## Lee Laechelt

From: Dr. Allan E. Houston [ahouston@amesplantation.org]

**Sent:** Friday, May 06, 2011 2:49 PM

To: Lee Laechelt

Subject: FW:

Lee, here is a letter that I sent to the representatives – the last several paragraphs wax (and wane) philosophic. The first half of the letter focuses on the prion's elusiveness and potential impact – the second half of the letter focuses on hunting captive deer.

Allan

I am a forest and wildlife ecologist with PhD, MS, and two BS degrees all in forestry and wildlife, along with more than 30 years of experience in forest and wildlife management and research. I am writing out of that expertise as a private citizen and Tennessee resident in regard to *The White-tailed Deer Breeding and Farming Act*. If you need to read no farther to have a fair prediction of my opinions, it perhaps tells us both the consistency of what you have been hearing from wildlife biologists. The basics of what I have to say are, I am sure, very familiar to you. Hopefully in total and woven together, what I have to say might be new enough to be helpful.

Chronic Wasting Disease has followed widespread deer farming in almost every case. This industry has a long and very clearly linked problem with CWD; and once the disease escapes into the wild population, it cannot be eradicated. Human health issues are not completely known and are not fully predictable. The contagion may not be dangerous to humans now, but it also may have the ability to adapt as time goes along. Past histories with this phenomena are of little use in a pathology that appears to be dynamic.

As you well know, CWD is a neuralgic disease caused by a tiny set of proteins called prions – and they are nearly indestructible in- and out-of-vitro. They invade the brain and kill the animal. A deer dead beside the road can rot and a year later the prions will be viable in the soil.

In my opinion, deer will eventually escape pens or have direct contact with the wild population through the fences. Dangerous snakes escape zoos – deer will eventually escape pens. And perhaps they will carry CWD with them. Unfortunately, we will not be able to say "oops, bad thing, didn't see that coming . . . let's not farm anymore." It will be too late. CWD will be embedded in a massive wild herd.

More to the point, it is the contagion we hope to contain. Prions are free agents so far as we know. We do not know how effective they will be in finding a host and hitching a ride. The questions are very basic and answers are not known and risky to test. Can they leave the pen on someone's shoes? Can prions leave in the belly of an opossum that snacked on deer backbones? Indeed, if they get in the soil, can they escape in a dust devil?

Deer farming has been roundly condemned by every credible biologist in the State based on its connection to CWD and other diseases. Its introduction might be a kudzu-ien decision, a conscious choice to take a calculated chance, a throw of the dice where odds appear to be stacked against the idea.

In the current legislation, there is no detailed plan to contain the disease if it is loosed, even though I have heard of the establishment of superfunds and stiff fines for those responsible. That is much beside the point. Superfunds and fines would have done little to stem the 1918 flu pandemic and the transmissible mechanisms are much the same: once the disease is let loose in the herd, it will spread and once loose, any efforts to exterminate the deer herd are much akin to killing all the mice in Memphis.

There are no credible plans in place to control failure.

In this manner, the legislation is incomplete. And, if it is made complete, if indeed contingency plans are built in, with all previous efforts Nation-wide proven to be ineffective and very expensive, then the legislation is not responsible because it acknowledges that catastrophe is possible, but control is no more promising than has been demonstrated elsewhere.

We know so little about CWD that it is should frighten us. Certainly, the disease has been historically endemic at some level in western deer herds and people have been exposed at many levels. This is comforting. However, ecological systems change and communicable organisms are dynamic.

At the moment, we do not know if CWD can jump the species barrier into man. Likely, not – at least not now. Maybe never. Conventional wisdom, sloppy thinking at best, might say always never. However, in a January 2011 paper, Barria, et. al. presented findings in the Journal of American Society for Biochemistry and Molecular Biology, Inc. suggesting that CWD prions might adapt and have the potential to infect humans. This is new. This is a warning. This should be decisive.

If a nearly indestructible prion adapts to human populations, if it retains anything like the morbidity demonstrated in deer, and if it should become entrenched through-out an enormous deer herd, then the prion's presence would be clearly ominous and nearly omnipresent.

Let me give an example. Infectious diseases have the tendency of proliferation and convergence. Once CWD spreads and becomes prevalent I can place its prions just about anywhere you want.

Supposing the prion to be nearly indestructible and transmission to be reasonably fluid, then let's imagine a hunter kills an infected but non-symptomatic deer - and the spine was hit, a source teeming with the infectious agent. The disease moves away from its source and toward our victim: 1) as the deer is field dressed spinal fluid gets on the bone-handled knife – 2) after a quick rinse the knife is wiped clean with the kitchen towel, completely ineffectual -3) a kid wipes her face on the towel – 4) the deer carcass is thrown out after home processing – 5) the family dog rolls in the bones, hide and soil 14 weeks later 6) the dog sleeps with the child and likes his share of the pillow.

The prion dispersed and then converged on the child, in fact on her pillow. Now, how do you suspect the father would want you to vote, what he would want you to be sure of before you vote?

There will be horse blinder arguments for increased income streams, and these streams likely are real, but the arguments are incomplete without balancing them against the host of eventualities that must be anticipated. With the nearly universal warning that CWD will eventually follow fenced populations, Kipling's six honest serving men pose hard questions that should be addressed. Thoughtful answers will consider added costs, added regulatory burdens and an eventual balancing of fiscal and philosophical books.

What regulatory mandates will used to monitor meat processing businesses, including the many Mom and Pop enterprises that handle deer meat? If a diseased animal is processed, what assurances are going to be placed where a nearly indestructible prion, one very much apt to endure normal cleaning procedures, is not be passed from animal to animal during processing? What impact will this have on the economy of deer?

Why is the legislation actually on the table? Is it an economic issue or a desire to somehow manufacture freakish deer and placate rich imaginations?

When will CWD impact natural resource enterprising, i.e., the already highly lucrative statewide ability of average, private ownerships to capitalize on land lease arrangements for deer hunting?

How will the average southern hunter react to the presence of CWD? Will it be a slow unfolding where interest in hunting lessens, perhaps across generations? Can we defend killing what we do not eat, even if the reasonable excuse is that we fear to eat it? Will hunters avoid their home State to hunt in States willing to capitalize on a frightened hunting population? Does the free ranging deer herd explode with lessened hunting pressure? Who then will control the population? Do car insurance premiums go up because of increased crashes? Do urban/wildland interface issues suddenly revolve around a swelling deer herd?

Where will the mechanisms be located whereby individuals can have deer tested post harvest to ensure that CWD is not present? Who pays? Who guarantees? Will they be state supported?

Who will carry the load for control? ---and – if control is never entirely possible ---- who will carry the blame? Who will ask for explanations?

There also is the complicated question of whether the practice represents a collapsing ethic among hunters, one that will eventually lead to an erosion of public opinion. I believe it will. This debate, one way and another, even now, probably provides enough hands to begin un-robing a Kingly set of ideals. I dread inspection from non-hunting's cognoscenti.

Among us hunters, this question, unfenced vs free populations, finds itself bound up in traditions and the individuality of experience, expectation and perception. Indeed, what seems to be an "erosion" for one might be progress to another. Yet, progress must be defined as an improvement, an ennobled effort or better-made product and one that has a useful application. Hunting has useful application. In its most pedestrian way, hunting serves as an infusion of money into the state's coffers and as a controlling hand on a deer herd held in mid-explosion.

But hunting also is a trust, a set of intrinsic values, a deeply held ideal of a particular experience. It is an activity that binds the oldest and youngest among us. It is nearly unique in that way and noble for its ability to engage active participation across age groups, with young and old enthusiastic and active on the same field at the same time. Certainly CWD would threaten this if deer herds are imperiled.

Yet, more into the center of the thing, all good deeds carry with them greater expectations. Big deer must be replaced by bigger deer and then bigger still, until the fate of men's expectations can no longer be laid across a buck's rack. Biology will trump eventually and hunting's loss will be the implacable video game's gain, a place where biological reality need never be held in check and something that replaces the camaraderie of woodsmanship, a thing that makes old men vastly missed when they die because they had a chance to share an ancient language, one of tracks and sign, wind and stealth, one that goes back to when campfires danced against cave, tent and cabin walls, times when young eyes shined eager with each new story.

It seems to me that any cheapening of the experience, any creeping insistence that hunting's reasonable expectation of success must be outspent by glittering guarantees, becomes a depreciated currency, as unattractive as shooting a cow always has been and, perhaps, some day deemed worthless by potential hunters and critical non-hunters alike.

I have little experience hunting behind fences. My thoughts and much of my opinion are bound to the wide open spaces, where deer range in the free air of uncertainty. I would rather train up another generation there. I would rather meet the anti-hunter's scrutinies there. Fences overly confine my arguments and improve my chances for a winning stroke not at all. I cannot defend hunting behind fences, or chose not to where deer are treated like cargo and wild populations seemingly dismissed like so much flotsam and jetsam; and when you lose me and folks like me, you lose the guard that meets any low challenge laid against hunting. What men cherish, they protect.

My thoughts are bound to the deepest respect for hunting's finest and oldest traditions, old customs that once produced a genre of literature that was among the best America had to offer. Fence hunting has not produced any such literature. I doubt it ever will. Who will stand in that breach? Who will not just show the money but produce the passion. The public must see us as loving the resource before they will trust us to manage it. Few will love fences,

and all of the good neighbors to this legislation will flee when the real breach comes, if CWD escapes, if people turn against all hunting because they must ask if any of it has been made dangerous to them.

I urge you to look ten years from now. Debate from the future. Debate from what might have been. You must chose the "might have been" that seems best to you.

**Dr. Allan Houston**