

Federal Aid in Wildlife Restoration Project: W-15-R
Title of Job: 2022 Spring Wild Turkey Harvest

Job: E2



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7 July 2022

The spring turkey hunter survey is conducted each year at the end of the spring season. The season closed on 31 May 2022. 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 6 June 2022 until 21 June 2022. A full summary of hunter responses is provided in a separate report, *Spring 2022 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 2022 season, however, 77.6% 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.

Interpretations. Permit sales for the spring 2022 season were 15.3% lower than the spring of 2021. Youth permits (4,132 permits) sales decreased 12.1% and regular statewide permit (27,141 permits) sales decreased 15.7% compared to spring 2021 (4,700 youth and 32,205 regular permits). Youth permits continue to be a strong component of overall spring permit sales, comprising 13.0% of the total permits sold for the spring 2022 season. Spring 2022 harvest was 20.6% lower than spring 2021 harvest (20,782), with an estimated total harvest of 16,498 turkeys in 2022. Overall harvest success was 52.8% for spring 2022, compared to 56.3% for spring 2021. Spring 2022 success rates were above the management goal for spring harvest success of 50%, but continue a pattern of decline.

Take-home Message. Spring turkey hunters continue to enjoy a high rate of success in Nebraska. The decrease observed in the number of permits sold and in total harvest can be attributed to both the return-to-normal many people feel as the concern for the ongoing pandemic wanes, and to decreases in the state's turkey population. For those spring hunters who went afield, success has continued to decrease while still remaining above 50%. Recent proposed changes to the season and permits structure may help bolster success rates in the future.

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 2022 season was sent to 18,931 permit buyers (77.6% of unique permit buyers), but 817 were bounced back as undeliverable, giving an effective sample size of 18,114 permitted hunters. Initial invitations were emailed on 6 June 2022, and a reminder email was sent to all non-responding hunters on 13 June 2022. The survey was closed on 21 June 2022. 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 3,957 spring turkey hunters, representing 5,492 individual permits for the spring 2022 season. The raw response rate was, therefore, 21.8% and the permit response rate was 30.3%. Each survey respondent represented 6.16 unique spring 2022 permit buyers.

Results. Permit sales for the spring 2022 season ($n = 31,273$) were 15.3% lower than spring 2021 sales ($n = 36,905$; Figure 1). Although the COVID-19 pandemic was ongoing, no permit sale restrictions were instituted for the 2022 spring turkey season. Of permits sold, 4,132 (13.2%) were youth permits and 27,141 were statewide regular permits. Youth permits sales were 10.7% lower than in 2021 ($n = 4,626$), and statewide regular permit sales were 15.9% lower than in 2021 ($n = 32,279$). Of all unique permit buyers ($n = 27,969$), 77.2% bought only one permit, 17.5% bought two permits, and 5.3% bought three permits. Estimated total turkey harvest for the spring 2022 season was 16,498 turkeys. Of these, 1,717 were harvested on youth permits and 14,781 were harvested on regular statewide permits (Table 2, Figure 2). Overall, harvest was 20.6% lower during the spring 2022 season compared to spring 2021. Success during the spring 2022 season was 52.8%, with youth success lower at 41.6% and regular permit holders' success higher at 54.5% (Figure 3). Table 3 summarizes the 2022 spring season results.

TABLE 1. Comparison of demographic factors among all permit buyers, permit holders sampled, and survey respondents for the spring 2022 turkey hunter survey.

Demographic Factor	Sample Size	Permit Buyers	Permits Sampled	Respondents
		24,389	18,931	3,957
Residency	Resident	50.6%	52.8%	38.0%
	Non-resident	49.4%	47.2%	62.0%
Sex	Male	93.6%	93.3%	95.3%
	Female	6.4%	6.7%	4.7%
Age	Median	36	38	48
	Mean	38.5	39.4	46.3
	% Youth Permits	13.0%	11.3%	11.0%

TABLE 2. Spring turkey season harvest and success, 2016-2022.

Type	Statistic	Year						
		2016	2017	2018	2019	2020	2021	2022
Shotgun/ Regular	Permits	28,899	28,352	26,058	24,793	18,453	32,279	27,141
	Harvest	20,143	18,569	16,301	16,834	11,540	18,770	14,781
	Success	69.7%	67.5%	64.7%	67.9%	62.5%	60.4%	54.5%
Youth	Permits	4,932	4,822	4,004	3,541	4,297	4,626	4,132
	Harvest	1,993	1,862	1,430	1,297	2,057	2,012	1,717
	Success	40.4%	41.5%	37.2%	36.6%	47.9%	44.8%	41.6%

TABLE 3. Summary of spring 2022 turkey hunter survey responses and estimated harvest.

Residency	Permit Type	Permits Sold	Survey Permits	Reported Harvest	Success Rate	Estimated Harvest
Resident	Youth	2,933	317	122	38.5%	1,129
	Regular	12,905	1,871	897	47.9%	6,182
	Sub-Total	15,838	2,188	1,019	46.6%	7,311
Non-resident	Youth	1,199	288	141	49.0%	588
	Regular	14,236	3,016	1,822	60.4%	8,599
	Sub-Total	15,435	3,304	1,963	59.4%	9,187
Total		31,273	5,492	2,982	52.8%	16,498

FIGURE 1. Spring turkey permit sales, 1964-2022.

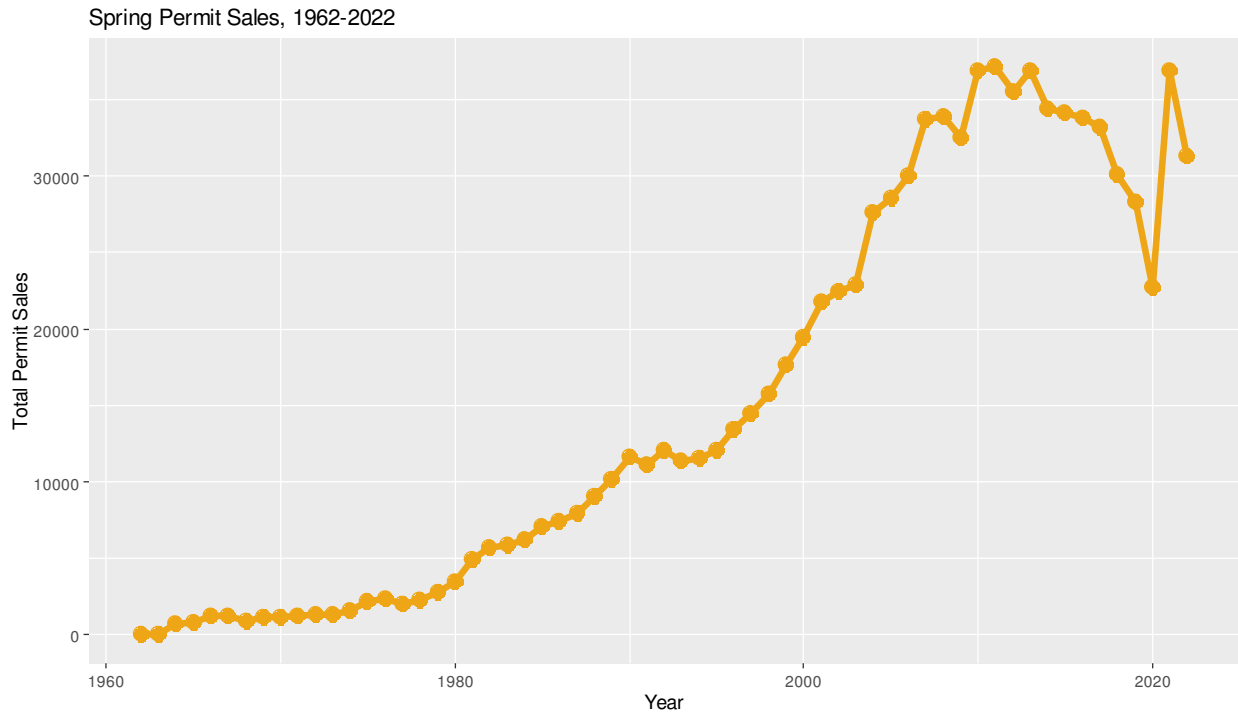


FIGURE 2. Spring turkey harvest, 1964-2022.

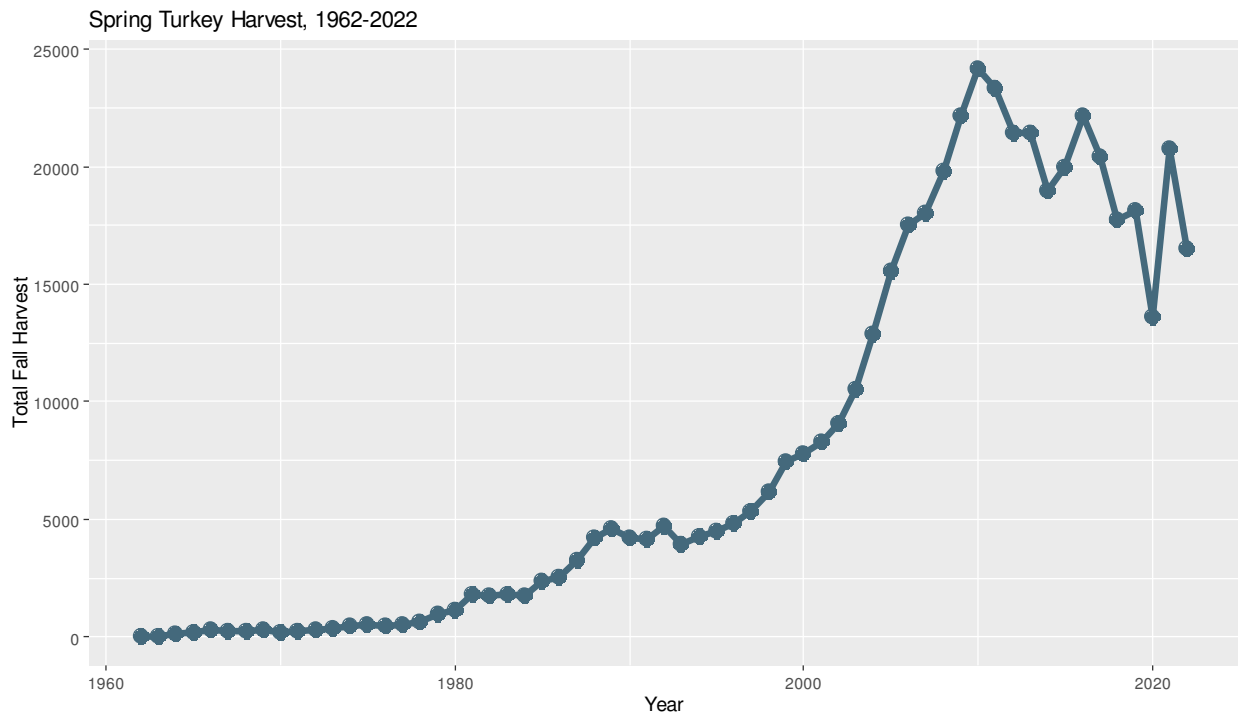


FIGURE 3. Spring turkey hunter success rate, 1964-2022. The horizontal line represents the success-rate goal (50% success) established in the Focus on the Future plan.

