

**SUPPLEMENTARY INFORMATION:****Background**

Chronic wasting disease (CWD) is a transmissible spongiform encephalopathy (TSE) of cervids (members of Cervidae, the deer family) that as of November 2002 has been found only in wild and captive animals in North America and in captive animals in the Republic of Korea. First recognized as a clinical "wasting" syndrome in 1967, the disease is typified by chronic weight loss leading to death. There is no known relationship between CWD and any other TSE of animals or people. Species known to be susceptible to CWD include Rocky Mountain elk, mule deer, white-tailed deer, and black-tailed deer. Non-cervid ruminant species, including wild ruminants and domestic cattle, sheep, and goats, have been housed in wildlife facilities in direct or indirect contact with CWD-affected deer and elk, and as of November 2002 there has been no evidence of transmission of CWD to these other species. Additional studies to delineate the host range of CWD are underway.

In the United States, CWD has been confirmed in free-ranging deer and elk in Colorado, Illinois, Nebraska, New Mexico, South Dakota, Utah, Wisconsin, and Wyoming, and in 27 captive (farmed) elk herds in Colorado, Kansas, Minnesota, Montana, Nebraska, Oklahoma, South Dakota, and Wisconsin, and in 2 captive deer herds in Wisconsin. The disease was first detected in U.S. farmed elk in 1997.

Research is being conducted to develop live-animal diagnostic tests for CWD. Currently, definitive diagnosis is based on postmortem examination (necropsy) and testing of postmortem samples. On microscopic examination, lesions of CWD in the central nervous system resemble those of other TSE's. In addition, using a technique called immunohistochemistry, scientists test brain tissues for the presence of the protease-resistant prion protein.

The origin and mode of transmission of CWD is unknown. Animals born in captivity and those born in the wild have been affected with the disease. Based on epidemiology, transmission is thought to be lateral, or from animal to animal. Although maternal transmission may also occur, it appears to be a relatively uncommon form of transmission.

Surveillance for CWD in free-ranging deer and elk in Colorado and Wyoming has been ongoing since 1983 and has defined the endemic areas in those States. CWD was detected in 2000 and 2001 in free-ranging deer in western

Nebraska. The source of the disease is believed to be natural spread from the Colorado and Wyoming endemic area. More intensive surveillance to better define the prevalence and distribution of the disease in free ranging deer in these States is underway. However, in 2002, CWD was detected in wild cervids in northwestern Colorado, southern New Mexico, southwestern South Dakota, and south central Wisconsin. Detection of disease in these unexpected areas has led to increased surveillance to better define the limits of the endemic area and to determine the nationwide distribution and prevalence of CWD in wild cervids. This surveillance effort is a two-pronged approach consisting of hunter-harvest cervid surveys conducted in many States, as well as surveillance targeting deer and elk exhibiting clinical signs suggestive of CWD throughout the entire country. Surveillance for CWD in captive elk began in 1997. Captive cervid surveillance has increased each year since 1997 and will be an integral part of the U.S. Department of Agriculture (USDA) program to eliminate CWD from captive cervids. Surveillance in both wild and captive animals has been a cooperative effort involving State agriculture and wildlife agencies, USDA, elk and deer producers, and hunters.

The presence of CWD in cervids causes significant economic and market losses to U.S. producers. Canada recently prohibited the importation of elk from Colorado and Wyoming and now requires that other cervids be accompanied by a certificate stating that CWD has not been diagnosed in the herd of origin. The Republic of Korea recently suspended the importation of deer and elk and their products from the United States and Canada. The domestic prices for elk and deer have also been severely affected by fear of CWD.

The Animal and Plant Health Inspection Service's (APHIS's) regulations in 9 CFR subchapter B govern cooperative programs to control and eradicate communicable diseases of livestock. In accordance with the Animal Health Protection Act (7 U.S.C. 8301 *et seq.*), the Secretary of Agriculture has the authority to issue orders and promulgate regulations to prevent the introduction into the United States and the dissemination within the United States of any pest or disease of livestock, and to pay claims growing out of the destruction of animals. Animal health regulations administered by the Department under this authority include those specifically addressing control programs and indemnity payments for tuberculosis (part 50), brucellosis (part

51), pseudorabies (part 52), and scrapie (part 54), and regulations in part 53 regarding payment of claims for other diseases. We have already promulgated regulations to pay indemnity to the owners of CWD-positive captive herds who voluntarily depopulate their herds. These indemnity regulations, contained in 9 CFR part 55 and referred to below as the indemnity interim rule, were published in the **Federal Register** on February 8, 2002 (Docket No. 00-108-1, 67 FR 5925-5934).

While the indemnity program should contribute greatly to the eventual eradication of CWD in the United States, it will not achieve this goal unless it is supported by programs to actively identify herds infected with CWD, and to manage these herds in a way that will prevent further spread of CWD. To that purpose, we are proposing to create a CWD Herd Certification Program to help eliminate chronic wasting disease from the captive deer and elk herds in the United States. Deer and elk herd owners who choose to participate would have to follow program requirements for animal identification, testing, herd management, and movement of animals into and from herds. We are also proposing to establish interstate movement requirements to prevent the interstate movement of deer and elk that pose a risk of spreading CWD.

APHIS has established herd or flock certification programs in the past to monitor animals for disease and eventually certify a herd or flock as disease-free or low risk. Notably, we established the Scrapie Flock Certification Program, which is described in 9 CFR part 54, subpart B. The CWD Herd Certification Program that we are proposing in this document has many features in common with the scrapie program. Because both diseases are caused by TSE's and often have a long incubation period, both programs require closely monitoring animals over a period of years and restricting movements of animals into and from herds.

**Proposed CWD Herd Certification Program**

We are proposing to create a cooperative Federal-State-private sector program to contribute to the eradication of CWD from captive deer and elk herds in the United States.

Jurisdiction over captive deer and elk varies from State to State. The vast majority of captive deer and elk are domesticated or farmed; that is, they are raised for profit on private ranches or farms. A smaller number of captive deer and elk are maintained in zoos, other exhibitions, or research facilities.