Dr. Deer's™ PRESCRIPTION

THE SHELL GAME

By Dr. James C. Kroll, Ph.D.

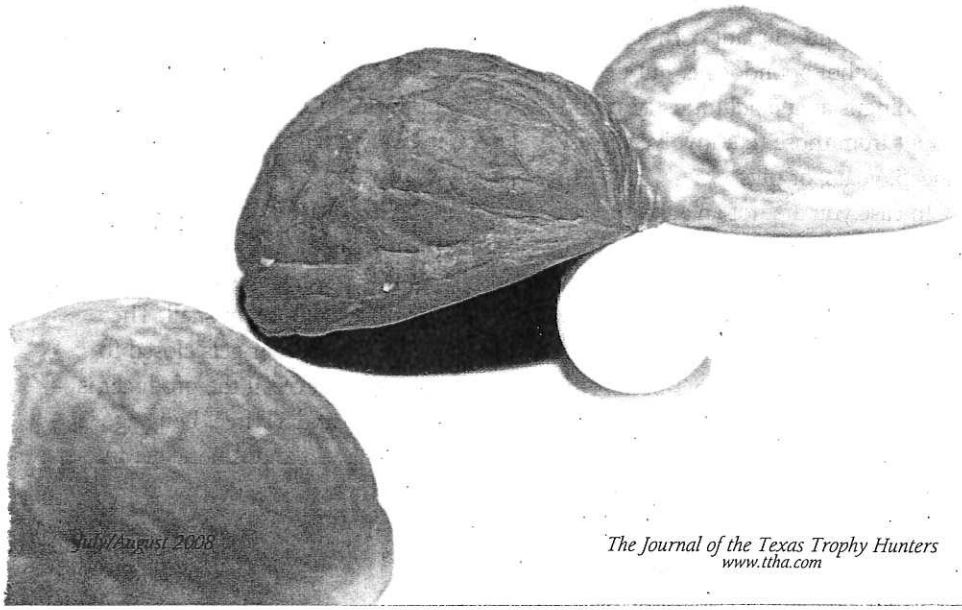
I chose the title of this article very carefully. If you remember how the shell game is played, there are three walnut shells and a single pea. The "dealer" places the pea under one shell, then shuffles them repeatedly. The object is to guess which shell contains the pea. Oddly, you win the first two or three times, until you put down some real money. Then the pea "magically" disappears from the shell where it should reside. The same is true for the facts and issues concerning whitetail diseases such as chronic wasting disease (CWD) and epizootic hemorrhagic disease/blue tongue (EHD/BT).

I have written a lot over the last several months about these deer diseases. Most of my criticism has been aimed at state and federal agencies, yet these folks are not the only ones deserving scrutiny, so let me show you how both agencies and deer breeders play essentially the same games.

When CWD first emerged, it was hailed as the death knell for whitetails and elk. One Wisconsin professor even predicted the year in which whitetails would go extinct in that state. Federal and state agencies quickly used CWD to justify new regulations on everything from deer breeding to fencing to feeding to transportation of carcasses. It was very easy to find the "pea" during the late 1990s. Then things turned sour. The disease did not turn out to be as bad as predicted, and, more importantly, all that hubbub caused a reduction in license sales! Deer breeders quickly began testing animals to meet new regulations, and now there are operators that certify their animals are free from the disease. The "pea" is no longer under the shell.

During mid-winter this year I received one of the most perplexing communications I've had in a long time. It seemed Colorado was soliciting money to *feed* deer and elk—some of it right in the CWD zone! The heavy snow pack and hard winter threatened to kill thousands of deer and elk in Colorado and Wyoming, so the pea magically moved to a new shell, and now it was all right to feed deer.

It was an easy sell to the public. The money flowed, even from the very organizations that had so passionately fought feeding as a management tool. Again, loss of animals was a threat to hunter opportunity and license sales,



so they just switched the pea to the "correct" shell.

In the summer of 2007, one of my "Dr. Deer's Whitetail World" segments on *North American Whitetail Television* was about EHD/BT. In that segment I predicted that, in the near future, these gnat-borne diseases would spread into previously unreported areas in the North. My rationale was related to climate change, and whether you believe man has caused it, the climate *has* changed in the last two decades. Some say we already are heading back into cooler times, but that did not help the approximately three million deer that died of EHD/BT over the last year. And my prediction came true, almost immediately.

The other factor leading to my prediction was the continued increase in deer populations across the species' range (and, though it's a little known fact, the virus first was reported in New Jersey in the 1950s, so it has occurred in the North). EHD and BT are diseases caused by Orbivirus, which is carried by gnats. Traditionally these diseases occurred in late summer through early fall, since that's the time gnats emerge from mud to seek hosts. There are two serotypes of EHD virus (serotypes 1 and 2) and five serotypes of BT virus (serotypes 2, 10, 11, 13, and 17) that affect deer (this is important later). The disease is cyclical in many areas, spreading quickly across a geographic area in five- to seven-year cycles. The serotype changes with infections, some occurring more frequently than others.

I have been on a tirade for many years about mismanagement of deer. Under a "hunter opportunity" model, there is little interest in controlling populations, only increasing the kill. So, when you combine large numbers of deer with warm weather conditions, it's not hard to see where I came up with my prediction. What has been interesting, however, is the reaction of both agencies and deer breeders to this disease.

In spite of massive losses, most agencies responded in a ho-hum manner. The most common quote from a DNR was, "We have lost deer to EHD/BT, but this is normal." Losses were viewed as insignificant—yet the dozens of phone calls I received from Indiana, Ohio, Kentucky, and even Wisconsin indicated otherwise. States like Wisconsin, had learned a valuable lesson from the CWD debacle—don't scare the public, it loses license fees! Again, the pea disappears from the right shell.

tution to prevent that. Yet states and the federal government have increasingly used the interstate commerce clause to meddle in our business. Even when you can legitimately take the view that control of disease is necessary, that isn't the case here. It's plain to see that state and federal agencies and the opponents of private deer manage-

To protect their businesses, some Texas producers are telling folks "red" deer (northern races) will die and "gray" deer (native) are resistant to EHD/BT. Fact is, there is no such thing as a deer resistant to all forms of EHD/BT.—*Dr. James C. Kroll, Ph.D.*

At this point, you may be saying, "Wait a minute, I thought you said you were not going to bash agencies!" Well, here's the balance. Deer breeding is a *huge* industry in Texas, and in many other states, too, and I have done my share of making this happen. It saves undeveloped land and the family farm. Small landowners are less tempted to plow under CRP (Conservation Reserve Program) land to plant corn for the ill-fated alcohol boondoggle. But deer breeding is an *animal* industry, no different from those that involve cows, sheep, goats, or pigs.

In case you are not an agriculturist, the government has increasingly regulated most animal industries, primarily to control foreign diseases. There's even a proposed regulation circling round to track a calf from birth to T-bone. Now, I don't like government intervention in our lives any more than the next guy. Our founding fathers set up the Constiment have used disease issues to beat up landowners. They simply do not like anyone but them having control—the pea moves around a lot! And yet it's those same operators who fight against regulations who often use the same tactics to monopolize business intrastate. Here's the best example.

Deer farmers probably are the most regulated animal producers in this country. They have to test (depending on the state), for everything from CWD to Tb to brucellosis (something rarely seen in deer). I tell the folks I work with it's just the cost of doing business. Yet all the hollering stops when the issue of bringing deer or even semen from another state comes up. Suddenly, the pea's under a different shell. The result is a state's border gets closed to deer movement, even if the producer is certified CWD and Tb free. Long ago, I saw Saskatchewan and Alberta get into a fight over this very issue, and some

years later, raising whitetails is no longer profitable in these provinces.

Perhaps the most onerous issue is EHD/BT. To protect their businesses, some Texas producers are telling folks "red" deer (northern races) will die and "gray" deer (native) are resistant to EHD/BT. You really have to watch the shells on this one! Fact is, *there is no such thing as a deer resistant to all forms of EHD/BT*. In some geographic areas, deer tend to be exposed repetitively to one of more of the serotypes, but let two years go by without exposure or have a rare strain come through the area, and just as many deer die no matter what race of deer you have (remember what I said earlier about serotypes changing).

Over the last two years we have lost many deer here in Texas—both in pens and pastures—to these diseases. The folks who proclaimed to have immune deer lost a lot of animals, as well. But when asked about it, I most commonly was told the animals they lost "hit the fence" or died of something else, i.e., the shell game. So, let me arm you with the facts.

Yes, some areas do tend to have deer that have survived exposure to the diseases. But they are immune to only a few strains. And, yes, if you bring a northern deer down to Texas, a high percentage are likely to die. But, "northern" depends on the state. The distribution of the diseases is crescent-shaped, extending from Maryland through southern Tennessee, across Missouri, northward into Montana, and even up to Saskatchewan (Kansas deer seem to be resistant to some of the strains).

In Texas pens and pastures, a portion of deer contract one form of the diseases or another almost every year. This keeps up resistance. If you remember, immunization against viruses requires periodic boosters. So a deer surviving EHD, for example, will retain immunity for up to two years. Conversely, a herd without *any* serotype for longer than two years is *very* susceptible to infection and losses. So you actually *want* some EHD/BT in your herd every year, even though it means you'll lose some deer to save the rest.

The last pea relates to vaccines. Several operators claim to have developed and/or used a vaccine and their deer have been "immunized." Watch this one! In order to develop a legal vaccine, I am told two things by the folks who do such things. First, it would cost about $1 million to do so, and second, the serum would have to represent all serotypes to be effective. *No one to date has produced such a vaccine* (and if they had, it's sale and use probably would be illegal). All commercial vaccines have to be approved by the government for use.

So you see deer diseases *are* a real problem, but a lot of folks with agendas use misinformation to achieve their goal. On the one side, agencies and academicians distort the facts (or make them up) to attack private deer management. On the other, the private managers and deer breeders use the same tactics to achieve their own goals. As a colleague once said, "Many a beautiful theory has been murdered by a ruthless gang of facts!" Watch the shells carefully, and gather your facts from reliable sources.