#### **Delaware Department of Agriculture**

### Rabbit Hemorrhagic Disease

### What is Rabbit Hemorrhagic Disease?

Rabbit Hemorrhagic Disease (RHD), also known as viral hemorrhagic disease is caused by two related caliciviruses:

- RHDV1 only affects rabbits in the genus Oryctolagus. This includes most domestic rabbits and wild European rabbits.
- RHDV2 affects rabbits in *Oryctolagus*, wild jackrabbits and hares (*Lepus*), and wild American cottontails (*Sylvilagus*). Other genera of rabbits, as well as pika, may be susceptible.

An outbreak of Rabbit Hemorrhagic Disease caused by RHDV2 has been detected in states located in the western United States.

#### What are the signs of RHD?

The incubation period for RHD is one to five days. It can cause liver inflammation (hepatitis) and prevent blood from clotting. Rabbits often die suddenly without showing any outward signs of illness; however, they may exhibit the following signs:

- Fever
- · Loss of appetite
- Lethargy
- Muscle spasms
- Breathing difficulties
- Blue colored lips or mucous membranes
- Bleeding from body cavities





Rabbits of all ages are affected. It has been found that 80 to 100 percent of rabbits who develop the disease will die. Death is due to massive internal hemorrhaging and liver impairment.

# Can people or other animals get RHD?

No, RHD viruses are only known to affect rabbits and hares. Other types of caliciviruses have been found in people, cattle, sea lions, and cats.

#### How does RHD spread?

The virus that causes RHD can exist in the environment for several months. The virus may be inhaled, ingested, or absorbed through scrapes and wounds in rabbits. It can be transmitted through direct contact with infected domestic or wild rabbits. It can also be passed through indirect contact with fomites that have been contaminated by rabbit secretions or excretions. This includes cages, feeders, grooming equipment, clothing, etc., and people who have not washed in between handling animals. Transmission of the virus may occur following consumption of contaminated water and food, or exposure to rabbit products (meat, fur, skins, offal). Insects, vermin, birds, and domestic animals can move the virus to other premises through bodily contamination or moving infected rabbit carcasses between premises.



#### **Rabbitry Premise Biosecurity**

Practicing good biosecurity can help reduce the risk of people, animals, equipment, or vehicles bringing disease and pathogens to your operation. Everyone involved in the rabbitry needs to be involved in enhanced biosecurity. This includes:

- Restrict traffic to your rabbitry to essential visits. Take additional precautions with visitors who are from a state or country where RHD is known to exist.
- Avoid visits and unecessary contact with other rabbitries.
- Always wash your hands, shower, and change your clothes after handling rabbits at a show, fair, meeting, or other rabbitry.
- Animals returing from a show, fair, or newly introduced to the premises should be quarantined from the existing rabbitry for 30 days and always cared for last.
- Minimize exposure to wild rabbits and hares by keeping your rabbits in hutches or cages elevated off the ground.
- Do not allow your rabbits to graze or roam in a yard if you suspect disease in wild rabbits in your area.
- Control dogs, coyotes, insects, birds, rodents, and other animals, which may carry disease to your rabbitry.
- When purchasing rabbits, check the health status of the rabbitry.
- If you are planning to travel, be aware of the rabbit disease status of the state or country you are visiting. Take steps to avoid introducing RHD to your rabbits.
- Purchase new equipment and supplies to reduce potential contamination. Disinfect all equipment and supplies prior to using in your rabbitry.

#### **Disinfectants**

RHDV is inactivated by solutions including 10 percent bleach (sodium hypochlorite) or potassium peroxymonosulfate (e.g., 1 percent Virkon-S). Disinfectants containing quaternary ammonium compounds such as Lysol spray, Clorox wipes, and Odoban are not effective against RHDV.

# Can I vaccinate my rabbit against RHDV2?

Since Delaware is not currently affected by RHD, importation of the vaccine is not permitted. RHDV2 vaccines have not been approved for use in the U.S., but due to the recent outbreak, vaccination has been allowed on a limited emergency basis in affected states. To be effective, vaccines must include antigens for the appropriate serotype, RHDV1 and RHDV2.

## Who do I contact if I suspect RHD in rabbits in Delaware?

If your rabbit is sick, consult with your private veterinarian to seek treatment.

To report sick or dead domestic rabbits, contact:

Delaware Department of Agriculture Office of the State Veterinarian 302-698-4500 or 302-233-1480 (after hours) Email: DEanimalhealth@delaware.gov

To report sick or dead wild rabbits, contact the Division of Fish and Wildlife by phone at: 302-735-3600 or 302-739-9912

