

## **Aflatoxin and White-Tailed Deer**

*SCWDS Briefs*, January 1994, 9.4

As reported in the last issue of the SCWDS BRIEFS (Vol. 9, No. 3), concerns have been voiced about the exposure of wildlife to high levels of aflatoxin in contaminated corn. SCWDS subsequently conducted a small-scale survey to determine aflatoxin levels in field samples of corn used to feed wildlife and an experimental study to evaluate the possible effects of aflatoxin on white-tailed deer.

Wildlife biologists from North Carolina and South Carolina submitted 38 samples of corn from bait piles, storage bins, and fields. These samples were tested by the Athens Veterinary Diagnostic Laboratory at The University of Georgia's College of Veterinary Medicine. Aflatoxin levels in 18 of the 38 samples ranged from 22 to 750 parts per billion (ppb). The remaining samples contained less than the 20 ppb limit set for interstate marketing of grain products.

Using information derived from the field survey of corn samples, a feeding trial of captive white-tailed deer fawns was begun in late November. One group of young deer was fed a ration containing approximately 800 ppb of aflatoxin, while a control group received the same ration without aflatoxin. Parameters of liver and immune function were monitored, as were feed consumption and weight gain. The fawns were examined grossly and microscopically at the conclusion of the trial. Final results are pending and should provide information regarding the effects of chronic exposure of white-tailed deer to high aflatoxin levels. With this information, better recommendations can be made concerning acceptable and unacceptable aflatoxin levels in grains available to deer.