

Federal Aid in Wildlife Restoration Project: W-15-R
Title of Job: 2019 Spring Wild Turkey Harvest

Job: E2



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The spring turkey hunter survey is conducted each year at the end of the spring season. The season closed on 31 May 2019. The objective of the survey is to obtain information on the spring turkey harvest and success. Information on age and sex composition of the harvest is also obtained and is reported elsewhere. This year's survey was available to hunters from 14 June 2019 until 28 June 2019. A full summary of hunter responses is provided in a separate report, *Spring 2019 Turkey Hunter Survey Report*.

Caveats. The spring Wild Turkey Hunter Survey samples spring turkey hunters who provided valid email addresses at the time they purchased their permit(s). As such, the sample frame may be biased and not strictly generalizable to the population of all spring turkey hunters. For the spring 2019 season, however, 72.2% of unique permits sold were associated with an email address. A reminder email was sent to all non-respondents one week after the initial invitation was sent, but no further attempts were made to contact hunters who failed to respond to the survey. Therefore, results might be biased toward successful hunters, if successful hunters respond more readily to harvest surveys. There is some evidence of response bias with respect to residency, sex, and age. Non-residents and men were over represented among respondents, and respondents were older compared to all permit buyers or the survey sample (Table 1).

Interpretations. Permit sales for the spring 2019 season were 5.8% lower than the spring of 2018. Youth permits (3,541 permits) sales fell 11.6% and regular statewide permit (24,793 permits) sales fell 4.9% compared to spring 2018 (4,004 youth and 26,058 regular permits). Youth permits continue to be a strong component of overall spring permit sales, comprising 12.7% of the total permits sold for the spring 2019 season. Spring 2019 harvest was 2.3% higher than spring 2018 harvest (17,731), with an estimated total harvest of 18,131 turkeys in 2019. Overall harvest success was 64.0% for spring 2019, compared to 58.9% for spring 2018. Spring 2019 success rates were above the management goal for spring harvest success of 50%.

Take-home Message. Spring turkey hunters continue to enjoy a high rate of success in Nebraska, but fewer turkeys were harvested during the spring 2019 season compared to 2018. Although still strong sellers, youth permit sales dropped again compared to 2018. Non-resident hunters were more successful than their native Nebraskan counterparts were.

Methods. This year's survey was composed and administered in-house using Snap Survey development software (Snap v11) and Snap Webhosting service. An initial invitation to participate in the survey for the spring 2019 season was sent to 15,726 permit buyers (72.2% of unique permit buyers), but 630 were bounced back as undeliverable, giving an effective sample size of 15,096 permitted hunters. Initial invitations were emailed on 14 June 2019, and a reminder email was sent to all non-responding hunters on 21 June 2019. The survey was closed on 28 June 2019. The survey was also available on the NGPC website for hunters who did not have valid emails associated with their permits. The website survey was open over the same period as the invitation-only version. At the end of the survey period, responses had been received from 2,807 spring turkey hunters, representing 4,050 individual permits for the spring 2019 season. The raw response rate was, therefore, 18.6% and the permit response rate was 26.8%. Each survey respondent represented 7.8 spring 2019 permit buyers.

Results. Permit sales for the spring 2019 season ($n = 28,334$) were 5.8% lower than spring 2018 sales ($n = 30,081$; Figure 1). Of permits sold, 3,541 (12.7%) were youth permits and 24,793 were statewide regular permits. Youth permits sales were 11.6% lower than in 2018 ($n = 4,004$), and statewide regular permit sales were 4.9% lower than in 2018 ($n = 26,058$). Of all unique permit buyers ($n = 21,784$), 76.4% bought only one permit, 17.2% bought two permits, and 6.4% bought three permits. Estimated total turkey harvest for the spring 2019 season was 18,131 turkeys. Of these, 1,297 were harvested on youth permits and 16,834 were harvested on regular statewide permits (Table 2, Figure 2). Overall, harvest was 2.3% higher during the spring 2019 season compared to spring

2018. Success during the spring 2019 season was 64.0%, with youth success lower at 36.6% and regular permit holders' success higher at 67.9% (Figure 3). Table 3 summarizes the 2019 spring season results.

TABLE 1. Comparison of demographic factors among all permit buyers, permit holders sampled, and survey respondents for the spring 2019 turkey hunter survey.

Demographic Factor	Sample Size	Permit Buyers	Permits Sampled	Respondents
		21,784	15,726	2,778
Residency	Resident	58.1%	55.7%	46.0%
	Non-resident	41.9%	44.3%	54.0%
Sex	Male	93.0%	93.5%	96.1%
	Female	7.0%	6.5%	3.9%
Age	Median	38	40	50
	Mean	39.5	40.9	48.1
	% Youth Permits	12.7%	9.9%	4.8%

TABLE 2. Spring turkey season harvest and success, 2013-2019.

Type	Statistic	Year						
		2013	2014	2015	2016	2017	2018	2019
Shotgun/ Regular	Permits	30,760	28,854	28,724	28,899	28,352	26,058	24,793
	Harvest	19,040	16,707	17,378	20,143	18,569	16,301	16,834
	Success	61.9%	57.9%	60.5%	69.7%	67.5%	64.7%	67.9%
Youth	Permits	6,144	5,576	5,416	4,932	4,822	4,004	3,541
	Harvest	2,402	2,253	2,616	1,993	1,862	1,430	1,297
	Success	39.1%	40.4%	48.3%	40.4%	41.5%	37.2%	36.6%

FIGURE 1. Spring turkey permit sales, 1964-2019.

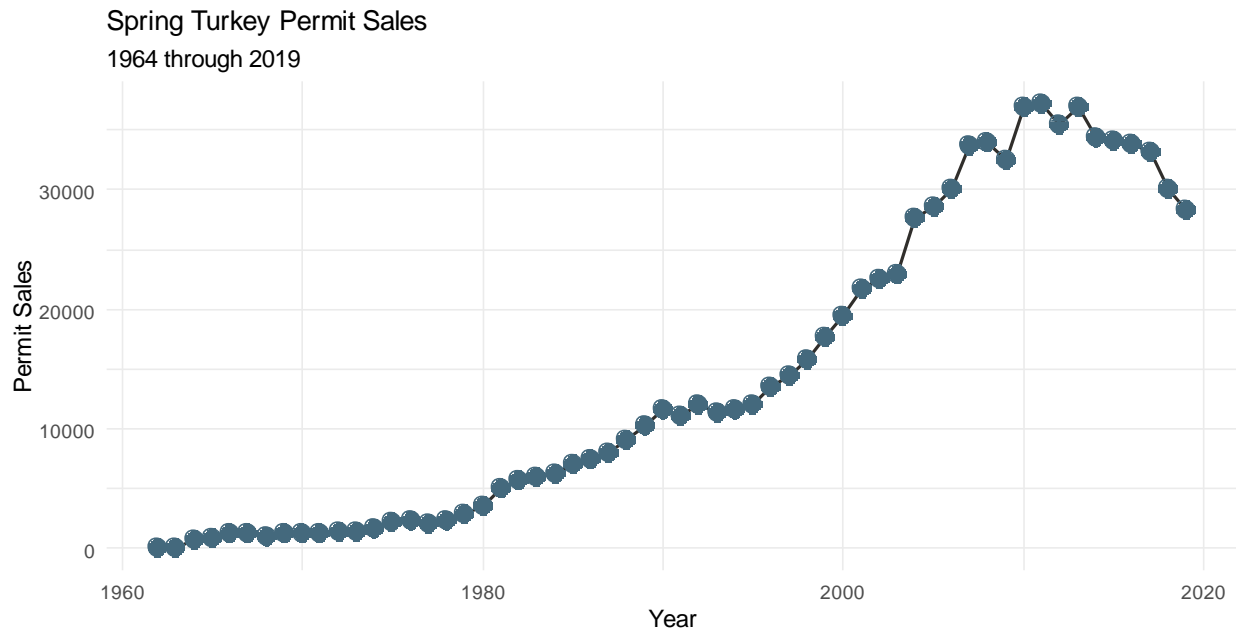


TABLE 3. Summary of spring 2019 turkey hunter survey responses and estimated harvest.

Residency	Permit Type	Permits Sold	Survey Permits	Reported Harvest	Success Rate	Estimated Harvest
Resident	Youth	2,561	239	89	37.2%	953
	Regular	12,400	1,577	957	60.7%	7,527
	Sub-Total	14,961	1,816	1,046	56.7%	8,480
Non-resident	Youth	980	154	54	35.1%	344
	Regular	12,393	2,080	1,562	75.1%	9,307
	Sub-Total	13,373	2,234	1,616	72.2%	9,651
Total		28,334	4,050	2,662	64.0%	18,131

FIGURE 2. Spring turkey harvest, 1964-2019.

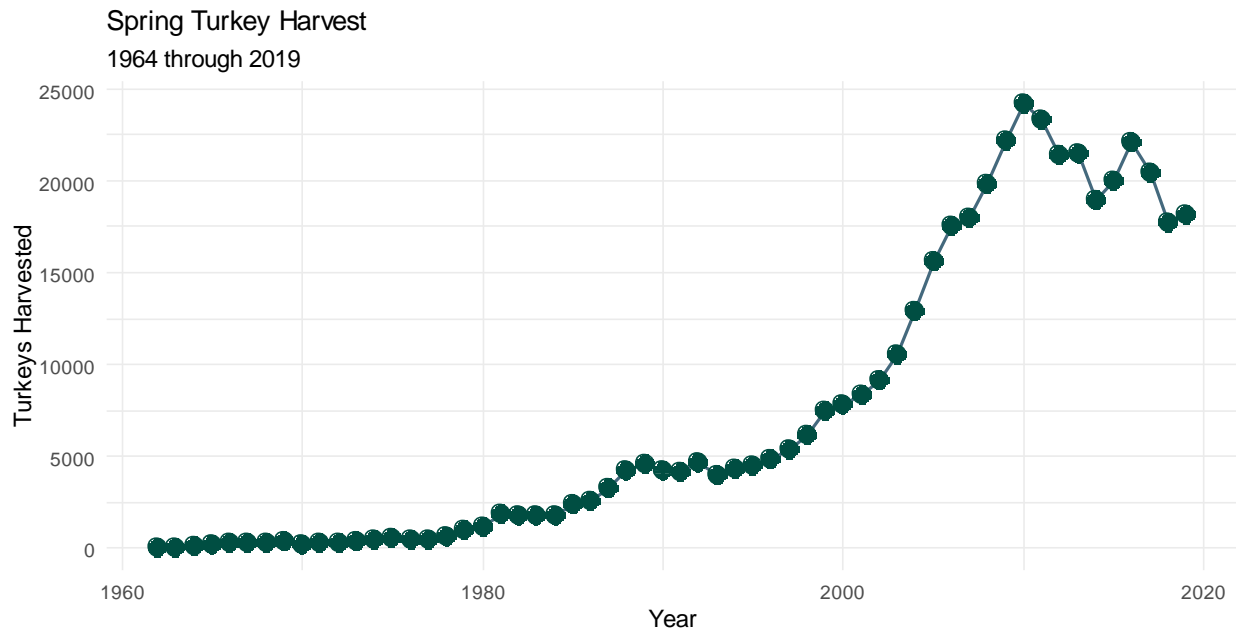


FIGURE 3. Spring turkey hunter success rate, 1964-2019. The horizontal line represents the success-rate goal established in the Focus on the Future plan (50% success).

