

# **2018-19 Kansas Elk Harvest Report**

## **PERFORMANCE REPORT STATEWIDE WILDLIFE RESEARCH AND SURVEYS**

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## 2018-19 Kansas Elk Harvest Report

Prepared by Matt Peek, Research Biologist



**Background** – Elk inhabited Kansas in abundance prior to European settlement, but unregulated harvest led to their extirpation from the state by about 1900. In 1981, reintroduction efforts were initiated on Cimarron National Grassland (CNG) in Morton County, the southwestern-most county in the state. Over a 10 year period, 33 elk were released onto CNG. In 1986, stocking efforts were also initiated on Fort Riley Military Reservation in north-central Kansas where, over a 9 year period, 54 elk were released.

Herds at both locations experienced population increases, and hunting seasons were initiated on CNG 1987, with two to four permits available for the first seven seasons. Under limited harvest pressures, the CNG population increased to over 100 elk before conflicts with private landowners in Kansas and neighboring states led to the harvest of most of this herd in 1994 and 1995. In Kansas, the hunting season was discontinued after 1995 due to a lack of elk. Permit sales and harvest associated with the CNG elk are not included in this report.

The elk population on and around Fort Riley initially followed a similar pattern as that on CNG. Limited hunting was initiated in 1990, but the herd continued to increase until the elk began leaving the Fort and causing significant crop damage on neighboring landowners in the late 1990's. The Department responded by allocating almost 200 permits in 1999 and 2000 resulting in the harvest of over 100 elk on and around the Fort. Since 1999 when the first landowner permits were issued for the area around the Fort, the Department has responded to various concerns and complaints about elk by progressively authorizing longer seasons and less restrictive permitting options that now provides elk harvest opportunity to resident hunters throughout most of the state. This framework is intended to allow for elk that may be causing crop damage or other conflicts on private land to be harvested during open seasons, and for landowners to have the opportunity to maintain elk at desirable numbers on their own property while at the same time allowing the Fort Riley and Cimarron herds to be maintained.

Elk continue to increase under this management approach and now occur at least occasionally though often unpredictably throughout most of the state. Several herds exist on private land around the state, but most of the hunting opportunity still occurs on the Fort. Elk also still occasionally occur on CNG, but this herd spends most of its time in neighboring states.

Elk hunting in Kansas is limited to Kansas residents. Permits valid for any-elk on Fort Riley are once-in-a-lifetime, and antlerless-only elk permits valid on Fort Riley may only be obtained once every five years. An average of over 900 applicants have applied for these permits over the past several years (Figure 1). This includes an average over the past five years of 75 active-duty military personnel stationed at Fort Riley. These individuals are given a preferential draw opportunity for Fort Riley permits. Unit 3 permits are available over the counter to general residents and landowner/tenants. Hunt-own-land permits are also available over-the-counter in Units 2 and 3, with their advantage over the Unit 3 landowner/tenant permits being their availability to landowners in the buffer area outside of Fort Riley within Unit 2.

Hunters purchased 132 elk permits for the 2018 season (Figure 2). This is the most elk permits ever sold in Kansas. The steady increase in the sale of over-the-counter permits is indicative of an elk herd growing in number and distribution in the state but also reflects changes in regulations making elk accessible to more hunters.

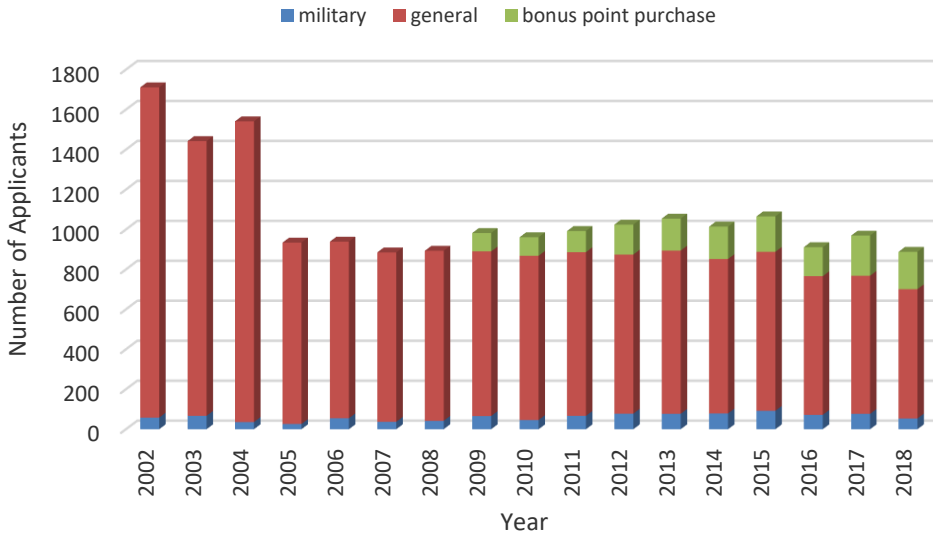


Figure 1. Fort Riley elk permit applications and bonus point purchases in Kansas since 2002. A \$5 bonus point fee was initiated in 2005 and increased to \$10 in 2016.

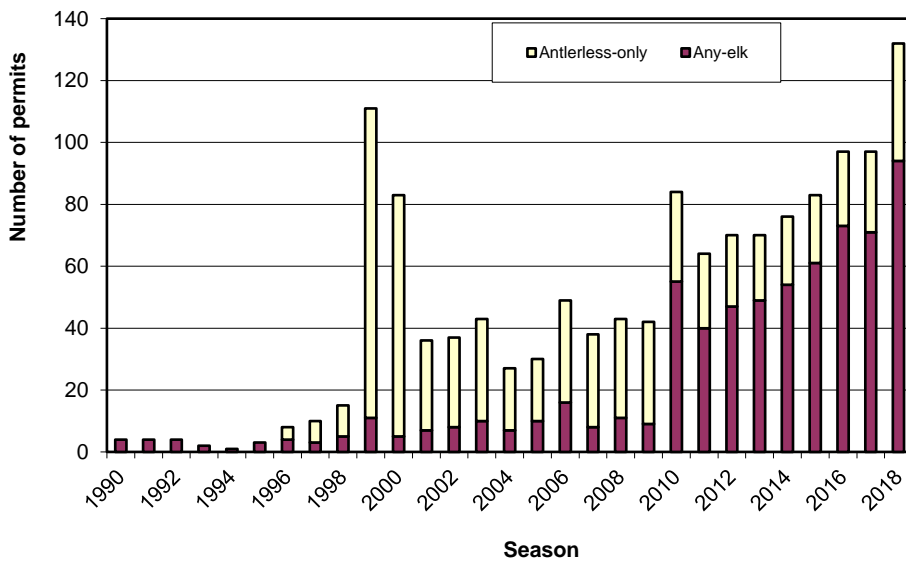


Figure 2. Antlerless-only and Any-elk permit sales in Kansas since hunting seasons were initiated on Fort Riley in 1990.

**Harvest** – Elk harvest and hunter activities are monitored annually through harvest reports sent to all elk hunters (see Appendix 1). Paper report cards and postage paid tooth envelopes are sent out at the beginning of the season, then paper and e-mail follow-ups are conducted at the end of the season. Fort Riley also has mandatory harvest registration that is incorporated into this report for applicable nonrespondents (i.e. those who reported their harvest to Fort Riley but not KDWP). The harvest survey response rate was 80% this season, which is about the average in recent years.

The reported harvest was 56 elk during the 2018-19 season (Figure 3), including 39 elk taken on 94 any-elk permits (41%) and 17 taken on 38 (45%) antlerless-only elk permits. This was the highest harvest in Kansas since the population reduction effort on Fort Riley in 1999, and was up 21 from last season. Thirty-one of the 39 elk taken on any elk permits were antlered. The number of antler points of 28 of these animals can be found in Table 1.

Harvest success rates for permits valid on Fort Riley can be found in Figure 4. Over the past five years, Fort Riley any-elk permit holders have averaged 75% success. Only 1/3 of the antlerless-only permits are valid during each one-month segment of the any-weapon season on Fort Riley. Five-year average harvest success for the October, November and December segments for antlerless-only permits were 48%, 53% and 44%, respectively.

Harvest success rates for permit types available over-the-counter (not valid on Fort Riley) are provided in Figure 5. General resident any-elk and antlerless-only elk permit success rates averaged 30% and 19%, respectively, over the past five years. Success rates for landowner permits including landowner/tenant and hunt-own-land averaged 25% and 24%, respectively, for any-elk and antlerless only elk permits over the past five years.

Reported harvest and success rates do not include a correction for nonrespondents because Fort Riley has traditionally accounted for most of the harvest and they have mandatory harvest reporting. In addition, from 2006-2015, harvest reporting was mandatory statewide to facilitate testing for chronic wasting disease (CWD). Consequently, until recently, the number of harvested elk not reported to the Department was presumably very low. This year, with high permit sales and success off of Fort Riley, nonrespondents potentially had a greater impact on harvest than ever before. Expanding respondent success rates to nonrespondents would have yielded an additional harvest of 13 elk, including 9 on any-elk permits.

Elk harvest is spread out fairly evenly throughout the season (Figure 6), but there are a couple of high points. Archery and muzzleloader seasons on Fort Riley open September 1, and 7 elk were killed on Fort Riley during that month. There were also 7 elk killed off of Fort Riley during the Nov. 28 through Dec. 9 regular firearms season (concurrent with firearms deer). There were 6 elk killed on the Fort with centerfire rifles between Dec. 22 and Dec. 29. And last, there were 7 elk killed on private lands during the first 10 days of the January firearms season. Notably, no elk were killed during the newly established August 1-31 firearms season which was intended to allow landowners to better address crop depredation with legal hunting.

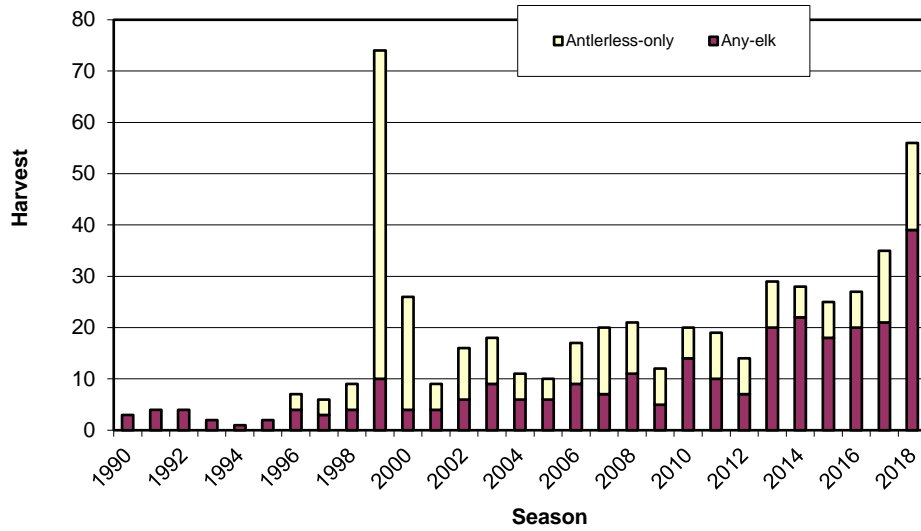


Figure 3. Elk harvest in Kansas by any-elk and antlerless-only elk permit holders since hunting seasons were initiated on Fort Riley in 1990.

Table 1. Antler points of bull elk harvested in Kansas during the 2018-19 season (n=28).

| Antler Points | Number of Hunters |
|---------------|-------------------|
| 6x9           | 1                 |
| 6x6           | 9                 |
| 5x6           | 3                 |
| 5x5           | 7                 |
| 4x4           | 2                 |
| 3x5           | 1                 |
| 3x3           | 1                 |
| 1x2           | 1                 |
| 1X1           | 3                 |

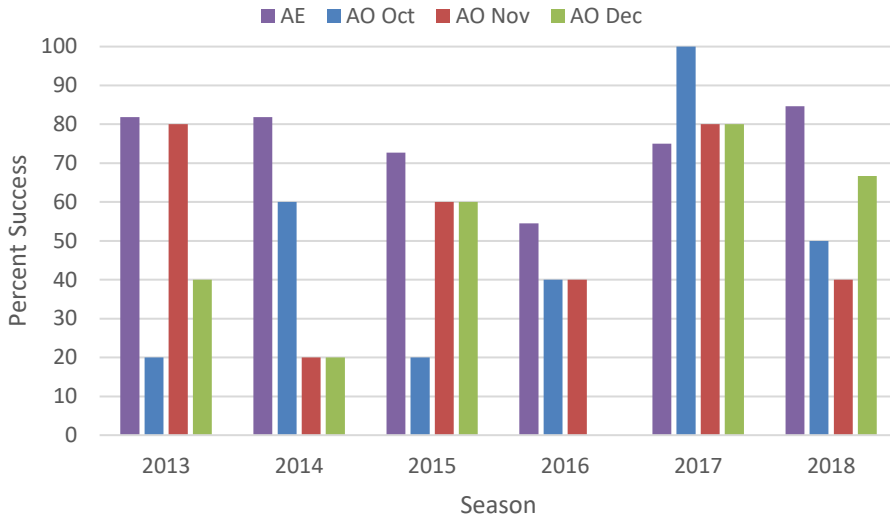


Figure 4. Harvest success rates for permit types valid on Fort Riley for elk in Kansas from 2013-2018. (AE=any-elk, AO=antlerless-only)

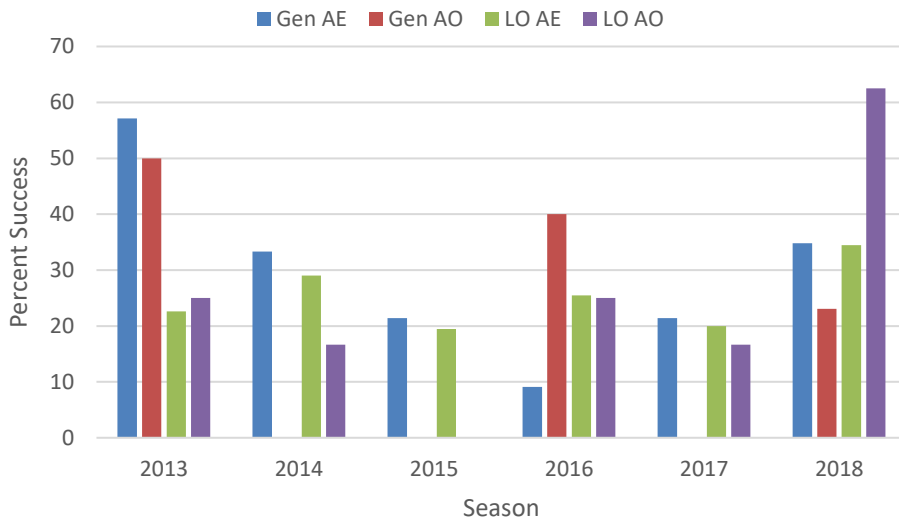


Figure 5. Harvest success rates for general resident (Gen) and landowner/tenant (LO) permit types available over-the-counter for elk in Kansas from 2013-2018. (AE=any-elk, AO=antlerless-only)

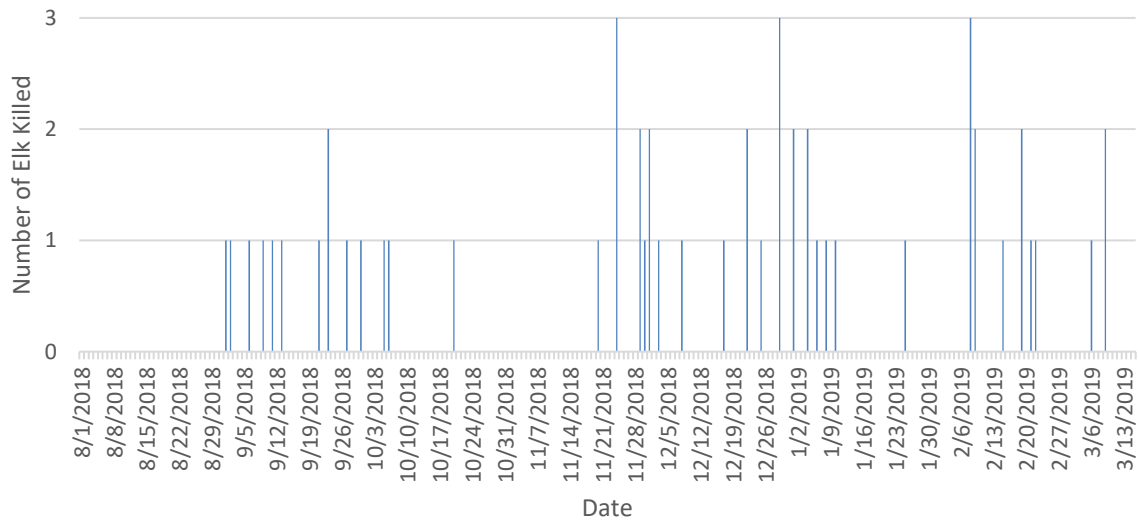


Figure 6. Estimated date of harvest of elk taken during the 2018 season (n=53).

**Equipment Use** - Elk permits are valid during any season with equipment legal for that season. The percent of elk hunters using each equipment type in recent years is provided in Figure 7. Annual totals in this figure exceed 100% as quite a few hunters use more than one equipment type (23% in 2018). The percent of elk harvested with each equipment type is provided in Figure 8. Five-year averages by equipment type are: firearms-73%, muzzleloader-13%, compound bow-10%, shotgun-2%, crossbow-2%, longbow-0%, and recurve bow-0%.

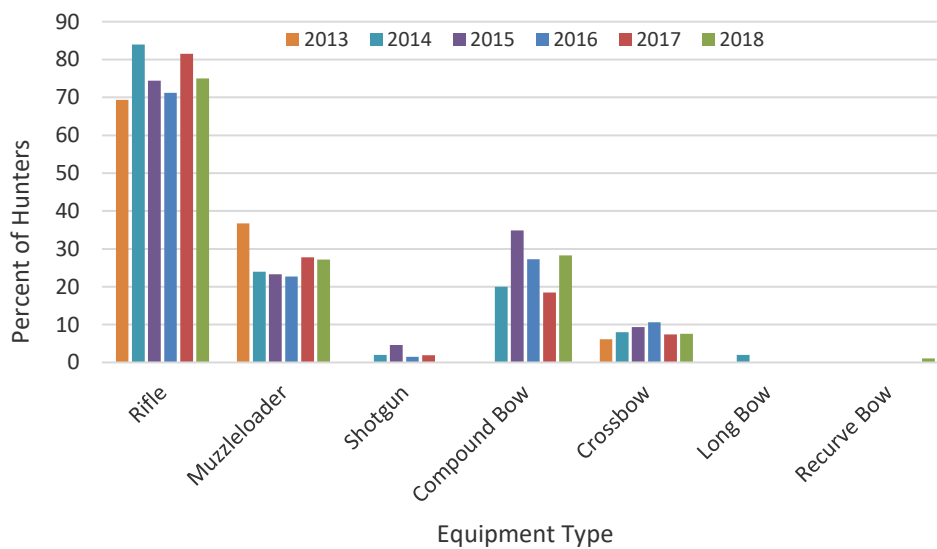


Figure 7. Percent of hunters using each equipment type to hunt elk in Kansas since 2013.



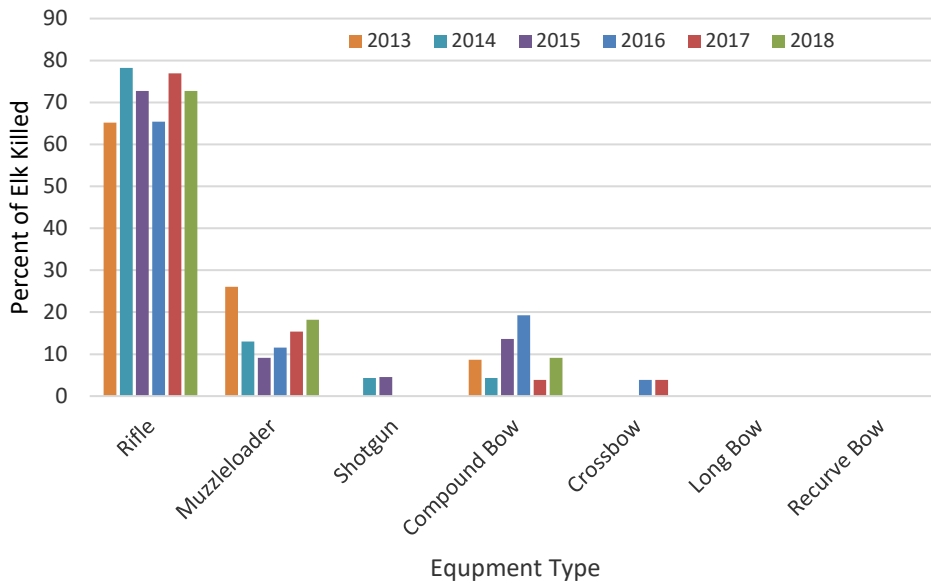


Figure 8. Percent of elk harvested in Kansas with each equipment type since 2013.

**Harvest by Location** – There are currently three elk management units in Kansas (see page 2 of Appendix 1) of which Units 2 and 3 are open to hunting. These units have been in place since 2011 except the boundary of Unit 2 was adjusted in 2018. A map of the units can be found in Appendix 1. Elk harvest in Kansas by management unit since 2013 can be found in Figure 9. Elk harvest by property type since 2013 can be found in Figure 10. Hunters provided county of harvest for 52 of 56 elk harvested. Harvest by county was as follows: Riley-32, Hamilton-6, Kearny-4, Marshall-2, and one in Geary, Jefferson, Labette, Lane, Phillips, Stafford, Thomas and Wallace.

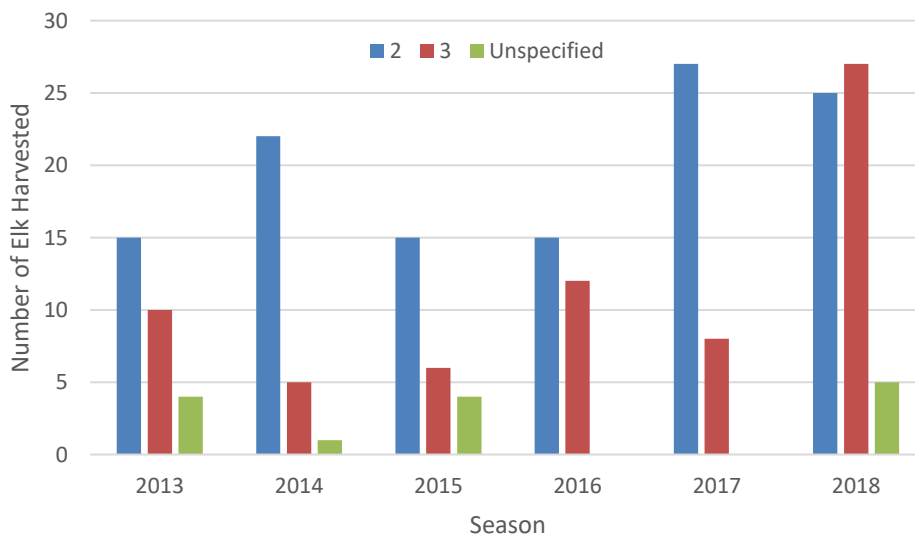


Figure 9. Elk harvest in Kansas by management unit since 2013.

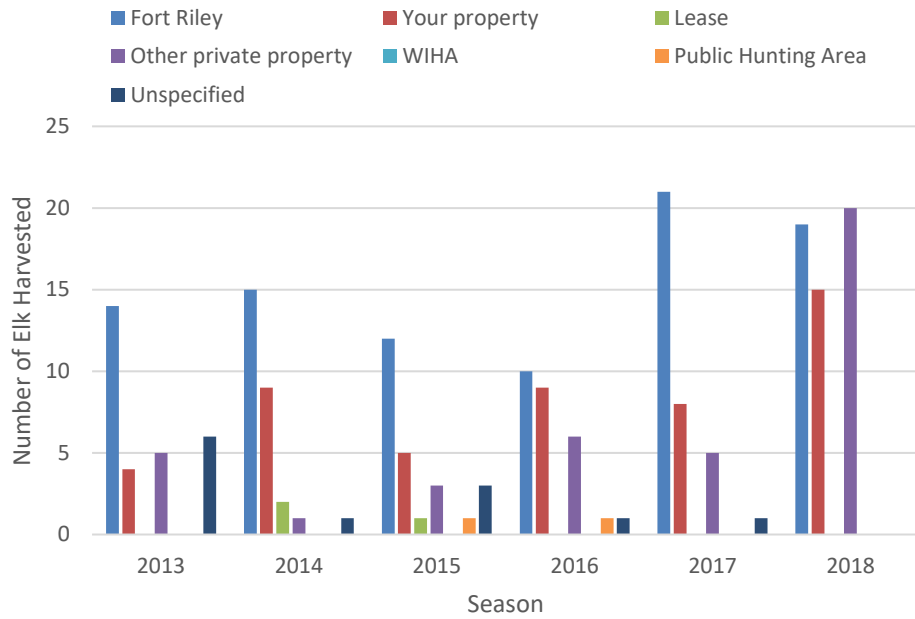


Figure 10. Elk harvest in Kansas by property type since 2013.

**Satisfaction** - Elk hunters are asked to indicate 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, elk numbers, bull quality, access, crowding and various other factors of the hunt. Mean satisfaction by permit type since 2016 is found in Figure 11.

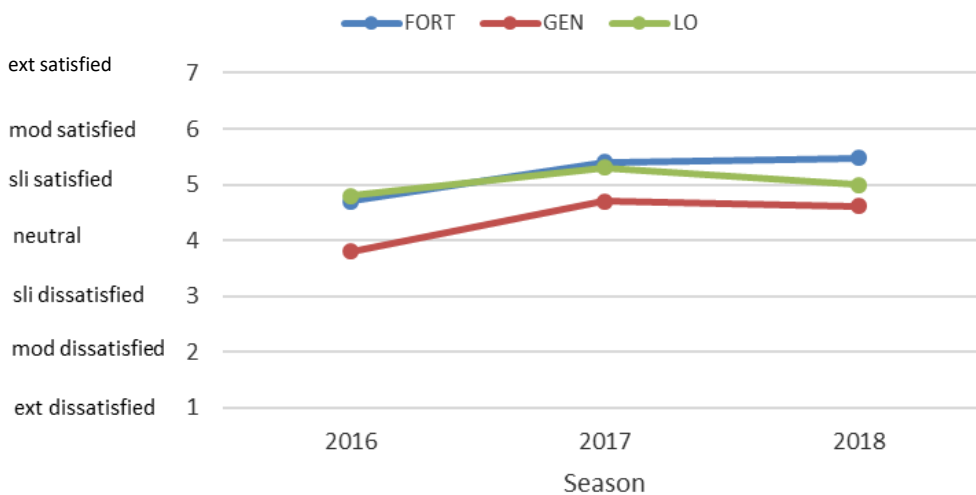


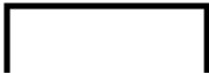
Figure 11. Mean elk hunter satisfaction by permit type in Kansas from 2016-2018. (FORT=Fort Riley, GEN=general resident and LO=landowner/tenant)

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Appendix 1.

2018-19 Elk Hunter Report Card

# 2018-19 ELK HUNTER REPORT CARD



Please complete this report as soon as you are finished elk hunting for the season. It should be returned in the enclosed tooth envelope. All "b" sections pertain only to those who harvested an elk.

**1a. Check the one item that best describes your elk season.**

- I harvested an adult bull
- I harvested an adult cow
- I harvested a male calf
- I harvested a female calf
- I hunted but did not harvest an elk
- I did not hunt (If you did not hunt, please check here, sign and return this form.)

**b. If you harvested a bull, how many points did it have, for example 5x6?**

**2a. Describe your elk hunting during each month?**

|           | Days Hunted | Largest Number of Elk Seen in a Day |
|-----------|-------------|-------------------------------------|
| August    | _____       | _____                               |
| September | _____       | _____                               |
| October   | _____       | _____                               |
| November  | _____       | _____                               |
| December  | _____       | _____                               |
| January   | _____       | _____                               |
| February  | _____       | _____                               |
| March     | _____       | _____                               |

**b. If you killed an elk, what was the date?**

**3a. Check each land ownership type that you used while hunting for elk.**

- Fort Riley
- Public Hunting Areas (ie Milford Wildlife Area)
- Walk-In Hunting Area (WIHA) Lands
- Your Property (you own or lease for ag)
- Private Hunting Lease
- Other Private Property

**b. Circle the land ownership above that shows where you killed your elk. If other than Fort Riley, please indicate the county & Elk Unit (see map on back of page).**




County: \_\_\_\_\_ Elk Unit (2 or 3): \_\_\_\_\_

**4a. Check each type of hunting equipment you used while hunting elk.**

- Centerfire Rifle
- Muzzleloader
- Shotgun
- Compound Bow
- Crossbow
- Long Bow
- Recurve Bow
- Other (list below): \_\_\_\_\_

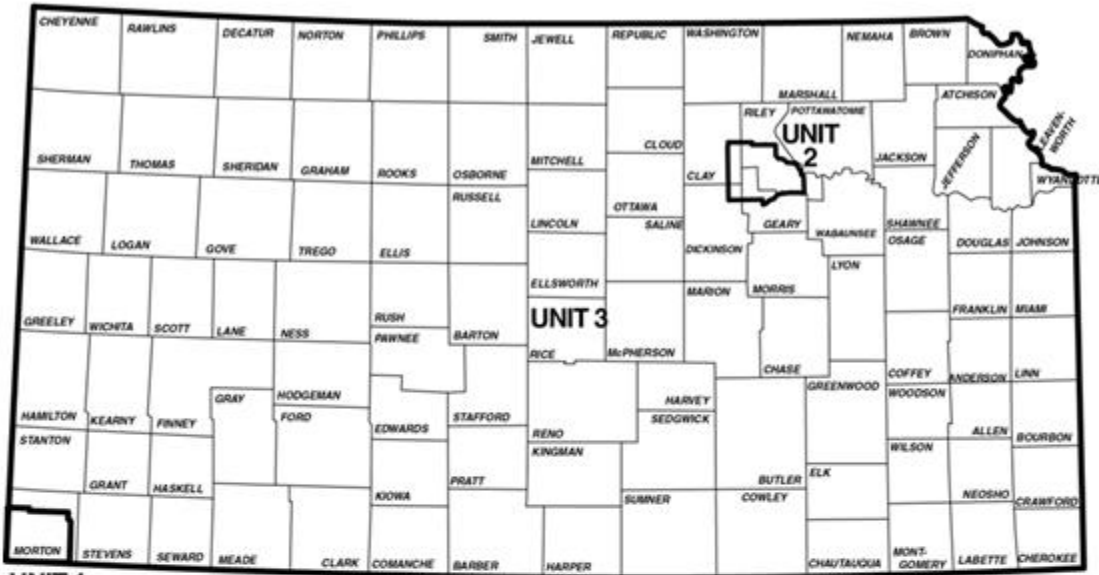
**b. Circle the equipment type above that you used to kill your elk.**

**5. Check the selection that best describes your satisfaction with your elk hunt.**

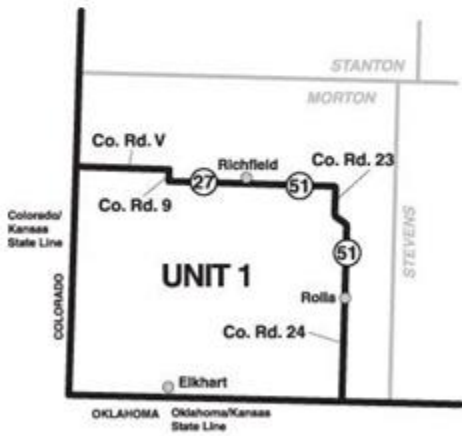
 Extremely Dissatisfied
  Moderately Dissatisfied
  Slightly Dissatisfied
   Neutral
  Slightly Satisfied
  Moderately Satisfied
   Extremely Satisfied

6. Name: \_\_\_\_\_

# Elk Units



UNIT 1



Unit 1 is closed to elk hunting

