The first reported occurrence of Rabbit Calicivirus Disease (RCD) in the United States was confirmed on April 7, 2000. The disease occurred in a backyard rabbitry of 27 pet rabbits in west central Iowa. The origin of the outbreak is unknown.

What is Rabbit Calicivirus Disease?
Rabbit calicivirus disease (RCD) is a highly infectious viral disease of the European rabbit (Oryctolagus cuniculus). This is the species from which all U.S. domestic and commercial rabbits are derived. American cottontail rabbits and jackrabbits are not susceptible to infection with this virus. RCD is not known to harm humans or other animals. Once the disease is introduced into a rabbitry, it can spread rapidly, causing a high percentage of the rabbits to die. There is no treatment for the disease.

Where else has it occurred?
In 1984, RCD (also known as viral hemorrhagic disease of rabbits) was reported for the first time in the People's Republic of China. Since then, RCD has been reported in parts of Asia and Europe, including the Czech Republic, Germany, France, Italy, Korea, and Spain. Investigations suggest the disease spreads from country to country through shipments of contaminated rabbit meat and infected live rabbits.

The first report of RCD in the Western Hemisphere came in December 1988, when the disease was detected in domestic rabbits in the Mexico City area. The Mexican government began a program that included quarantine of infected farms, prohibition of movement or sale of rabbits, voluntary destruction of diseased rabbits, and cleaning, disinfecting, and repopulating premises after a 2-month waiting period. The program was successful. The disease has been present in Cuba since 1993 and is suspected to exist in Bolivia. In 1995, as a result of a field trial accident on Wardang Island, Australia, the virus escaped and killed 10 million rabbits in 8 weeks on mainland Australia.

What are the signs of disease?
RCD damages the liver, intestines, and lymphatic tissue, and causes terminal massive blood clots. The time between exposure to the virus and occurrence of disease is about 24 to 48 hours. Predominantly, young adult and adult rabbits die suddenly within 6 to 24 hours of the onset of fever with few clinical signs. Fever may be as high as 105°F (40.5°C), but often is not detected until rabbits show terminal clinical signs. Most animals appear depressed or reluctant to move in the final hours and may show a variety of neurologic signs, including excitement, incoordination, paddling, and an abnormal position of the head due to spasms of the muscles at the top and back of the neck. Some affected rabbits may have a foamy nasal discharge. The death rate for RCD ranges from 50 to 100 percent, but is often 90%.

How is RCD spread?
RCD is caused by a highly contagious virus. Many virus particles are passed in the droppings of infected rabbits. The virus can then spread on the food of healthy rabbits, infecting them. The disease can also be transmitted by contact with infected rabbits, rabbit products, rodents, and contaminated objects, such as cages, feeders, and clothing. The virus also may be carried short distances through moisture in the air. The risk of spread of RCD is higher when confined rabbits are in close contact with each other. Infected rabbits that recover may become carriers of the virus and may shed the virus for at least 4 weeks.

Is there a vaccine?
No vaccine is legally available for use in the United States. Vaccines have been used in other countries. Vaccination often reduces the number of rabbits dying from RCD, but will not eradicate the disease. Rabbits vaccinated against RCD may become infected, but not show signs of disease, thereby allowing spread of the virus as a carrier.

How can RCD be prevented?
Even though it appears the disease has been limited to one rabbitry, rabbit owners should be cautious and follow these guidelines:

- Keep your rabbits isolated from other domestic rabbits from outside your household. Do not transport them outside your home if possible.
- Isolate new rabbits and rabbits returning from shows for at least 5 days. If these rabbits were exposed to RCD, isolation may help prevent spread to other rabbits. If they were exposed to RCD, the disease usually will be noticeable within 48 hours. Isolate the rabbits in a separate area and remember, your hands, clothing, food dishes, etc., could spread the virus.
- When the health status of a rabbit is unknown, it should be kept in mind that healthy-looking rabbits can be in the early stage of disease and later spread the disease. Again, isolate the rabbit for at least 5 days.
• If RCD is suspected, to prevent spread of the virus, rabbit owners should clean and disinfect all equipment. After thorough cleaning, rabbit breeders should use one of the following disinfectant solutions on equipment to inactivate the virus: 2-percent 1-Stroke Environ(r) (Steris Corporation, St. Louis, MO), 0.5-percent sodium hypochlorite, or 10-percent household bleach.
• Veterinarians and rabbit owners who suspect a rabbit may have RCD should immediately contact State or Federal animal health authorities. For more information, contact:
  U.S. Department of Agriculture Animal and Plant Health Inspection Service
  Veterinary Services, Emergency Programs
  4700 River Road, Unit 41
  Riverdale, MD 20737-1231
  Telephone: (301) 734-8073
  Fax: (301) 734-7817