species)
County	Total Positive	Released from Quarantine	Currently Quarantined		
San Juan					1 (cottontail rabbit– <i>Sylvilagus</i> sp.)
Sanpete	1	0	1	1	
Wayne					2 (cottontail rabbit– <i>Sylvilagus</i> sp.)
One positive domestic rabbit premises in one county				One feral domestic rabbit detection in one county	Two wild lagomorph detection in one county

Section 2: Clinical signs / Laboratory Information

General signs for many cases include lethargy and sudden death. Seizures prior to death have been noted in some cases. Occasionally, no signs are seen and the animal is simply found dead. One positive case (20NM0010) was an apparently healthy exposed rabbit that survived the outbreak on the premises and was euthanized and necropsied by the FADD.

RHDV confirmation is by RT-PCR coupled with history, clinical signs, or histopathology consistent with rabbit hemorrhagic disease. Antigen ELISA may also be utilized by NVSL-FADDL for initial submissions for a new area.

To date all detections have been Rabbit Hemorrhagic Disease Type 2. All samples submitted to NVSL-FADDL have been tested for RHDVa and all have been “not detected”.

APHIS VS expanded laboratory testing by providing two designated wildlife laboratories (the USGS National Wildlife Health Center and the Southeastern Cooperative Wildlife Disease Study) with SOPs and guidance to begin testing wild lagomorphs from anywhere in the U. S. In addition, APHIS encourages SAHOs in RHDV2 stable endemic States (where RHDV2 is present in feral domestic or wild lagomorphs) to designate laboratories to test samples from domestic and wild lagomorphs from their States. SAHOs in eligible States may immediately designate laboratories and contact NVSL-FADDL to receive testing SOPs. Laboratories were designated to provide RHDV2 testing by SAHOs in CO, CA, NM, and UT; SOPs and a testing algorithm were provided to the designated laboratories in those States.

Section 3: State Response to Domestic Rabbit Detections

- **Arizona** - Arizona Department of Agriculture places a quarantine on positive premises for 120 days after the last death and cleaning and disinfection has been completed. Burial is the recommended disposal method. Affected premises are mandated to clean and disinfect (C&D) and to report when C&D is completed. The recommended disinfectant is a 1:10 dilution of concentrated bleach.
- **California** – The California Department of Food & Agriculture (CDFA) places a quarantine on positive premises for a minimum of 120 days after the last death from RHD. Immediate notification of rabbit deaths from infected premises is required. Cleaning and disinfection with a 1:10 dilution of household bleach, Virkon-S, or accelerated hydrogen peroxide (Rescue) is recommended. Carcasses should be disposed by incineration, deep burial (3 feet), or disposal at a landfill after double-bagging and spraying with disinfectant, if allowed by the municipality.
- **Colorado** - The Colorado Department of Agriculture places a quarantine order on positive premises and a hold order on suspect premises. The quarantine will remain in place until the following are completed:
 1. Depopulation of all domestic rabbits on the premises;
 2. Carcass disposal - Burial or incineration of carcasses are the preferred methods of disposal;
 3. C&D must be completed after depopulation and disposal and the premises must remain fallow for 90 days once C&D is completed; or
 4. If the owner chooses not to depopulate, there will be a 180 day quarantine on the premises.

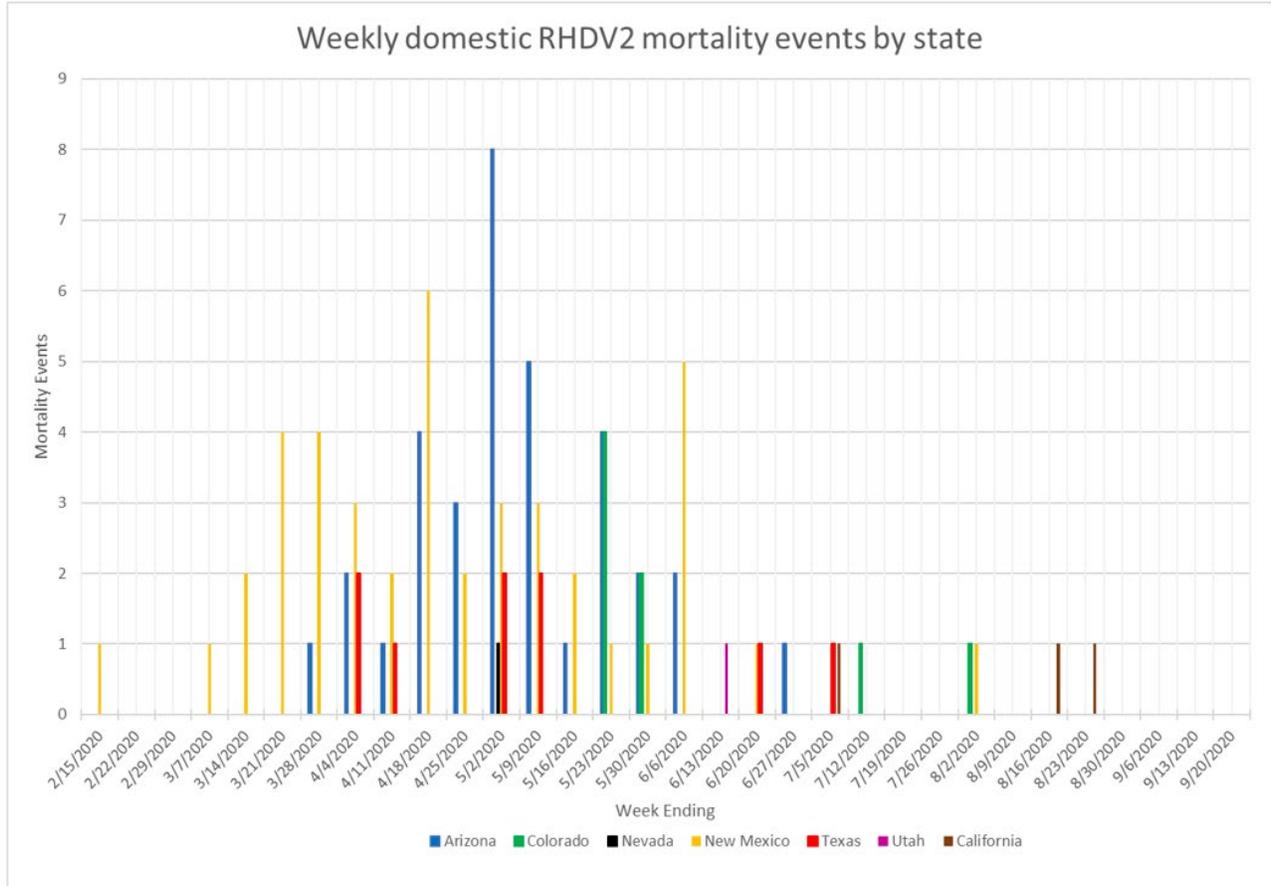
- **Nevada** - Nevada Department of Agriculture, Division of Animal Industry issued a written quarantine for the positive premises and a hold order on a traceback premises. The positive premises will remain in quarantine through September 1 and the traceback premises remains under hold order until July 1; all remaining rabbits on both premises continue to show no symptoms.
- **New Mexico** - New Mexico Livestock Board (NMLB) places a quarantine for susceptible species on positive premises for 120 days after the last death and cleaning and disinfection has been completed. Burning of carcasses is recommended for disposal. Cleaning and disinfection instructions to be used are issued to premises owners by the NM State Veterinarian. Suitable disinfectants include a 1:10 dilution of sodium hypochlorite or Virkon-S.
- **Texas** - Diagnosis of “Viral haemorrhagic disease of rabbits – Caliciviral disease” is a required reportable disease to the Texas Animal Health Commission (TAHC). TAHC does not have authority to restrict rabbit movement. TAHC continues to advise rabbit owners to consult with veterinary practitioners and maintain voluntary strict biosecurity, including reduced movement of rabbits (self-quarantine).
- **Utah** - The Utah Department of Agriculture and Food places a quarantine on positive premises for a minimum of 120 days after the last death. Cleaning and disinfection with a 1:10 dilution of household bleach or Virkon-S is recommended. Carcasses should be disposed via deep burial with lime or disposal at a landfill after double-bagging. If the owner chooses to depopulate, assistance may be provided by the State Veterinarian's office.

Section 4: Additional Response Activities

RHDV2 Vaccine

- There is no licensed vaccine in the U.S. There are 2 killed vaccines for RHDV2 licensed in the European Union.
- The unlicensed vaccine may be allowed into the U.S. for emergency use in affected States with approval by the State Animal Health Official.
- The APHIS, VS coordinating cell has facilitated informational calls with several state agencies and answering questions from the general public, stakeholder and industry groups, and animal health partners. The team has created a “Vaccine FAQ” summary for public distribution. This document is posted at [Rabbit Hemorrhagic Disease Virus 2](#)
- All of the affected States are pursuing import of vaccine either directly through the State agriculture agency or through private practitioners. All seven States have received the vaccine, (AZ, CA, CO, NV, NM, TX and UT). In NM vaccine was imported by the NMLB and distributed by the SAHO. In the other States vaccine was imported by veterinary practitioners. In all States the SAHO directs the use of the vaccine including record and ID requirements.

Section 5: Epidemiology/Epidemiologic Investigation



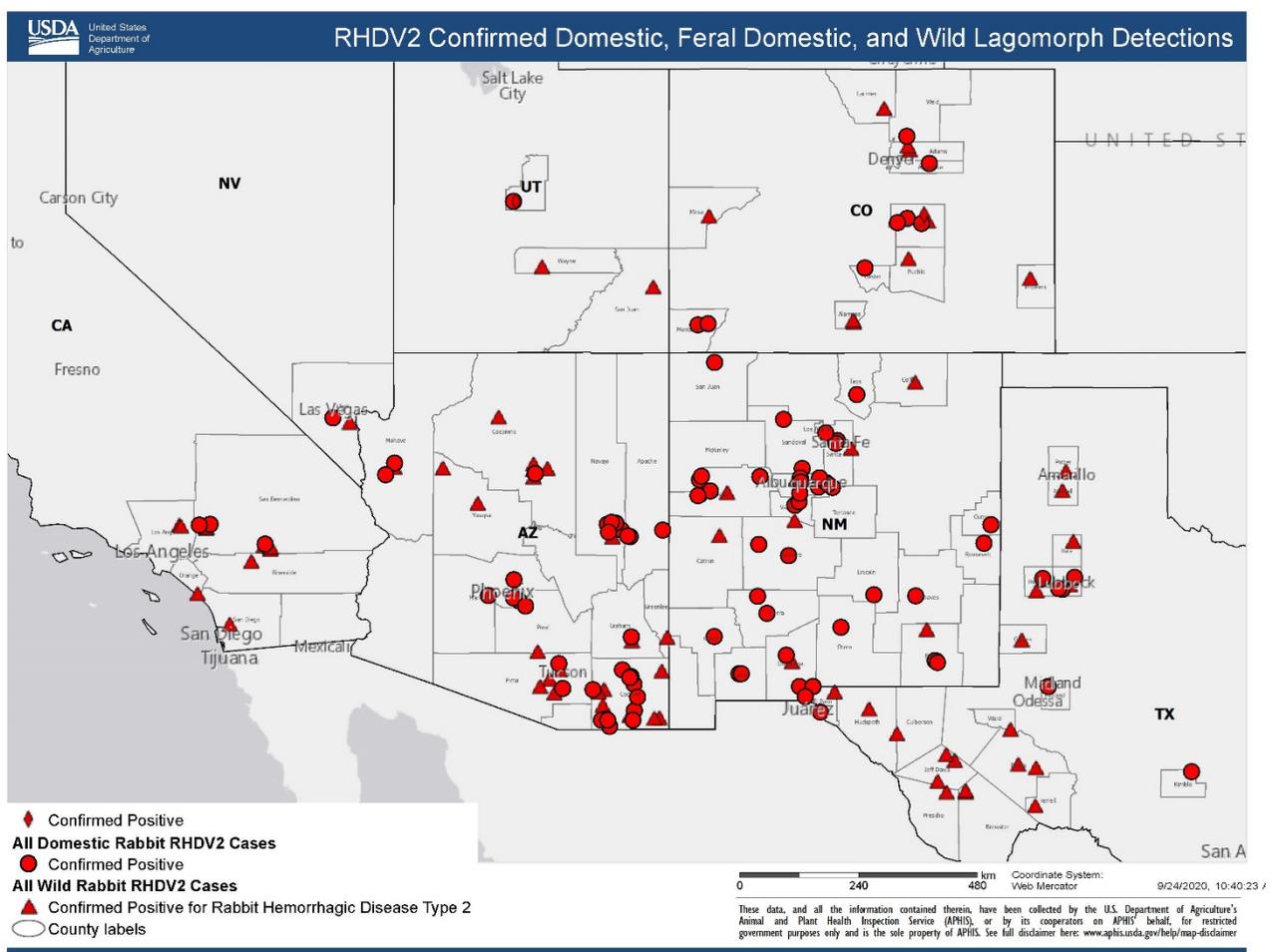
***Note – The epi curve is based on mortality start dates not test positive dates**

- An epidemiology information sheet has been developed and provided to all affected States for interviewing positive premises owners. Once information has been gathered an epidemiological report will be available.
- At this time no source of introduction for the virus has been identified.
- There is currently no epidemiological link from New York to the detections in the southwestern US.
- Since the first of part of the year there have been reports of wild rabbit deaths in NM, AZ and TX.
- Mexico made an immediate report to OIE on the detection of RHDV (a vs 2 not specified) in backyard domestic rabbits in Nuevo Casa Grandes, Chihuahua on 4/10/20. In OIE follow-up reports, Mexico has reported additional domestic rabbit and wild lagomorph mortality in Chihuahua, Coahuila, Sonora, Durango, Baja California Sur, Baja California, and Zacatecas in northern Mexico. In follow-up report 4 Mexico indicated their detections have been confirmed as RHDV2. The most recent follow-up report from Mexico to the OIE ([Follow-up Report #16](#)) can be accessed at the following link: https://www.oie.int/wahis_2/public/wahid.php/Reviewreport/Review?page_refer=MapFullEventReport&reportid=35618
- 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 that isolates cluster by geographical region.

The most recent isolates from samples originating in Colorado (CO), Arizona (AZ), New Mexico (NM), Texas (TX), and Utah (UT) in 2020 formed 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. The California (CA) isolates are highly similar to the SW isolates but sit outside the established SW cluster; further analysis is ongoing. The Nevada isolates were sequenced but had poor coverage; they will be sequenced again next week. FADDL received the sequence data from Mexico for review and analysis.

The viruses circulating in the southwest and western United States are distinct from RHDV2 isolates collected from domestic rabbits in New York, Washington State, and Ohio as well as British Columbia, Canada. Additional analysis is ongoing to compare additional isolates previously detected in North America.



Section 6: Outreach and Resources

Arizona

- April 10 AZ Department of Agriculture press release <https://agriculture.az.gov/news/press-release-rabbit-hemorrhagic-disease-arizona>
- April 11 AZ Game and Fish Department press release <https://www.azgfd.com/rabbit-hemorrhagic-disease-confirmed-in-arizona/>

California

- CDFW webpage <https://wildlife.ca.gov/Conservation/Laboratories/Wildlife-Investigations/Monitoring#55671861-rabbit-hemorrhagic-disease>
- CDFA webpage https://www.cdfa.ca.gov/AHFSS/Animal_Health/RHD.html
- May 12 California Department of Food & Agriculture Quarantine Notice – Rabbits Entering California from RHD Affected States https://www.cdfa.ca.gov/AHFSS/Animal_Health/Pets_Other_Un-Reg_Species.html#rhd
- May 14 press release, California Department of Fish and Wildlife (CDFW) <https://cdfgnews.wordpress.com/2020/05/13/deadly-disease-detected-in-california-wild-rabbits-for-the-first-time/>
- May 14 CDFW Quick Factsheet <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=179037&inline>

Colorado

- Colorado Department of Agriculture webpage with multiple resources <https://www.colorado.gov/pacific/aganimals/rabbit-hemorrhagic-disease-virus-rhdv2>
- April 20 joint media release from Colorado Parks and Wildlife and Colorado Department of Agriculture on April 20 <https://www.colorado.gov/pacific/agmain/news/rabbit-hemorrhagic-disease-confirmed-southern-colorado>
- Current CDA guidance on rabbit shows and fairs <https://drive.google.com/file/d/1f1ci2muFdoyi1-PLNKNXBUWSeYjHWbuf/view>

Nevada

- May 4 press release, Nevada Department of Agriculture http://agri.nv.gov/News/2020/Rabbit_Hemorrhagic_Disease_Virus_2_found_in_Rabbits_in_Las_Vegas/

New Mexico

- RHDV2 information provided by the New Mexico Livestock Board at <https://www.nmlbonline.com/news>
- April 7, New Mexico Game and Fish press release <http://www.wildlife.state.nm.us/rabbit-hemorrhagic-disease-cause-for-rabbit-mortality/>

Texas

- Multiple press releases by Texas Animal Health Commission
April 14 https://www.tahc.texas.gov/news/2020/2020-04-14_RHDV2.pdf
April 22 https://www.tahc.texas.gov/news/2020/2020-04-22_RHDV2.pdf
- Texas Animal Health Commission (TAHC) posts situational updates on the Rabbit Health page of the TAHC website: https://www.tahc.texas.gov/animal_health/rabbits/
- April 21, Texas Parks and Wildlife press release <https://tpwd.texas.gov/newsmedia/releases/?req=20200421a>

Utah

- Utah Department of Agriculture and Food Website - bit.ly/UtahRHD
- Utah Department of Agriculture and Food Press Release - <https://ag.utah.gov/wp-content/uploads/2020/06/2020-6-24-Fatal-Rabbit-Disease-Detected-in-Utah-.pdf>

USDA APHIS VS

- RHDV Factsheet, Emerging Risk Notice, County Level Map and Cleaning and Disinfection Guidance (English and Spanish versions) available at [Rabbit Hemorrhagic Disease Virus 2](#)
- Link to EPA List O: Disinfectants for use against Rabbit Hemorrhagic Disease Virus2 (RHDV2) - <https://www.epa.gov/pesticide-registration/list-o-disinfectants-use-against-rabbit-hemorrhagic-disease-virus-rhdv2>
- RHDV2 Vaccine FAQ at [Rabbit Hemorrhagic Disease Virus 2](#)
- An interactive map of affected counties is posted at [Rabbit Hemorrhagic Disease Virus 2](#)

Government of Mexico

- RHDV Questions and Answers - <https://www.gob.mx/senasica/documentos/enfermedad-hemorragica-del-conejo?state=published>

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/>

Other

- **Journal of the American Veterinary Medical Association**
<https://www.avma.org/javma-news/2020-10-01/rabbits-across-us-likely-vulnerable-deadly-virus-causing-disease-west>

Section 7: Incident Contacts

USDA APHIS

- Veterinary Services
Arizona/New Mexico - Arlene Buchholz, Sean McCartney, Paul Scigliabaglio
California - Larry Rawson, Adam Smith, Anya Cotliarenko
Colorado - Don Beckett, Kyran Cadmus
Nevada and Utah - Robert DeCarolis, Greg Ramos
Texas - Mike Pruitt, Luisa Collins,
ASEP and FEIS – Nancy Hannaway, Lynn Creekmore, Julie Lenocho, Brad Christensen
- Wildlife Services – Tom Gidlewski, Jeff Root, [Tim Linder](#), [Jourdan Ringenberg](#)

State

- Arizona
Department of Agriculture - *Peter Mundschenk, Ryan Wolker, Cody Egnor*

Game and Fish Department – *Anne Justice-Allen*

- California
 - Department of Food and Agriculture – *Annette Jones, Andrea Mikolon*
 - Department of Fish and Wildlife – *Deana Clifford*
- Colorado
 - Department of Agriculture - *Keith Roehr, Maggie Baldwin*
 - Fish, Wildlife and Parks – *Mary Wood*
- Nevada
 - Department of Agriculture, Board of Animal Industries – *Amy Mitchell*
 - Department of Wildlife – *Nate Lahue*
- New Mexico
 - Livestock Board – *Ralph Zimmerman, Alexandra Eckhoff*
 - Department of Game and Fish – *Kerry Mower*
- Texas
 - Animal Health Commission - *Andy Schwartz, Susan Rollo*
 - Parks and Wildlife Department
- Utah
 - Utah Department of Agriculture and Food – *Dean Taylor, Amanda Price*
 - Utah Division of Wildlife Services – *Annette Roug*

Section 8: Current Significance and Reporting:

The incident is multistate involving NM, AZ, TX, CO, NV, CA, and UT. Confirmations of RHDV-2 have been made in domestic rabbits and wild rabbits and hares in AZ, CA, NV, NM, and TX, in domestic rabbits, feral rabbits and wild rabbits and hares in CO and UT.

The positive RHDV2 detections in the wild black-tailed jackrabbit and wild desert cottontails in NM were the first detections of this virus in wild rabbits in the United States.

The first OIE report for this detection was submitted to the OIE on March 27, 2020. It was included as in a follow-up report for the previous detection of RHDV2 in Washington State (Follow-up report #8). Follow up reports occurred weekly.

- Follow-up report #9 was submitted April 6.
- Follow-up report #10 was submitted April 13.
- Follow-up report #11 was submitted April 20.
- Follow-up report #12 was submitted April 27
- Follow-up report #13 was submitted May 5
- Follow-up report #14 was submitted May 13.
- Follow-up report #15 was submitted May 19
- Follow-up report #16 was submitted May 27
- Follow-up report #17 was submitted June 1
- Follow-up report #18 was submitted June 9
- Follow-up report #19 was submitted June 17
- Follow-up report #20 was submitted June 23

- Follow-up report #21 was submitted on June 29. This provided information on the positive finding for a domestic rabbit premises in UT.
- Follow-up report #22 was submitted July 2 as a final report.

Because the event cannot be considered resolved, but the situation is sufficiently stable, reporting has shifted to 6-month reporting. RHDV2 remains a federally reportable disease. If there is a detection in a new State or species, an immediate report will be submitted.

Data collection required for OIE 6-month reporting is a slightly more summarized version of the data collected for OIE weekly reports. Information to be reported will include: month of detection; affected species; and numbers for total population; sick; dead; and depopulated.

Current trade ban/status:

None.

Submitted by: Dr. Lynn Creekmore, Epidemiologist, S&P, ASEP

Reviewed by: Dr. Nancy Hannaway, Assistant Director, S&P, ASEP

Strategy and Policy (S&P)

USDA, APHIS,
Veterinary Services

Field Operations (FiOps)



Safeguarding Animal Health

SITUATION REPORT

FOR OFFICIAL USE ONLY

Submitted 7 January 2021

Updates and corrections are in underlined red font.

Situation reports are issued monthly. The next situation report will be on February 4.

Information current as of 16:00 Mountain Time, 1/5/2020

Multistate Outbreak of Rabbit Hemorrhagic Disease Virus 2 (RHDV2) Arizona, California, Colorado, Nevada, New Mexico, Texas, Utah, and Wyoming – Situation Report # 26

Prepared by:

Lynn H. Creekmore, DVM, MS

USDA APHIS VS

Epidemiologist – Aquatic Animal Health and

Non-program Species

Lynn.H.Creekmore@usda.gov

To: APHIS-VS S&P Leaders, APHIS-VS FiOps Directors and AVICs, APHIS-VS D&B Leaders and VS Deputy Administrator

Summary:

On March 24, 2020, National Veterinary Services Laboratories, Foreign Animal Disease Diagnostic Laboratory (NVSL-FADDL) notified the NM AVIC of positive PCR results for Rabbit Hemorrhagic Disease (RHD) virus Type 2. This detection was from liver tissue submitted from two domestic rabbits on March 23, 2020. Positive antigen ELISA results for RHDV and consistent histopathology findings followed on March 25. The affected premises is located in Cibola County, NM. This represents the first detection of RHDV2 in NM.

Concurrent to the events in privately owned rabbits in NM, mortality also was reported in wild rabbits and hares in the region. Since March 1, there were reports of wild rabbit deaths in southern New Mexico. A private practitioner in Eddy County submitted samples from a wild black-tailed jackrabbit (*Lepus californicus*) to FADDL and the New Mexico Department of Game and Fish

submitted five desert cottontail rabbits (*Sylvilagus audubonii*) to FADDL. These animals were all positive for RHDV2 and are the first detections of RHDV2 in wild North American hares (black-tailed jackrabbit) and rabbits (desert cottontail rabbits). In the RHDV2 outbreak in Washington State in late 2019 and 2020, RHDV2 was detected in free-ranging feral domestic rabbits but not native wild rabbits.

Reports of domestic and wild lagomorph mortality in additional States in the region soon followed these initial detections. From the beginning of April 8 to present, RHDV2 has been confirmed in domestic rabbits from New Mexico, Arizona, Texas, Colorado, Nevada, Utah, and California, in wild rabbits and hares in New Mexico, Arizona, Texas, Colorado, California, Nevada, and Utah, and in feral rabbits in Colorado and Utah (see timeline). To date, all confirmatory testing has been conducted at NVSL-FADDL.

Additional investigations of wild and domestic rabbit mortality are underway in all affected States and detections are reflected in the situation report State specific tables.

To date, most of the domestic rabbit detections are in privately owned, non-commercial domestic rabbits. There has been one detection in a commercial meat farm in UT.

Timeline:

3/23 – FAD investigation 20NM0007 by NMLB FADD for increased mortality in domestic rabbits.

3/24 – Partial results received from NVSL-FADDL for 20NM0007 (First Case) – Samples from 2 rabbits RT-PCR positive for RHDV2.

4/1 – First detection of RHDV2 in a wild lagomorph and in a black-tailed jackrabbit in the United States - RHDV2 was detected by RT-PCR in samples from 1 black-tailed jackrabbit collected in Eddy County, NM. Samples were also AG-ELISA positive for RHD virus.

4/2 – First detection of RHDV2 in wild desert cottontail rabbits in the United States - RHDV2 was detected by RT-PCR in samples from 5 desert cottontail rabbits collected in Dona Ana County, NM. Samples were also AG-ELISA positive for RHD virus.

4/8 – First detection of RHDV2 in wild lagomorphs in Arizona - RHDV2 was detected by RT-PCR in a wild black-tailed jackrabbit and a wild desert cottontail rabbit from Cochise County, AZ.

4/9 – First domestic rabbit detection in Arizona - RHDV2 was detected by RT-PCR in two domestic rabbits on a premises in Navajo County, AZ.

4/9 - First domestic rabbit detection in Texas - RHDV2 was detected by RT-PCR in a domestic rabbit on a premises in Hockley County, Texas.

4/15 – First wild rabbit detection in Texas - RHDV2 was detected by RT-PCR in a black-tailed jackrabbit in Lubbock County, Texas.

4/17 – First detection of RHDV2 in wild rabbits in Colorado - RHDV2 was detected in a pooled sample of livers from 3 cottontail rabbits (*Sylvilagus* sp.) found dead on rural property in southern Colorado (Alamosa County) over a 48-hour period.

4/29 – First detection of RHDV2 in a wild mountain cottontail rabbit (*Sylvilagus nuttallii*) collected in Coconino County, AZ - This is the first detection in this wild rabbit species.

4/30 – First detection of RHDV2 in domestic rabbits in Nevada – RHDV2 was detected by RT-PCR in a domestic rabbit on a premises in Clark County, NV.

5/1 – First detection of RHDV2 in a wild antelope jackrabbit (*Lepus alleni*) collected in Pima County, AZ - This is the first detection in this wild hare species.

5/7 – First feral rabbit detection in Colorado – RHDV2 was detected by RT-PCR in two feral domestic rabbits from El Paso County, Colorado.

5/11 - First detection in wild lagomorphs in California - RHDV2 was detected by RT-PCR in a wild black-tailed jackrabbit from Riverside County, California.

5/22 – First detection in domestic rabbits in Colorado - RHDV2 was detected by RT-PCR in a domestic rabbit on a premises in El Paso County, Colorado.

6/4 - First detection in domestic rabbits on tribal lands in New Mexico – RHDV2 was detected by RT-PCR in two domestic rabbits on a premises in Isleta Pueblo in Bernalillo County, NM.

6/22 – First detection of RHDV2 in wild lagomorphs in Nevada – RHDV2 was detected by RT-PCR in a wild desert cottontail rabbit from Clark County, NV.

6/22 – First detection of RHDV2 in domestic rabbits in UT and the first detection on a commercial meat rabbit premises – RHDV2 was detected by RT-PCR in a domestic rabbit on a commercial premises in Sanpete County, UT.

6/30 – First detection of RHDV2 in feral domestic rabbits in UT – RHDV2 was detected by RT-PCR in a feral domestic rabbit in Sanpete County, UT.

7/2 – Final OIE follow-up report was submitted - Because the event cannot be considered resolved, but the situation is sufficiently stable, reporting will shift to 6-month reporting. RHDV2 remains a federally reportable disease. If there is a detection in a new State or species, an immediate report will be submitted. Data collection required for OIE 6-month reporting is a slightly more summarized version of the data collected for OIE weekly reports. Information to be reported will include: month of detection; affected species; and numbers for total population; sick; dead; and depopulated.

7/10 – First detection of RHDV2 in domestic rabbits in CA – RHDV2 was detected by RT-PCR in a domestic rabbit on a backyard premises in San Bernardino County, CA. This premises is located in an area where RHDV2 was previously confirmed in wild jackrabbits and cottontail. Reports of die-offs in wild lagomorphs continued over the previous month.

7/20 – First detection of RHDV2 in wild rabbits in UT – RHDV2 was detected by RT-PCR in 2 wild cottontail rabbits (*Sylvilagus* sp.) in Wayne County, UT.

12/14 – First detection of RHDV2 in feral rabbits in NV - RHDV2 was detected by RT-PCR in a domestic feral rabbit in Nye County, NV.

12/16 – First detection of RHDV2 in WY and the first detection in eastern cottontail rabbits in this outbreak – RHDV2 was detected by RT-PCR and AG-ELISA in one wild eastern cottontail rabbit (*Sylvilagus floridanus*.) from Albany County, WY.

Section1: RHDV2 Detections by State

ARIZONA	Positive Domestic Rabbit Premises			Positive Wild Lagomorph Detections (Species)
County	Total Positive	Released From Quarantine	Currently Quarantined	Shaded cells indicate counties that have not had a wildlife detection for ≥ 120 days
Apache	2	2	0	1 (mountain cottontail rabbit)
Cochise	12	<u>12</u>	<u>0</u>	7 (desert cottontail rabbit, black-tailed jackrabbit)
Coconino	2	<u>1</u>	<u>1</u>	5 (mountain cottontail rabbit, desert cottontail rabbit, black-tailed jackrabbit)
Graham	1	0	1	1 (black-tailed jackrabbit)
Greenlee				1 (black-tailed jackrabbit)
Maricopa	5	4	1	
Mohave	2	<u>2</u>	<u>0</u>	1 (desert cottontail rabbit)
Navajo	9	8	1	2 (black-tailed jackrabbit, desert cottontail rabbit)
Pima	3	2	1	5 (desert cottontail rabbit, antelope jackrabbit, black-tailed jackrabbit)
Pinal	1	1	0	1 (black-tailed jackrabbit)
Yavapai	<u>1</u>	<u>0</u>	<u>1</u>	2 (desert cottontail rabbit)
<u>38</u> positive domestic rabbit premises in <u>10</u> counties				26 wild lagomorph detections in 10 counties

CALIFORNIA	Positive Domestic Rabbit Premises			Positive Wild Lagomorph Detections (Species)
County	Total Positive	Released from Quarantine	Currently Quarantined	Shaded cells indicate counties that have not had a wildlife detection for ≥ 120 days
Kern	<u>3</u>	<u>0</u>	<u>2</u>	<u>5</u> (desert cottontail rabbit, <u>black-tailed jackrabbit</u>)
Los Angeles	1	0	1	2 (desert cottontail rabbit)
Orange				1 (desert cottontail rabbit)
Riverside	<u>3</u>	0	<u>3</u>	1 (black-tailed jackrabbit)
San Bernardino	3	<u>2</u>	<u>1</u>	5 (black-tailed jackrabbit, desert cottontail rabbit)
San Diego				1 (desert cottontail rabbit)
<u>10</u> domestic rabbit premises in <u>four</u> counties				<u>15</u> wild lagomorph detections in <u>six</u> counties

COLORADO	Positive Domestic Rabbit Premises			Positive Feral Domestic Rabbit Detections	Positive Wild Lagomorph Detections (Species)
County	Total Positive	Released from Quarantine	Currently Quarantined		Shaded cells indicate counties that have not had a wildlife detection for \geq 120 days
Adams					1 (black-tailed jackrabbit)
Alamosa					2 (cottontail rabbit - <i>Sylvilagus</i> sp., jackrabbit - <i>Lepus</i> sp.)
Arapahoe	1	1	0		
Custer	1	0	1		1 (cottontail rabbit – <i>Sylvilagus</i> sp.)
Denver					1 (cottontail rabbit – <i>Sylvilagus</i> sp.)
Elbert					1 (cottontail rabbit – <i>Sylvilagus</i> sp.)
El Paso	4	2	2	1	2 (black-tailed jackrabbit, cottontail rabbit – <i>Sylvilagus</i> sp.)
Fremont	2	0	2		
<u>Huerfano</u>					<u>1 (cottontail rabbit – <i>Sylvilagus</i> sp.)</u>
La Plata					1 (cottontail rabbit – <i>Sylvilagus</i> sp.)
Larimer					1 (cottontail rabbit - <i>Sylvilagus</i> sp.)
Mesa					1 (cottontail rabbit – <i>Sylvilagus</i> sp.)
Montezuma	2	2	0		
Prowers					1 (cottontail rabbit - <i>Sylvilagus</i> sp.)
Pueblo					1 (cottontail rabbit – <i>Sylvilagus</i> sp.)
Weld	1	0	1		
Eleven domestic rabbit premises in six counties				One feral domestic rabbit detection in one county	Fourteen wild lagomorph detections in <u>twelve</u> counties

NEVADA	Positive Domestic Rabbit Premises			Positive Feral Domestic Rabbit Detections	# of Positive Wild Lagomorph Detections (Species)
County	Total Positive	Released from Quarantine	Currently Quarantined		Shaded cells indicate counties that have not had a wildlife detection for \geq 120 days
Clark	1	<u>1</u>	<u>0</u>		<u>2</u> (desert cottontail rabbit)
<u>Nye</u>	<u>1</u>	<u>0</u>	<u>1</u>	<u>1</u>	
<u>Two</u> positive domestic rabbit premises in <u>two</u> counties				<u>One</u> feral rabbit detection in <u>one</u> county	<u>Two</u> wild lagomorph detection in <u>two</u> counties

NEW MEXICO	Positive Domestic Rabbit Premises			Positive Wild Lagomorph Detections (Species)
County	Total Positive	Released from Quarantine	Currently Quarantined	Shaded cells indicate counties that have not had a wildlife detection for ≥ 120 days
Bernalillo	5	5	0	2 (black-tailed jackrabbit, cottontail rabbit – <i>Sylvilagus</i> sp.)
Catron				1 (desert cottontail rabbit)
Chaves	1	1	0	
Cibola	3	3	0	1 (desert cottontail rabbit)
Colfax				1 (desert cottontail rabbit)
Curry	1	1	0	
Dona Ana	3	3	0	1 (desert cottontail rabbit)
Eddy	3	3	0	1 (black-tailed jackrabbit)
Grant	1	1	0	
Lincoln	1	1	0	
Los Alamos	1	1	0	
Luna	2	2	0	
McKinley	3	3	0	
Otero	1	1	0	
Roosevelt	1	1	0	
San Juan	1	0	1	
Sandoval	2	2	0	
Santa Fe	5	5	0	1 (desert cottontail rabbit)
Sierra	2	2	0	
Socorro	2	2	0	1 (desert cottontail rabbit)
Taos	1	1	0	
Torrance	1	1	0	
Valencia	2	2	0	
42 positive domestic rabbit premises in 21 counties				Nine wild lagomorph detections in eight counties

TEXAS	Positive Domestic Rabbit Premises			Positive Wild Lagomorph Detections (Species)
County	Total Positive	Closed*	Currently Open	Shaded cells indicate counties that have not had a wildlife detection for > 120 days
Brewster				2 (black-tailed jackrabbit, cottontail rabbit – <i>Sylvilagus</i> sp.)
Culberson				1 (black-tailed jackrabbit)
El Paso	2	2	0	1 (desert cottontail rabbit)
Gaines				1 (desert cottontail rabbit)
Hale				1 (black-tailed jackrabbit)
Hamilton	1	1	0	
Hockley	1	<u>1</u>	<u>0</u>	1 (black-tailed jackrabbit)
Hudspeth				1 (desert cottontail rabbit)
Jeff Davis				3 (black-tailed jackrabbit; cottontail rabbit– <i>Sylvilagus</i> sp.)
Kimble	1	1	0	
Lampasas	1	1	0	
Lubbock	2	<u>2</u>	<u>0</u>	1 (black-tailed jackrabbit)
Midland	1	<u>1</u>	<u>0</u>	
Pecos				2 (desert cottontail rabbit; black-tailed jackrabbit)
Potter				1 (cottontail rabbit – <i>Sylvilagus</i> sp.)
Presidio				1 (black-tailed jackrabbit)
Randall				1 (black-tailed jackrabbit)
Terrell				1 (black-tailed jackrabbit)
Ward				1 (cottontail rabbit- <i>Sylvilagus</i> sp.)
Nine positive domestic rabbit premises in seven counties				19 wild lagomorph detections in 15 counties

*Cases closed following a phone interview confirming date of last mortality.

UTAH	Positive Domestic Rabbit Premises			Positive Feral Domestic Rabbit Detections	Positive Wild Lagomorph Detections (Species)
County	Total Positive	Released from Quarantine	Currently Quarantined		Shaded cells indicate counties that have not had a wildlife detection for > 120 days
<u>Duchesne</u>					<u>1 (jackrabbit – Lepus sp.)</u>
<u>Iron</u>					2 (black-tailed jackrabbit)
San Juan					<u>2 (cottontail rabbit– Sylvilagus sp.)</u>
Sanpete	1	0	1	1	
<u>Uintah</u>					<u>1 (cottontail rabbit– Sylvilagus sp.)</u>
Wayne					2 (cottontail rabbit– Sylvilagus sp.)
One positive domestic rabbit premises in one county				One feral domestic rabbit detection in one county	Eight wild lagomorph detections in <u>four</u> counties

<u>WYOMING</u>	<u>Positive Domestic Rabbit Premises</u>			<u># of Positive Wild Lagomorph Detections (Species)</u>
<u>County</u>	<u>Total Positive</u>	<u>Released from Quarantine</u>	<u>Currently Quarantined</u>	
<u>Albany</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>1 (eastern cottontail rabbit)</u>
<u>No positive domestic rabbit premises</u>				<u>One wild lagomorph detection in one county</u>

Section 2: Clinical signs / Laboratory Information

General signs for many cases include lethargy and sudden death. Seizures prior to death have been noted in some cases. Occasionally, no signs are seen and the animal is simply found dead. One positive case (20NM0010) was an apparently healthy exposed rabbit that survived the outbreak on the premises and was euthanized and necropsied by the FADD.

RHDV confirmation is by RT-PCR coupled with history, clinical signs, or histopathology consistent with rabbit hemorrhagic disease. Antigen ELISA may also be utilized by NVSL-FADDL for initial submissions for a new area.

To date all detections have been Rabbit Hemorrhagic Disease Type 2. All samples submitted to NVSL-FADDL have been tested for RHDVa and all have been “not detected”.

APHIS VS expanded laboratory testing by providing two designated wildlife laboratories (the USGS National Wildlife Health Center and the Southeastern Cooperative Wildlife Disease Study) with SOPs and guidance to begin testing wild lagomorphs from anywhere in the U. S. In addition, APHIS encourages SAHOs in RHDV2 stable endemic States (where RHDV2 is present in feral domestic or wild lagomorphs) to designate laboratories to test samples from domestic and wild lagomorphs from their States. SAHOs in eligible States may immediately designate laboratories and contact NVSL-FADDL to receive testing SOPs. Laboratories were designated to provide

RHDV2 testing by SAHOs in CO, CA, NM, and UT; SOPs and a testing algorithm were provided to the designated laboratories in those States.

Section 3: State Response to Domestic Rabbit Detections

- **Arizona** - Arizona Department of Agriculture places a quarantine on positive premises for 120 days after the last death and cleaning and disinfection has been completed. Burial is the recommended disposal method. Affected premises are mandated to clean and disinfect (C&D) and to report when C&D is completed. The recommended disinfectant is a 1:10 dilution of concentrated bleach.
- **California** – The California Department of Food & Agriculture (CDFA) places a quarantine on positive premises for a minimum of 120 days after the last death from RHD. Immediate notification of rabbit deaths from infected premises is required. Cleaning and disinfection with a 1:10 dilution of household bleach, Virkon-S, or accelerated hydrogen peroxide (Rescue) is recommended. Carcasses should be disposed by incineration, deep burial (3 feet), or disposal at a landfill after double-bagging and spraying with disinfectant, if allowed by the municipality.
- **Colorado** - The Colorado Department of Agriculture places a quarantine order on positive premises and a hold order on suspect premises. The quarantine will remain in place until the following are completed:
 1. Depopulation of all domestic rabbits on the premises;
 2. Carcass disposal - Burial or incineration of carcasses are the preferred methods of disposal;
 3. C&D must be completed after depopulation and disposal and the premises must remain fallow for 90 days once C&D is completed; or
 4. If the owner chooses not to depopulate, there will be a 180 day quarantine on the premises.
- **Nevada** - Nevada Department of Agriculture, Division of Animal Industry issued a written quarantine for the positive premises and a hold order on a traceback premises. The positive premises will remain in quarantine through September 1 and the traceback premises remains under hold order until July 1; all remaining rabbits on both premises continue to show no symptoms.
- **New Mexico** - New Mexico Livestock Board (NMLB) places a quarantine for susceptible species on positive premises for 120 days after the last death and cleaning and disinfection has been completed. Burning of carcasses is recommended for disposal. Cleaning and disinfection instructions to be used are issued to premises owners by the NM State Veterinarian. Suitable disinfectants include a 1:10 dilution of sodium hypochlorite or Virkon-S.
- **Texas** - Diagnosis of “Viral haemorrhagic disease of rabbits – Caliciviral disease” is a required reportable disease to the Texas Animal Health Commission (TAHC). TAHC does not have authority to restrict rabbit movement. TAHC continues to advise rabbit owners to consult with veterinary practitioners and maintain voluntary strict biosecurity, including reduced movement of rabbits (self-quarantine).
- **Utah** - The Utah Department of Agriculture and Food places a quarantine on positive premises for a minimum of 120 days after the last death. Cleaning and disinfection with a 1:10 dilution of household bleach or Virkon-S is recommended. Carcasses should be disposed via deep burial

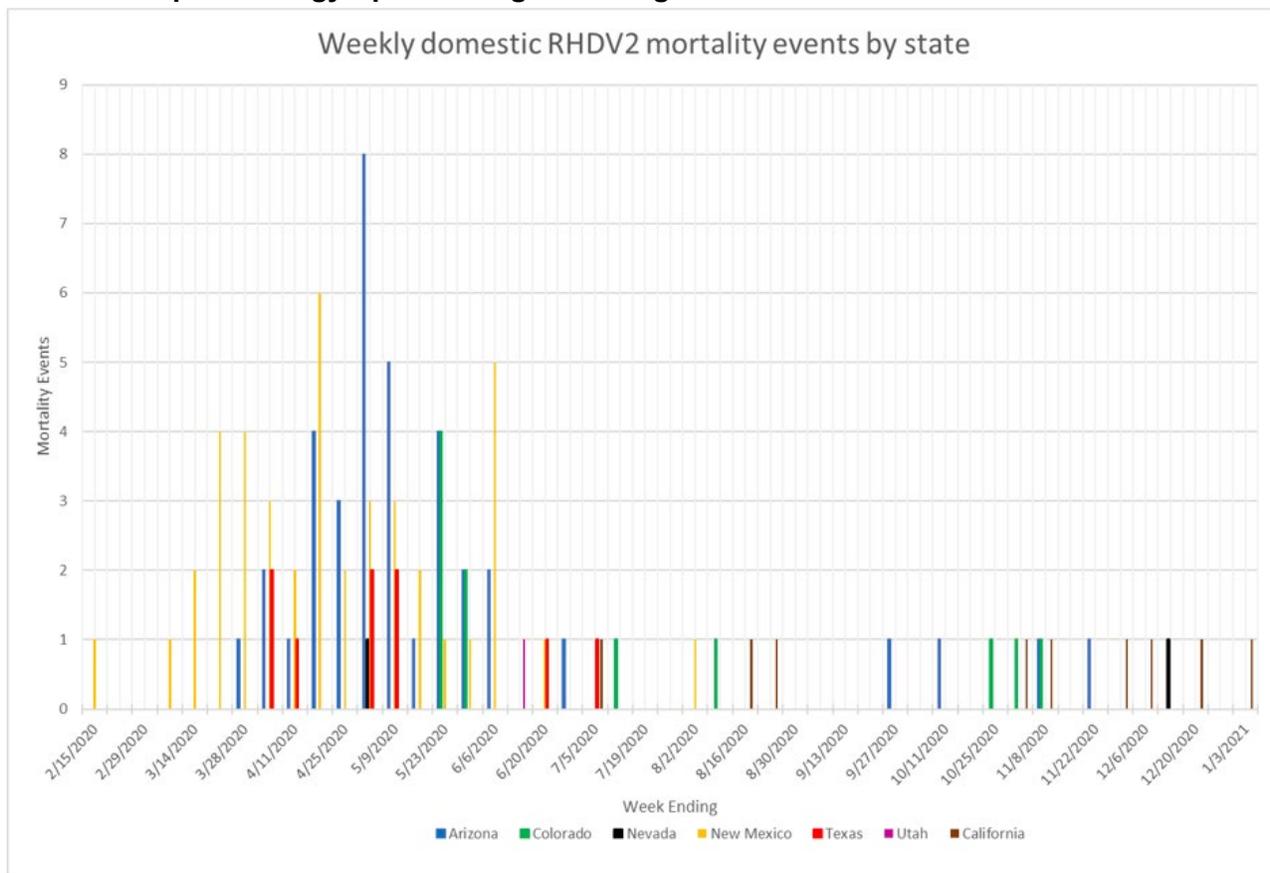
with lime or disposal at a landfill after double-bagging. If the owner chooses to depopulate, assistance may be provided by the State Veterinarian's office.

Section 4: Additional Response Activities

RHDV2 Vaccine

- There is no licensed vaccine in the U.S. There are 2 killed vaccines for RHDV2 licensed in the European Union.
- The unlicensed vaccine may be allowed into the U.S. for emergency use in affected States with approval by the State Animal Health Official.
- The APHIS, VS coordinating cell has facilitated informational calls with several state agencies and answering questions from the general public, stakeholder and industry groups, and animal health partners. The team has created a “Vaccine FAQ” summary for public distribution. This document is posted at [Rabbit Hemorrhagic Disease Virus 2](#)
- **Seven** of the affected States (AZ, CA, CO, NV, NM, TX and UT) are pursuing import of vaccine either directly through the State agriculture agency or through private practitioners. All of these States have received the vaccine. In NM vaccine was imported by the NMLB and distributed by the SAHO. In the other States vaccine was imported by veterinary practitioners. In all States the SAHO directs the use of the vaccine including record and ID requirements.

Section 5: Epidemiology/Epidemiologic Investigation

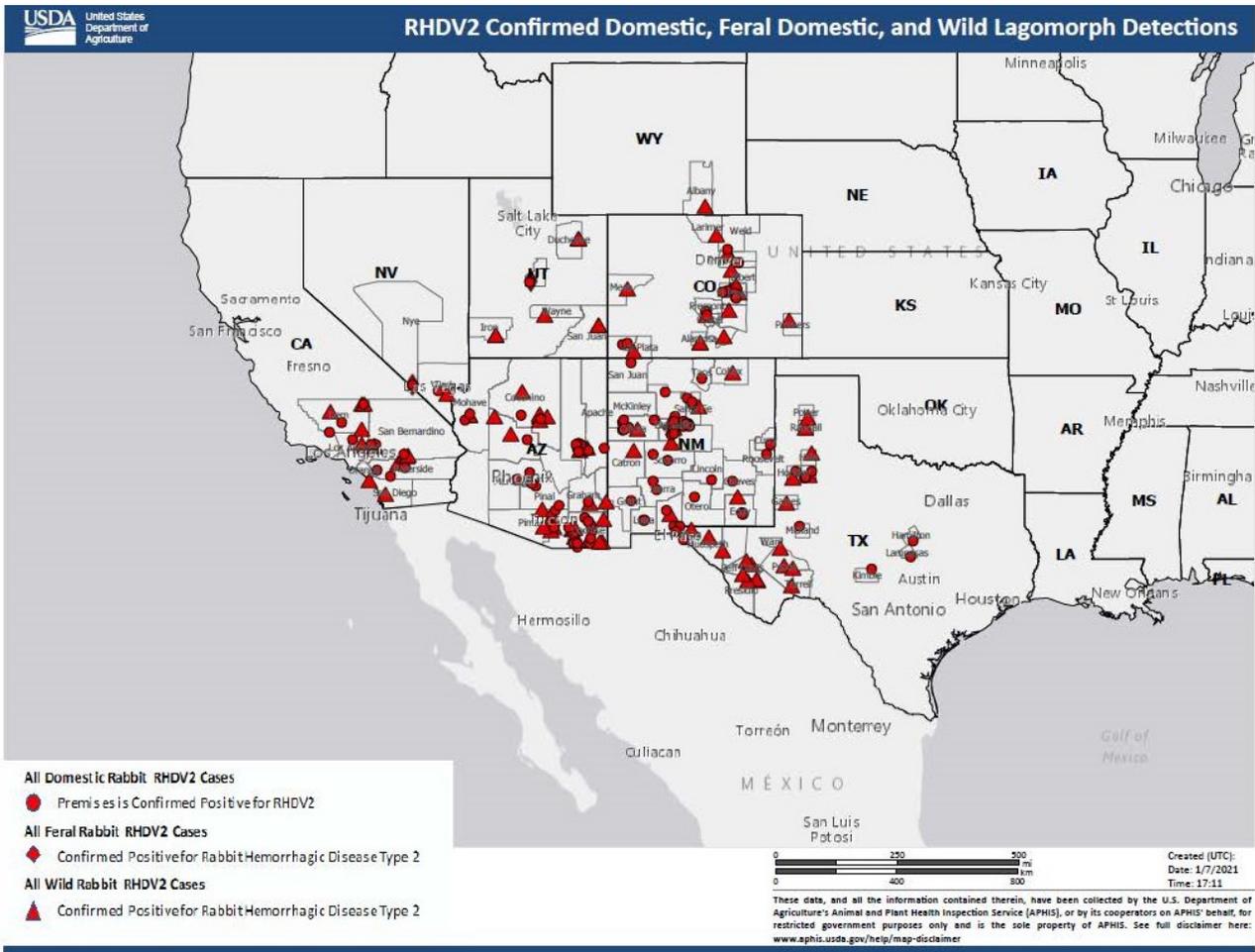


***Note – The epi curve is based on mortality start dates not test positive dates**

- An epidemiology information sheet has been developed and provided to all affected States for interviewing positive premises owners. Once information has been gathered an epidemiological report will be available.
- At this time no source of introduction for the virus has been identified.
- There is currently no epidemiological link from New York to the detections in the southwestern US.
- Mexico made an immediate report to OIE on the detection of RHDV (a vs 2 not specified) in backyard domestic rabbits in Nuevo Casa Grandes, Chihuahua on 4/10/20. In OIE follow-up reports, Mexico has reported additional domestic rabbit and wild lagomorph mortality in Aguascalientes, Baja California, Baja California Sur, Chihuahua, Coahuila, Durango, San Luis Potosi, Sonora, and Zacatecas in northern Mexico. In follow-up report 4 Mexico indicated their detections have been confirmed as RHDV2. The most recent follow-up report from Mexico to the OIE ([Follow-up Report #22](#)) can be accessed at the following link: https://www.oie.int/wahis_2/public/wahid.php/Reviewreport/Review?page_refer=MapFullEventReport&reportid=36954
- 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 that isolates cluster by geographical region.

The most recent isolates from samples originating in Colorado (CO), Arizona (AZ), New Mexico (NM), Texas (TX), and Utah (UT) in 2020 formed 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. The California (CA) isolates are highly similar to the southwestern (SW) isolates but sit outside the established SW cluster; further analysis is ongoing. The Nevada isolates were sequenced but had poor coverage; they will be sequenced again. FADDL received the sequence data from Mexico for review and analysis.

The viruses circulating in the southwest and western United States are distinct from RHDV2 isolates collected from domestic rabbits in New York, Washington State, and Ohio as well as British Columbia, Canada. Additional analysis is ongoing to compare additional isolates previously detected in North America.



Section 6: Incident Contacts

USDA APHIS

- Veterinary Services
 Arizona/New Mexico - Arlene Buchholz, Sean McCartney, Paul Scigliabaglio
 California - Larry Rawson, Adam Smith, Anya Cotliarenko
 Colorado - Don Beckett, Kyran Cadmus
 Nevada and Utah - Robert DeCarolis, Greg Ramos
 Texas - Mike Pruitt, Luisa Collins,
Wyoming – Morgan Hennessey, Avery Strait
 ASEP and FEIS – Nancy Hannaway, Lynn Creekmore, Julie Lench, Brad Christensen
- Wildlife Services – Tom Gidlewski, Jeff Root, Tim Linder, Jourdan Ringenberg

State

- Arizona
 Department of Agriculture - Peter Mundschenk, Ryan Wolker, Cody Egnor
 Game and Fish Department – Anne Justice-Allen
- California
 Department of Food and Agriculture – Annette Jones, Andrea Mikolon
 Department of Fish and Wildlife – Deana Clifford

- Colorado
Department of Agriculture - *Keith Roehr, Maggie Baldwin*
Fish, Wildlife and Parks – *Mary Wood*
- Nevada
Department of Agriculture, Board of Animal Industries – *Amy Mitchell*
Department of Wildlife – *Nate Lahue*
- New Mexico
Livestock Board – *Ralph Zimmerman, Alexandra Eckhoff*
Department of Game and Fish – *Kerry Mower*
- Texas
Animal Health Commission - *Andy Schwartz, Susan Rollo*
Parks and Wildlife Department – *Shaun Oldenburger*
- Utah
Utah Department of Agriculture and Food – *Dean Taylor, Amanda Price*
Utah Division of Wildlife Services – *Annette Roug*
- Wyoming
Wyoming Livestock Board – *Jim Logan, Hallie Hasel*
Wyoming Game and Fish Department – *Samantha Allen*

Section 7: Current Significance and Reporting:

The incident is multistate involving NM, AZ, TX, CO, NV, CA, UT and WY. Confirmations of RHDV-2 have been made in domestic rabbits and wild rabbits and hares in AZ, CA, NM, and TX, in domestic rabbits, feral rabbits and wild rabbits and hares in CO, NV and UT, and in wild rabbits in WY.

The positive RHDV2 detections in the wild black-tailed jackrabbit and wild desert cottontails in NM were the first detections of this virus in wild rabbits in the United States.

The first OIE report for this detection was submitted to the OIE on March 27, 2020. It was included as in a follow-up report for the previous detection of RHDV2 in Washington State (Follow-up report #8). Follow up reports occurred weekly.

- Follow-up report #9 was submitted April 6.
- Follow-up report #10 was submitted April 13.
- Follow-up report #11 was submitted April 20.
- Follow-up report #12 was submitted April 27
- Follow-up report #13 was submitted May 5
- Follow-up report #14 was submitted May 13.
- Follow-up report #15 was submitted May 19
- Follow-up report #16 was submitted May 27
- Follow-up report #17 was submitted June 1
- Follow-up report #18 was submitted June 9
- Follow-up report #19 was submitted June 17
- Follow-up report #20 was submitted June 23

- Follow-up report #21 was submitted on June 29. This provided information on the positive finding for a domestic rabbit premises in UT.
- Follow-up report #22 was submitted July 2 as a final report.

Because the event cannot be considered resolved, but the situation is sufficiently stable [in AZ, CA, CO, NM, NV, TX, UT and WA](#), reporting has shifted to 6-month reporting **for these States**. Data collection required for OIE 6-month reporting is a slightly more summarized version of the data collected for OIE weekly reports. Information to be reported will include: month of detection; affected species; and numbers for total population; sick; dead; and depopulated.

RHDV2 remains a federally reportable disease. If there is a detection in a new State or species, an immediate report will be submitted. [An immediate notification report for the Wyoming detection was made to OIE on 12/18/2020.](#)

Current trade ban/status:

None.

Submitted by: Dr. Lynn Creekmore, Epidemiologist, S&P, ASEP

Reviewed by: Dr. Nancy Hannaway, Assistant Director, S&P, ASEP