

PROGRAM ACTIVITY REPORT (PAR)



CWD RECTAL BIOPSY MEETING

The NWDP recently hosted an international meeting at the National Wildlife Research Center on the evaluation of rectal biopsy as an antemortem test for chronic wasting disease (CWD) in white-tailed deer. This meeting was the culmination of more than five years of cooperative research. Participants included Dr. Aru Balachandran, Head of the National and OIE Reference Laboratory at the Canadian Food Inspection Agency; Dr. Katherine O'Rourke, research microbiologist for the USDA Agricultural Research Service; Dr. Bruce Thomsen, a pathologist at the APHIS National Veterinary Services Laboratory; Dr. Tom Gidlewski, an assistant coordinator for the NWDP; and Dr. Terry Spraker, a pathologist for the Veterinary Diagnostic Laboratory at Colorado State University. Attendees reviewed the data generated from multiple white-tailed deer farms in the United States and Canada that were infected with chronic wasting disease and, subsequently, depopulated.

One of the main problems in dealing with the transmissible spongiform encephalopathies, such as scrapie, CWD and mad cow disease, is the lack of a live-animal test that would allow for early detection of the disease. Researchers in Norway and the



United Kingdom discovered that there was a band of relatively accessible rectal lymphoid tissue that could be biopsied in live sheep. The meeting attendees were the first scientists to initiate the use of the rectal biopsy test for scrapie in North America. Subsequently, the test was validated for scrapie diagnosis in the United States.

In order to generate the number of samples needed to validate the rectal biopsy procedure for diagnosis of CWD in white-tailed deer, the USDA, Canadian Food Inspection Agency, and Colorado State University collaborated to examine infected herds in Canada and the United States. The ultimate goal of this meeting was to review and interpret the combined data, then generate conclusions regarding the potential use of

the rectal biopsy test in white-tailed deer. Dr. Patrice Klein, CWD program manager for Veterinary Services, joined in the final session of the meeting to discuss the utility and possible inclusion of this test into the CWD Herd Certification Program.

After the formal meeting, Dr. Gidlewski presented a seminar at the National Wildlife Research Center on the status of the disease in the United States. The audience also had the opportunity to interact with all the scientists participating in the CWD meeting.

Overall, the group resolved many questions, which will allow the scientists to prepare a publication evaluating the use of the rectal biopsy test in white-tailed deer. Research conclusions were generated and shared with the Dr. Klein. This group, along with Dr. Kurt VerCauteren of the National Wildlife Research Center, is also working on a similar project evaluating the rectal biopsy test in CWD infected elk.

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The original artwork on this page was created by the National Wildlife Disease Program's Erika Kampe and Sarah Goff

