# Turkey Harvest Report

## Fall 2006-2007

## A Contribution of Pittman-Robertson Funds Federal Aid in Wildlife Restoration

Grant W-39-R

## **Kansas Department of Wildlife and Parks**

Mike Hayden Secretary

Prepared by

Jim Pitman Small Game Coordinator

Joe Kramer, Director Fisheries and Wildlife Division Mike Mitchener, Chief Wildlife Section

June 2007





#### **PERMISSION TO QUOTE**

Persons wishing to quote from this report, for reproduction or reference, should first obtain permission from the Chief of the Wildlife Section, Kansas Department of Wildlife and Parks, 512 SE 25th Avenue, Pratt, KS 67124.

#### **EQUAL OPPORTUNITY STATEMENT**

This program receives Federal financial assistance from the U.S. Fish and Wildlife Service. Under Title VI of the Civil Rights Act of 1964, Section 504 of the Rehabilitation Act of 1973, Title II of the Americans with Disabilities Act of 1990, the Age Discrimination Act of 1975, and Title IX of the Education Amendments of 1972, the U.S. Department of the Interior and its bureaus prohibit discrimination on the basis of race, color, national origin, age, disability or sex (in educational programs). If you believe that you have been discriminated against in any program, activity or facility, or if you desire further information, please write to:

The U.S. Fish and Wildlife Service
Office of Diversity and Civil Rights Programs- External Programs
4040 North Fairfax Drive, Suite 130
Arlington, VA 22203

#### INTRODUCTION AND METHODS

By the early 1900's the wild turkey was almost extirpated from Kansas due to unregulated harvest by subsistence hunters. Turkeys were virtually non-existent on the Kansas landscape until the early 1960's when a formal re-introduction program was initiated by the former Kansas Fish and Game Commission. The overwhelming success of those re-introduction and trap-transplant efforts increased the Kansas turkey population to levels adequate enough to justify the first spring turkey season in 1974. As the population continued to increase, the first modern fall turkey season was added in 1979. The first fall turkey season was open only to archery hunters and lasted just 16 days. During that first fall season, an estimated 37 birds were harvested. Since that first season, the turkey population has increased dramatically and the season structure and bag limit have followed suite. In 1981, the first fall firearms season was added and ran for 9 days immediately following the archery season. Over the last 25 years both of these seasons increased in length and in 2001 they were combined allowing either weapon to be used throughout the entire season. Over the last 5 year period, the season has averaged >80 days in length (Table 1) and 3 of 4 turkey hunt units now have a fall season. Only unit 4 (southwest Kansas) was closed to fall hunting in 2006-2007 (Figure 1). Hunters were permitted to harvest 1 bird of either sex in Units 1,2, & 3 and they could also purchase 3 either-sex game tags valid only in Unit 2. The number of permits and game tags issued for the fall 2006-2007 turkey season was 16,227 (includes 4,530 game tags) and for the eleventh consecutive year exceeded the record number sold the previous year (Table 2).

In Kansas, the fall wild turkey harvest survey has been conducted annually since 1979. Following the 2006-2007 fall turkey season a random sample of 15% of the initial permit buyers was selected to receive the fall turkey harvest postcard. Hunters receiving the postcard were asked to complete an online questionnaire and provided with an ID allowing them to access the survey. After approximately 3 weeks those hunters that had not completed the survey were sent a follow-up postcard. The survey consisted of questions pertaining to hunting activity and success in Kansas during the fall 2006-2007 season (Figure 2). Results from the survey were used to develop statewide estimates of the number of hunters pursuing turkeys, harvest (by weapon and for land ownership type), weekly harvest distribution, cumulative weekly harvest, hunter success, and hunter satisfaction with turkey management and hunting in Kansas. For the first time, hunters were also asked to indicate their fall turkey hunting style (e.g. primary or secondary species of pursuit). Individuals that hunted on public property were also asked to provide their perception of the fall turkey hunting pressure on the specific property they hunted (i.e. light, moderate, or heavy). Hunter perceptions of pressure were summarized for each of the 6 Kansas turkey management regions (Figure 3) because few responses were received for individual properties. Many of the previously listed parameters were also summarized regionally and for resident and nonresident hunters. Estimates can not be derived for all of the parameters dating back to the first modern fall turkey season (1979). Several survey questions have been added and removed over the years so for some parameters the estimates are sporadic.

#### **RESULTS**

#### Statewide Estimates

A total of 2,378 postcards were deliverable and responses were received from 934 hunters for an adjusted response rate of 39.3%. An estimated 82.8% (95% CI = 80.2%-85.1%) of fall turkey permit buyers actively pursued turkeys during the 2006-2007 Kansas season. This percentage equates to 9,683 active turkey hunters during the past fall turkey season, which is very similar to the previous 4 years (Table 3). Of the initial permit buyers that responded to the survey, a high percentage (29.1%, 95% CI = 25.6%-32.8%) indicated that they only hunted turkeys "opportunistically" while pursuing other game.

The percentage of hunters that harvested at least 1 turkey during the fall 2006-2007 season was 53% (Table 4). These hunters harvested an estimated 6,112 turkeys (770 archery and 5,342 firearm) of which only 33% were females (Table 3). The distribution of the fall 2006-2007 turkey harvest indicated that weekly harvest was fairly consistent throughout the season with a slight spike just prior to the firearms deer season (Figure 4). The number of Kansas fall turkey hunters and their harvest has leveled off over the last 3-4 year period (Figure 5).

The percent of active fall turkey hunters that purchased the first game tag remained near the 50<sup>th</sup> percentile for the 2006-2007 season (Table 5). The percentages of active hunters that purchased the 2<sup>nd</sup> and 3<sup>rd</sup> game tags were substantially lower at 24.3% and 8.3%, respectively. The percent of active fall turkey hunters that filled even 1 game tag was <20% and has been for each of the last 3 years (Table 6). Only 2.8% of active fall turkey hunters filled their initial permit and all 3 game tags during the fall 2006-2007 season. Correspondingly, the initial permit accounted for 84.5% of the statewide harvest and 81.7% of the harvest in an area that approximates hunt unit 2 (Table 7). In hunt unit 2, where all 3 game tags are valid, the combined harvest taken with game tags 2 and 3 accounted for only 5.4% of the total harvest during the fall 2006-2007 season.

Many of the respondents indicated that they hunted on multiple land types but the vast majority (93.9%) utilized private land at some point during the fall 2006-2007 season (Table 8). Likewise, the bulk of the fall harvest (84.9%) was taken from private land (Table 9). However, there were a substantial number of hunters that pursued turkeys on walk-in-hunting areas (WIHA; 1,326) and publicly owned lands (1,989) during the fall 2006-2007 season (Table 8). Harvest from WIHA (241) and publicly owned land (683) accounted for 3.9% and 11.2% of the total fall harvest, respectively. The majority of respondents perceived fall turkey hunting pressure to be light (54.1%) or moderate (36.9%) on the publicly owned properties where they hunted (Figure 6). Only 8.9% of responding hunters that utilized public land during the fall 2006-2007 season felt hunting pressure was heavy on those properties.

Hunter satisfaction with turkey management in Kansas and fall turkey hunting remained high following the 2006-2007 season. For the 3<sup>rd</sup> consecutive year the percentage of respondents indicating that they were 'satisfied' or 'very satisfied' with turkey hunting in

Kansas was >85% (Figure 7). The percentage of respondents that were satisfied with turkey management in Kansas was slightly lower but >80% still indicated that they were either 'satisfied' or 'very satisfied'.

#### Regional Estimates

The greatest number of active hunters pursued turkeys in the northeast (2,452) and southeast (2,227) regions during the fall 2006-2007 turkey season (Table 10). The fewest number of hunters pursued turkeys in the southwest (275) management region, which is no surprise given that most of that region was closed to fall turkey hunting. Fall harvest was pretty evenly disturbed among the northcentral, northeast, southcentral, and southeast management regions with 1,200-1,600 birds being harvested from each region. Harvest in the northwest (337) and southwest (187) management regions was substantially less which was mostly due to the fact that large portions of both regions were not open to fall turkey hunting. The percentage of active hunters harvesting at least 1 bird was high (>48%) across all 6 management regions. The estimated hunt success (68.2%) was highest in the southwest region during the 2006-2007 season but only a small sample of hunters indicated that they pursued turkeys in that region.

A relatively small number of hunters (<400 in each region) pursued turkeys on WIHA tracts during the fall 2006-2007 season (Table 8). However, in the northwest and northcentral management regions >20% of all the fall hunters in those regions indicated that they pursued turkeys on WIHA at some point during the season. Use of publicly owned lands was only slightly greater than use of WIHA during the fall 2006-2007 season. Use of publicly owned lands was highest in the northeast region where an estimated 726 hunters utilized those properties. Almost 30% of the fall turkey hunters in that region pursued turkeys on publicly owned land at some point during the season. Publicly owned lands in the northcentral, southcentral, and southeast regions also received substantial use and >400 hunters utilized these properties in each region. Within each of the 6 management regions, most public land hunters indicated that hunting pressure during the fall season was either light or moderate on the properties they hunted (Figure 6). The overwhelming majority (>90%) of fall turkey hunters in every region reported hunting on private land at some point during the fall 2006-2007 season.

Regional hunter satisfaction with turkey management and fall hunting remained high in each of the 6 management regions following the 2006-2007 fall season (Figure 8). Hunter satisfaction has remained fairly consistent over the last 3 years in the northcentral, southcentral, northeast, and southeast management regions. However, hunter satisfication has declined slightly in the northwest and southwest regions but still remains >70% for both management and hunting within those regions.

Table 1. Fall wild turkey hunting seasons in Kansas, 1979-2006(7).

Season	Fall Archery	Fall Firearms	Universal Fall
1979	Oct. 6-21 (16) <sup>a</sup>	No Season	
1980	Oct. 1-31, Oct. 1-19 (31, 19) <sup>b</sup>	No Season	
1981	Oct. 1-31 (31)	Oct. 31-Nov. 8 (9)	
1982	Oct. 1-31 (31)	Oct. 30-Nov. 7 (9)	
1983	Oct. 1-31 (31)	Oct. 29-Nov. 6 (9)	
1984	Oct. 1-31 (31)	Oct. 27-Nov. 4 (9)	
1985	Oct. 1-31 (31)	Nov. 2-10 (9)	ons
1986	Oct. 1-31 (31)	Oct. 11-19 (9)	oe Se
1987	Oct. 1-Nov. 15 (46)	Oct. 17-25 (9)	Separate Archery and Firearm Seasons
1988	Oct. 1-Nov. 15 (46)	Oct. 15-23 (9)	ir
1989	Oct. 1-Nov. 28 (59)	Oct. 11-22 (12)	<u>E</u> <u>2</u>
1990	Oct. 1-Nov. 27, Dec. 10-31 (80)	Oct. 10-21 (12)	y an
1991	Oct. 1-Dec. 3, Dec. 16-31 (80)	Oct. 9-20 (12)	her
1992	Oct. 1-Dec. 1, Dec. 14-31 (80)	Oct. 14-25 (12)	Arc
1993	Oct. 1-Nov. 30, Dec. 13-31 (80)	Oct. 13-24 (12)	rate
1994	Oct. 1-Nov. 29, Dec. 12-31 (80)	Oct. 12-23 (12)	ed
1995	Oct. 1-Nov. 28, Dec. 11-31 (80)	Oct. 11-22 (12)	ω
1996	Oct. 1-Dec. 3, Dec. 16-31 (80)	Oct. 9-20 (12)	
1997	Oct. 1-Dec. 2, Dec. 15-31 (80)	Oct. 8-19 (12)	
1998	Oct. 1-Dec. 1, Dec. 14-31 (80)	Oct. 7-18 (12)	
1999	Oct. 1-Nov. 30, Dec. 13-31 (79)	Oct. 6-17 (12)	
2000	Oct. 2-Nov. 28, Dec. 11-31 (78)	Oct. 11-22 (12)	
2001			Oct. 1-Nov.27, Dec. 10-31 (80)
2002			Oct. 1-Dec. 3, Dec. 16-31 (80)
2003	Combined into one	soason	Oct. 1-Dec. 2, Dec. 15-31 (80)
2004	Compined into one	SEASUN	Oct. 1-Nov. 30, Dec. 13-31 (80)
2005-06			Oct. 1-Nov. 29, Dec. 12-31, Jan. 9-31 (103)
2006-07			Oct. 1-Nov. 28, Dec. 11-31, Jan. 8-31 (104)

<sup>&</sup>lt;sup>a</sup> Value in parentheses was the number of days open to hunting during the season. <sup>b</sup> In 1980 there were separate fall archery seasons in eastern and western Kansas. The eastern Kansas season was open 12 days longer than the western season.

Table 2. Kansas fall turkey permit sales and generated revenue, 1979-2006(7).

Season	Resident <sup>a</sup>	Non-Resident <sup>b</sup>	LO/T <sup>c</sup>	Game Tags <sup>d</sup>	<b>Total Permits</b>	Total Revenue
1979	207	0	40	NT <sup>e</sup>	247	\$4,540
1980	265	0	NT	NT	265	\$4,940
1981	516	0	NT	NT	516	\$10,320
1982	668	0	NT	NT	668	\$13,360
1983	1,280	0	NT	NT	1,280	\$25,600
1984	1,221	0	NT	NT	1,221	\$24,420
1985	1,396	0	NT	NT	1,396	\$27,920
1986	1,642	0	NT	NT	1,642	\$33,661
1987	1,306	7	603	NT	1,916	\$33,318
1988	1,382	11	655	NT	2,048	\$35,295
1989	1,576	11	814	NT	2,401	\$41,185
1990	1,820	11	378	NT	2,209	\$41,614
1991	1,719	29	638	NT	2,386	\$42,823
1992	2,087	25	1,019	NT	3,131	\$54,245
1993	2,057	30	1,150	NT	3,237	\$55,238
1994	2,734	52	1,783	NT	4,569	\$76,474
1995	2,339	81	1,538	NT	3,958	\$58,519
1996	2,505	133	1,543	NT	4,181	\$71,930
1997	2,516	162	1,566	NT	4,244	\$73,675
1998	2,924	200	1,710	NT	4,834	\$84,570
1999	3,383	246	1,864	NT	5,493	\$96,895
2000	4,001	386	2,056	NT	6,443	\$115,875
2001	5,821	591	2,236	1,916	10,564	\$176,510
2002	6,797	817	2,601	4,127	14,342	\$228,490
2003	6,723	1,094	2,672	3,977	14,466	\$244,839
2004	7,122	1,350	2,839	3,865 (569) <sup>f</sup>	15,176	\$271,955
2005-2006	7,204	1,778	2,435	4,607 (741)	16,024	\$309,701
2006-2007	7,215	1,959	2,523	4,530 (819)	16,227	\$316,678

<sup>&</sup>lt;sup>a</sup> Includes resident archery, firearm, and the universal fall permit that is currently issued.

b Includes non-resident archery, firearm, and the universal non-resident permit that is currently issued.

<sup>&</sup>lt;sup>c</sup> Includes landowner/tenant (LO/T) archery, LO/T firearms, hunt-own-land permits, non-resident landowner, and the universal LO/T permit currently being issued.

<sup>&</sup>lt;sup>d</sup> A universal game tag was issued from 2001-2003 regardless of the hunter's state of residency. The total includes both resident and non-resident game tags.

<sup>&</sup>lt;sup>e</sup> NT = No tag issued.

<sup>&</sup>lt;sup>f</sup>The value in parentheses was the number of game tags issued to non-residents.

Table 3. Statewide estimates of sex-specific harvest, total harvest, and active hunters during Kansas' fall wild turkey seasons, 1979-2006(07). When available a 95% confidence interval is presented for each point estimate.

Season	Active Hunters <sup>a</sup>	95% C.I.	Archery Harvest	95% C.I.	Firearm Harvest	95% C.I.	Total Harvest	95% C.I.
1979	287	NEb	37	NE	NS°	NE	37	NE
1980	265	NE	35	NE	NS	NE	35	NE
1981	516	NE	48	NE	141	NE	189	NE
1982	668	NE	66	NE	228	NE	294	NE
1983	1,280	NE	42	NE	482	NE	524	NE
1984	1,221	NE	30	NE	391	NE	421	NE
1985	1,396	NE	64	NE	390	NE	454	NE
1986	1,642	NE	83	NE	527	NE	610	NE
1987	1,916	NE	119	NE	603	NE	722	NE
1988	2,048	NE	106	NE	708	NE	814	NE
1989	2,401	NE	125	NE	609	NE	734	NE
1990	2,209	NE	160	NE	581	NE	741	NE
1991	2,386	NE	193	NE	677	NE	870	NE
1992	3,131	NE	219	NE	919	NE	1,138	NE
1993	3,237	NE	216	NE	840	NE	1,056	NE
1994	4,569	NE	241	NE	1,550	NE	1,791	NE
1995	3,958	NE	199	NE	934	NE	1,133	NE
1996	4,181	NE	61	NE	958	NE	1,019	NE
1997	4,244	NE	162	NE	1,593	NE	1,755	NE
1998	4,834	NE	215	NE	2,019	NE	2,234	NE
1999	5,493	NE	301	NE	2,236	NE	2,537	NE
2000	6,443	NE	340	NE	2,695	NE	3,035	NE
2001	8,648	NE	NE	NE	NE	NE	4,441	NE
2002	10,215	NE	NE	NE	NE	NE	5,468	NE
2003	10,489	NE	NE	NE	NE	NE	4,199	NE
2004	10,031	(9,695 - 10,293)	427	(288 - 625)	4,881	(4,683 - 5,020)	5,308	(4,612 - 6,004)
2005-06	10,182	(9,880 - 10,431)	613	(457 – 815)	5,623	(5,421 – 5,779)	6,236	(5,583 - 6,889)
2006-07	9,683	(9,384 - 9,950)	770	<i>(624 – 946)</i>	5,342	(5,167 – 5,489)	6,112	(5,586 - 6,639)

 $<sup>^{\</sup>rm a}$  Prior to 2004 the number presented was the initial permit buyers whether or not they hunted.  $^{\rm b}$  NE = no estimate.

<sup>&</sup>lt;sup>c</sup> NS = no season.

Table 4. Percentage of the Kansas fall turkey harvest composed of females and estimates of hunt success, 1979-2006(07).

Cassan	Female Harvest		Success (%) <sup>a</sup>	
Season	(% of total)	Archery	Firearms	Overall
1979	NE <sup>b</sup>	18%	NS°	18%
1980	NE	16%	NS	16%
1981	NE	23%	56%	NE
1982	NE	30%	66%	NE
1983	NE	23%	59%	NE
1984	NE	18 <b>%</b>	48%	NE
1985	NE	19%	53%	NE
1986	NE	21%	56%	NE
1987	NE	23%	58%	NE
1988	NE	23%	58%	NE
1989	NE	17%	55%	NE
1990	NE	24%	45%	NE
1991	NE	24%	57%	NE
1992	NE	25%	49%	NE
1993	NE	22%	49%	NE
1994	NE	22%	56%	NE
1995	NE	20%	43%	NE
1996	NE	26%	54%	NE
1997	43%	16%	49%	NE
1998	40%	20%	55%	NE
1999	43%	20%	56%	NE
2000	35%	20%	56%	NE
2001	NE	NE	NE	NE
2002	18%	NE	NE	56%
2003	17%	NE	NE	44%
2004	37%	NE	NE	45%
2005-06	33%	NE	NE	52%
2006-07	33%	NE	NE	53%

<sup>&</sup>lt;sup>a</sup> The percentage of active hunters harvesting at least 1 bird.
<sup>b</sup> NE = no estimate.
<sup>c</sup> NS = no season.

Table 5. Percent of active statewide resident and non-resident fall turkey hunters purchasing 1 game tag, 2 game tags, and 3 game tags, 2004-2006(7). Only those hunters that pursued turkeys with the initial permit were considered active.

Conon	Resident				Non-resident			All Active Hunters		
Season	GT1	GT2	GT3	-	GT1	GT2	GT3	GT1	GT2	GT3
2004	58.1%	15.2%	6.9%		56.8%	16.9%	11.9%	57.7%	15.7%	8.3%
2005-2006	52.0%	19.0%	6.4%		51.0%	24.0%	9.0%	51.8%	19.9%	6.9%
2006-2007	46.4%	22.9%	8.0%		55.1%	24.7%	9.5%	48.2%	24.3%	8.3%

Table 6. Statewide percentage of active Kansas wild turkey hunters that filled their initial permit and 1 game tag, 2 game tags, and 3 game tags, 2004-2006(7). Only those hunters that pursued turkeys with the initial permit were considered active.

Season	Initial permit & GT1	Initial permit & GT2	Initial permit & GT3
2004	13.8%	6.2%	3.1%
2005-2006	14.9%	4.2%	2.6%
2006-2007	17.1%	5.6%	2.8%

Table 7. Statewide tag-specific harvest estimates for the fall wild turkey season in Kansas, 2004-2006(7). Estimates are also presented for the 3 management regions that approximate hunt unit 2, which is the only unit where all 4 tags were valid.

Season		Statewide				Approximate Hunt Unit 2 (SE, NE, & SC Mgt. Regions)			
Season	Initial	Game	Game	Game	Initial	Game	Game	Game	
	Permit	Tag 1	Tag 2	Tag 3	Permit	Tag 1	Tag 2	Tag 3	
2004	4,527	467	209	104	3,286	401	176	83	
	(85.3%) <sup>a</sup>	(8.8%)	(3.9%)	(2.0%)	(83.3%)	(10.2%)	(4.5%)	(2.1%)	
2005-2006	5,296	635	180	123	3,363	478	157	86	
	(85.0%)	(10.2%)	(2.9%)	(2.0%)	(82.3%)	(11.7%)	(3.8%)	(2.1%)	
2006-2007	5,166	659	155	131	3,564	563	126	109	
	(84.5%)	(10.8%)	(2.5%)	(2.1%)	(81.7%)	(12.9%)	(2.9%)	(2.5%)	

<sup>&</sup>lt;sup>a</sup> Values in parentheses are the percentages of the total annual harvest taken with each type of tag.

Table 8. Statewide and regional estimates of active hunters that used walk-in-hunting areas (WIHA), public land, and private land during Kansas' fall wild turkey seasons, 2004-2006(7). Active hunters were estimated from the proportion of respondents that indicated they hunted on each land type. Many individuals reported hunting on multiple land types.

Design Voor	,	WIHA	Pul	blic Land	Private Land		
Region-Year	Estimate	95% C.I.	Estimate	95% C.I.	Estimate	95% C.I.	
Northcentral							
2004	191	(99-346)	143	(67-289)	1,406	(1,281-1,452)	
2005-2006	358	(238-521)	233	(138-378)	1,825	(1,690-1,905)	
2006-2007	388	(280-524)	438	(324-578)	1,727	(1,610-1,807)	
Northeast							
2004	500	(335-725)	524	(355-751)	2,764	(2,582-2,871)	
2005-2006	394	(265-569)	501	(355-689)	2,326	(2,155-2,448)	
2006-2007	350	(247-488)	726	(579-893)	2,302	(2,170-2,397)	
Northwest							
2004	191	(103-307)	48	(13-149)	501	(389-558)	
2005-2006	90	(39-191)	36	(10-120)	877	(801-892)	
2006-2007	175	(109-262)	75	(35-150)	625	(561-650)	
Southcentral							
2004	191	(99-347)	167	(82-318)	1,430	(1,305-1,476)	
2005-2006	250	(152-400)	438	(323-582)	1,986	(1,854-2,061)	
2006-2007	250	(165-372)	438	(323-582)	2,039	(1,921-2,119)	
Southeast							
2004	286	(166-478)	715	(516-961)	2,835	(2,647-2,949)	
2005-2006	250	(152-400)	322	(209-482)	1,951	(1,825-2,015)	
2006-2007	200	(125-314)	400	(290-541)	2,052	(1,933-2,132)	
Southwest							
2004	24	(4-113)	NE	NA	465	(405-465)	
2005-2006	$NE^a$	$NA^b$	18	(3-88)	465	(405-465)	
2006-2007	NE	NA	13	(2-60)	263	(215-273)	
Statewide							
2004	1,382	(1,083-1,749)	1,596	(1,275-1,982)	9,650	(9.276-9,956)	
2005-2006	1,396	(1,131-1,712)	1,378	(1,115-1,693)	9,735	(9,397-10,025)	
2006-2007	1,326	(1,107-1,583)	1,989	(1,723-2,286)	9,095	(8,770-9,393)	

<sup>&</sup>lt;sup>a</sup> NE = no estimate; no respondents reported hunting on that specific land type within the listed region.

<sup>&</sup>lt;sup>b</sup> NA = not applicable.

Table 9. Statewide and regional estimates of harvest on walk-in-hunting areas (WIHA), public land, and private land during Kansas' fall wild turkey seasons, 2004-2006(7).

Dagian Vaca	V	VIHA	Pub	lic Land	Private Land		
Region-Year	Estimate	95% C.I.	Estimate	95% C.I.	Estimate	95% C.I.	
Northcentral							
2004	18	(3-93)	54	(19-144)	668	(573-712)	
2005-2006	87	(40-181)	87	(40-181)	1,222	(1,109-1,295)	
2006-2007	74	(36-146)	168	(106-259)	978	(879-1,055)	
Northeast							
2004	115	(54-234)	134	(66-258)	1,055	(913-1,154)	
2005-2006	30	(8-105)	315	(212-452)	1,276	(1,136-1,384)	
2006-2007	65	(32-130)	222	(152-317)	1,412	(1,309-1,493)	
Northwest							
2004	95	(39-189)	$NE^a$	$NA^b$	286	(193-342)	
2005-2006	18	(3-90)	NE	NA	537	(465-552)	
2006-2007	13	(2-62)	NE	NA	325	(276-336)	
Southcentral							
2004	17	(3-91)	52	(18-141)	847	(752-889)	
2005-2006	43	(15-120)	100	(49-195)	1,048	(944-1,112)	
2006-2007	40	(16-99)	100	(55-177)	1,256	(1,171-1,311)	
Southeast							
2004	17	(3-95)	175	(96-304)	1,536	(1,403-1,619)	
2005-2006	42	(14-118)	84	(39-174)	1,124	(1,024-1,183)	
2006-2007	50	(22-113)	170	(109-260)	1,053	(957-1,124)	
Southwest							
2004	NE	NA	NE	NA	238	(172-238)	
2005-2006	NE	NA	NE	NA	215	(163-215)	
2006-2007	NE	NA	13	(2-56)	175	(132-186)	
Statewide							
2004	240	(142-403)	425	(287-623)	4,642	(4,413-4,820)	
2005-2006	223	(136-363)	595	(442-794)	5,418	(5,195-5,599)	
2006-2007	241	(163-354)	683	(544-851)	5,189	(5,002-5,350)	

 $<sup>^{</sup>a}$  NE = no estimate; no respondents reported hunting on that specific land type within the listed region.  $^{b}$  NA = not applicable.

Table 10. Regional estimates and 95% confidence intervals of active hunters, total harvest, and success during Kansas' fall wild turkey season, 2004-2006(7).

Danian Vann	Activ	e hunters <sup>a</sup>	Tota	al harvest	Suc	ccess (%) <sup>b</sup>
Region-Year	Estimate	95% C.I.	Estimate	95% C.I.	Estimate	95% C.I.
Northcentral						
2004	1,430	(1,125-1,801)	740	(503-977)	43.3%	(31.6%-55.9%)
2005-2006	1,968	(1,656-2,325)	1,396	(1,130-1,657)	59.1%	(49.7%-67.8%)
2006-2007	1,902	(1,641-2,194)	1,220	(1,031-1,410)	56.6%	(48.6%-64.2%)
Northeast						
2004	2,978	(2,554-3,445)	1,304	(960-1,652)	38.4%	(30.3%-47.2%)
2005-2006	2,666	(2,310-3,059)	1,620	(1,316-1,915)	51.7%	(43.7%-59.6%)
2006-2007	2,452	(2,161-2,771)	1,698	(1,446-1,952)	54.1%	(47.1%-60.9%)
Northwest						
2004	596	(406-866)	381	(269-493)	64.0%	(44.5%-79.8%)
2005-2006	895	(684-1,163)	554	(437-673)	62.0%	(48.2%-74.1%)
2006-2007	663	(510-859)	337	(251-424)	50.9%	(37.9%-63.9%)
Southcentral						
2004	1,477	(1,168-1,853)	915	(645-1,179)	50.0%	(37.9%-62.1%)
2005-2006	2,112	(1,790-2,477)	1,191	(909-1,477)	46.6%	(37.9%-55.6%)
2006-2007	2,164	(1,888-2,470)	1,395	(1,159-1,631)	53.8%	(46.3%-61.0%)
Southeast						
2004	3,026	(2,599-3,494)	1,727	(1,348-2,107)	46.5%	(38.0%-55.1%)
2005-2006	2,076	(1,756-2,439)	1,250	(963-1,534)	48.3%	(39.4%-57.3%)
2006-2007	2,227	(1,948-2,536)	1,273	(1,047-1,503)	48.3%	(41.1%-55.6%)
Southwest						
2004	500	(329-754)	238	(131-345)	47.6%	(28.3%-67.6%)
2005-2006	465	(319-674)	214	(126-303)	46.2%	(28.8%-64.5%)
2006-2007	275	(182-414)	187	(135-240)	68.2%	(47.3%-83.6%)

<sup>&</sup>lt;sup>a</sup> Hunters were assigned to a region based on the county they most often hunted. <sup>b</sup> Success was the percentage of active hunters that harvested at least 1 bird.

Figure 1. The 4 fall turkey hunting units in Kansas, 2006-2007.

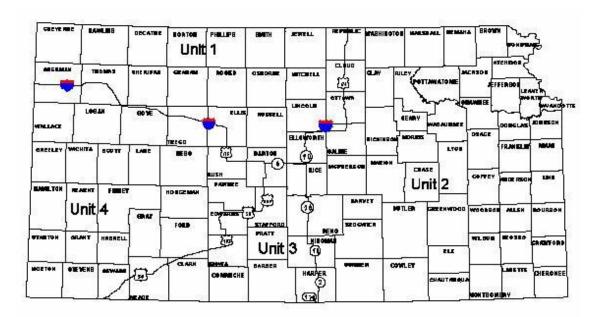


Figure 2. Fall 2006-2007 Kansas wild turkey harvest questionnaire.

- 1. What is your state of residence?
- 2. What is your county of residence?
- 3. Did you hunt turkeys during the fall 2006-2007 season.
  - 1. Yes
  - 2. No
- 4. Which of the below options best describes your fall turkey hunting style?
  - 1. I go afield in the fall specifically to hunt turkey
  - 2. I opportunistically hunt turkeys in the fall while going afield primarily to hunt for another species
- 5. Did you use archery equipment to hunt turkeys at any time during the fall 2006-2007 season?
  - 1. Yes
  - 2. No
- 6. In which county did you most often hunt while using your initial fall turkey permit?
- 7. Did you hunt on a public wildlife area while using your initial fall turkey permit?
  - 1 Yes
  - 2 No
- 8. On which area did you most often hunt while using your initial fall turkey permit?

rigare 2. continued
9. How did you perceive fall turkey hunting pressure on the wildlife area you selected in the previous question?
1 Light 2 Moderate 3 Heavy
10. Did you fall turkey hunt on Walk-In-Hunting-Areas (WIHA) land while using your initial permit?
1 Yes 2 No
11. Please indicate the below option that best describes your harvest using ONLY your initial fall turkey permit (excluding game tags)?
<ul> <li>1 Adult Male</li> <li>2 Juvenile Male</li> <li>3 Adult Female</li> <li>4 Juvenile Female</li> <li>5 Hunted but did not harvest a bird</li> <li>6. Did not hunt</li> </ul>
12. In which county did you harvest your first turkey?
13. On what date did you harvest your first turkey?
14. Did you take your first turkey using a firearm or archery equipment?
1. Firearm 2. Archery
15. Was your first turkey harvested on a Wildlife Area, WIHA, or Private Land?
1. Wildlife Area 2. WIHA 3. Private Land
16. On which wildlife area did you harvest your first turkey?
17. How many fall 2006-2007 Turkey Game tags did you purchase?
0 1 2 3

·
18. The following questions pertain to your hunting activities while using ONLY your second turkey permit (referred to as the first game tag). Please select the below option that best describes the type of bird you harvested using your first game tag. Please indicate if you did not hunt or did not harvest a turkey using this game tag.
<ul> <li>1 Adult Male</li> <li>2 Juvenile Male</li> <li>3 Adult Female</li> <li>4 Juvenile Female</li> <li>5 Hunted but did not harvest a bird</li> <li>6. Did not hunt</li> </ul>
19. In which county did you most often hunt?
20. In which county did you harvest your turkey?
21. Did you hunt on a public wildlife area?
1 Yes 2 No
22. On which Wildlife Area did you most often hunt?

23. How did you perceive hunting pressure on the wildlife area you selected in the previous question?

1 Yes

1 Light2 Moderate3 Heavy

- 2 No
- 25. Was your second turkey harvested on a Wildlife Area, WIHA, or Private Land?
  - 1 Wildlife Area
  - 2 WIHA
  - 3 Private Land
- 26. On which Wildlife Area did you harvest your second turkey?
- 27. On what date did you harvest your second turkey?
- 28. Did you take your second turkey using a firearm or archery equipment?
  - 1 Firearm
  - 2 Archery

29. The following questions pertain to your hunting activities while using ONLY your third turkey permit (referred
to as the second game tag). Please select the below option that best describes the type of bird you harvested
using your second game tag. Please indicate if you did not hunt or did not harvest a turkey using this game tag.

to as the second game tag). Please select the below option that best describes the type of bird using your second game tag. Please indicate if you did not hunt or did not harvest a turkey us	
<ul> <li>1 Adult Male</li> <li>2 Juvenile Male</li> <li>3 Adult Female</li> <li>4 Juvenile Female</li> <li>5 Hunted but did not harvest a bird</li> <li>6. Did not hunt</li> </ul>	
30. In which county did you most often hunt?	
31. In which county did you harvest your third turkey?	
32. Did you hunt on a public wildlife Area?	
1 Yes 2 No	
33. On which Wildlife Area did you most often hunt?	
34. How did you perceive hunting pressure on the wildlife area you selected in the previous qu	estion?
1 Light 2 Moderate 3 Heavy	
35. Did you hunt Walk In Hunting Access (WIHA) land?	
1 Yes 2 No 36. Was your third turkey harvested on a Wildlife Area, WIHA, or Private Land?	
1 Wildlife Area 2 WIHA 3 Private Land	
37. On which Wildlife Area did you harvest your third turkey?	
38. On what date did you harvest your third turkey?	
39. Did you take your third bird use a firearm or archery equipment?	
1 Firearm 2 Archery	

40. The following questions pertain to your hunting activities while using ONLY your fourth turkey permit (referred to as the third game tag). Please select the below option that best describes the type of bird you harvested using your third game tag. Please indicate if you did not hunt or did not harvest a turkey using this game tag.
1 Adult Male
2 Juvenile Male
3 Adult Female
4 Juvenile Female

41. In which county did you most often hunt?

6. Did not hunt

42. In which county did you harvest your fourth turkey?

5 Hunted but did not harvest a bird

- 43. Did you hunt on a public wildlife area?
  - 1 Yes
  - 2 No
- 44. On which Wildlife Area did you most often hunt?
- 45. How did you perceive hunting pressure on the wildlife areas you selected in the previous question?
  - 1 Light
  - 2 Moderate
  - 3 Heavy
- 46. Did you hunt Walk In Hunting Access (WIHA) land?
  - 1 Yes
  - 2 No
- 47. Was your fourth turkey harvested on a Wildlife Area, WIHA, or Private Land?
  - 1 Wildlife Area
  - 2 WIHA
  - 3 Private Land
- 48. On which Wildlife Area did you harvest your fourth turkey?
- 49. On what date did you harvest your fourth turkey?
- 50. Did you take your fourth turkey using a firearm or archery equipment?
  - 1 Firearm
  - 2 Archery

- 51. How would you best describe your satisfaction with the Kansas turkey Management Program?
  - 1 Very Dissatisfied
  - 2 Dissatisfied
  - 3 Uncertain
  - 4 Satisfied
  - 5 Very Satisfied
- 52. Which of the following best describes your satisfaction with Kansas turkey hunting?
  - 1 Very Dissatisfied
  - 2 Dissatisfied
  - 3 Uncertain
  - 4 Satisfied
  - 5 Very Satisfied
- 53. Please include any additional comments you may have. Thank you for your time! Be sure to click the Submit button to complete the survey.

Figure 3. The 6 wild turkey management regions in Kansas.

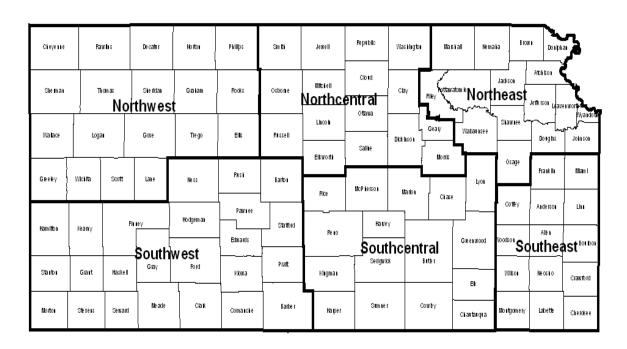


Figure 4. Weekly and cumulative harvest distribution for wild turkeys during the fall 2006-2007 Kansas season. The dashed line is a reference line at the 50<sup>th</sup> percentile. Fall turkey season was closed during the regular deer firearms season (29 Nov. – 10 Dec., 2006) and the late antierless-only deer firearms season (1-7 Jan., 2007).

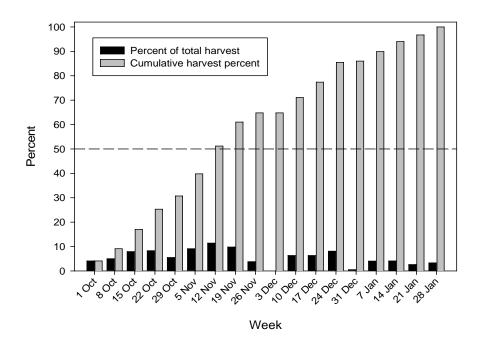


Figure 5. Number of active hunters and their harvest during the Kansas fall wild turkey season, 1979-2006(7).

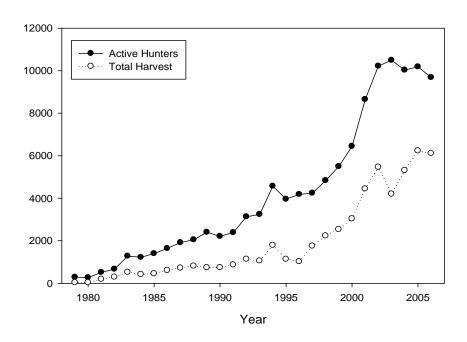


Figure 6. Hunter perceptions of fall turkey hunting pressure in Kansas on publicly owned land contained within each of the 6 turkey management regions and statewide, 2006-2007. Sample sizes were low for the southwest and northwest regions.

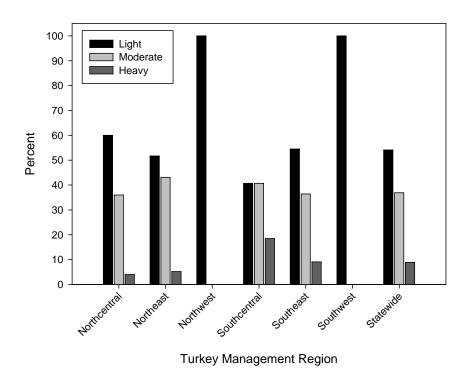


Figure 7. Statewide percent of Kansas fall turkey hunters that indicated they were either satisfied or very satisfied with management and hunting, 2004-2006(7).

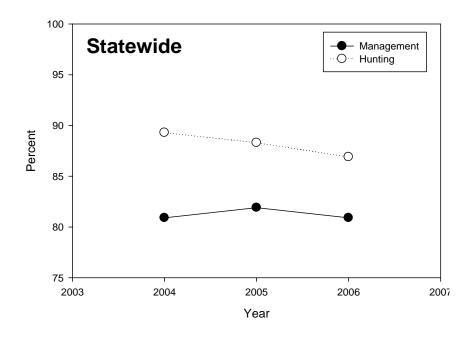


Figure 8. Percent of fall turkey hunters that indicated they were satisfied or very satisfied with management and hunting in each of Kansas' 6 management regions, 2004-2006(7).

