

**Midwest Deer-Turkey Group Meeting, 1997**  
**Webster, South Dakota**  
**August 24-27, 1997.**

The theme for the first day of the conference was deer and turkey diseases.

Dr. Mike Miller of the Colorado Division of Wildlife gave a presentation on Chronic Wasting Disease. This is a fairly newly discovered disease of cervids that is similar to mad cow disease. The disease was first discovered in captive animals in a research facility in Colorado and has since been found in free ranging elk, mule deer, and white-tailed deer. It is not currently a problem in game farms. To date the disease is limited to northeastern Colorado and southeastern Wyoming. Symptoms include behavioral changes, weight loss, salivation, and frequent urination. CWD is fatal. Diagnosis requires microscopic examination of tissue from the brain stem. Current disease management includes limitation of movement of animals and efforts to prevent its spread into captive wildlife. It is not known whether it can be transferred to cattle. It is believed that deer feeding facilitates its spread. Colorado now bans deer feeding.

Dr. Nettles from the SE Cooperative Wildlife Disease Study gave an update on the bovine TB outbreak in Michigan. During 1996 more than 4,000 deer were examined and over 50 were positive for TB. The outbreak is still limited to a 4 county area in the northern lower peninsula. This area has a long history of extensive deer feeding. Michigan is still working on obtaining authority to regulate feeding in this area. They are promoting habitat improvement as an alternative to artificial feeding. Modeling suggests that TB may have been introduced into deer 30-40 years ago and it has taken this long to increase to current levels.

Dr. Terry Kreeger of the Wyoming Game and Fish Department summarized the status of brucellosis in the Greater Yellowstone Area (GYA). The bison herd has been reduced from ~4,000 to ~2,000 as a result of a combination of severe winter weather and shooting. There are over 120,000 elk in the GYA, many of which concentrate on artificial feeding grounds. Infection rate in elk on feeding grounds is over 30% but only 3% in non-feeding ground elk. WGFD has been vaccinating elk on feeding grounds for the past 10 years using a biobullet containing a live vaccine. Current management options under consideration include intensive vaccination of elk and bison, test and slaughter infected animals, depopulation, eliminate feeding grounds, and eliminate cattle grazing on public lands in the GYA. All options are politically unpopular and/or expensive.

Dr. Nettles from the SE Cooperative Wildlife Disease Study described hemorrhagic disease in white-tailed deer. It is caused by one of two closely related viruses, epizootic hemorrhagic disease (EHD) or bluetongue. An outbreak occurs almost annually in the southeast. During 1980-89, hemorrhagic disease was reported from 875 counties in 31 states, including Polk County, Wisconsin. It is spread by biting midges.

Dr. Charlotte Quist discussed aflatoxin and mycoplasmosis. Aflatoxin is produced by fungi on corn and other grains. With the increase in artificial feeding and use of bait for hunting there has been concern about the effect of aflatoxin on deer and turkeys. Research has shown that deer are fairly resistant. There is slight reduction in feed consumption and little effect on immune

function. Toxins were present in skeletal muscles in very low levels. The toxin is not bioaccumulated in deer and poses little threat to humans ingesting deer. In contrast to deer, aflatoxin caused significant reduction in weight gain in turkeys, liver damage, reduced immune function, and may significantly reduce egg production. Bottom line is don't feed moldy corn to wildlife.

Mycoplasmosis is primarily a disease of domestic fowl but there are a few known cases in wild turkeys that fed in association with domestic fowl. In 1994 it was discovered in house finches near the Chesapeake Bay area. In 3 years it had spread to Texas, Nebraska, Wisconsin, and Minnesota. It has also been found in gold finches. It causes a severe infection in house finches and is fatal in most cases.

Dr. Sam Holland is the state vet. with the South Dakota Animal Industry Board. The Board has authority over captive nondomestic mammals including felids, canids, bears, mustelids, cervids. Only raccoon-dogs and non-domestic swine are banned. The Board has the responsibility for regulating but also promoting game ranching. Producers require a permit and there is strict reporting requirements to maintain the permit. All animals must be accounted for including any additions and subtractions from the herd. Any escapes become the property of the board.

During a panel discussion, the role of artificial feeding in the transmission of cervid diseases was stressed. It was strongly recommended that states obtain the authority to regulate deer feeding before a disease outbreak occurs in order to be able to respond rapidly should an outbreak occurs.

#### Other Deer-related Issues Discussed

There was considerable discussion on the increasing pressure for trophy (quality) management. Several states reported increased interest by hunters in purchasing large blocks of land, enclosing the land in high fences, and managing for trophy deer. The costs of trophy management were discussed at length. Many states are struggling with identifying the proper role for their agency in this issue.

There was considerable interest in Wisconsin's experiences with an earn-a-buck season.

Dr. Jim Mitchell of Indiana reported on a meeting between APHIS-ADC and FDA on regulation of research on the use of immunocontraception for deer population control. Currently the FDA does not regulate the use of drugs on deer, deer are not considered to be food animals. The FDA assumed that each state regulated research on deer. Jim urged each state to develop regulations covering contraception research and management. Minnesota has already enacted such regulations.

Missouri reported on problems they encountered implementing a point-of-sale system for license issuance. Missouri opted for an inexpensive printer that printed the license on cheap paper. A separate transportation tag was handed to the hunter as well as a separate registration stub. Hunters had difficulty keeping track of 3 separate pieces of paper and hated the licenses. The POS system was used issue quota permits on a first-come-first-serve basis. Stores opened at

midnight with huge lines. The system was completely overloaded. It took 30 minutes to issue one permit at some vendors. Some hunters were in line for 12 hours. Fights and near riots resulted. Strongly recommended high quality thermal printers and mandatory heritage cards containing the hunters name, address, and permanent identification number.

Missouri is conducting research on the survival, recruitment, and movements of urban deer populations. Over 100 deer are radioed. Mortality since February is high compared to rural populations, mostly due to deer-vehicle accidents. Protocols for counting deer from helicopters have been developed. An on-board GPS is used to maintain orientation on survey transects. Detection rate of marked deer was 78%.

Nebraska contracted with an independent market research firm to survey deer hunters about hunting issues. Over 85% of hunters indicated they would harvest an antlerless deer if unable to find a buck. Most rifle hunters felt that the number of deer hunters was about right but most archers felt that there was too many hunters. Over 75% of hunters hunted on land owned by others, less than 8% hunted on leased land. The top 3 reasons for going hunting were to be close to nature, for meat, and to be with friends. The main factor given for what hunters were hunting deer for was meat consumption followed by quality of rack and body size. Nebraska hunters did not associate hunting with game management or population control. Work and family commitments were primary reasons for not hunting more often but access to land was cited as a major hinderance. While over 90% felt the regulations were easy to understand, 1/3 to 1/2 felt the application process was confusing. Most wanted to be able to purchase permits from the nearest vendor and eliminate the paper application process. Less than 25% wanted a telephone/credit card application process. Between 1/4 and 1/3 of hunters were totally satisfied with the hunting experience, few were totally dissatisfied, many wanted simplification to the permit system or increased season lengths. Only muzzleloader hunters gave majority support for an early muzzleloader season.

Ohio reported that buck harvests in 1996 were lower than expected, likely due to an abundance of standing corn. The percentage of yearlings in the antlered buck kill ranged from 65-69%. The yearling percentage has increased ~10% in the past 20 years. Antler beam diameter of yearlings averaged 22-24 mm. Beam diameters have declined ~2 mm over a 20-year period. Over 500 deer were tested for bovine TB; all were negative. Ohio had been permitting landowners experiencing damage to shoot deer out of season with high powered rifles and spotlights. Because of numerous complaints, they are switching to in-season permits that landowners would give to hunters for the harvest of additional antlerless deer. Ohio has initiated a study to determine if productivity and condition has declined since the early 1980s.

South Dakota experienced one of the severest winters ever recorded this past year. Herds of 200 to 300 were common across the northern 2/3 of the state. All herds were depredeating agricultural crops. The department spend nearly \$1 million (~\$370,000 supplies, ~\$380,000 personnel, ~\$170,000 mileage, lodging, and per diem) on abatement programs including short stop feeding (~2,000 tons of ear corn, ~29,00 bu. of shell corn, and ~500 tons of alfalfa) and fencing. Department personnel shot over 650 deer and public hunters shot over 400 with depredation permits. Management direction for 1997 is to reduce white-tailed deer populations in areas affected by the severe winter. Research in the Black Hills is documenting habitat use on

summer and winter ranges, seasonal movements, home range size, and survival and cause-specific mortality rates of white-tailed deer. The population migrates an average of 20 miles between summer and winter ranges. Deer are in poor condition due to heavy grazing by cattle public land.

#### Turkey-related Issues Discussed

Illinois - Landowner-brood surveys indicate that production was poor in both 1995 and 1996. Successful firearms and archery deer hunters are surveyed at registration stations regarding their turkey sightings. They anticipate at least one more year of for their trap and transplant program. They are starting a research project on population ecology to determine why different counties are able to support different densities of turkeys.

Iowa - Success rate for the 1997 spring season was 42% statewide (14,751 birds harvested/35,052 active resident hunters). Production during 1996 was below the 5 year average. Iowa continues to ship turkeys to Texas and Washington to assist with their restoration programs.

Indiana - Also reports reduced production in 1995 and 1996 associated with wet-cool spring weather. Brood observations by DNR personnel averaged 4.6 to 5.9 poults/hen during 1993-96. Sportsmen's interest in a fall turkey season is increasing but a fall turkey license would have to be approved by the legislature which is reluctant to approve a new license which might be equated to a new tax.

Kansas - Reported a spring 1996 success rate of 56%. Kansas is studying the movements and survival of an established population of Rio Grande x Eastern hybrids in the Flint Hills and of an experimental release of hybrids.

Minnesota - Spring season success rates were 29% in 1996 and 32% in 1997. Fall harvests have averaged less than 30% of spring harvests.

Missouri - A liberalization of the spring season was proposed for 1996. This proposal was rejected by the Commission which appointed a Blue Ribbon Panel to review the turkey management program and provide recommendations for season modifications. The Department prepared a report outlining the turkey management program for the Blue Ribbon Panel. The Panel prepared a report in favor of the liberalization. A harvest management plan was prepared at the request of the Commission that outlines criteria to be used to evaluate harvest regulations. The Commission approved the proposed liberalization for the 1998 season.

Ohio - Division field personnel interview squirrel hunters and obtain information on sightings of turkeys seen while squirrel hunting. This index is correlated with spring gobbler counts and spring harvest density. Brood observations in 1996 were 31% below the 10-year average. Sixteen percent of surveyed farmers reported moderate to severe crop damage by turkeys. Inspections of 15 complaints found all but 1 caused by animals other than turkeys. Spring turkey hunters were surveyed regarding (1) their hunting experiences, pressure, and success rates; (2) expenditures for turkey hunting; (3) concerns regarding disturbance, overcrowding, and

safety; (4) opinions regarding regulation changes and importance of management activities; (5) factors affecting hunt quality; and (6) socio-economic characteristics of hunters. Ohio has initiated a banding study to estimate harvest rates gobblers in spring seasons. During 1997, 159 gobblers were banded in 12 counties. The harvest rate of adult birds was 31% compared to 11% for subadult birds.

Ontario - The winter of 1995-96 was the most severe experienced by wild turkeys since restoration efforts began. Total snowfall exceeded 260 inches throughout the snowbelt region near the Great Lakes. Despite these severe conditions survival was good and population expansion continued in 1996.

South Dakota - Fall turkey hunting in the Black Hills has been closed due to low population levels. The winter of 1996-97 was the most severe ever recorded. However, turkeys avoided a major die-off by moving into farmsteads. There were many depredation complaints. Flooding rains during late May and early June are believed to have reduced nesting success.