

Perhaps most important of all, owners of infected herds may also face State-imposed quarantines and State-imposed restrictions on the subsequent agricultural use of their land, actions which many view as tantamount to closure.

Even farmers with animals that have not been infected or exposed to CWD are affected, as evidenced by recent action taken by the Republic of Korea. That country recently suspended all imports of deer and elk, and their products, from the United States, due to concern that there may be a link between CWD and other spongiform encephalopathies of animals or humans. The precise impact of Korea's suspension is unknown, because data that is compiled on U.S. exports does not provide the level of detail necessary to identify deer and elk and their products. However, New Zealand is a major competitor to U.S. producers in the area of deer antler exports to Korea, and in 2001 the value of New Zealand antler exports to Korea increased from NZ\$34 million to NZ\$37 million. In 1998 Canada, another major competitor, sold 100,000 kg of elk velvet, worth about CA\$13 million, to the Republic of Korea; Canada's sales dropped by 80 percent the next year, after CWD was introduced into Korea from Saskatchewan.⁴ To the extent that the proposed Federal certification program would provide the basis for equivalency between State programs, increased international sales are likely.

The rule's primary benefits are to help prevent the spread of and eradicate CWD; assist efficient domestic elk and deer marketing; maintain and enhance export markets of cervid products; and obviate the need for greater public and private expenditures related to CWD in the future. The introduction of an aggressive control program now, when the number of known infected herds is small, reduces the risk of higher future Federal eradication program costs, such as Canada faced in 1996 when they had no certification program and CWD infection in one herd quickly spread to 38 herds, causing 7,400 elk to be destroyed.

The proposed rule also demonstrates to our trading partners that the United States is able and willing to take early and aggressive action to protect the health of its animal and animal industries, making it easier for U.S. exporters to negotiate access to foreign markets.

Costs of Proposed Rule

The proposed rule has cost implications for herd owners, individual States, and APHIS. The impact on each is discussed below, and cost effects for small businesses are directly addressed in the section "Analysis of the Economic Effects on Small Entities."

Cost for Herd Owners

Participation in a State, or Federal, certification program would require that herd owners employ certain minimum disease preventative measures established by APHIS. The cost to comply with these minimum requirements would vary among individual herd owners, depending on the circumstances of each. Many herd owners, especially the larger ones, are likely to already be in at least partial compliance with one or more of the requirements on a voluntary basis, since they constitute sound management practice. Perimeter fencing is a case in point. Most herd owners already have perimeter fencing already in place, if for no other reason than to keep animals from escaping.

The certification program would require that herd owners submit the carcasses of all dead deer and elk 16 months of age or older (including animals killed on hunting premises) to a lab for tissue sampling and testing. The rules would allow herd owners to collect and submit the animal's entire head themselves, or to hire an accredited veterinarian to remove and submit the required tissue samples. Collecting a sample and packing it for submission usually takes under an hour. Veterinarians would charge herd owners about \$100 to collect each sample.

Participating herd owners would have to identify each animal uniquely, using two approved forms of identification, such as tattoos, ear tags, or electronic implants. Although many herd owners already identify their animals, only a few are likely to use two forms of identification. The cost of identifying an animal would vary, depending on the type of identification used and other factors, including any costs associated with "rounding up" the animals for installation of the identification. The rules would allow for the multiple use of the same form of identification, so, conceivably, each animal could have two ear tags, potentially the least costly form of identification. Ear tags themselves cost about \$2 each. By comparison, veterinarians could be expected to charge herd owners at least about \$25 to implant each microchip.

It is estimated that adoption of the program's minimum disease preventative measures would result in increased direct costs totaling about \$1,600 annually for the "average" elk herd owner (*i.e.*, one with a herd of 50 elk), exclusive of any costs stemming from a CWD discovery within the herd. The annual cost of \$1,600 includes \$1,000 for the annual inventory, \$100 for the maintenance of program records, \$250 for tagging, and \$200 for sample collection by a veterinarian, and \$50 for ancillary costs. The annual inventory cost of \$1,000 assumes veterinary fees to "read" tags (\$500) and hired labor (\$500). The sample collection cost of \$200 assumes that 2 animals over 16 months of age die per year. It is expected that the cost of sample collection would be less of a burden for hunting premises than for production or breeding herds, because of the relatively high per-animal profit margin for hunting premises, and because these businesses are already organized to pass on fees (*e.g.*, for State-required tagging) to their customers. The price these premises charge to hunt an elk varies with the quality of the animal, and ranges from about \$3,000 for a lesser-quality bull elk to about \$10,000 for bull elk that score over 375 points (*i.e.*, an animal with an exceptional antler rack). Because these businesses generally schedule their hunts well in advance, it should be possible for them to schedule a veterinarian to collect samples at appropriate times without disrupting business or customer schedules. However, APHIS particularly solicits comments on this point, since we do not have detailed knowledge of hunting premises business operations.

Participating herds that are found to have CWD-positive or CWD-exposed animals would immediately lose their program status, and could re-enroll only after completing a herd plan. (A herd plan is a written herd management agreement, developed by APHIS with input from the herd owner, State representatives, and other affected parties, that sets forth the steps to be taken to eradicate CWD from a positive herd.) It is estimated that, in about 90 percent of herd plans, herd owners would agree to depopulate their herds, for which APHIS would pay eligible owners indemnities of up to \$3,000 per animal. Two likely consequences for a positive herd are State-imposed quarantines that can last several years, and State-imposed restrictions on the repopulation of cervids on the same premises. Most herd owners would consider these actions as tantamount to closure. Fortunately for herd owners,

⁴ Elk Production: Economic and Production Information for Saskatchewan Producers, Saskatchewan Agriculture and Food, November 2000.