

Georgia Chronic Wasting Disease Risk-Based Surveillance Plan

Ga DNR uses a risk-based weighted surveillance plan to monitor for the presence of CWD in Georgia and increase probability of early detection. Surveillance is focused geographically where the greatest introduction risks are located and in demographic classes in which the disease is most likely to be detected on a per county basis. A statewide quota of 3,500 points was determined by calculating the number of samples needed to allow detection of at least one case of CWD with 95% confidence if the prevalence in yearling males is 1%. The 3,500 sampling points are distributed proportionately based on risk by county. The higher the perceived risk for a county, the higher the point quota for that county. Risk factors include presence and activities of taxidermists and meat processors, presence and activities of cervid facilities, neighboring state conditions, and estimated population. Sampling points are assigned based on age class and sex. Since adult males are more likely to have CWD than females or younger males their samples are more valuable and therefore given a higher weight or point value (adult males = 3, adult females = 1.5, yearling males = 1, and yearling females = 1). Fawns are excluded from the point tally because of the low probability of disease detection. The point quotas per county can be filled by any source of white-tailed deer (hunter harvest, clinically ill, vehicle collisions, sharpshooting, and found dead) and by any combination of age/sex samples. Samples are entered into Survey123 (online database) that gives daily updates for sampling effort and point tallies per county.

Risk-based Surveillance

- Focus sampling efforts geographically where the greatest introduction risks are present.
- Focus sampling efforts in white-tailed deer demographic classes in which the disease is most likely to be detected.

Statewide Point Quota

- A statewide quota of 3,500 points was determined by calculating the number of samples needed to allow detection of at least one case of CWD with 95% confidence if the prevalence in yearling males is 1%.
- Point values vary depending on age and sex.
 - Adult Male – ≥ 2.5 years old = 3 points
 - Adult Female – ≥ 2.5 years old = 1.5 points
 - Yearling Male = 1 point
 - Yearling Female = 1 point
 - Fawns are excluded from the point tally.
 - Unknown age and sex samples are excluded from point tally.
- Points do not vary by sample source.
 - Hunter harvest
 - Vehicle collision
 - Found dead

- Sharpshooting
- Reported abnormal

County Point Quota

The 3,500 points are distributed proportionately based on risk by county.

- Hazard Risk Score – 2/3 of point total (2,500)
 - Presence and activities of meat processors and taxidermists
 - Presence and activities of cervid facilities
 - Detection of CWD and activities of states adjacent to border counties
- Demographic Score – 1/3 of point total (1,000)
 - Balance sampling effort with sample availability
 - Higher probability of spread and transmission in areas with higher density, so these areas should be sampled more intensively.

Sampling

- Point quotas per county can be filled by any source of white-tailed deer and any combination of age/sex classification.
- Samples are entered into Survey 123
 - Daily updates for sampling effort and point tallies per county.
 - Allows field staff to track progress and shift sampling focus as needed during hunting season.