

2025

Missouri Wild Turkey Harvest and Population Status Report



Missouri Department of Conservation
Science Branch



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Population Status

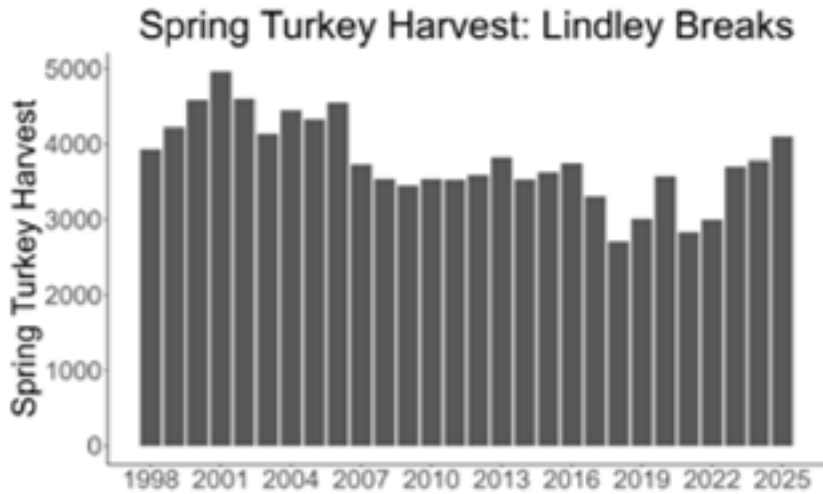
The 2025 spring turkey season in Missouri saw harvest surpass 50,000 for the first time since 2006 and was 6% better than the average harvest since 1998. Harvest per effort measures, a way of standardizing harvest for the amount of time hunters actually spend in the field, were at their lowest level since 2023 and 2004 before that — indicating that hunters needed to spend less time in the field in order to fill their tag(s). Hunter satisfaction was also as high as it has been since the satisfaction question was first asked in 2005. A strong reproduction year in 2023 along with favorable hunting conditions combined to make this a great turkey season in Missouri after several years of lower than average harvest.



Figure 1. Turkey Productivity Regions in Missouri. Regions consist of counties grouped by similar land cover composition.

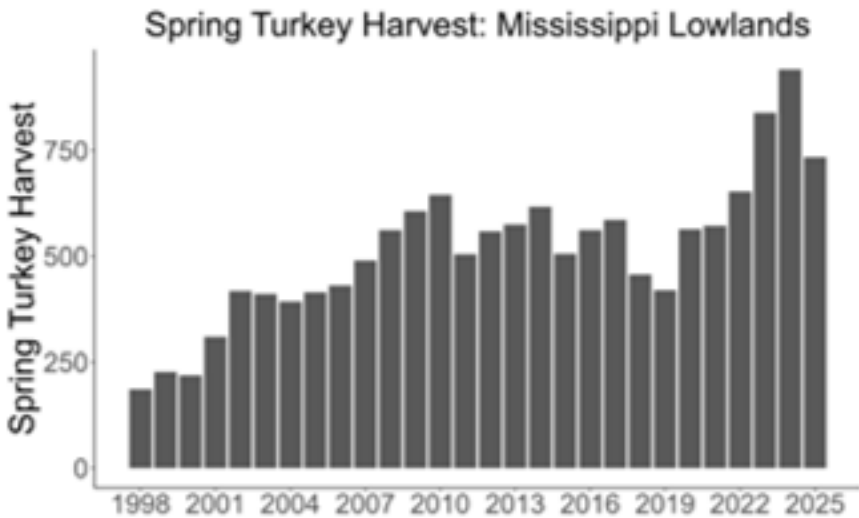
Lindley Breaks Region

Turkey abundance in the Lindley Breaks Region peaked in the early 2000s, then declined about 30% from 2001 to 2009. After stabilizing from 2010 to 2016, abundance dropped sharply again, hitting a low in 2018. Harvest stayed low except in 2020 but has risen steadily over the past five years. In 2025, harvest totaled 4,100 — 8% higher than 2024 and 21% above the five-year average, though 17% below the 2001 peak of 4,961. Both five- and ten-year harvest trends are increasing, with the five-year trend statistically significant



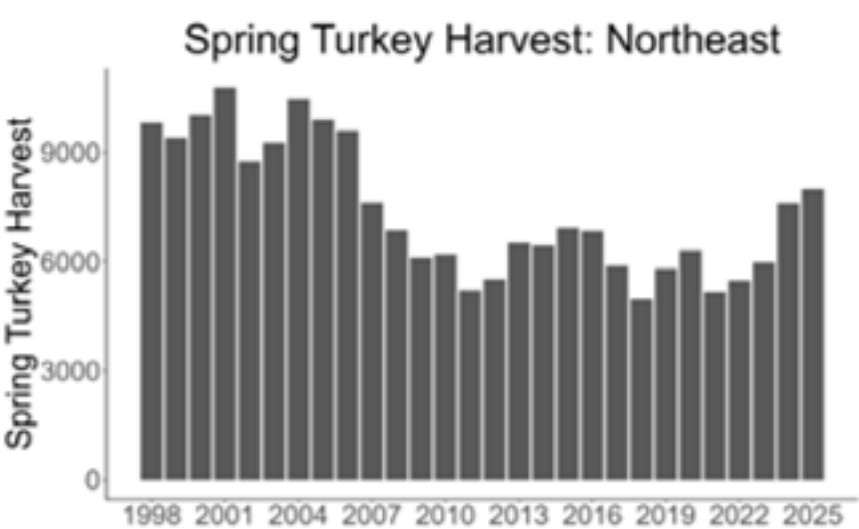
Mississippi Lowlands Region

The turkey population in the Mississippi Lowlands Region has grown during the 2000s but remains low compared to other regions, leading to high annual harvest variability. Both five- and ten-year trends show an increasing population. The 2025 harvest of 734 was the third highest on record, behind 2023 and 2024 (941).



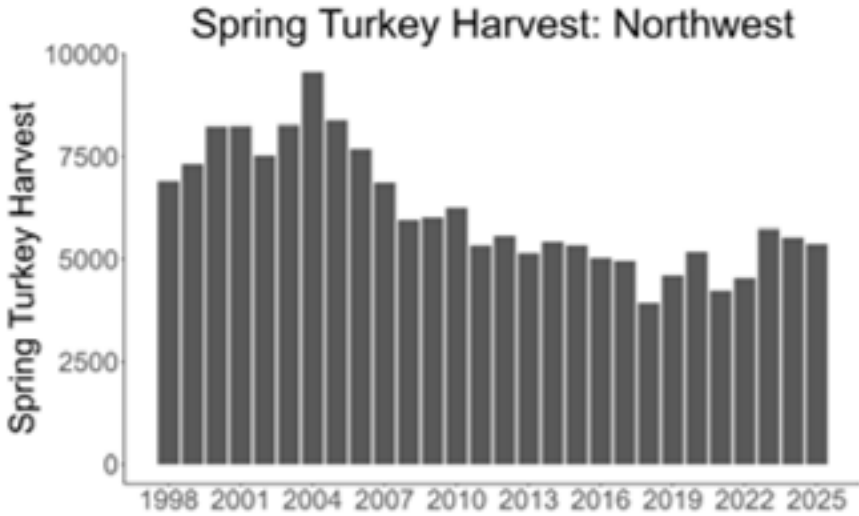
Northeast Region

The Northeast Region faced six years of poor production in the late 2000s, causing a 40% decline in abundance. Improved production in 2011 and 2014 helped stabilize populations. Although harvest dipped from 2016–2018, recent years show recovery. The five-year trend shows a significant harvest increase, while the 10-year trend indicates a positive but not significant rise. In 2025, harvest totaled 7,994 — 5% above 2024 and 31% above the five-year average, but still 26% below the 2001 peak of 10,775.



Northwest Region

The Northwest Region saw a sharp harvest decline in the late 2000s due to poor production, with abundance gradually decreasing from 2008 to 2017 before hitting a low in 2018. While harvest has slightly rebounded, it remains well below early 2000's peaks. In 2025, harvest totaled 5,362 — 3% lower than 2024 but 6% above the 5-year average. Five and 10-year harvest trends suggest a growing population, though 2025 harvest is still 43% below the 2004 peak of 9,551.



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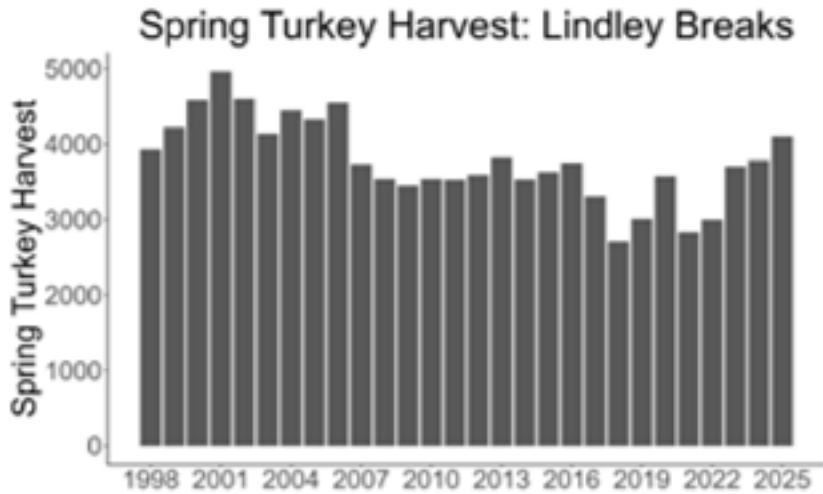
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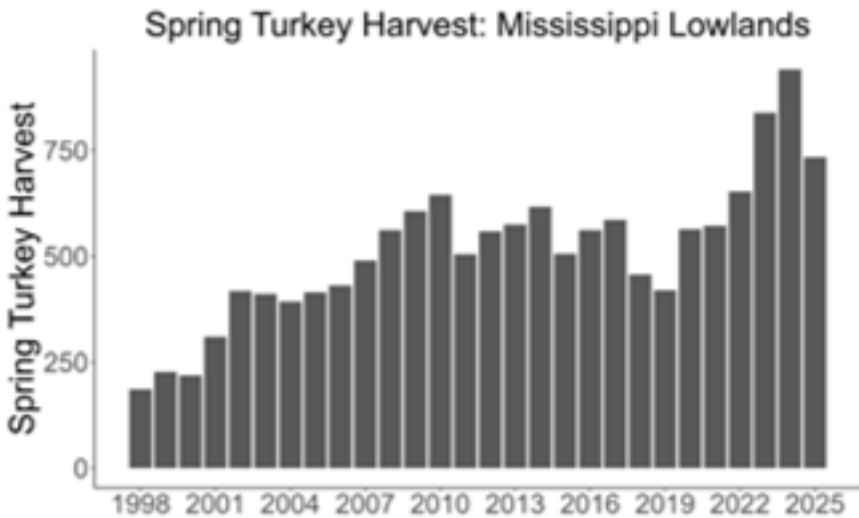
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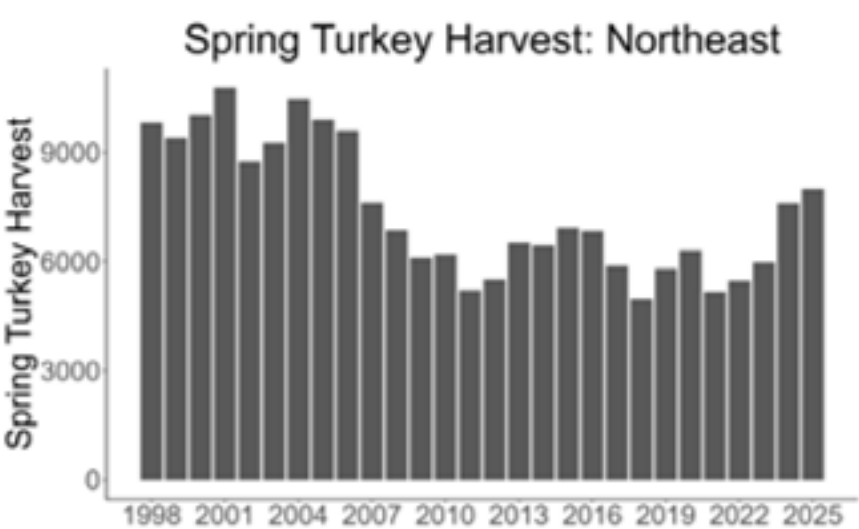
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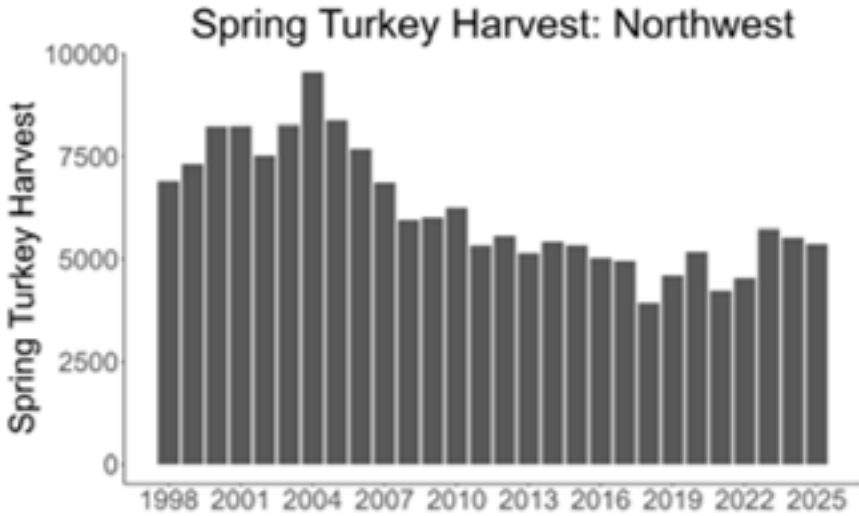
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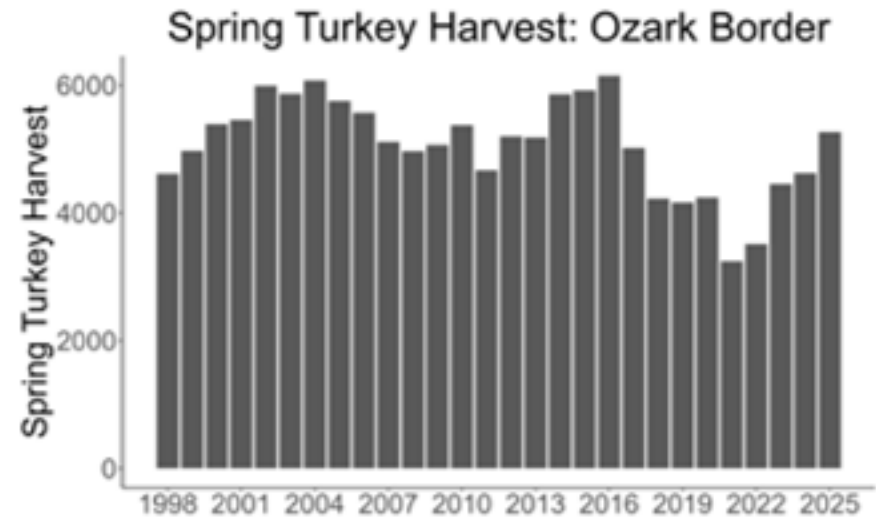
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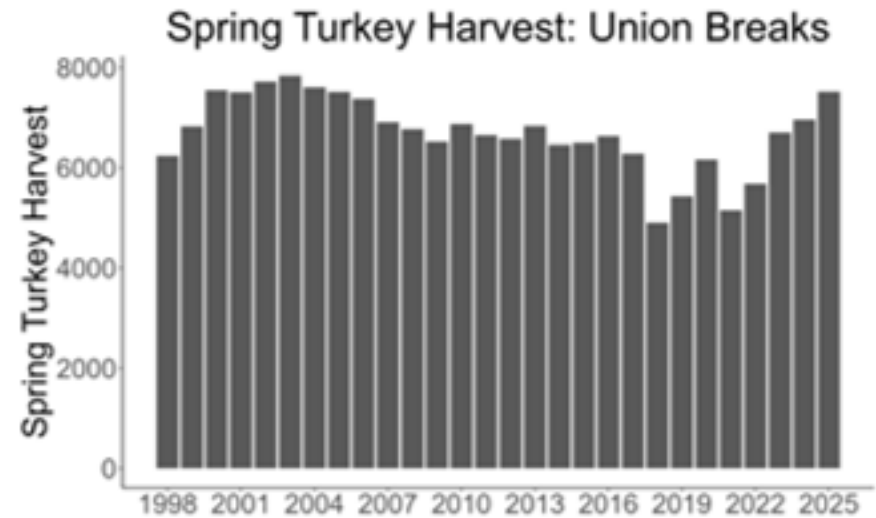
Ozark Border Region

Turkey abundance in the Ozark Border Region peaked in the early 2000s, declined through the mid-to-late 2000s, then stabilized and increased from 2011–2016 before dropping sharply from 2017–2022. The five-year harvest trend shows a significant increase, while the ten-year trend indicates a decline. Harvest in 2025 was 14% higher than 2024, 31% above the five-year average, but 14% below the 2004 peak of 6,076.



Union Breaks Region

Turkey abundance in the Union Breaks Region peaked in the early 2000s and declined more gradually than in other regions. Harvest stabilized from 2008 to 2017, dropped sharply in 2018, then increased in recent years. The five-year trend shows a significant harvest increase, while the ten-year trend also rises but not significantly. Harvest in 2025 was 7,522 — 8% above 2024, 23% above the five-year average, and 44% below the 2003 peak of 7,841.



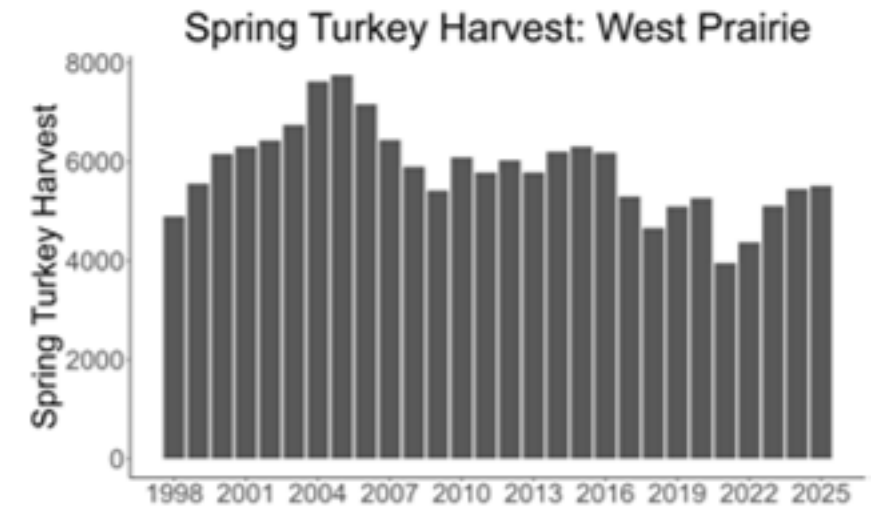
Ozarks East Region

Harvest in the Ozarks East Region declined after its early 2000s peak and again starting in the mid-2010s. Recently, harvest sharply increased, driven by strong 2023 production. The five-year trend shows a significant increase, while the ten-year trend is rising but not significant. Harvest in 2025 was 5,545 — 28% above 2024, 46% above the five-year average, and 11% below the 2003 peak of 6,268. It was the highest harvest since 2003 and the fourth highest since 1998.



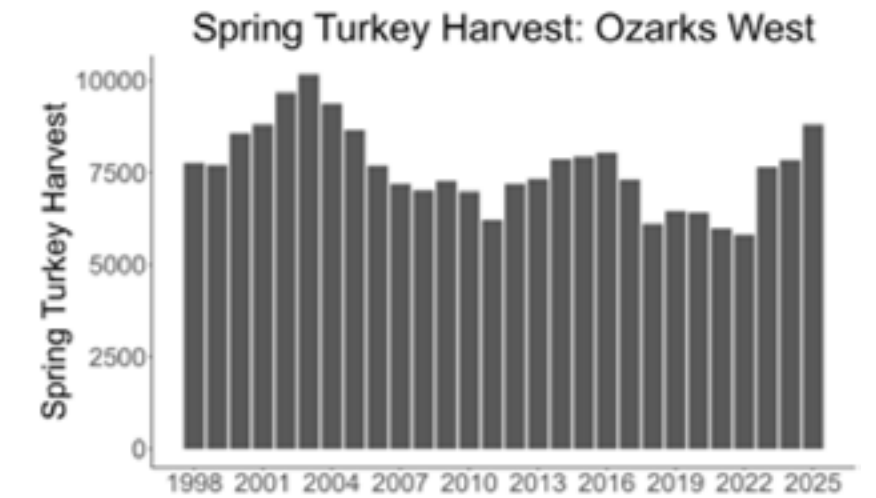
West Prairie Region

The West Prairie Region's turkey population peaked in the early-to-mid 2000s, then declined from 2006–2010 before stabilizing and modestly increasing through 2016. Poor production from 2016 to 2022 caused further harvest declines. The five-year harvest trend shows a significant increase, while the 10-year trend indicates a decline. Harvest in 2025 was 5,515 — 1% higher than 2024, 14% above the five-year average, and 29% below the 2005 peak of 7,755.



Ozarks West Region

Turkey abundance in the Ozarks West Region peaked in the early 2000s, declined through the mid-to-late 2000s, and stabilized from 2011 to 2015. Poor production kept harvest low until improvements in 2023. The five-year trend shows a significant harvest increase, while the 10-year trend is also rising but not statistically significant. Harvest in 2025 was 8,801 — 12% above 2024, 30% above the five-year average, but 13% below the 2003 peak of 10,172.



PRODUCTION – WILD TURKEY BROOD SURVEY

The Missouri Department of Conservation (MDC) has been conducting a Wild Turkey Brood Survey annually since 1959. During the survey, Department staff and citizen volunteers record observations of hens, poults, and gobblers during June, July, and August. Turkey observations are collected at the county-level and analyzed by Turkey Productivity Region (**Figure 1**), which are counties grouped by similar land cover composition. Conservation Department staff determine the percentage of hens observed with and without poults, and the average number of poults per hen for those hens observed with a brood. Observations of hens and poults are used to determine the poult-to-hen ratio (PHR), which is the average number of poults per hen. The PHR includes observations of hens with a brood and those observed without a brood.

In 2024, the Turkey Program adopted methodology developed by the National Wild Turkey Federation’s Technical Committee to filter and analyze brood data. Previously states used their own methods which, while valid at the individual state level, meant that production data could not be compared across state lines. With more states adopting the standardized method, our ability to monitor production at a regional level is much more feasible.

Altogether in 2024, 7,897 brood observations were submitted between June and August. Of those, 3,033 were filtered, resulting in 4,864 total observations analyzed using the standardized brood survey protocol. Of the observations censored from the final analysis, because more than 25% of the turkeys were marked as unknown or didn’t have a hen associated with the brood.

The statewide Poult-to-Hen (or Poult-per-Hen; PPH) ratio was 1.91, compared to 1.03 poults-per-hen as calculated using the historical data filtering method (**Table 1**). The regions with the highest PPH were the MS Lowlands and Northwest regions using both methodologies at 3.66 and 2.16 PPH respectively (**Figure 1; Table 1**). The West Prairie and Ozarks West region had the lowest PPH at 1.61 and 1.62 respectively. You will note that the PHR values from both methods identify areas with lower production and areas with higher production similarly. This is a good indication that both approaches are identifying the true trend.

Statewide production was lower in 2025 than in 2024, but higher than the average production we saw between 2016 and 2022. Production in 2025 looks similar to what was observed in 2021. It is worth noting that in 2023 — when males born in 2021 are two-year old gobblers — we saw a large spike in harvest, indicating that the production in 2021 was more robust than the poult-to-hen ratio would have indicated. While it is too early to be certain, a PHR of 1.9 may be sufficient to maintain current harvest levels. We will need more years of data to know for sure, however, and harvest in 2027 will help to clarify how to interpret the new PHR values.

Table 1. Index (poult-to-hen ratio) of Missouri wild turkey production by Turkey Productivity Region (Figure 1). Data were obtained during the Conservation Department’s Wild Turkey Brood Survey in 2025 with the historical and new standard calculations and are compared to the previous year and the average for periodic intervals.

*Statewide totals include observations where Productivity Region was not recorded on the survey form.

Productivity Region	2025 Standardized Method	1-Year (2024) Change	5-Year (2020-2025) Change	2025 Historical
Lindley Breaks	2.0	-7%	-6%	1.0
MS Lowlands	3.7	143%	-4%	2.3
Northeast	2.1	-15%	-5%	1.2
Northwest	2.2	27%	18%	1.6
Ozark Border	2.0	29%	25%	0.9
Ozarks East	2.1	-27%	-7%	1.3
Ozarks West	1.6	-17%	-24%	0.9
Union Breaks	1.6	-1%	-3%	1.2
West Prairie	1.6	-6%	-9%	1.2
Statewide*	1.9	-2%	2%	1.0

Table 2. Data obtained during the Missouri Department of Conservation’s Wild Turkey Brood Survey, listed by Turkey Productivity Region (Figure 1), 2022.

Productivity Region	% Hens w/ Brood	Average Brood Size	Poult-to-Hen Ratio	Gobbler-to-Hen Ratio
Lindley Breaks	54%	3.5	2.0	0.59
MS Lowlands	64%	5.4	3.7	0.60
Northeast	48%	4.1	2.1	0.68
Northwest	60%	3.8	2.2	0.60
Ozark Border	48%	3.9	2.0	0.54
Ozarks East	49%	4.1	2.1	0.63
Ozarks West	47%	3.5	1.6	0.55
Union Breaks	51%	3.5	1.9	0.50
West Prairie	49%	3.3	1.6	0.57
Statewide*	50%	3.7	1.9	0.57

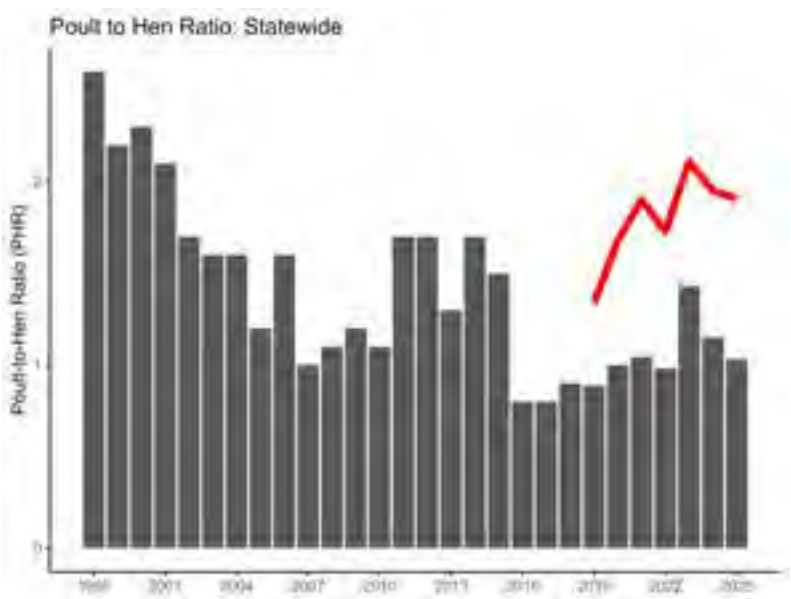


Figure 2. Missouri statewide poult-to-hen ratios derived from the Wild Turkey Brood Survey conducted in June, July, and August, 1998-2025.

HARVEST

2025 Spring Turkey Season

During the 2025 youth spring turkey season, which took place April 12-13, hunters harvested 4,419 turkeys. This harvest total represented a 19% increase from the 2024 youth season and was 51% higher than the previous five-year average youth season harvest total. In 2025, a total of 17,766 youth permits were sold which included 16,694 resident youth and 1,072 non-resident youth permits. The total number of youth permits sold in 2025 was 4.4% greater than the number sold in 2024.

During the 2025 regular spring turkey season, which took place April 21 – May 11, hunters harvested 46,562 turkeys. This harvest total represented a 7% increase from the 2024 regular season. Juvenile male turkeys represented 20% of the regular season harvest, which was 8% higher than the previous five-year average. The total 2025 spring

turkey harvest, including both the youth and regular seasons was 51,011 (**Figure 3**). This harvest total was 8% higher than the 2024 harvest total and 25% higher than the previous five-year average. Harvest was concentrated in the middle of the state, with areas in the northwest, southwest and southeast seeing lower harvest (**Figure 4**).

Total permit sales for the 2025 spring turkey season (109,674; excluding no-cost landowner permits) were 1.9% higher than in 2024 and 4.32% higher than the previous five-year average (**Figure 3**). Spring turkey permit sales in 2025 included 98,716 (90%) resident permits and 11,282 (10%) nonresident permits. An additional 22,560 no-cost permits were distributed to landowners. The total number of unique spring turkey hunters in Missouri in 2025 was 130,184. The number of spring turkey hunters in 2025 was 2% more than in 2024 and 5% greater than the previous five-year average.



Figure 3. Number of wild turkeys harvested during the spring season (youth and regular season) in Missouri and the number of turkey hunting permits sold for the spring season, 1980-2025. Permit sales do not include no-cost landowner permits.

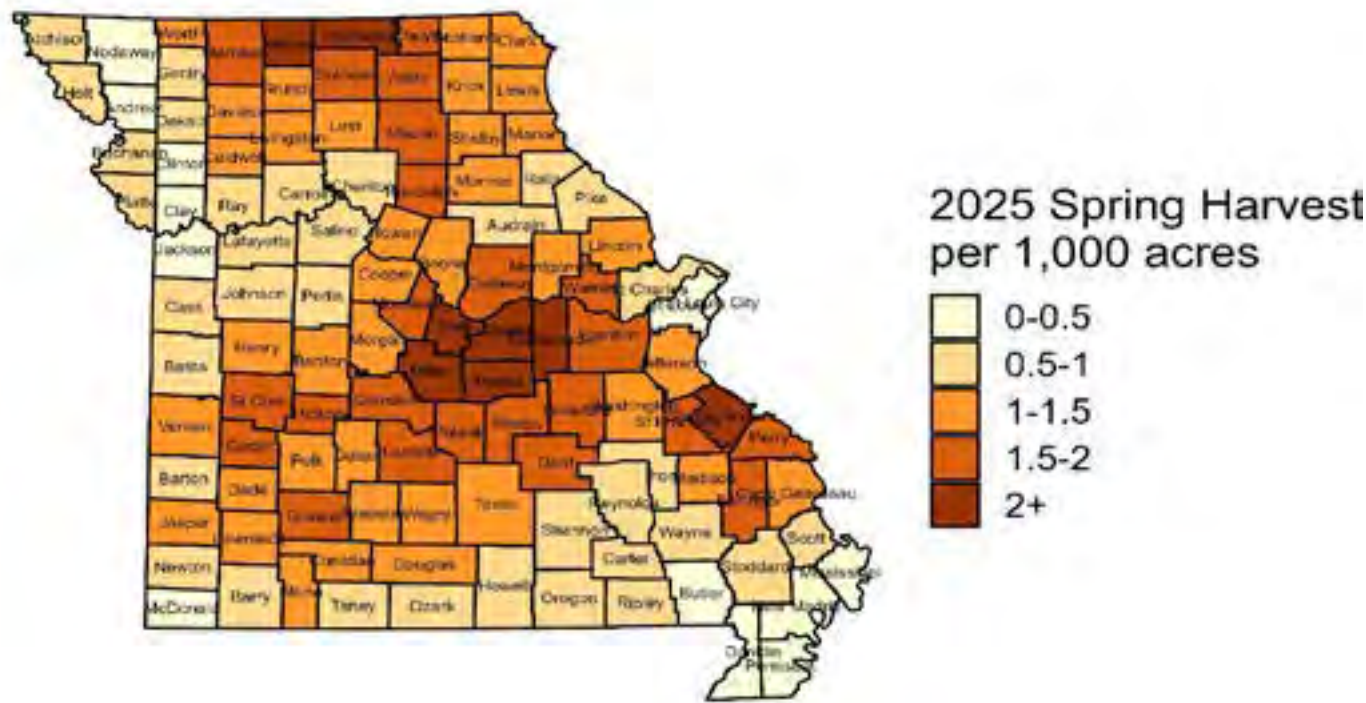


Figure 4. Total (youth and regular season) spring wild turkey harvest in Missouri, 2025.

In 2024, hunters had the opportunity to hunt turkeys on private land until sunset for the first time during the regular spring turkey season. This regulation change was proposed and eventually passed in an effort to address the decline in hunter participation in Missouri. Since the regulation change in 2024, we have seen recruitment and retention metrics increase or stabilize across the board. In particular, we are still seeing a higher than expected youth (hunters 6-17 years old) participation.

Though the increase in participation is widely seen as positive, there has been concern that increased participation and extended hunting hours would lead to increased harvest and pressure on a population that has only recently started to stabilize, or in some regions of the state, increase. The good news is that extended hunting hours does not appear to be resulting in additional, or additive, harvest. When we compare the percentage of the harvest telechecked after 1 PM to years prior to the regulation change, we see about a ten percentage point increase — from 17% of the harvest on average from 2005 to 2023, to 27% of the harvest in 2024 and 26% of the harvest in 2025 (**Figure 5**). Harvest after about 9 AM, on the other hand is lower than in the pre-regulation change years. It appears from the first couple of years that hunters are spending less time in the field during the mid-day and opting, instead, to hunt during the morning or evening.

Using post-season survey data, we can also say that around 1/3 of Missouri hunters chose to hunt during the afternoon at least once during the season. Unsurprisingly, turkey hunting is still a morning pursuit for a large majority of MO's hunters. The uptick in youth participation, in particular, does show that the additional hours of opportunity do have a positive impact for a subset of turkey hunters in MO.



Figure 5. A comparison of the percentage of telechecks per hour between seasons prior to 2024, the 2024 season and the 2025 season. Notably, there was an uptick in telechecks in 2024 and 2025 after 5 p.m. (1700). This corresponds with a decline in the percentage of harvest from about 9 a.m. and 1 p.m. during those same years.

2024 Fall Turkey Season

The structure of the fall turkey season changed in Missouri. Primarily, a new fall turkey hunting permit was developed that comprised separate archery (Sept. 15 to Jan. 15) and firearms (Oct. 1-31) portions. Historically, fall archery hunters purchased archery permits, which entitled those hunters to two deer and two turkey permits. Now, archery hunters must purchase the stand-alone turkey permit. Further, the total bag limit during the fall was previously four birds, two with archery equipment and two with firearms. That was reduced to two total turkeys irrespective of method of harvest.

This change was expected to reduce the number of birds harvested by archery equipment while maintaining the traditional fall firearms season. Due to this change, historical comparisons no longer make sense as the structure of the season has changed so significantly. What is striking, nevertheless, is the precipitous decline in permits sold (Figure. 6). This is entirely a result of the number of archery hunters who did not purchase the turkey permit.

In 2024, 23,707 resident and 610 nonresident fall turkey hunting permits were sold, with an additional 47,587 no cost landowner permits (48 NR landowner permits) were issued. In 2023, 12,716 fall firearms permits were issued. If you compare that to the 23,707 permits sold in 2024, it appears that about 10,000 archery hunters purchased the additional turkey-specific hunting permit. Harvest in 2024 totaled 3,238 birds — 1,861 with firearms and 1,377 with archery equipment. Firearms and archery harvest were 18% and 53% lower in 2024 than in 2023, respectively. Harvest was concentrated in the center of the state, with the addition of Cedar County (Figure. 7). The decline in archery harvest is very likely as direct result of the regulations change with the assumption that the additional birds taken in years past were done so opportunistically. Since much of the fall harvest comprises young-of-the-year birds, and production was lower in 2024 than in 2023, a decline in total harvest was predictable as well.

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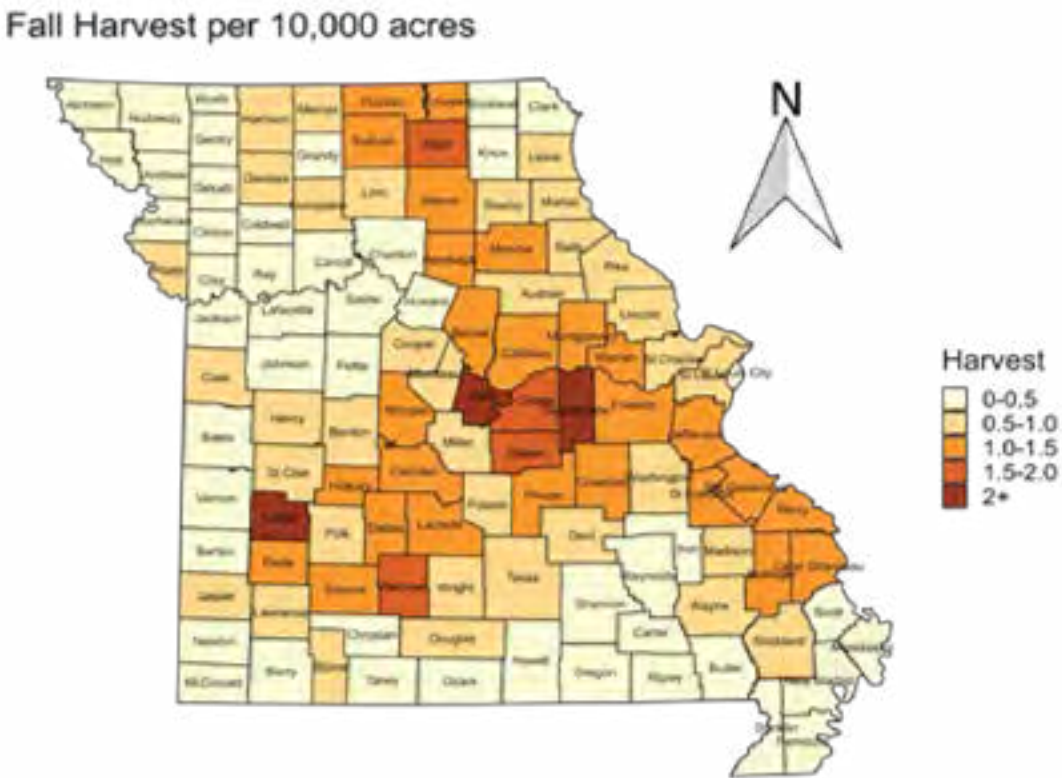


Figure 7. Missouri fall firearms and archery wild turkey harvest per 10,000 acres, 2024.

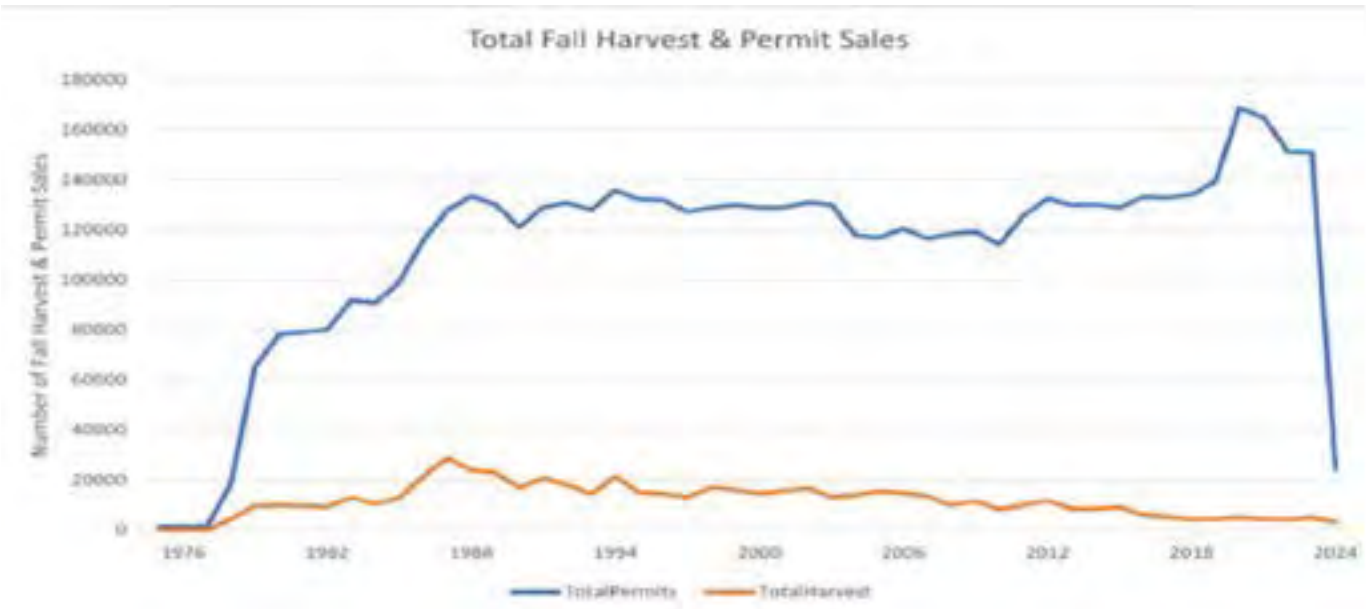


Figure 6. Number of wild turkeys harvested during the fall firearms turkey season in Missouri and the number of fall firearms permits sold, 1978-2024. Permit sales do not include no-cost landowner permits.

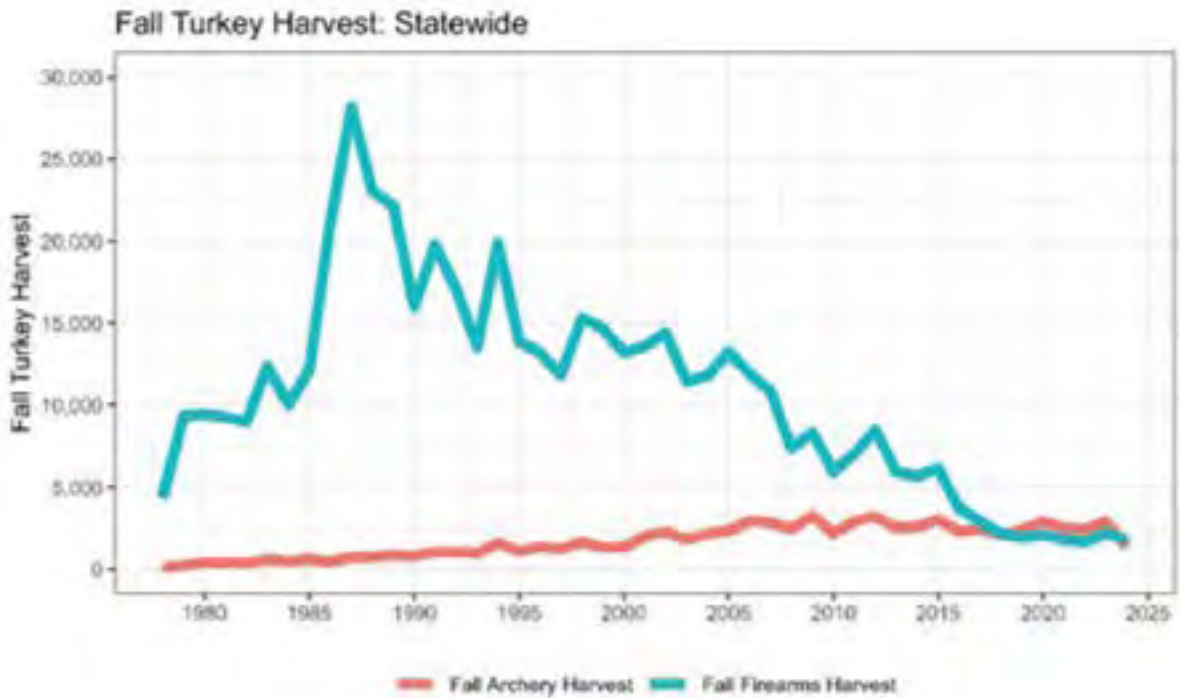
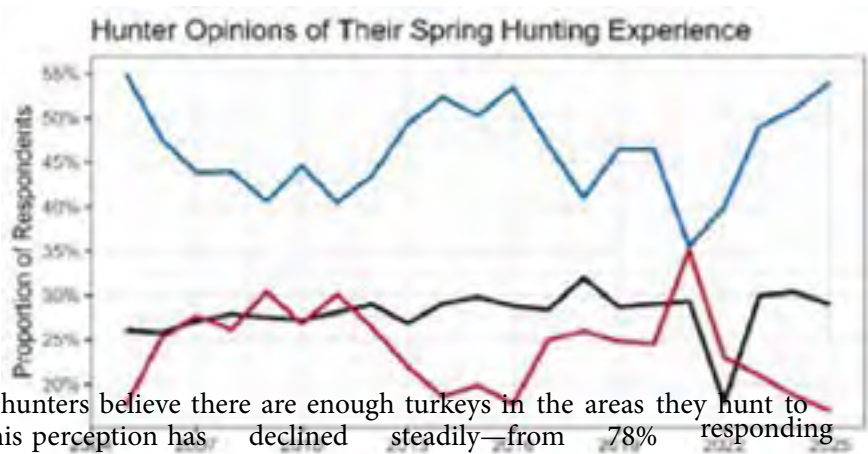


Figure 8. Missouri fall turkey harvest by weapon, from the beginning of fall hunting season, 1975, to fall of 2024

Hunter Perceptions and Satisfaction

Each year, following the spring season, the Missouri Turkey Program sends a post-season survey to a random sample of hunters. This long-running survey tracks hunter satisfaction, gauges responses to past regulation changes, and tests interest in potential future policies. It’s a key tool for understanding how hunters view turkey populations and the state’s management approach.

Since 2005, the survey has included the question: “Considering everything, how would you rate your turkey hunting experience during the Spring Turkey Season in Missouri?” Unlike raw harvest numbers, this question captures qualitative aspects of the hunt. On average, 46% of hunters have rated their season as “Excellent” or “Good” since the question was introduced. In 2025 54% of hunters rated their season as such (Figure 9).



Another key question asks whether hunters believe there are enough turkeys in the areas they hunt to provide ample opportunity (Figure 10). This perception has declined steadily—from 78% responding “Yes” in 2012–2013 to a low of 42% in 2021–2022, a drop of nearly 50%. Encouragingly, this trend has reversed in recent years. In 2025, 57% of hunters said turkey numbers were sufficient—the highest percentage since 2017.

This recovery in perception appears to lag behind real improvements. Harvests in 2024 and 2025 were larger than any since the early 2000’s, and harvest-per-unit-effort declined, indicating birds were easier to find and harvest (Figure 12).

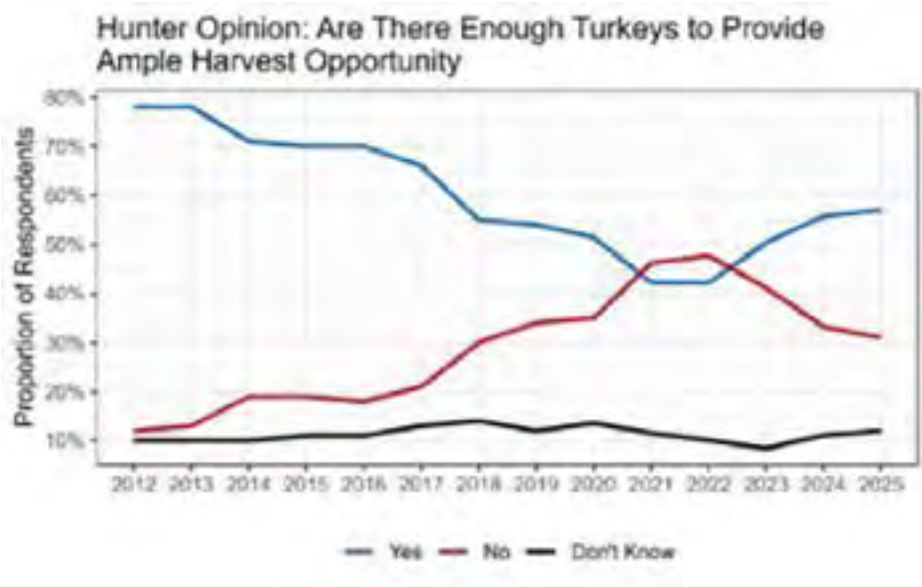


Figure 10. Long-term trend of hunter opinion regarding the quantity of turkeys in the area they hunt.

This recovery in perception appears to lag behind real improvements. Harvests in 2024 and 2025 were larger than any since the early 2000’s, and harvest-per-unit-effort declined, indicating birds were easier to find and harvest (Figure 2).

Permit Sales

Spring resident turkey permit sales have averaged 123,522 between 2016 and 2025 (Table 3). Non-resident spring permit sales have averaged 9,129, meaning that around 92.6% of permits have been sold to residents across that period of time. While resident permit sales are likely driven by the hunters local turkey population and factors close to home, non-resident sales can fluctuate due to a variety of factors. The regulations other states, especially those of Missouri’s neighbors, can impact non-resident permit sales. So can regulation changes in Missouri and other states. Over the last two years, its clear that there has been an increase in non-resident permit sales. However, its worth noting that as a percentage of the total permits sold, non-residents only make up between 5% and 9% of the total permit sales since 2016.

Table 3. Comparison of Spring resident and non-resident harvest and permit sales since 2016. Permit sales do not include no-cost landowner permits.

Spring Turkey Season	Number of Permits		Number of Turkey Harvested	
	Resident	Non-Resident	Resident (% of harvest)	Non-Resident
2016	117,520	9,153	43,947 (91%)	4,303
2017	110,346	9,000	44,253 (91%)	4,219
2018	102,673	8,999	32,200 (90%)	3,561
2019	99,249	8,832	34,769 (90%)	3,963
2020	123,736	8,046	38,036 (92%)	3,353
2021	108,843	8,767	30,675 (89%)	3,890
2022	106,491	8,260	32,349 (89%)	3,852
2023	107,373	9,444	39,472 (89%)	5,087
2024	113,242	10,450	41,620 (88%)	5,576
2025	109,674	10,958	44,581 (86%)	6,448





Figure 11. Comparison of resident and non-resident spring turkey hunting permit sales (does not include no-cost landowner permits) since 1979.

Fall permit sales are driven, in large part, by the historical inclusion of archery turkey permits with archery deer permits. Firearms permits have remained fairly stable since 2015, with an average of 11,300 over that time period (Table 4). Non-resident archery permit sales have steadily increased since 2015, but non-resident fall firearms permits have remained stable with an average over that time period of 216.

Table 4. Comparison of resident and non-resident harvest and permit sales during the fall turkey season since 2015. Permit sales do not include no-cost landowner permits. *New fall hunting regulations in place.

Fall Turkey Season	Number of Permits		Number of Turkey Harvested	
	Resident	Non-Resident	Resident	Non-Resident
2015	105,761/13,084/118,845	9,881/210/10,091	8,948	289
2016	111,839/11,469/122,508	10,405/217/10,677	5,818	186
2017	111,465/9,975/121,440	14,119/268/14,387	5,108	207
2018	112,071/10,059/122,110	11,811/213/12,024	4,077	171
2019	116,899/9,014/125,913	13,382/181/13,563	4,141	197
2020	141,513/12,110/153,623	14,829/219/15,048	4,749	262
2021	136,592/11,031/147,623	16,240/291/16,531	4,102	248
2022	135,050/11,804/146,854	16,351/239/16,590	4,045	250
2023	134,037/12,479/146,516	16,931/237/17,168	4,846	246
2024*	23,707	610	2,750	188

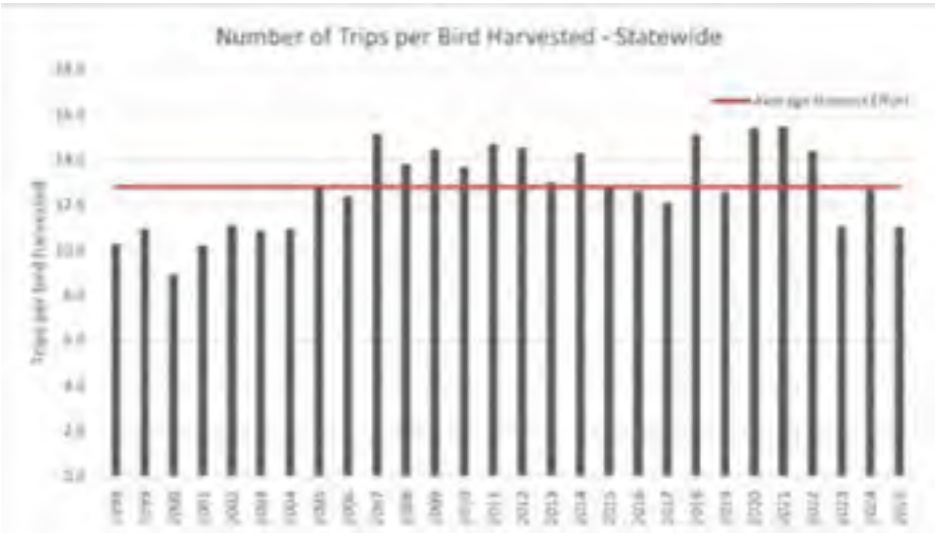


Figure 12. Resident spring harvest per 1,000 trips statewide 1998 to 2025.

Hunting Incidents

There was zero, non-fatal, hunting incidents during the 2025 spring turkey season. The number of spring turkey hunting incidents in Missouri has declined considerably over the course of the last three decades. During the late 1980s, more than 30 incidents occurred annually for every 100,000 permits sold. During the last five hunting seasons, the average number of incidents per 100,000 permits sold is 1.3 (Figure 13).

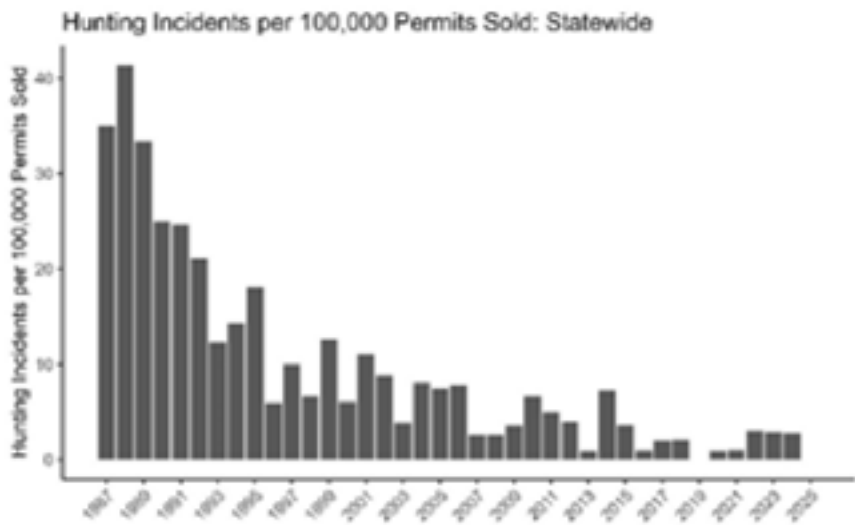


Figure 13. Hunting incidents during the spring turkey season in Missouri per 100,000 permits sold, 1987-2025.

Recent Regulation Changes

The change to the structure of the spring season — in which hunters on private land were able to hunt until sunset was covered in the spring harvest update. In 2024, changes to the fall season were also made. The fall season will now be organized into a single season, with a single permit, with two portions. Historically, fall firearms turkey hunters purchased a stand-alone tag and fall archery turkey hunters received two turkey permits when they acquired their fall archery permit (along with two deer permits). Under the new structure, all turkey hunters will need to acquire a Fall Turkey Hunting Permit. Further, under the old system, hunters were allowed to take two birds with a shotgun and two birds with archery equipment. The new bag limit will be two, irrespective of the method used. The timing of the seasons

will be the same as in years past.

Changes to the fall turkey season were made for several reasons. The primary reason is that hen harvest, comprising around 50% of the total fall harvest, is increasingly perceived as detrimental to the overall turkey population. At the statewide level, the number of birds harvested during the fall season is unlikely to have a negative effect. At the property scale, however, it may have some impact. By combining the permits into a single permit, archery hunters will need to acquire a turkey specific permit to harvest a bird. This is likely to reduce the number of birds taken opportunistically by hunters focused on deer, but willing to harvest a turkey if the opportunity arises. The restructuring of the permits also creates more flexibility for the avid fall hunter, who can now, with a single permit, pursue turkeys during both portions. Ultimately, this regulation change was precipitated by the desire to maintain a traditional hunting opportunity while addressing the concern of the turkey hunting community.

Research Update

Factors Influencing Wild Turkey Nest Success and Poult Survival in North Missouri Research Project

Overview

Wild turkey production has exhibited a long-term declining trend, with recent hatches being especially poor. Density dependence, large-scale landscape change, changing weather patterns, decreasing insect abundance, and increasing populations of some mesocarnivores could be adversely affecting turkey production. Since these factors have traditionally been studied in isolation, there is an incomplete understanding of how these factors are affecting turkey populations. Improving our understanding of factors affecting turkey nest success and poult survival will provide important information when communicating about declining turkey production and abundance with concerned stakeholders. This information will also inform habitat management efforts on public and private lands in Missouri to increase turkey recruitment and ultimately abundance.

To investigate turkey nest success, poult survival, and brood-rearing habitat selection, captive turkeys, both hens and poults were fitted with the appropriate radio transmitters. In a captive trail it was determined that a suture method proved to be most effective in attaching the transmitters onto turkey poults. Hens were also fitting with a transmitter and video recorded to gather information to determine where, when, and how wild turkey hens are engaging in specific behaviors.

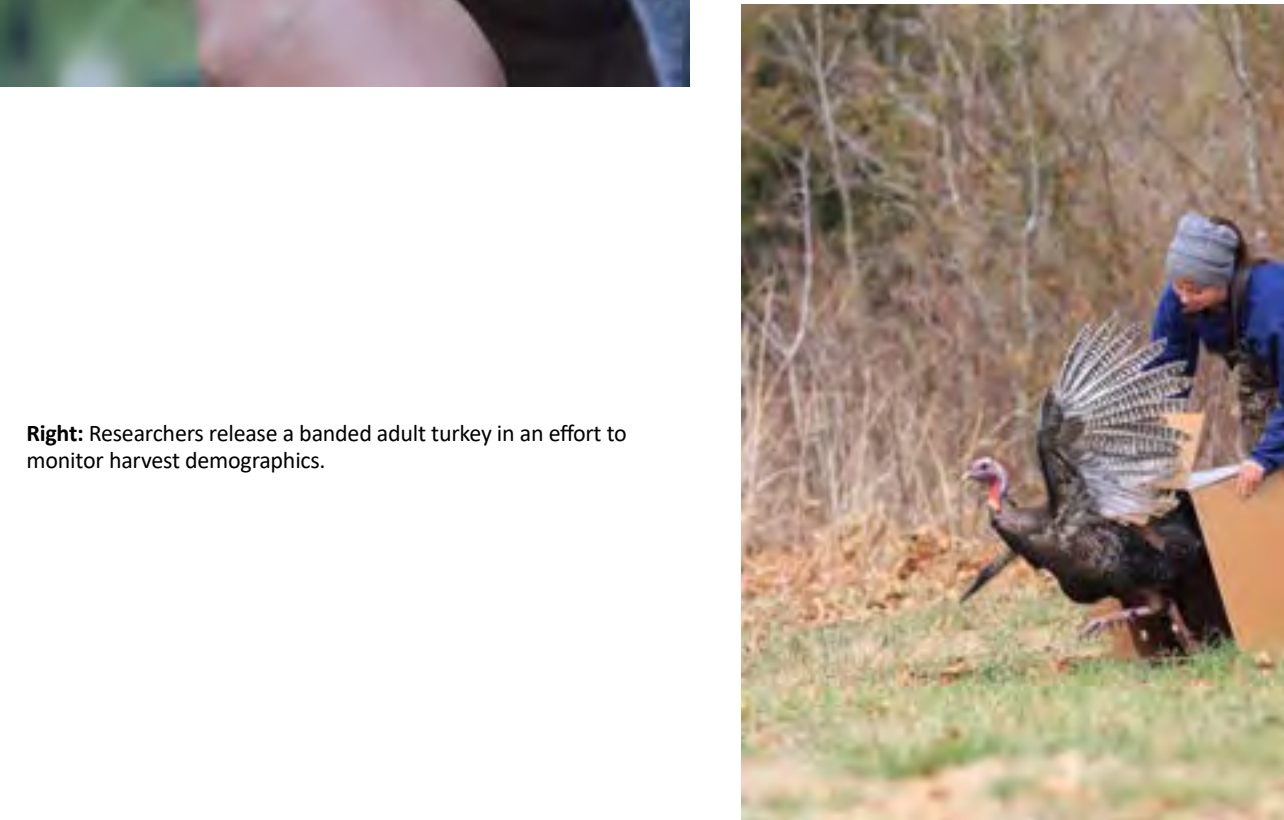
In total, over 4 field seasons, 174 hens were captured and tagged with GPS radio transmitters, and 170 nest were located. During the first 3 field seasons nest success staggered around 25% successful, with the last field season seeing an increase to around 50%. 82 poults were captured and tagged within 48 hours of hatching. The probability of a poult surviving to 28 days was around 45% during the 2022 and 2023 season, with an increase shown in 2024 to around 75%.

In addition to capturing turkeys the team also conducted a mark-recapture effort of raccoons and opossums at sites across the county. The team has deployed trail cameras with scent stations to determine occupancy of larger poult predators (i.e., coyote, fox) in different land cover types. Weather stations were also deployed to monitor variation in precipitation and temperature across the area. Vegetation surveys were conducted at nest sites, at foraging sites used by hens with broods, and at random sites throughout the study area. These surveys will allow the team to determine if vegetative cover influences whether a nest successfully hatches and what sorts of vegetation hens with broods are selecting for versus what is available in the area. The team is also collecting insect samples at the foraging sites used by hens with broods and the random sites to determine which land cover types provide the most food for poults.

Formal results are expected sometime in last 2026 or early 2027 as the university researchers finish analyses.



Left: Researchers from the University of Missouri capture day-old wild turkey poults in order to attach VHF transmitters to them. This allows the researchers to track their movements and more quickly respond to a mortality event.



Right: Researchers release a banded adult turkey in an effort to monitor harvest demographics.



Left: Researchers from the University of Missouri and MDC carefully attach a battery-powered GPS-ACC-UHF transmitter to a wild turkey hen captured in Putnam County during February 2021.

Male Harvest Rate Estimation Project

To improve a statistical population reconstruction (SPR) model, via the inclusion of auxiliary studies, MDC is capturing and banding male turkeys in two different turkey productivity regions—regions with high interspersion of forested and open habitats—and monitoring the band returns. During the 2022 winter, 76 males were banded altogether. Half of the banded birds were adults and half were juvenile birds. In 2023, 117 males were banded, 56 adults and 61 juveniles. During the 2024 trapping season, 73 males were banded, 45 adults and 28 juveniles. Of the 238 total males banded, 113 have been reported as harvested, eight of which were jakes, thus far. The capture and banding portion of this project has concluded. During the 2025 spring season 32 bands were returned, data will continue to be collected, however, rewards will not be processed after the end of the 2025 fall season.

Hunter Reported Fall Harvest Demographics Project

Like the male harvest rate estimation study, the harvest demographic study is designed to reduce uncertainty in the SPR model. Hunters had the option to opt into the study while securing permits (regular or no-cost landowner permits). Participants were asked to submit the 9th and 10th primary wing feathers and 3-5 breast feathers from birds harvested during the 2022 fall turkey season, both firearms and archery portions. From those feather samples, the turkey program assistant identified the true age and sex from birds and compared those results to what the hunter submitted via Telecheck. Efforts were made to avoid describing the project in detail to avoid biasing the sample, though information on how to correctly age and sex turkeys in the fall is, and has been, readily available on the MDC website.

To date, 774 viable samples were submitted. Overall accuracy across all age and sex classes was 64%. Unsurprisingly, samples submitted from adult (AHY) gobblers had the highest balanced accuracy—the arithmetic mean between sensitivity and specificity—of 86%. Hatch year (HY) hens had the second highest balanced accuracy (62%), followed by AHY hens (54%) and finally HY gobblers (37%). Hatch year and AHY hens had the lowest and second lowest specificity scores, respectively, meaning that there were more false positives for female classes than male classes. For example, 97% of the gobblers submitted as gobblers were indeed gobblers. Only 47% of juvenile hens, by contrast were accurately identified as such. Overall, the age/sex class that was most often incorrectly identified was HY males. Of the 112 HY male samples submitted, 39% were telechecked as AHY females, 37% were accurately identified and 24% were telechecked as HY females. The final takeaway from these preliminary data is that the ratio of harvested males to females was about 60:40. The average male:female ratio, historically, has been around 40:60 according to hunter reported Telecheck records. Whether this inversion was an aberration brought on by a relatively small sample size or not should become clearer over the final year of the project.



APPENDIX A.

2025 Missouri spring turkey harvest (youth and regular seasons combined).

County	Adult Males	Sub-adult Males	Bearded Hens	Total	Rank _a
Adair	507	82	4	593	27
Andrew	94	23	0	117	109
Atchison	154	24	0	178	102
Audrain	195	43	1	239	94
Barry	228	46	1	275	88
Barton	327	46	5	378	67
Bates	240	49	6	295	83
Benton	594	66	3	663	21
Bollinger	498	118	4	620	24
Boone	524	84	5	613	25
Buchanan	108	26	1	135	106
Butler	148	34	0	182	100
Caldwell	235	45	1	281	84
Callaway	765	178	17	960	3
Camden	701	67	4	772	12
Cape Girardeau	400	131	4	535	36
Carroll	351	61	3	415	60
Carter	280	23	0	303	81
Cass	290	75	1	366	70
Cedar	508	95	3	606	26
Chariton	373	83	2	458	51
Christian	410	74	2	486	45
Clark	359	57	4	420	59
Clay	102	20	1	123	107
Clinton	83	18	0	101	110
Cole	551	89	3	643	23
Cooper	332	54	5	391	66
Crawford	682	61	5	748	15
Dade	325	82	1	408	61
Dallas	437	80	4	521	39
Daviess	438	52	1	491	42
Dekalb	153	32	2	187	99
Dent	687	57	4	748	16
Douglas	510	73	1	584	30
Dunklin	12	2	0	14	114
Franklin	835	199	11	1045	1
Gasconade	783	108	6	897	5
Gentry	230	24	3	257	91
Greene	577	102	6	685	19

County	Adult Males	Sub-adult Males	Bearded Hens	Total	Rank ^a
Grundy	368	27	2	397	65
Harrison	717	61	5	783	11
Henry	385	94	2	481	47
Hickory	414	84	3	501	41
Holt	211	29	4	244	92
Howard	339	58	3	400	64
Howell	399	90	0	489	43
Iron	232	25	2	259	90
Jackson	142	22	2	166	103
Jasper	341	74	8	423	58
Jefferson	451	72	7	530	38
Johnson	329	92	3	424	57
Knox	268	54	4	326	79
Laclede	673	112	13	798	10
Lafayette	192	47	1	240	93
Lawrence	337	93	4	434	56
Lewis	276	65	2	343	74
Lincoln	346	117	8	471	49
Linn	511	79	1	591	29
Livingston	413	40	3	456	52
Macon	659	190	10	859	6
Madison	304	54	0	358	71
Maries	638	103	14	755	14
Marion	258	48	2	308	80
McDonald	115	22	3	140	105
Mercer	555	37	1	593	28
Miller	759	73	8	840	8
Mississippi	81	11	1	93	111
Moniteau	359	73	8	440	54
Monroe	455	112	7	574	31
Montgomery	357	103	5	465	50
Morgan	494	36	5	535	37
New Madrid	55	10	0	65	112
Newton	172	25	4	201	96
Nodaway	169	21	0	190	98
Oregon	346	54	2	402	63
Osage	825	132	7	964	2
Ozark	321	54	1	376	69
Pemiscot	53	2	0	55	113

County	Adult Males	Sub-adult Males	Bearded Hens	Total	Rank ^a
Perry	431	107	4	542	35
Pettis	212	51	1	264	89
Phelps	788	64	6	858	7
Pike	324	74	6	404	62
Platte	188	29	1	218	95
Polk	452	100	4	556	33
Pulaski	593	77	7	677	20
Putnam	641	86	4	731	17
Ralls	229	47	3	279	87
Randolph	375	90	7	472	48
Ray	150	28	3	181	101
Reynolds	265	14	1	280	86
Ripley	249	28	4	281	85
Saint Charles	297	49	1	347	73
Saint Clair	586	94	6	686	18
Saint Francois	379	74	1	454	53
Saint Louis	100	18	2	120	108
Sainte Genevieve	678	125	4	807	9
Saline	228	68	3	299	82
Schuyler	290	48	3	341	75
Scotland	289	61	1	351	72
Scott	127	35	3	165	104
Shannon	454	25	5	484	46
Shelby	281	48	6	335	78
Stoddard	233	103	5	341	76
Stone	282	54	1	337	77
Sullivan	649	109	13	771	13
Taney	323	51	3	377	68
Texas	861	87	6	954	4
Vernon	570	71	8	649	22
Warren	347	81	7	435	55
Washington	521	27	5	553	34
Wayne	381	103	3	487	44
Webster	421	82	4	507	40
Worth	178	16	0	194	97
Wright	487	80	2	569	32

^aRank based on total harvest in Missouri's 114 counties.

APPENDIX B.

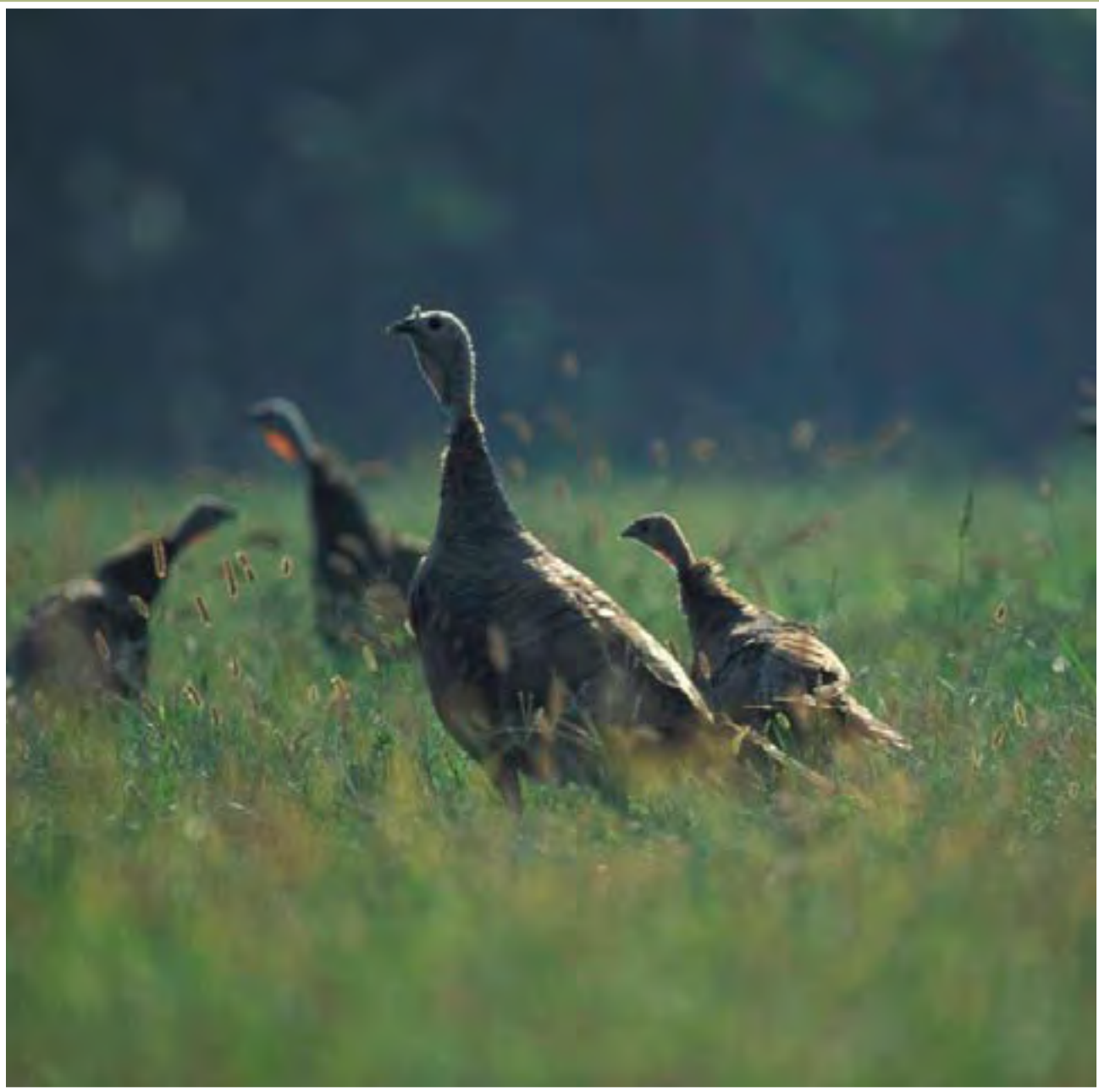
2024 Missouri fall turkey harvest (firearms and archery seasons combined).

County	Adult Males	Sub-adult Males	Adult Females	Sub-adult Females	Total	Rank _a
Adair	12	9	13	22	56	12
Andrew	1	0	0	3	4	108
Atchison	0	0	3	0	3	111
Audrain	6	3	8	9	26	56
Barry	5	2	1	3	11	91
Barton	6	0	3	3	12	85
Bates	0	2	4	2	8	100
Benton	14	7	11	2	34	39
Bollinger	9	10	15	14	48	19
Boone	13	6	12	15	46	23
Buchanan	2	0	2	0	4	109
Butler	3	0	6	0	9	98
Caldwell	1	1	4	3	9	99
Callaway	23	13	21	14	71	3
Camden	14	8	21	12	55	13
Cape Girardeau	16	5	17	9	47	22
Carroll	5	2	7	7	21	63
Carter	1	3	0	0	4	110
Cass	10	3	8	5	26	57
Cedar	17	11	19	17	64	4
Chariton	9	1	7	6	23	59
Christian	9	1	8	0	18	70
Clark	4	2	3	3	12	86
Clay	3	1	4	4	12	87
Clinton	0	0	3	0	3	112
Cole	15	6	18	20	59	10
Cooper	6	1	6	6	19	68
Crawford	22	7	15	11	55	14
Dade	8	8	9	12	37	33
Dallas	16	4	21	9	50	16
Daviess	11	3	6	8	28	53
Dekalb	4	0	1	6	11	92
Dent	12	4	18	14	48	20
Douglas	8	5	7	13	33	46
Dunklin	1	1	0	0	2	114
Franklin	19	8	24	13	64	5
Gasconade	31	13	21	17	82	1
Gentry	5	1	2	4	12	88
Greene	25	6	25	8	64	6

County	Adult Males	Sub-adult Males	Adult Females	Sub-adult Females	Total	Rank _a
Grundy	4	0	5	5	14	79
Harrison	13	2	12	7	34	40
Henry	12	5	5	12	34	41
Hickory	6	4	12	11	33	47
Holt	5	1	5	4	15	77
Howard	6	2	3	3	14	80
Howell	5	5	8	3	21	64
Iron	5	0	5	1	11	93
Jackson	4	2	4	3	13	82
Jasper	9	3	18	2	32	48
Jefferson	10	8	21	11	50	17
Johnson	6	1	7	1	15	78
Knox	5	1	4	3	13	83
Laclede	16	8	20	20	64	7
Lafayette	3	0	3	1	7	101
Lawrence	16	0	15	5	36	35
Lewis	4	2	4	8	18	71
Lincoln	12	8	13	5	38	30
Linn	6	5	15	3	29	52
Livingston	9	6	7	8	30	51
Macon	17	6	21	20	64	8
Madison	8	6	10	4	28	54
Maries	19	10	18	7	54	15
Marion	7	1	6	4	18	72
McDonald	5	0	0	0	5	105
Mercer	7	1	9	2	19	69
Miller	10	3	9	13	35	37
Mississippi	2	0	0	1	3	113
Moniteau	4	6	6	5	21	65
Monroe	7	3	19	14	43	25
Montgomery	16	1	11	13	41	27
Morgan	11	10	9	10	40	28
New Madrid	1	1	3	2	7	102
Newton	9	2	5	1	17	74
Nodaway	4	3	1	2	10	96
Oregon	5	5	4	3	17	75
Osage	35	11	18	12	76	2
Ozark	5	1	3	4	13	84
Pemiscot	1	2	2	0	5	106

County	Adult Males	Sub-adult Males	Adult Females	Sub-adult Females	Total	Rank ^a
Perry	8	7	6	13	34	42
Pettis	4	1	4	2	11	94
Phelps	19	6	22	13	60	9
Pike	9	7	7	8	31	50
Platte	6	4	8	5	23	60
Polk	19	1	17	3	40	29
Pulaski	12	6	12	5	35	38
Putnam	7	2	15	13	37	34
Ralls	10	1	6	11	28	55
Randolph	11	0	23	8	42	26
Ray	2	2	5	1	10	97
Reynolds	2	0	4	0	6	103
Ripley	4	0	0	1	5	107
Saint Charles	8	7	13	8	36	36
Saint Clair	10	4	11	9	34	43
Saint Francois	10	3	7	18	38	31
Saint Louis	8	1	8	1	18	73
Sainte Genevieve	10	4	18	16	48	21
Saline	3	0	5	3	11	95
Schuyler	5	1	8	9	23	61
Scotland	2	2	7	3	14	81
Scott	5	0	6	1	12	89
Shannon	1	1	4	6	12	90
Shelby	5	2	6	7	20	67
Stoddard	10	12	9	18	49	18
Stone	6	4	8	3	21	66
Sullivan	5	3	18	20	46	24
Taney	5	1	5	6	17	76
Texas	15	6	10	7	38	32
Vernon	12	3	4	4	23	62
Warren	10	6	7	9	32	49
Washington	17	5	4	8	34	44
Wayne	10	7	7	10	34	45
Webster	16	10	12	19	57	11
Worth	3	0	1	2	6	104
Wright	11	2	7	5	25	58

^aRank based on total harvest in Missouri's 114 counties.



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