

**Survey of Kentucky 2021-2022 Deer Hunters
about
Chronic Wasting Disease (CWD)**

March 2023

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Executive Summary

Kentucky Department of Fish and Wildlife Resources (KDFWR) conducted a survey of deer hunters during fall 2022 regarding their awareness of and attitudes about Chronic Wasting Disease (CWD). The primary goal of this survey was to identify hunter attitudes towards 1) current CWD surveillance efforts in response to two detections of CWD in Henry and Weakley counties in northwestern Tennessee in 2021, and 2) potential future deer management actions if CWD were to be detected in Kentucky. KDFWR also gained a better understanding of Kentucky deer hunters' current knowledge about CWD as well as their 2021-22 deer hunting experiences within the CWD Surveillance Zone.

A majority of hunters reported harvesting as many deer as they wanted within the CWD Surveillance Zone; hunters' main barriers to reaching the desired harvest goal were limited time to hunt and not seeing a desirable buck. More than half of hunters processed their own deer and about a fourth used a deer processor. A small percentage of hunters anticipated hunting less in the CWD Surveillance Zone because of the surveillance protocols such as CWD check stations or because of concerns about potentially consuming deer with CWD.

Management actions most preferred by hunters following a detection of CWD in Kentucky would be: increasing bag limits; requiring proper disposal of unused carcass parts; and expansion of the modern gun season.

Methods

Kentucky Department of Fish and Wildlife Resources (KDFWR) fielded the online survey from 12 October to 15 December 2022. We e-mailed invitations followed by two reminders to complete the online survey questionnaire (using SurveyMonkey® software with ResearchNet® branding) to 6,956 deer hunters with email addresses on file (6,787 were deliverable) who, during the 2021-2022 Kentucky deer hunting season, either harvested and checked in a deer, purchased a deer permit, or resided within, the 5-county CWD Surveillance Zone (Calloway, Fulton, Graves, Hickman, and Marshall counties).

Results

We received a total of 1,694 responses, yielding a 25% overall response rate, though rates of responses to particular questions varied considerably. The majority of these respondents were white males above the age of 39 who resided in rural areas of Calloway, Marshall, and Graves counties. Ninety-five percent (95%) of these individuals hunted in Kentucky at least once during the past 5 years. Eighty-one percent (81%) of respondents hunted deer in the 5-county CWD Surveillance Zone during the previous (2021-2022) deer season and 82% already hunted or planned to hunt during the 2022-2023 season in the CWD Surveillance Zone. During the 2021-2022 season, 36% of respondents did not harvest a deer, 40% harvested 1 deer, 14% harvested 2, 6% harvested 3, and 4% harvested either 4 or 5 deer apiece. Five respondents harvested 6 deer each (0.6% of total responses), and two hunters reported harvesting 7 and 8 deer, respectively, during the season.

Most hunters (56%) indicated that they were able to harvest as many deer as they wanted in the 5-county Surveillance Zone. For those unable to harvest their targeted number of deer, the largest barriers reported were limited time to hunt (63%) and waiting for an older or particular buck (48%). Other, less common barriers included not enough places with permission to hunt (35%), too restrictive of an antlered deer limit (33%), too long of turnaround time for CWD test results (28.5%), only having interest in harvesting bucks (28%), and deer processing being too costly (28%). Of the 122 comments provided in response to this question, 63 (7%)

stated that the baiting ban restricted their ability to harvest more deer and 18 (2%) mentioned that mandatory check stations or other CWD Surveillance Zone requirements deterred them from harvesting more. For most of these survey questions, respondents were able to select multiple options, so total responses may exceed 100%.

Were any of the following a barrier to your harvesting more deer in these 5 counties last season?	NUMBER OF RESPONSES (PERCENT OF RESPONSES)			
	Not at all a Barrier	Somewhat of a Barrier	Very much a Barrier	TOTAL RESPONSES
Antlered deer limit (1) too restrictive	595 (66.8%)	169 (19.0%)	127 (14.3%)	891
I do not have enough places with permission to hunt	578 (64.9%)	194 (21.8%)	119 (13.4%)	891
My hunting club's rules prohibit me from harvesting more	865 (98.1%)	11 (1.3%)	6 (0.7%)	882
I have no use for more deer meat	781 (87.8%)	75 (8.4%)	34 (3.8%)	890
There were no deer meat processors nearby	811 (91.3%)	58 (6.53%)	19 (2.1%)	888
Price of meat processing was too high	644 (72.4%)	187 (21.0%)	59 (6.6%)	890
I did not have enough freezer space to store more meat	732 (82.3%)	124 (13.9%)	34 (3.8%)	890
I was unaware of ways to donate deer meat I did not want	783 (88.3%)	79 (8.9%)	25 (2.8%)	887
I was only interested in harvesting bucks	644 (72.1%)	156 (17.5%)	93 (10.4%)	893
I was waiting on an older or particular buck	461 (51.6%)	236 (26.4%)	197 (22.0%)	894
I was fearful of handling or eating deer from the area	817 (91.8%)	57 (6.4%)	16 (1.8%)	890
I was worried about the risk of paying processing fee for a deer that could test positive for CWD	730 (82.2%)	107 (12.1%)	51 (5.8%)	888
Turnaround time for learning about CWD test results is too long	635 (71.5%)	175 (19.7%)	78 (8.8%)	888
Lack of convenient means to dispose of unwanted deer parts	765 (86.0%)	83 (9.3%)	42 (4.7%)	890
I have a limited amount of time to hunt	327 (36.6%)	370 (41.4%)	196 (22.0%)	893
Bad weather	754 (85.7%)	107 (12.2%)	19 (2.2%)	880

We asked hunters what they did with their deer after harvest. Most (64%) hunters processed their own deer. Slightly more than 27% reported taking their deer to a processor or butcher and 4% donated their deer before processing. Most other hunters (3.7%) indicated that they had their deer partially processed by a butcher (e.g., for sausage or jerky).

Hunters were asked about their projected future hunting activity and 68% stated that they expected to spend about the same amount of time deer hunting next season as they did this season, whereas 18% expected to hunt more and 14% anticipated hunting less. These hunters determined which factors from a pre-selected list would motivate them to harvest more deer in the CWD Surveillance Zone. These factors included a longer modern gun season (46%), allowing modern guns to be used from early muzzleloader season through the end of the season (36%), and a longer overall deer season (28%). Hunters were allowed to write in additional factors that would motivate them. Nearly 36% of these write-in responses (5% of hunters who answered this question) stated that removal of the baiting ban would be a motivator. About one-tenth (9.5%) of write-in responses (1% of all survey respondents) indicated that an earn-a-buck opportunity would motivate them to harvest more deer. We followed up this question by asking hunters whether they supported or opposed allowing hunters to earn a second buck in the CWD Surveillance Zone after harvesting at least 2 does first; nearly half (48%) supported this concept, whereas 30% were opposed and 22% neither supported nor opposed the idea.

Which of the following would motivate you to harvest more deer in these 5 counties? (Please select all that apply)*	NUMBER OF RESPONSES	PERCENT OF RESPONSES
Provide a longer modern gun season	410	46.3%
Allow the use of modern guns from early muzzleloader season (mid-October) through the end of deer season (mid-January)	316	35.7%
Extend the overall deer season length	250	28.3%
Receive a voucher for free processing if a deer you paid to have processed tests positive for CWD	237	26.8%
None of these - I intend to harvest about the same number of deer regardless	237	26.9%
Higher buck bag limit	198	22.4%
Shorter time for CWD test results	188	21.2%
Allow a replacement deer policy that rolls over into the next season if your deer tests positive for CWD	188	21.2%
More availability of options to donate deer at no cost	175	19.8%
An incentive like a collector's item or gift for helping with CWD prevention or control	167	18.9%
Open deer season in CWD Surveillance Zone counties when it is closed in the rest of the state	164	18.5%
Options available for carcass disposal	144	16.3%
Other	127	14.4%
Shorten the overall hunting season to increase participation while it is open	19	2.15%

*Sorted by most frequent response

We asked hunters to indicate the reasons for wanting to hunt in the CWD Surveillance Zone during the next hunting season. The greatest motivation was access to hunting property (68%). Other popular answers were that they do not mind going through the process for getting their deer tested (43%), that they have no concerns about eating harvested deer in the CWD Surveillance Zone (37%), and that they want to help reduce deer densities to help control CWD if it were to be found in the Surveillance Zone (27%).

We also asked hunters why they did not hunt deer in the CWD Surveillance Zone during the 2021-22 season. The most frequently cited reason was living or hunting in a county outside the CWD Surveillance Zone (44%). The same percentage of hunters (44%) indicated that neither CWD presence in Tennessee nor Kentucky's surveillance efforts affected their decision about where to hunt. About one-tenth (11%) of respondents responded that the CWD testing process was too much trouble and thus resulted in their not hunting in the 5-county zone.

Which of the following best describes your reason(s) for wanting to hunt in the 5-county CWD Surveillance Zone during the 2022-23 deer season? (Check all that apply.)*	NUMBER OF RESPONSES	PERCENT OF RESPONSES
My only hunting access is in the CWD Surveillance zone	625	67.6%
I don't mind going through the process to have my deer tested for CWD	396	42.8%
I have no concerns about eating what I harvest so the CWD case nearby in Tennessee is not a concern	345	37.3%
I want to help reduce the deer density and help control CWD if it is ever found in the Surveillance Zone	248	26.8%
I don't think CWD will spread to Kentucky this year	175	18.9%
I am more likely to harvest a trophy/quality buck in these counties	171	18.5%
I can meet the carcass transportation restrictions by de-boning or using a processor	155	16.8%
Carcass transportation restrictions do not apply to my hunting circumstances	149	16.1%
Other	88	9.5%
The turnaround time for CWD testing results is satisfactory	87	9.4%

*Sorted by most frequent response

During modern gun season (November 13-29), KDFWR required deer harvested in the CWD Surveillance Zone to be checked in at CWD check stations scattered across the 5 counties. At these check stations, KDFWR staff asked hunters about harvest locations to better understand hunting patterns across the CWD Surveillance Zone and to help improve surveillance efforts if possible. Hunters were asked to identify either the nearest landmark, intersection of roads, or one-mile square grid where they harvested their deer. We asked hunters about their willingness to share location information with the agency. More than half (56%) of respondents were willing to share the location within a one-mile grid in which they hunted, and nearly a third (29%) indicated their willingness to share the nearest town or intersection of roads. Only 15% of hunters were unwilling to share their harvest location at either level.

For hunters who plan to hunt again in the CWD Surveillance Zone, the most common reason was because that is where their only hunting access resides (68%). The second and

third most common reasons were that the hunter did not mind going through the process to have their deer tested for CWD (43%) and they do not have concerns about consuming deer in this area (37%). The least common reason given for planning to hunt in CWD Surveillance Zone in the upcoming year is because the turnaround time for CWD test results was satisfactory (9%). Ultimately, 44% of respondents indicated that neither the nearby presence of CWD in Tennessee nor Kentucky’s surveillance efforts affected their decision about where to hunt.

The survey included additional questions that allowed us to better understand hunter habits in the CWD Surveillance Zone. When asked what type of deer urine products, if any, were used to attract deer, 77% of hunters responded that they did not use urine as a lure for deer. Thirteen percent (13%) indicated that they used natural deer urine products. Nine percent (9%) used synthetic products and 4% used products of unknown origin. Survey respondents were able to select multiple options, so these responses sum to over 100%. Although baiting is banned in the 5-county Surveillance Zone, we asked hunters if they used bait or feed while hunting this past season. Nearly all (94%) hunters indicated no use of bait or feed during the past hunting season. Just over 1% of hunters indicated that they used bait or feed in the CWD Surveillance Zone. Five percent (5%) of hunters indicated that they used bait and feed while hunting outside of the CWD Surveillance Zone.

For hunters who do not plan to hunt again in the CWD Surveillance Zone, the most common reason was that they do not want to deal with carcass transportation restrictions (11%). The next most frequently cited reasons were that they did not want to hunt in counties where they need to test their deer for CWD before being comfortable consuming it (9.4%), and that the CWD testing process is too much trouble (8.7%). For those hunters who indicated that they will do less hunting altogether in the CWD Surveillance Zone because of CWD concerns, 41% indicated that they will instead hunt deer outside of the CWD Surveillance Zone, 37% stated that they will enjoy other outdoor activities instead, and 16% indicated that they will spend more time at home. The least common responses were that they will hunt other game in the same counties (11%) and that they will hunt deer in other states (11%).

Which of the following best describes your decision to NOT deer hunt in the 5-county CWD Surveillance Zone during this season? Check all that apply:*	NUMBER OF RESPONSES	PERCENT OF RESPONSES
Neither CWD presence nearby in Tennessee nor surveillance in Kentucky are affecting my decision about where to hunt	117	43.98%
Other	116	43.61%
I don't want to deal with carcass transportation restrictions	29	10.90%
I don't want to hunt in counties where I need to test my deer for CWD before I am comfortable consuming the meat	25	9.40%
I think the CWD testing process is too much trouble	23	8.65%
I am concerned about handling or consuming potentially diseased deer	17	6.39%
I don't want to pay for processing a deer that could test positive for CWD	17	6.39%
I will not eat deer from these 5 counties	13	4.89%

*Sorted by most frequent response

To better understand out-of-state cervid hunting habits, KDFWR asked how many deer, elk, moose, or reindeer were harvested and brought back into Kentucky last season. Nearly all (98%) hunters did not bring back any carcasses or parts of carcasses last hunting season. One percent of hunters indicated that they brought one carcass or parts back into Kentucky. Seven respondents (less than 1%) indicated that they brought back 2, 3, or 4 carcasses last year.

KDFWR sought to better understand how willing hunters were to get their deer tested for CWD voluntarily. Outside of the CWD Surveillance Zone, testing of a harvested deer for CWD is entirely voluntary and free. KDFWR provides freezers at [Deer Sample Collection Stations](#) located at 20 sites across Kentucky for hunters to drop off their deer heads to get tested for CWD during the hunting season. Fifty-one percent of hunters indicated that it is not likely that they would voluntarily test their deer harvested outside of the CWD Surveillance Zone. By contrast, twenty-five percent (25%) indicated that it is very likely and 24% indicated that it is somewhat likely that they would get their deer tested.

One of the goals with this survey was to understand how the presence of CWD will affect hunting habits in Kentucky once it is detected in the state. When asked how hunters would change their activities following detection of CWD, nearly three-fourths (72%) of respondents stated that nothing would change for them and they would continue to hunt in their usual location(s). For those that will continue to hunt in the CWD Surveillance Zone, 14% indicated that they will harvest fewer deer in the CWD Surveillance Zone and 9% indicated that they will hunt only for bucks. Thirty percent (30%) of respondents suggested it was somewhat (24%) or very (6%) likely that they would hunt deer in a different Kentucky county. Twenty percent (20%) suggested that it was somewhat (13%) or very (7%) likely that they would hunt in a different state. Relatively few hunters indicated that they would stop hunting deer entirely (4% were somewhat likely and 1% were very likely).

KDFWR asked respondents about concerns they had about hunting deer in states that had detected CWD. The most common concern cited was the health and sustainability of deer populations (67%). The second and third most common concerns were reduced opportunities to deer hunt by future generations of hunters (55%) and reduced opportunities to deer hunt by current hunters (50%). Less than 13% of responders did not have any concerns about hunting deer in states with CWD. Similarly, KDFWR asked how concerned respondents were about the impacts of CWD on Kentucky in the next 5 years. Respondents were most concerned about additional regulations that affected their ability to hunt (49%) and not being able to legally bait deer (36%). Most respondents were not at all concerned with local processors curtailing their working with deer (51%), lack of disposal options for deer carcass parts (47%), and potential negative impacts on the local economy due to decreased hunting participation (47%).

With the discovery of CWD in northwest Tennessee about 8 miles south of Kentucky’s border in 2021, how concerned are you about the impacts of CWD on Kentucky in the next 5 years?	NUMBER OF RESPONSES (PERCENT OF RESPONSES)			
	NOT AT ALL CONCERNED	SOMEWHAT CONCERNED	VERY CONCERNED	TOTAL
Safety of eating deer meat	445 (41.40%)	478 (44.47%)	152 (14.14%)	1075
Deer numbers dropping dramatically	376 (35.17%)	449 (42.00%)	244 (22.83%)	1069

Not having enough mature bucks to hunt	402 (37.61%)	413 (38.63%)	254 (23.76%)	1069
CWD spreading throughout Kentucky	249 (23.23%)	461 (43.00%)	362 (33.77%)	1072
Local processors stop processing deer	545 (51.08%)	350 (32.80%)	172 (16.12%)	1067
Additional regulations affecting my ability to hunt	160 (14.91%)	390 (36.35%)	523 (48.74%)	1073
Lack of disposal options for unwanted Deer parts	499 (46.72%)	397 (37.17%)	172 (16.10%)	1068
Not being able to legally bait deer in CWD zones	396 (36.97%)	293 (27.36%)	382 (35.67%)	1071
Potential negative impacts on other KDFWR natural resource management or programs due to additional funding needed for CWD management	302 (28.33%)	569 (53.38%)	195 (18.29%)	1066
Potential negative impact on local economy due to decrease in hunting participation	502 (46.96%)	408 (38.17%)	159 (14.87%)	1069

In anticipation of the detection of CWD in Kentucky, KDFWR asked hunters which CWD management activities they oppose or support from a provided list. Hunters most supported the options to use regulated hunting seasons with liberal bag limits to reduce deer density by increasing harvest (52%), require unused deer parts to be disposed of according to best management practices (45%), and allow hunters in the Surveillance Zone counties to use guns when other counties are limited to muzzleloader and/or archery (45%). Conversely, the options respondents most opposed were shortening the deer season to increase participation while it is open (75%), banning baiting and feeding of wildlife (58%), and banning the use of attractants made from natural deer urine (49%).

The last objective of this survey was to understand how and where hunters have heard about CWD and KDFWR's CWD surveillance efforts. The most common responses for hearing about CWD were word of mouth from others (60%) and the KDFWR Hunting and Trapping Guide (55%). Other popular outlets included social media sites about hunting (50%), outdoor TV programs besides Kentucky Afield (43%), the KDFWR website (41%), and emails from KDFWR (40%). The least popular outlets included state or national hunting or conservation organizations (15%), local hunting and outdoor clubs or organizations (8%). A small proportion of hunters (2.4%) had not heard of CWD before. When asked about where hunters heard about the CWD Surveillance Zone specifically, we observed a similar pattern of responses. The KDFWR Hunting and Trapping Guide (51%) and word of mouth (51%) were the most frequently cited. The least common information outlets reported were state or national hunting or conservation organizations (5.8%), local hunting our outdoor clubs (4.5%), or "none (3.6% had not heard about the CWD Surveillance Zone).

Conclusion

The overarching goal for this survey was to identify surveillance and management actions for CWD that are acceptable by local Kentucky hunters. Although keeping CWD out of Kentucky and maintaining it at low prevalence rates once it enters the state is important, it is critical for KDFWR to maintain hunters and deer harvest levels in this area. Results indicated that our CWD surveillance efforts in the CWD Surveillance Zone were deemed acceptable by most of the hunters in the CWD Surveillance Zone, and that steps taken by KDFWR have not

deterred most hunters from continuing to hunt in the applicable 5 counties. Preferred management actions following detection of CWD would be increasing bag limits, requiring proper disposal of unused carcass parts, and allowing hunters to use modern guns outside of the traditional modern gun season.

KDFWR appreciates the participation of hunters in this survey and will continue to provide opportunities for feedback, including surveys like this. For any questions or concerns about this survey, please reach out to deer program biologist Tommy Apostolopoulos at tommy.apostolopoulos@ky.gov.