

2022 Kansas Pronghorn Harvest Report

PERFORMANCE REPORT STATEWIDE WILDLIFE RESEARCH AND SURVEYS

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Background – Pronghorn, often referred to by hunters as antelope, mostly exist in Kansas in the westernmost two to three tiers of counties, and mostly South of I-70. There's been a hunting season for pronghorn in western Kansas since 1974. The firearm pronghorn season has been four days long since 1990, starting on the first Friday in October. The archery pronghorn season was nine days long from 1985 to 2004, and encompassed the two weekends prior to the firearm season. Since 2005, the archery season has reopened on the Saturday following the firearms season and continued through the end of October. A muzzleloader only season was initiated in 2001. It has begun immediately after the archery season and ran for four days. Muzzleloader permit holders can also hunt with muzzleloader equipment during the four day firearms season, giving them eight days total.

Archery permits have been unlimited due to traditionally low success rates. Firearm and muzzleloader permit demand and success rates require these permits to be limited draw. They are allocated by preference point system. (Applicants with the highest number of preference points are awarded permits.) Demand for these permits has been high. The number of applicant and preference point purchases for these limited permits has jumped significantly in the past three seasons, averaging almost 2000 during that time (Figure 1). The result of this increase is that general residents are likely going to be impacted by some serious point creep in the coming years. At least part of this increase in applications is the result of the Department consolidating application deadlines for simplicity in 2018 and then providing preference point holders with better notification of upcoming deadlines.

By state law, half of the limited-draw permits are awarded to landowner/tenants and half are awarded to general residents. Draw statistics from 2022 are provided in Appendix 1. Applicants are allowed to buy a preference point without applying for the permit, so preference points higher than necessary to draw sometimes show up in the draw stats. For example, in unit 2 firearms, several general residents had 10 or more preference points when only 6 were needed for a guaranteed draw.

Harvest – Pronghorn harvest and hunter activities are compiled annually through harvest reports sent to all pronghorn hunters. Paper report cards and postage paid tooth envelopes are initially sent to all hunters. After season, a direct link to an online harvest survey is e-mailed to nonrespondents for whom we have an active e-mail address. About a week later, a reminder email is sent. A week after that, all nonrespondents are sent a second mailing of the paper harvest survey. Two to three weeks later, a direct email is sent asking only one question about their overall harvest success (see Fig 6). Results are extrapolated to nonrespondents. Response rate by permit type in 2022 was: archery –72%; firearms – 92%; and muzzleloader – 93%.

An estimate of 169 pronghorn were harvested in 2022. Total pronghorn harvest since hunting seasons were initiated in 1974 is provided in Figure 2. The 2022 harvest

was down 1 pronghorn (<1%) from the 2021 harvest.

Since 1986, all permits have been valid for any antelope. In 2022, an estimated 158 bucks and 11 does and fawns were harvested. The sex and age composition of the harvest since 1995 is provided in Figure 3. In recent years, over 90% of the harvest has consisted of yearling or older bucks. The estimated date of harvest is provided in Figure 4.

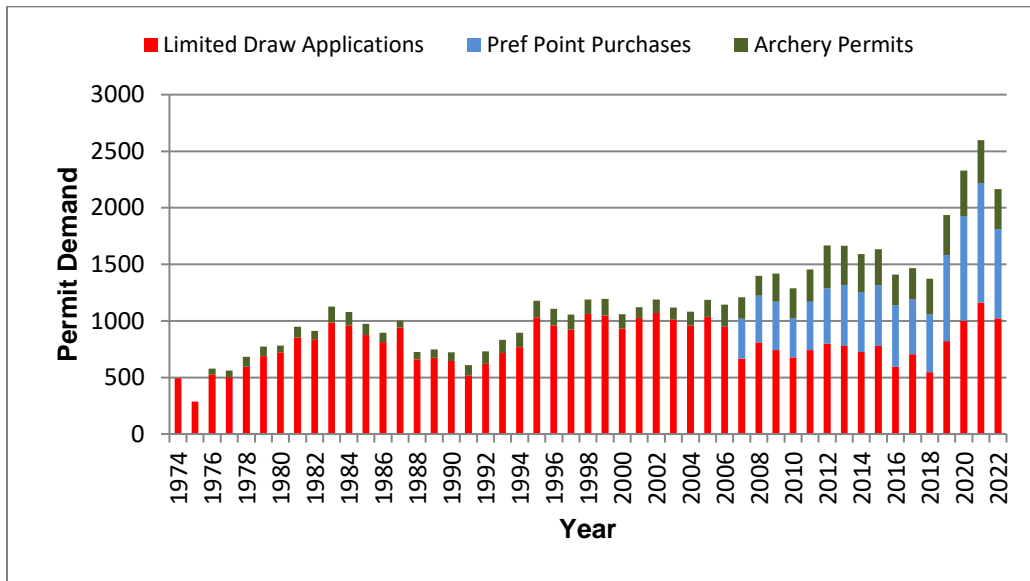


Figure 1. Pronghorn permit demand as indicated by limited draw (firearms and muzzleloader) permit applications and preference point purchases, as well as unlimited archery permit sales in Kansas since 1974.

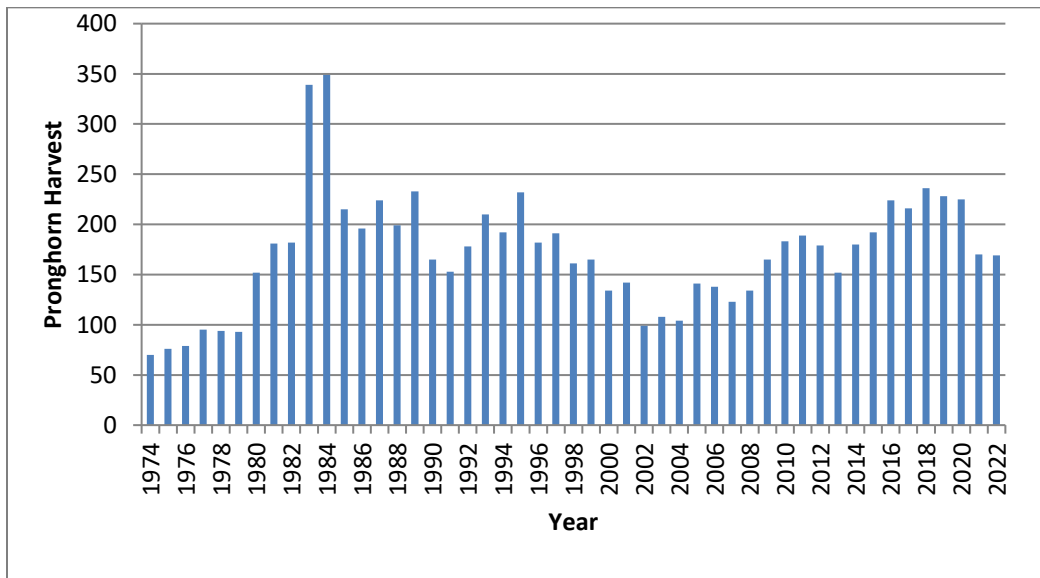


Figure 2. Total pronghorn harvest in Kansas since hunting seasons were initiated in 1974.

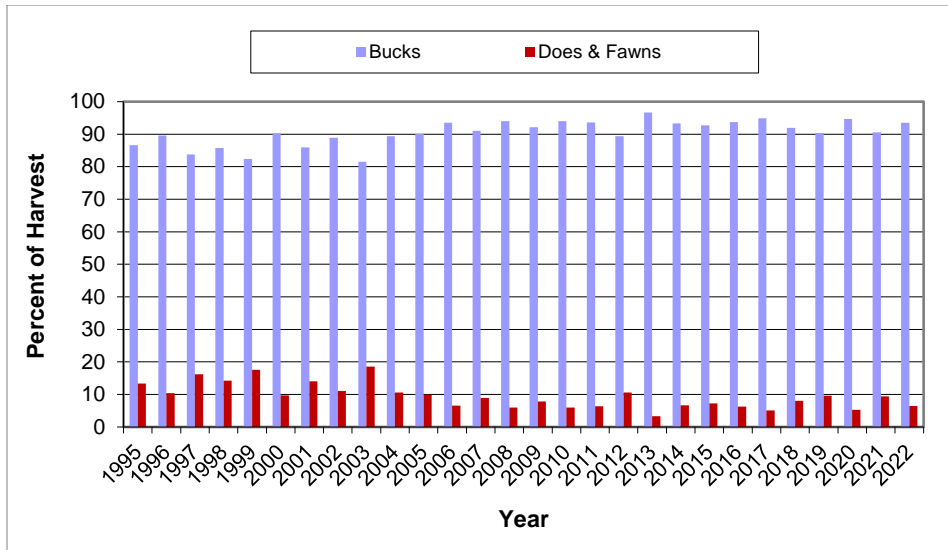


Figure 3. Sex and age composition of annual pronghorn harvest in Kansas since 1995.

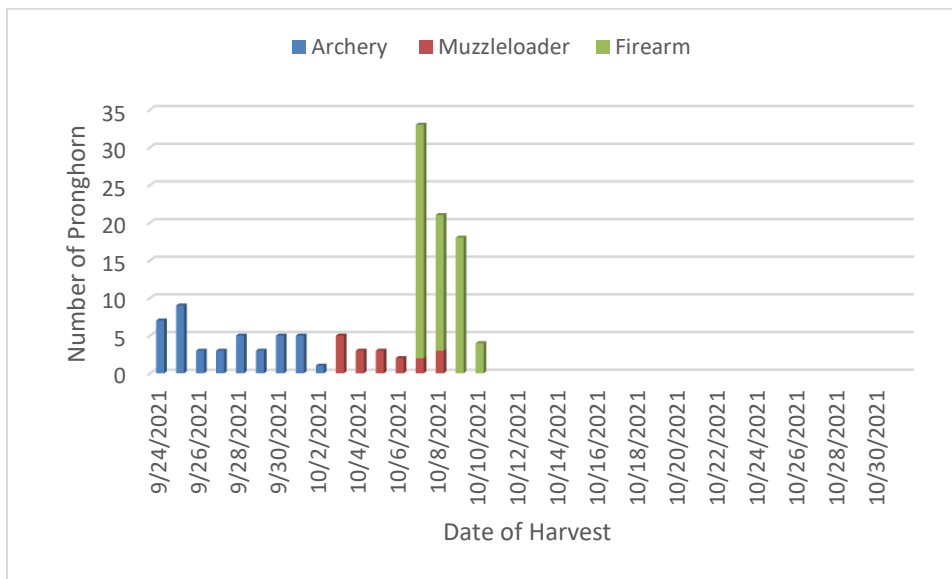


Figure 4. Estimated date of harvest and permit type by which pronghorn were taken in Kansas during the 2022 season (n=130).

Harvest by Weapon Type – The number of pronghorn permits sold by weapon type since 1995 is provided in Figure 5. Limited draw permit allocations were reduced by about 20% in 2021 due to decreasing pronghorn numbers and were kept similar to 2021 numbers in 2022 (n=124 firearms permits and 36 muzzleloader permits). Archery permit sales remained high in 2022 representing the fourth highest sales total on record (n=353), down 6% from last year’s total of 377. Harvest classification by permit type is

presented in Figure 6. Harvest by permit type since 1995 is provided in Figure 7, and success rate by permit type is found in Figure 8.

Pronghorn hunters are asked to rank their hunt satisfaction on a 7-point scale ranging from extremely dissatisfied to extremely satisfied. This serves as a general indicator of hunt quality likely reflecting harvest success, pronghorn numbers, buck quality, access, crowding and various other factors of the hunt. Mean satisfaction by permit type since 2013 is found in Figure 9, and hunter satisfaction by permit type is found in Figure 10.

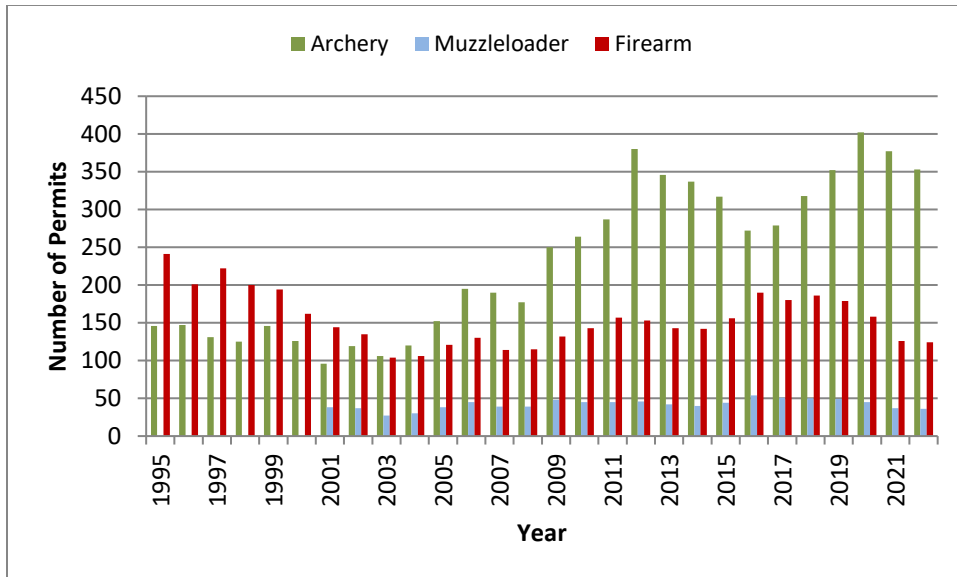


Figure 5. Permits sold by weapon type for pronghorn in Kansas since 1995.

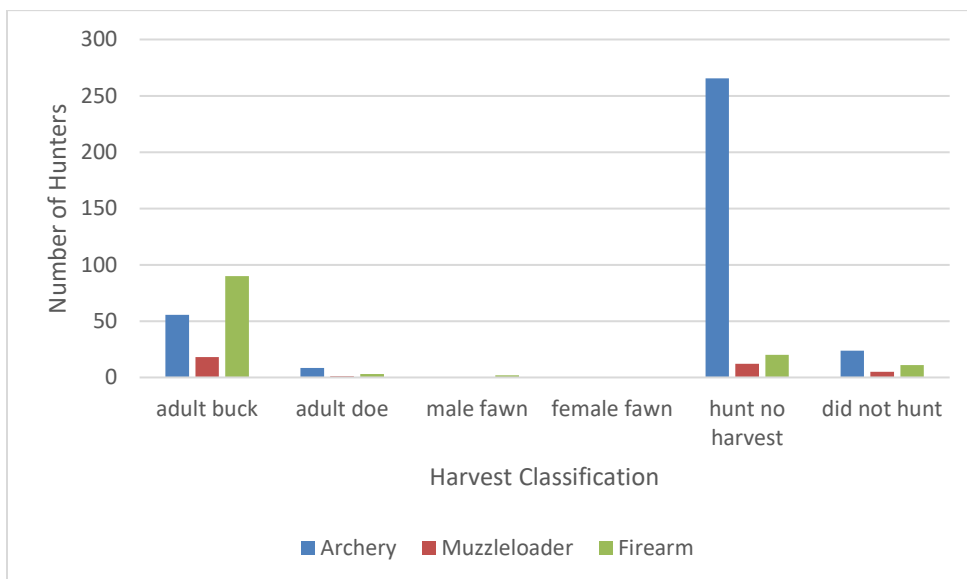


Figure 6. Harvest classification by permit type for 2022 Kansas pronghorn hunters.

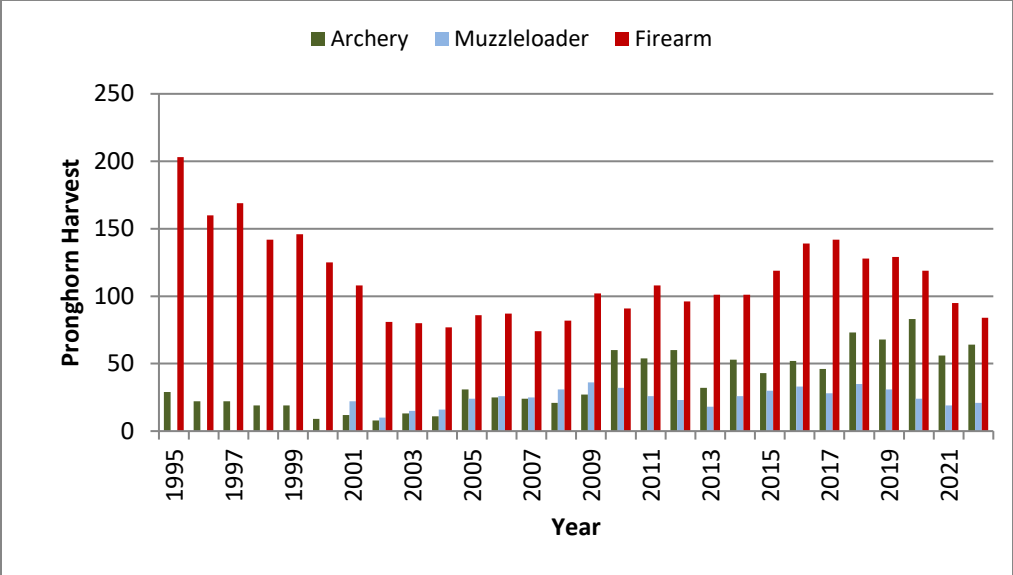


Figure 7. Pronghorn harvest in Kansas by permit type since 1995.

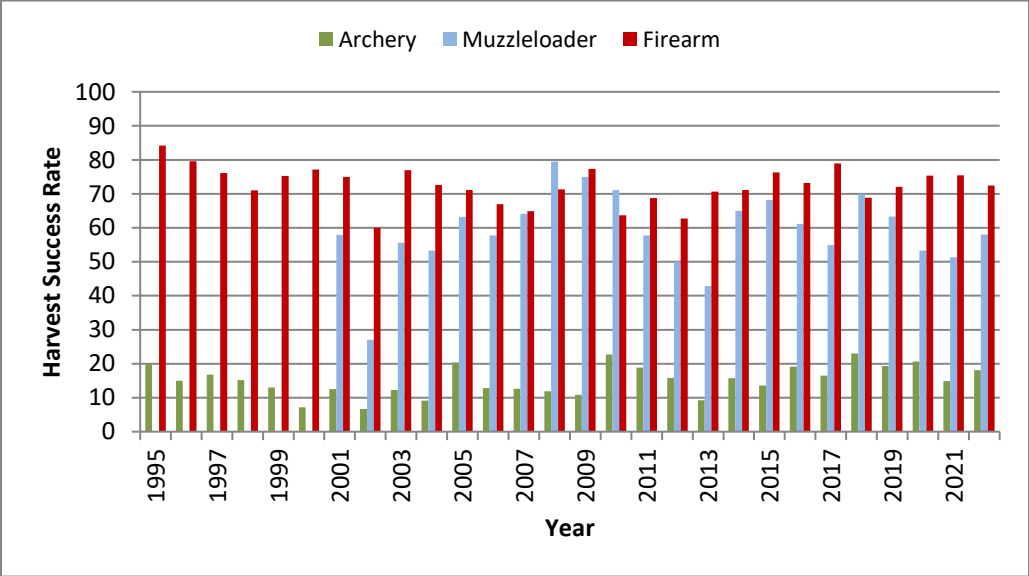


Figure 8. Harvest success rate by permit type for pronghorn in Kansas since 1995.

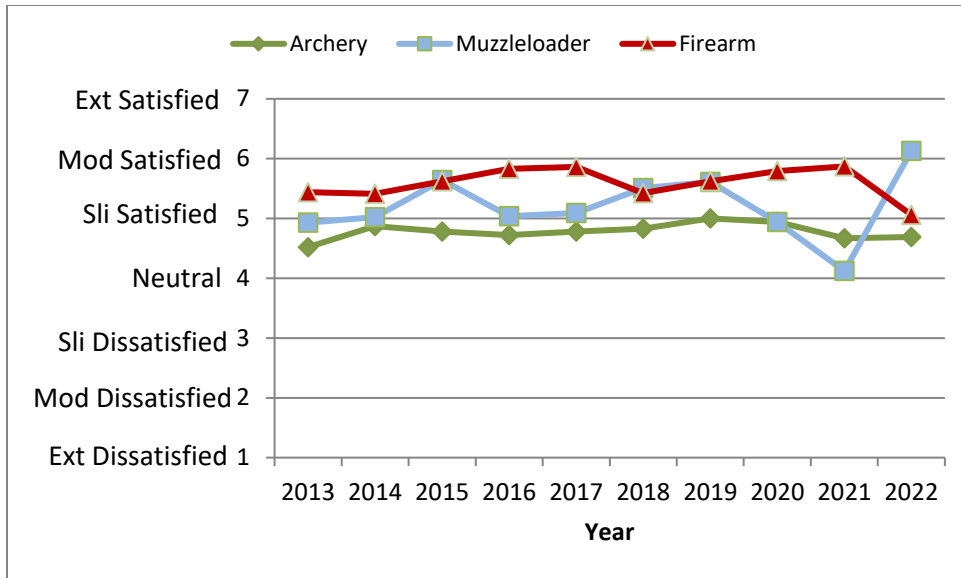


Figure 9. Mean pronghorn hunter satisfaction by permit type in Kansas since 2013.

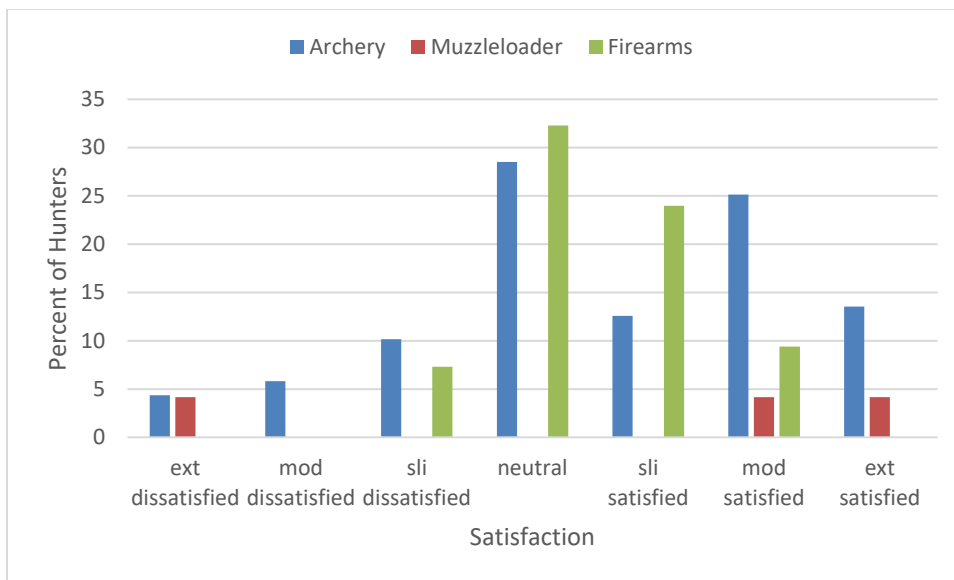


Figure 10. Hunter satisfaction by permit type during the 2022 Kansas pronghorn season.

Harvest by Unit – Three management units are open to pronghorn hunting in Kansas (Figure 11). These units, which are also deer management units, were adopted in 2001 to reduce confusion over big game unit boundaries. Pronghorn are generally uncommon in the easternmost parts of all three units. Firearm and muzzleloader permits are restricted to use in one unit whereas archery permits are valid in all three, so unit analyses below are limited to firearms and muzzleloader permits.

Total firearm and muzzleloader permits allocated in each unit is provided in Figure 12. Total harvest by unit is found in Figure 13. Harvest success by unit is found in Figure 14. Mean Hunt satisfaction by unit is provided in Figure 15. Hunt satisfaction increased substantially in Units 17 and 18, likely attributable in Unit 18 to greatly improve harvest success.

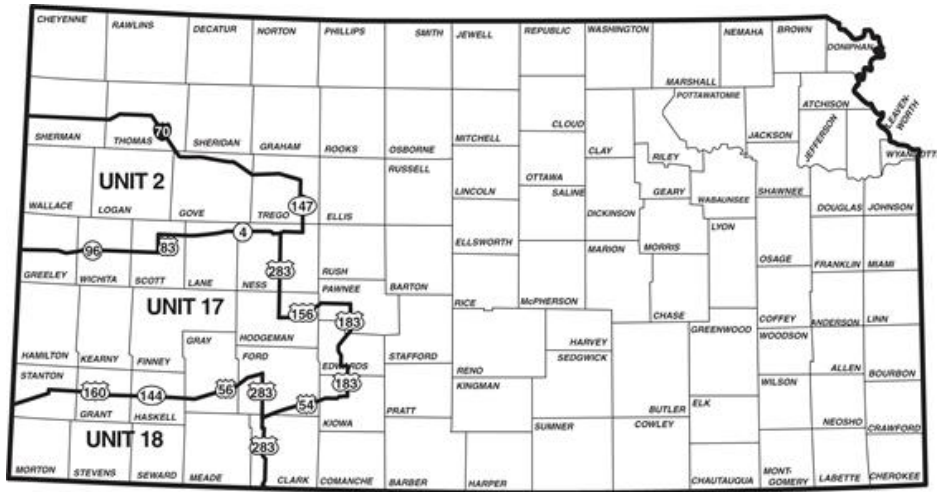


Figure 11. Kansas pronghorn management units.

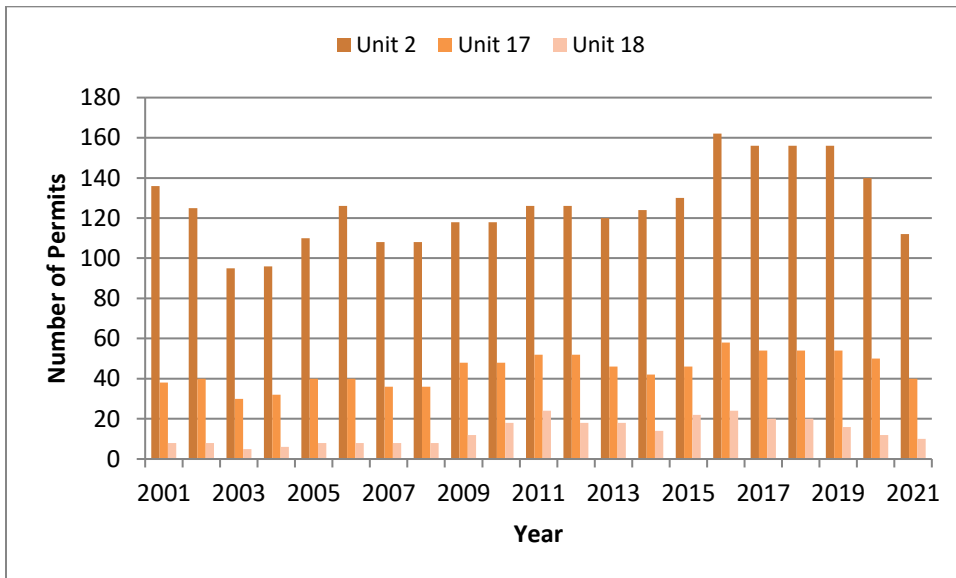


Figure 12. Number of firearm and muzzleloader permits issued in each of the three Kansas pronghorn management units since 2001.

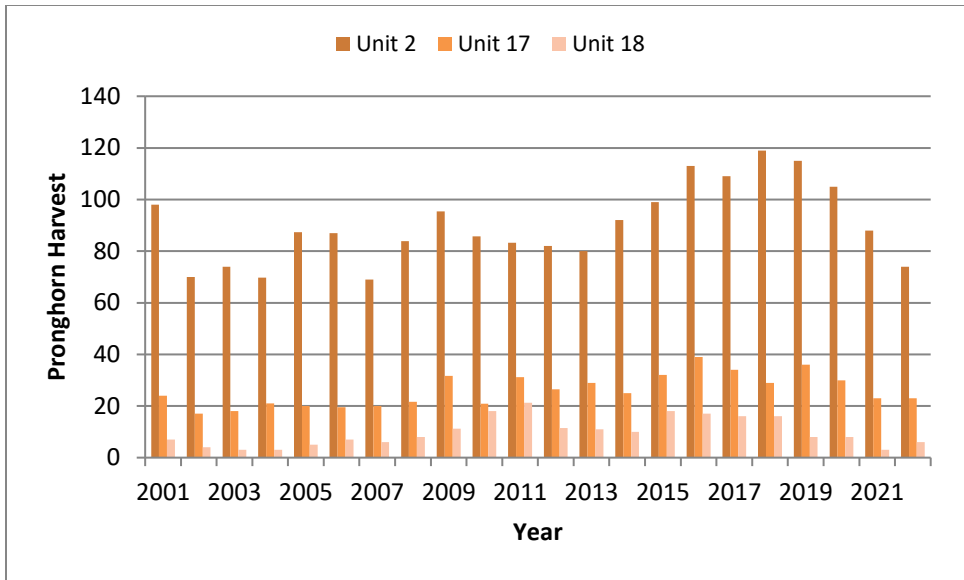


Figure 13. Pronghorn harvest in Kansas by management unit for firearm and muzzleloader permit holders since 2001.

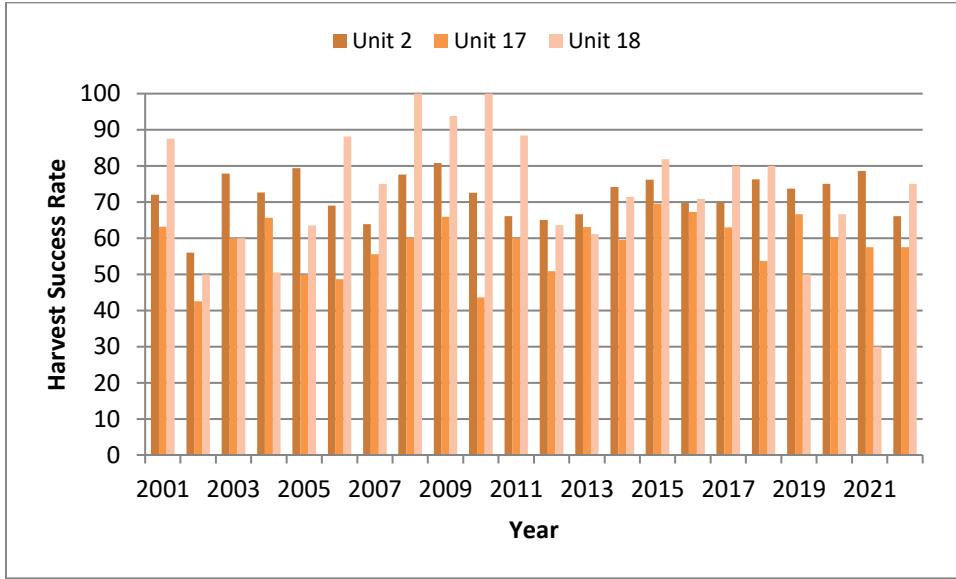


Figure 14. Harvest success rate by pronghorn management unit for firearm and muzzleloader permit holders in Kansas since 2001.

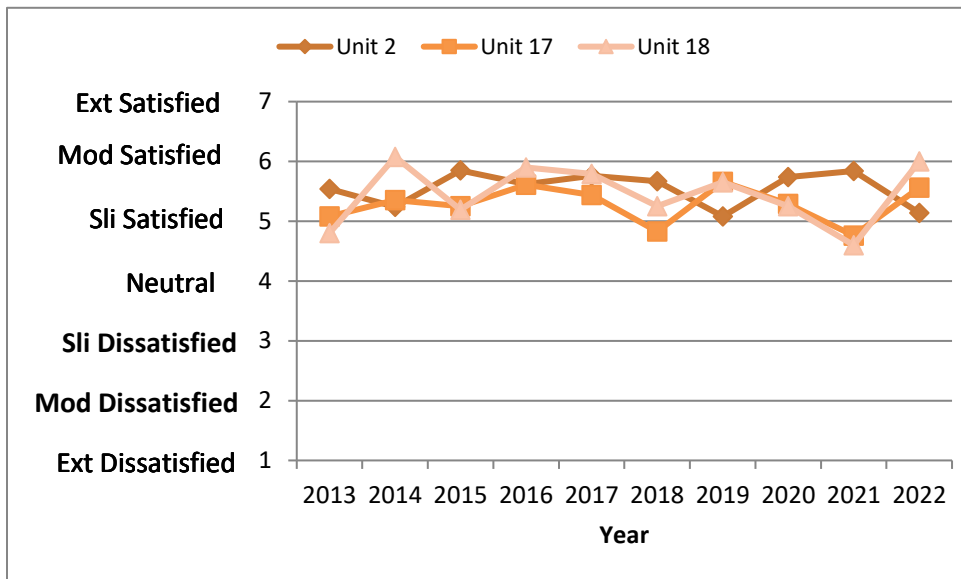


Figure 15. Mean pronghorn hunter satisfaction by unit for firearm and muzzleloader permit holders in Kansas since 2013.

Horn size – As part of the harvest report, the Department began asking hunters to provide horn length and circumference measurements in 2009. Hunters take the measurements themselves, and given the frequency of whole numbers (8, 9...) and even halves (8.5, 9.5...), this data should be considered an estimate. However, it still provides for a meaningful comparison with age data.

Frequency of adult buck horn lengths and circumferences can be found in Figures 16 and 17, respectively. A scatterplot of this data can be found in Figure 18.

Mean horn lengths and circumferences of adult buck pronghorn harvested in Kansas can be found in Figure 19. This year the mean horn length was 12.21 inches, up slightly from the average the previous three years of 12.07. The mean circumference was 5.85 inches, up slightly from the average the previous three years of 5.81. Mean horn length and circumference by management unit and weapon can be found in Figures 20 and 21, respectively. The means for both measurements have been pretty consistent over time. There has generally been minimal difference in mean horn size by unit, though this year Unit 17 posted a better average than the other two units. By weapon type, mean horn length of pronghorn taken by archery hunters has slightly lower than that of pronghorn taken by firearm and muzzleloader, and that was particularly true this year.

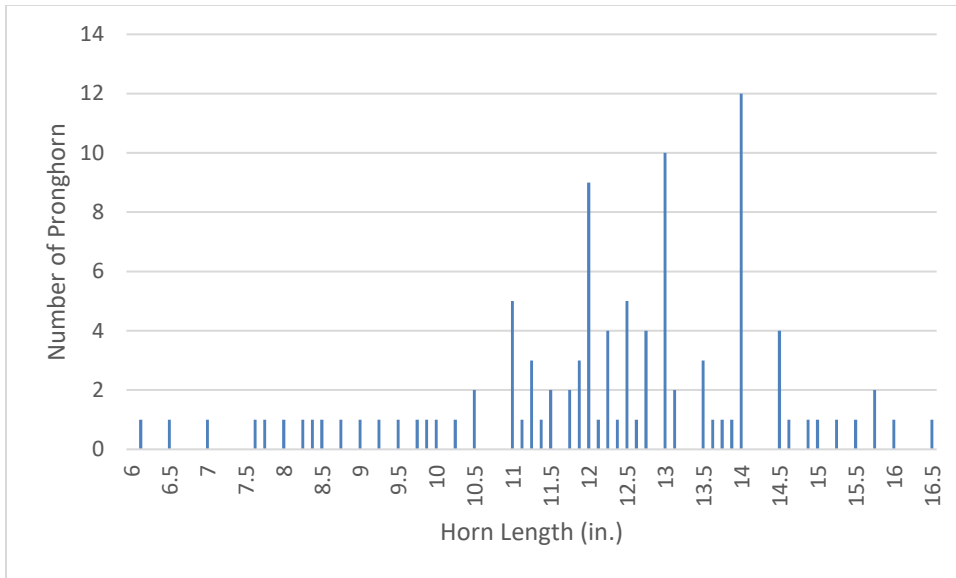


Figure 16. Horn length of adult buck pronghorn harvested in Kansas during the 2021 season (n=91).

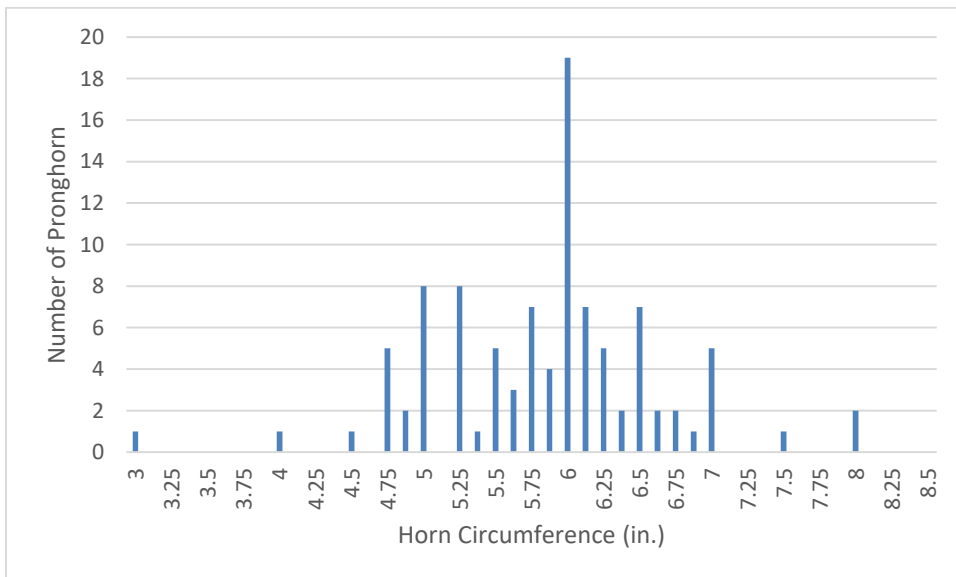


Figure 17. Horn circumference of adult buck pronghorn harvested in Kansas during the 2021 season (n=89).

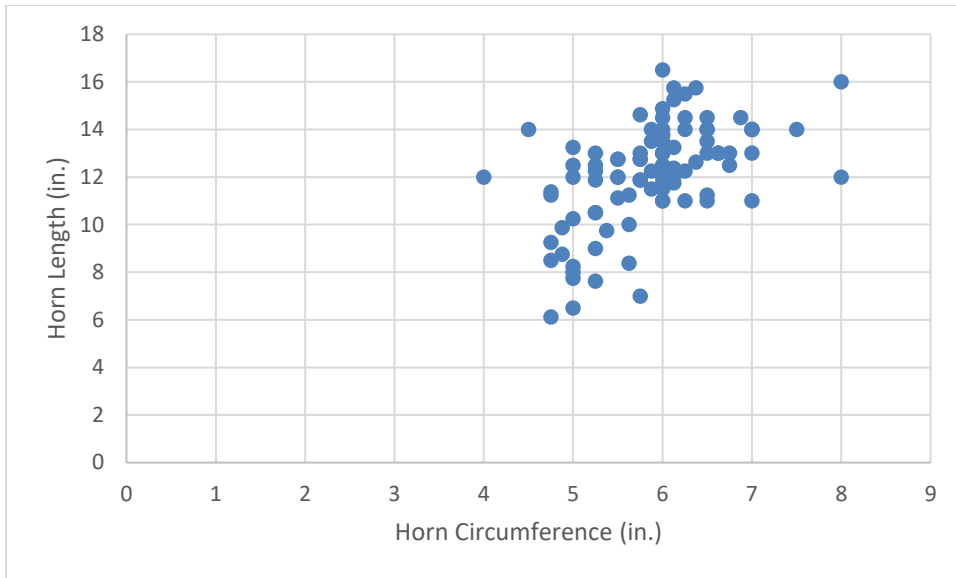


Figure 18. Scatterplot of horn length and circumference of pronghorn harvested in Kansas during the 2022 season (n=98).

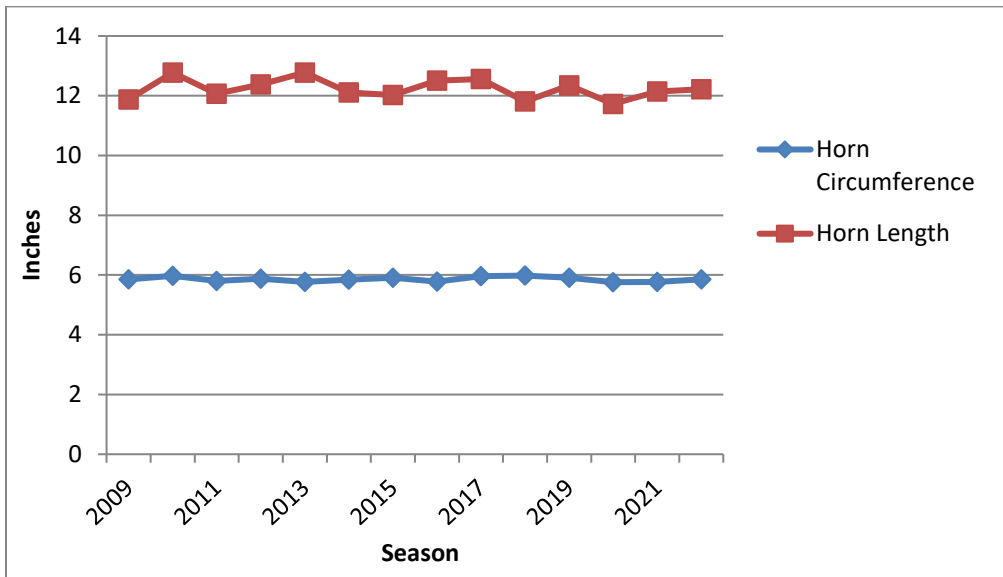


Figure 19. Mean horn length and circumference of pronghorn harvested in Kansas since 2009.

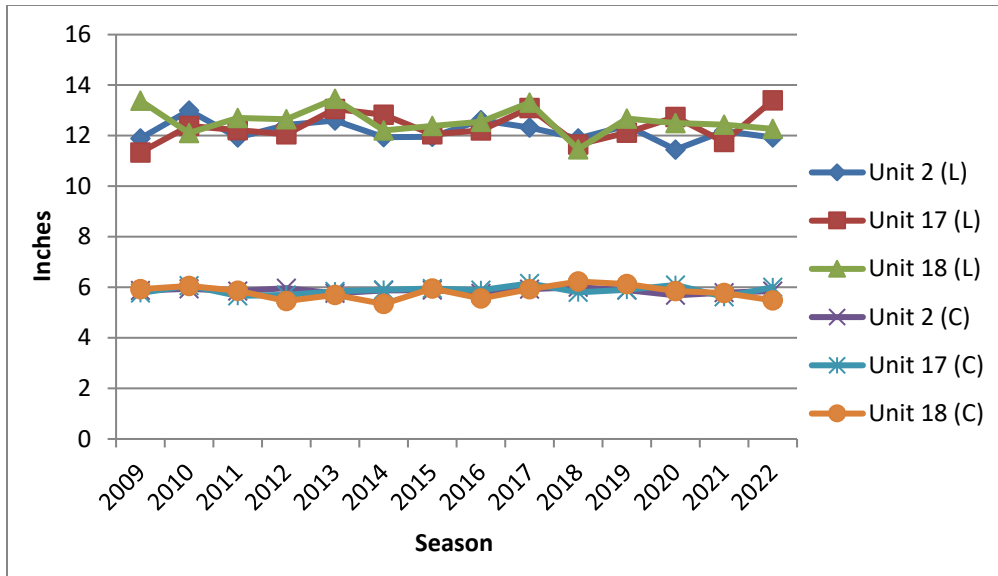


Figure 20. Mean horn length (L) and circumference (C) of pronghorn harvested in Kansas since 2009 by management unit.

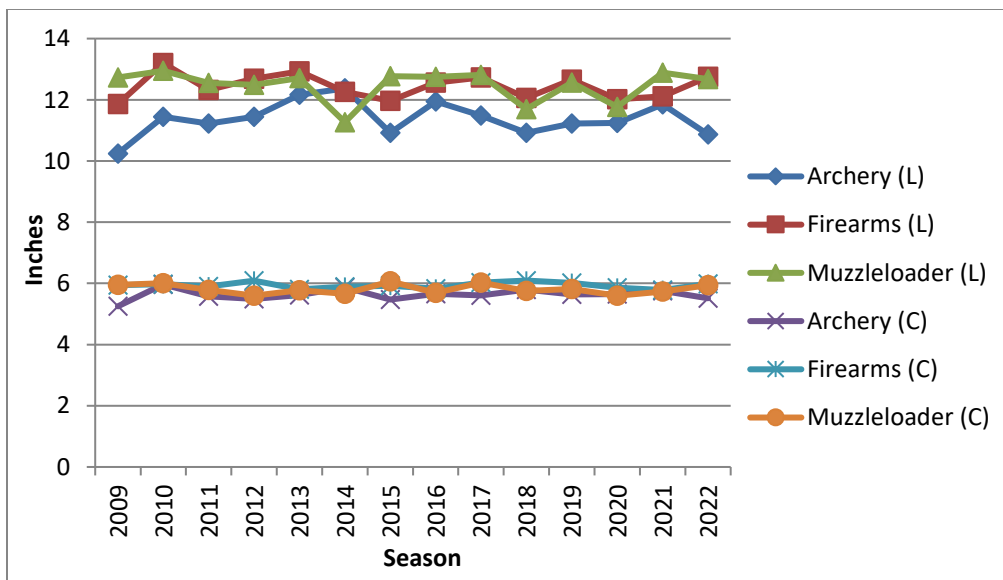


Figure 21. Mean horn length (L) and circumference (C) of pronghorn harvested in Kansas since 2009 by weapon of harvest.

Archery Equipment – Both the number of archery hunters (Fig. 5) and total archery harvest (Fig. 7) have increased substantially in the past 15 years. As a result, some hunters have expressed dissatisfaction with the amount of archery hunting pressure in traditional destination areas. We continue to monitor some of the factors that may have contributed to the increased archery demand.

In 2006, unlimited nonresident archery permits were established. In 2022, 13 of these permits were sold, and the 5-year average sales is 9.8 per year. Representing <4% of total archery permit sales, these permits are considered an insignificant factor in increased archery harvest pressure.

In 2013, the opportunity to use crossbows during big game archery seasons was expanded to all archery hunters. The percent of archery hunters using each type of archery equipment is found in Figure 22, and the actual number of crossbow and non-crossbow archery hunters is presented in Figure 23. Since legalized, crossbow hunters have comprised a generally increasing number and percent of total archery hunters in the state, though this percentage has stabilized over the past three seasons. It is uncertain whether crossbow hunters are additive to other archery hunters based on this data (i.e. whether these hunters would be hunting in the archery season with traditional equipment if they weren't allowed to use a crossbow).

A comparison of crossbow and other archery hunter success rates is found in Figure 24. Crossbow hunter success rates had been averaging about 7% above non-crossbow archery success but that difference jumped to 14% in 2021 (26% crossbow vs 12% non-crossbow). This year, both were at 19% success. Though we continue to monitor differences in the use and effectiveness of various equipment types, any efforts to limit or restrict archery harvest would address all equipment types, and not just the one or two deemed most effective.***

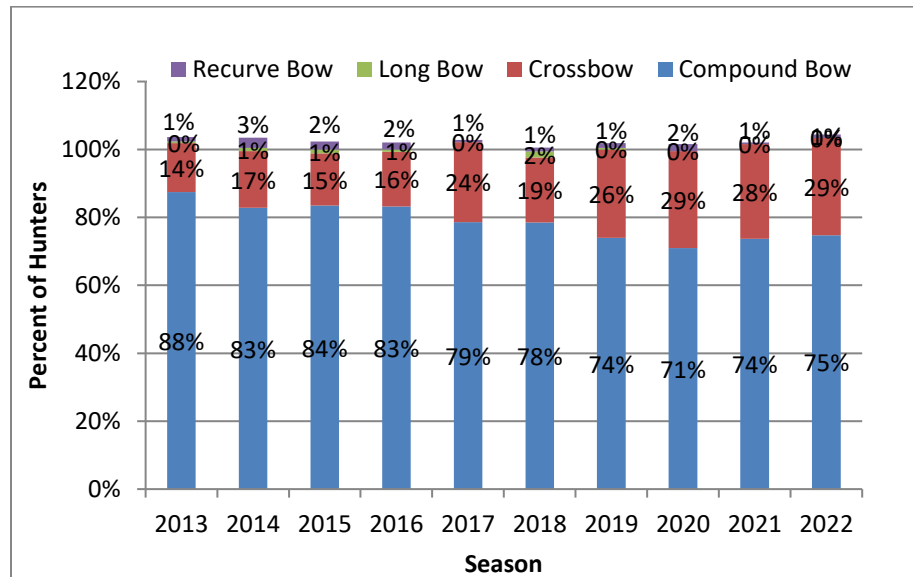


Figure 22. Percent of archery pronghorn hunters using different types of archery hunting equipment since 2013. (Totals exceed 100% some years because some hunters used more than one bow type.)

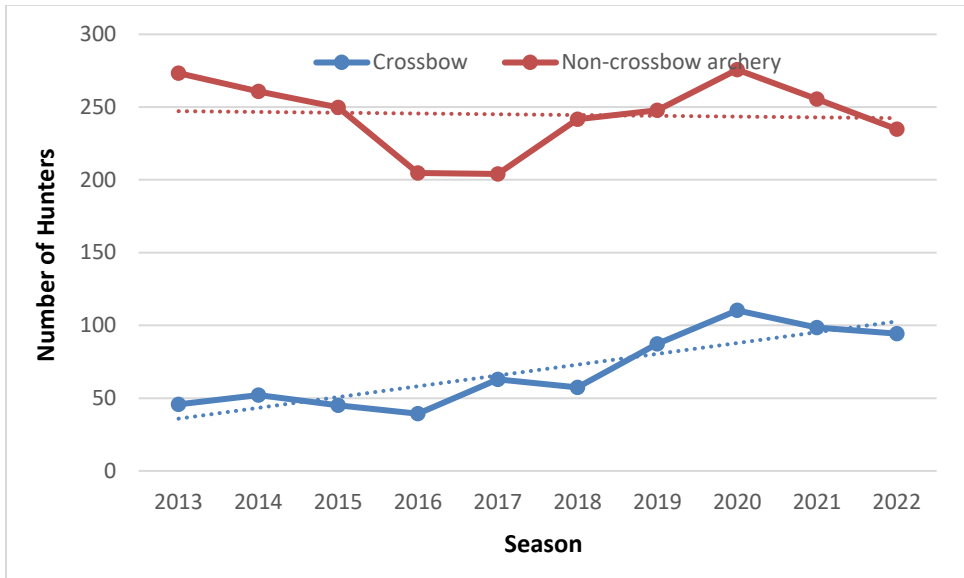


Figure 23. Number of active archery hunters using crossbows and not using crossbows (Non-crossbow archery) since 2013, and linear trendlines for each user type.

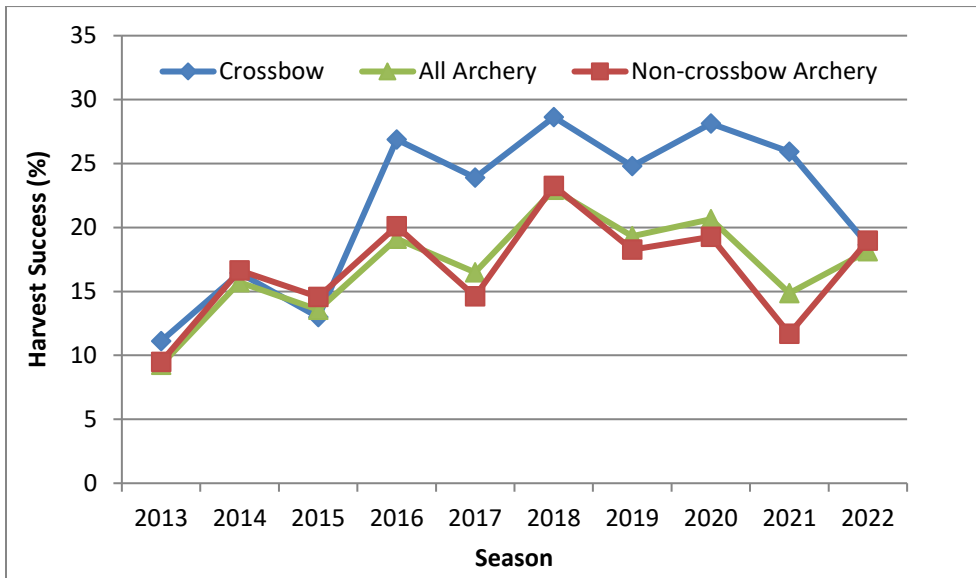


Figure 24. Harvest success rates by Kansas pronghorn hunters who used crossbows, did not use crossbows, and all archery hunters combined.

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

Appendix 1.

2022 Antelope Draw Stats

Management Unit	Permit Type	Permits Authorized	Total # of Applicants (1st) Choice	Preference Points (PP)	Number of Permits issued by Pref Pt LO/T	Number of Permits issued by Pref Pt GEN	Total Number of Permits Drawn
Unit 2	Muzzleloader		13 LO/T	0	6		
		12 LO/T	59 GEN	1	5		12 LO/T
		12 GEN	6 YOUTH	2	0		12 GEN
			1 NR TENANT	3	1		
				4		11	
				5	1		
Unit 2	Firearms			0			
		44 LO/T	84 LO/T	1	39		44 LO/T
		44 GEN	440 GEN	2	5		44 GEN
			34 YOUTH	3			
			2 NR TENANT	4			
				5		16	
				6		9	
				7		12	
				8		1	
				9		1	
				10		1	
				11		1	
				12		2	
		13		1			
Unit 17	Muzzleloader			0	3		
		4 LO/T	1 LO/T	1	1		4 LO/T
		4 GEN	21 GEN	2			4 GEN
				3		1	
		4		3			
Unit 17	Firearms			0			
		16 LO/T	31 LO/T	1	12		16 LO/T
		16 GEN	220 GEN	2	4		16 GEN
			21 YOUTH	3			
			1 NR TENANT	4		7	
				5		7	
				6		0	
				7		1	
		8		1			
Unit 18	Muzzleloader			0	1		
		2 LO/T	1 LO/T	1	0		2 LO/T
		2 GEN	11 GEN	2	1		2 GEN
				3			
		4		2			
Unit 18	Firearms		16 LO/T	0			
		2 LO/T	55 GEN	1			2 LO/T
		2 GEN	4 YOUTH	2	2		2 GEN
			2 NR TENANT	3			
				4			
				5		1	
				6			
		7		1			
TOTAL		160	146 LO/T				160
			871 GEN				
			6 NR TENANT				
			1023				
Preference points purchased 789							

Appendix 2.

2022 Pronghorn Hunter Comments

Comments
1) the first archery season is to short. 2) the second archery season is a waste of time due to rifle season. 3) I am older and have some mobility issues—I need new options to increase my ability to cover more area and recover harvested animals with the least amount of environmental disturbance such as possibly electric bicycles.
A ton of pressure again this year. I noticed more people driving with crossbows in their laps than previous years.
After rifle season all the pronghorn are super spooky, I'll try next year in early archery more! They didn't decoy the best during late archery.
Another year and seeing less antelope in the area. Amount of hunters was just as many or more as last year.
Antelope numbers are extremely down in southern Logan county
Decoys work great just needed to get out in the early season would work better
Disappointed in the size of the speed goat
Finding WIHA properties in the area we hunted with windmills or water sources was next to impossible and we saw very few numbers of antelope, with the exception of those on private ground that we did not have access to hunt.
For the amount of points I had, I was dissatisfied with the number of bucks I saw and the size of the horns
Fun hunt!
great experience
Great experience, grateful for KDWP management that has created this opportunity and look forward to another antelope hunt down the road.
Had more opportunities and got a lot closer to goats this year compared to previous years. However there seemed to not be quite as many as what I've seen in years past.
Hey, sorry for the slow response. Not sure this means numbers are low, but on the (withheld) ranch there's usually 20-60 Pronghorn. This year there were less than 10, and only one mature buck. I saw no other herds driving around that area either. P.S they're Pronghorn not Antelope ;)
Hunted in Fi, Scott, Kearney, Wichita and Hamilton counties and saw 7 bucks all day. Finally found a nice mature buck and got him!
Hunting antelope with a bow is tough. Where we are hunting is mainly open agricultural fields. It is super tough getting close to them. Numbers are, or seem to be, low. We drove roughly 225 square miles and saw about 32 antelope.
I am glad I didn't shoot one because we were hunting when this form came. Hard to get you teeth when we didn't know. Didn't receive this till Monday the 26th.
I didn't have any shots this year.
I had a wonderful time in field although not harvesting animal
I have been antelope hunting for the past 4 years, and the animal numbers seem to be declining.
I like the otc archery tags...lots of opportunity to chase pronghorns and seems like our area doesn't get pressured very hard even with it being otc
I talked to several locals, landowners, and farmers. It seems to me the landowners and farmers have no respect for the pronghorn. They act like just because those pronghorn are on their property they are theirs and not the peoples. It seems they treat them as such. I heard a lot of comment like "do you have a gun? shoot all you want." "I run them over with the truck when I can." "I shoot them with a 22 out of the tractor." I truly think there is a lot of poaching going on out there and there's a lot fewer antelope because of it.
I think season should be later for rifle season, to much standing corn they wouldn't come out until just at dark, if the goal is to take down some population do two things make the season for rifle towards the end of October and make it seven days, another thing would be to allow the option to buy a doe tag once you draw the buck tag, I would have taken a doe right away then hunted a buck the rest of the time .
I thought the numbers pronghorn were down a little this year, Didn't see near the numbers of satellite bucks running around.
I wish you would get rid of the crossbow hunting for them a few guys we have run into over the years just happen to have a locked and loaded one setting on the center console of their truck. I'm guessing to shoot the ones that are too close to the road and will let you stop the truck in range ie 100 yards.
Issue more rifle permits
Just a bad year, to many crops out that were not harvested and to much land that people won't let people hunt. Saw

more antelope than I did pheasants or deer so at least there was that.
less antelope every year been hunting them for 40 years
Lots of antelope and bucks! Just didn't have the time to get close enough. Will use blind in the future instead of spot and stalk.
More pronghorn!
Most of the pronghorn i saw were further northwest than expected and 90% were spotted in cut corn fields.
My new Lab Pup stole the teeth
My permit was in Unit 17. My wife's permit was Unit 2. So I went with her, but could not hunt. We live in Wallace County. I wish our permits would have been in the same Unit 2. At my age I will probably never able to hunt Antelope, due to the years and preference points it takes to draw a permit. Very disappointed!
My wife and I each purchased pronghorn archery permits with the intention of hunting together but only taking one animal. She was successful in killing a pronghorn buck. When we first walked up to her killed buck, another pronghorn buck showed up 250 yards away. Without trying too hard, I was able to stalk to 60 yards with the intention of taking a shot if I got to 40 yards. He spooked at 60 yards and left so I didn't attempt a shot. Since my wife was able to take one buck and I had a fun stalk, I consider this hunt very successful.
Number of pronghorn seemed good. If I could make 1 change it would be to limit the age for crossbows to 16-17 and people with a medical condition that keep them from drawing a bow.
Numbers are definitely down, saw maybe 100 between 4 different counties
Numbers are going down. Probably need to cut back on rifle tags. Landowners seem to be able to get rifle tag every other year. How many landowner tenant tags are sold and they don't own ground in the unit they are hunting?? I like to see the pronghorn spreading east and really hope we can study or stock some in the flint hills or at least west of salina. Our wildlife populations in the state are catastrophic state. Turkey have all but disappeared in 5 year span. Pheasant and quail have been gone for 20 years. Deer are getting CWD all over the state. Duck #'s have moved on to other states with better habitat. What is Kansas doing to protect and enhance the future of wildlife in this state. Right now we are a deer and coyote state only. Mule deer populations in the last 30 years have dramatically declined and yet we still allow to many tags and nothing is done to protect the existing populations. Sure wish Kansas would stop the commercialization of wildlife!
Numbers are way down. There is not enough WIHA on good property where antelope are seen the most. Land is getting bought up and/or leased out.
Numbers seemed to be way down
Numbers seemed way down. Need to shut down the season for a year or two. Hopefully repopulate.
Numbers still seem low compared to 10 to 15 years ago.
Numbers were down in the properties I hunt and have hunted in the past.
One of the toughest hunts I have ever done. Just curious if the Cimarron grassland's could open some more area to hunt?
Only disappointed because I didn't harvest 1
Overall a great hunt. keep rounding up more WIHA. IMO crossbows ain,t archery
Please accept my apologies for the broken tooth. I ask the taxidermist to remove the teeth and he promptly broke one. He will not be doing it again,
population seemed to be lower than it was about 4 years ago when we were last out.
Pulled the teeth, but have looked all over for them since and can't find them
Purchased a permit to support pronghorn management in Kansas
Quality of bucks seems to be down on the year, assuming weather related
Saw 55 on Friday, saw 103 on Saturday, saw 45 Sunday morning.
Saw a couple, never got close enough to let an arrow fly..
Saw a few nice bucks. Did notice some pressure from other hunters, pushing them around a lot.
Saw a lot less goats then i Did on my previous muzzleloader hunt
Saw many, pronghorn the population looked good
Saw some guys chasing them

Saw some quality bucks. Not quantity, but did see some real nice Pronghorn
Saw very few Antelope on the WIHA & private. I hunted my whole trip. Extremely dry.
Saw a good amount just hard to get within bow range of a group
Season needs to be longer. Always falls on fall harvest and its hard to get away to hunt
Seen plenty of good bucks just very skittish.
Small population of antelope in the area. Lots of out of state hunters as well. Not sure if our population can manage this amount of hunters. Also farmers I spoke with had a hatred for the antelope, advertising that antelope are not harmful to their crops would be of great benefit.
Sorry no teeth. Did not receive this before I shot a Doe.
Sorry the Antelope was dropped off at taxidermist prior to receiving this survey. He green scored him at 81 4/8
Thank you for the walk in hunting program!
The most difficult animal I've ever hunted. The small sections of public land combined with their high mobility makes it very difficult to get one in a public place.
The only thing I have noticed is there has been less antelope in the area I hunt due to all of the dry land corn that is being planted
There are very few pronghorn compared to what I have seen in years past.
There were less antelope this year in the area we hunted than 4 years ago.
This year was tough with a lack of water sources on walk in properties. In years past, the antelope were more plentiful. Numbers were definitely down and the ones we did see were primarily on private ground with running water or stock tanks. I would guess it was due to the high temps and drought we experienced this summer. We only saw roughly 25 antelope. We didn't see very many deer either, maybe 8 total Mule Deer in 7 days..
Very few goats in unit 17. Covered many miles. Wish I had applied to 2 like I intended.
Very skittish late season goats
We counted approximately 35 antelope in the five days we hunted. We did not see a single satellite buck. This could be because we hunted after the rifle season.
We had 4 hunters and one hunter got a nice buck. That's 25%. Pretty good. I didn't hunt very hard. Getting geared up for the governor hunt with the ringneck classic.
We had the lowest number of antelope in the last 30 years. Hunted mostly in Lane and Gove county saw very few mature bucks and hardly any fawns from this year.
WIHA - For Antelope program? ex-Turkey
Would be nice to see more animals, even if this means less tags sold.