

Federal Aid in Wildlife Restoration Project: W-15-R
Title of Job: 2020 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 2020. 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 8 June 2020 until 21 June 2020. A full summary of hunter responses is provided in a separate report, *Spring 2020 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 2020 season, however, 71.9% 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. Additionally, sales of permits to non-residents was discontinued before the start of the season as a precaution against the Covid-19 pandemic. As such, results might not be directly comparable to previous years.

Interpretations. Permit sales for the spring 2020 season were 19.7% lower than the spring of 2019. Again, this is likely the result of travel restriction and other precautions taken due to the Covid-19 pandemic. Youth permits (4,297 permits) sales increased 21.3% and regular statewide permit (18,453 permits) sales fell 25.6% compared to spring 2019 (3,541 youth and 24,793 regular permits). Youth permits continue to be a strong component of overall spring permit sales, comprising 18.9% of the total permits sold for the spring 2020 season. Spring 2020 harvest was 25.0% lower than spring 2019 harvest (18,131), with an estimated total harvest of 13,597 turkeys in 2020. Overall harvest success was 59.8% for spring 2020, compared to 64.0% for spring 2019. Spring 2020 success rates were above the management goal for spring harvest success of 50%.

Take-home Message. Hunting activity, particularly for nonresidents was likely severely disrupted by the worldwide pandemic, making meaningful comparisons with previous years difficult. Spring turkey hunters continue to enjoy a high rate of success in Nebraska. The sharp drops in permits sold and in total harvest are at least partially attributable to the pandemic, so these values should be interpreted with this in mind. For those spring hunters who went afield, success was on par with previous years.

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 2020 season was sent to 13,543 permit buyers (71.9% of unique permit buyers), but 600 were bounced back as undeliverable, giving an effective sample size of 12,943 permitted hunters. Initial invitations were emailed on 8 June 2020, and a reminder email was sent to all non-responding hunters on 15 June 2020. The survey was closed on 21 June 2020. 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 2,899 spring turkey hunters, representing 4,013 individual permits for the spring 2020 season. The raw response rate was, therefore, 22.4% and the permit response rate was 31.0%. Each survey respondent represented 7.85 spring 2020 permit buyers.

Results. Permit sales for the spring 2020 season ($n = 22,750$) were 19.7% lower than spring 2019 sales ($n = 28,334$; Figure 1). However, sale of permits to non-resident hunters was discontinued before the start of the spring season as a public health precaution due to the Covid-19 pandemic. Of permits sold, 4,297 (18.9%) were youth permits and 18,453 were statewide regular permits. Youth permits sales were 21.3% higher than in 2019 ($n = 3,541$), and statewide regular permit sales were 25.6% lower than in 2019 ($n = 24,793$). Of all unique permit buyers ($n = 18,826$), 83.7% bought only one permit, 11.9% bought two permits, and 4.5% bought three permits. Estimated total turkey harvest for the spring 2020 season was 13,597 turkeys. Of these, 2,057 were harvested on youth permits and 11,540 were harvested on regular statewide permits (Table 2, Figure 2). Overall, harvest was 25.0% lower during the spring 2020 season compared to spring 2019. Success during the spring 2020 season was 59.8%, with youth success lower at 47.9% and regular permit holders' success higher at 62.5% (Figure 3). Table 3 summarizes the 2020 spring season results.

TABLE 1. Comparison of demographic factors among all permit buyers, permit holders sampled, and survey respondents for the spring 2020 turkey hunter survey.

Demographic Factor	Sample Size	Permit Buyers	Permits Sampled	Respondents
		22,750	13,543	2,899
Residency	Resident	94.2%	93.5%	89.3%
	Non-resident	5.8%	6.5%	10.7%
Sex	Male	90.3%	90.6%	93.1%
	Female	9.7%	9.4%	6.9%
Age	Median	35.2	36.7	44
	Mean	33	35	43.6
	% Youth Permits	18.9%	15.7%	9.6%

TABLE 2. Spring turkey season harvest and success, 2014-2020.

Type	Statistic	Year						
		2014	2015	2016	2017	2018	2019	2020
Shotgun/ Regular	Permits	28,854	28,724	28,899	28,352	26,058	24,793	18,453
	Harvest	16,707	17,378	20,143	18,569	16,301	16,834	11,540
	Success	57.9%	60.5%	69.7%	67.5%	64.7%	67.9%	62.5%
Youth	Permits	5,576	5,416	4,932	4,822	4,004	3,541	4,297
	Harvest	2,253	2,616	1,993	1,862	1,430	1,297	2,057
	Success	40.4%	48.3%	40.4%	41.5%	37.2%	36.6%	47.9%

TABLE 3. Summary of spring 2020 turkey hunter survey responses and estimated harvest.

Residency	Permit Type	Permits Sold	Survey Permits	Reported Harvest	Success Rate	Estimated Harvest
Resident	Youth	4,167	663	309	46.6%	1,942
	Regular	17,067	2,933	1,756	59.9%	10,223
	Sub-Total	21,234	3,596	2,065	57.4%	12,165
Non-resident	Youth	130	35	31	88.6%	115
	Regular	1,386	382	363	95.0%	1,317
	Sub-Total	1,516	417	394	94.5%	1,432
Total		22,750	4,013	2,459	61.3%	13,597

FIGURE 1. Spring turkey permit sales, 1964-2020.

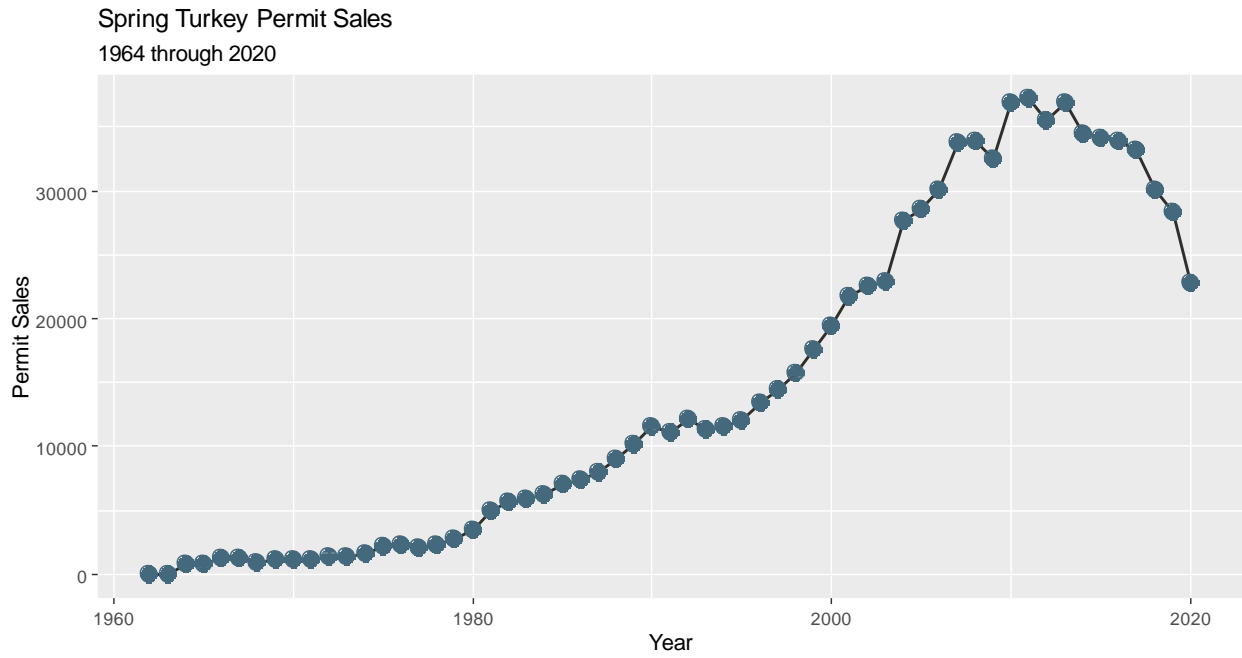


FIGURE 2. Spring turkey harvest, 1964-2020.

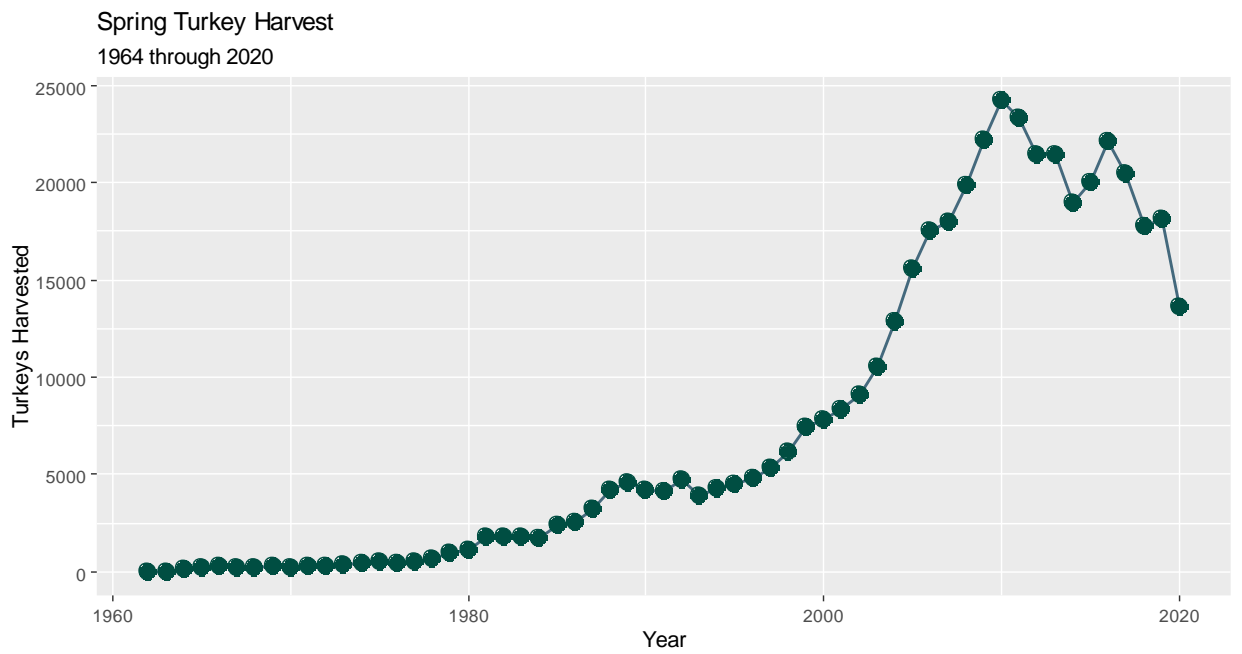


FIGURE 3. Spring turkey hunter success rate, 1964-2020. The horizontal line represents the success-rate goal established in the Focus on the Future plan (50% success).

