

United States Department of Agriculture
Animal and Plant Health Inspection Service

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Position:

Official diagnosis of Chronic Wasting Disease (CWD) should be performed exclusively by Federal and State regulatory agency laboratories.

Background:

In the late 1960s, a clinical syndrome seen in captive mule deer came to be known as “chronic wasting disease” (CWD). This syndrome was identified as a transmissible spongiform encephalopathy (TSE) in 1978. By mid-2001, an “endemic area” of 20,000 square miles in northeastern Colorado, southeastern Wyoming, and southwestern Nebraska was identified

Recent events--including findings of CWD in free-ranging deer and elk in additional States and the interstate transport of CWD-exposed captive animals--indicate the need for a national strategy for managing CWD. In May 2002, a task group made up of representatives from the U.S. Departments of Agriculture and Interior, State agriculture and natural resources departments, and others convened to develop a plan addressing disease management, research, surveillance and information dissemination. The plan also specifically addressed diagnostics and the exclusive use of Federal and State diagnostic laboratories for that purpose.

Rationale:

The international credibility of the U.S. animal health system is in large part predicated on having an established set of government laboratories with the expertise to accurately conduct diagnosis not only for CWD, but also BSE, avian influenza, foot-and-mouth disease, and a host of other diseases of concern. The system is designed not only to ensure consistency and accuracy but also to preserve domestic and international market confidence in U.S. agricultural commodities. Indeed, a “false positive” for any disease could result in unnecessary public concern and costly regulatory action. And in the case of a disease like BSE, a false positive could be devastating, costing the U.S. economy billions of dollars in unnecessary domestic and international market disruption from which it could take years to recover.

Because of the limitations of currently available tests for CWD, testing serves purely as a surveillance tool to determine the geographic parameters and prevalence of the disease in the United States. A positive test result can be used as reliable information that the disease has spread into a given area. However, a negative test result is not necessarily a reliable indicator that an animal is free of the disease. Indeed, at this time there is no test that can be used reliably on individual animals to determine whether that animal is free from CWD. In addition, the demand for test results to provide to hunters implies food safety testing and no test has been shown to be sensitive enough to support use as a food safety test. This is because the disease has

a very long incubation period, which may lead to "false negatives" during early infection. In addition, relatively little is known about the distribution of the CWD agent, so an animal whose brain and nervous system tissue tests negative might actually be carrying the infective agent in other tissues.

In order to ensure the integrity of the U.S. surveillance effort, USDA has designated an official test for CWD surveillance: the immunohistochemistry (IHC) assay as performed by APHIS' National Veterinary Services Laboratories (NVSL) and State/university laboratories with which NVSL has contracted. These laboratories, as part of a national network, are being trained, proficiency tested, and supplied with control samples to perform official tests, and they will be linked through a reporting database. Currently, there are 26 laboratories with which APHIS has contracted to perform CWD testing. This capacity is more than sufficient to handle the increased surveillance testing planned this fall to determine the geographic distribution and prevalence of CWD in the United States.