Two important factors impact availability of upland game during the fall hunting season: number of breeding adults in the spring and the reproductive success of the breeding population. Reproductive success consists of both the number of hatched nests and chick survival. For pheasant and quail, annual survival is relatively low; therefore, the fall population is more dependent on summer reproduction than spring adult numbers. For prairie chickens, reproductive success is still the major population regulator, but higher adult survival helps maintain hunting opportunities during poor conditions.

In this forecast, breeding population and reproductive success of pheasants, quail, and prairie chickens will be discussed. Breeding population data were gathered using spring calling surveys for pheasants (crow counts), quail (whistle counts), and prairie chickens (lek counts). Data for reproductive success were collected during late-summer roadside surveys for pheasants and quail, which quantify both adults and chicks observed. Reproductive success of prairie chickens cannot be easily assessed using the same methods because they do not associate with roads like pheasants and quail.

**SEASON DATES**

<table>
<thead>
<tr>
<th>SEASON</th>
<th>OPEN DATES</th>
<th>DAILY BAG (POSSESSION)</th>
<th>OPEN AREAS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Youth Pheasant</td>
<td>Nov 7-8</td>
<td>2(4)</td>
<td>Statewide</td>
</tr>
<tr>
<td>Youth Quail</td>
<td>Nov 7-8</td>
<td>4 (8)</td>
<td>Statewide</td>
</tr>
<tr>
<td>Pheasant</td>
<td>Nov 14 - Jan 31</td>
<td>4 (16)</td>
<td>Statewide</td>
</tr>
<tr>
<td>Quail</td>
<td>Nov 14 - Jan 31</td>
<td>8 (32)</td>
<td>Statewide</td>
</tr>
<tr>
<td>Prairie Chicken</td>
<td>Sep 15 - Oct 15</td>
<td>2 (8)</td>
<td>Prairie Chicken Hunting Unit</td>
</tr>
</tbody>
</table>

**FORECAST FACTORS**

In this forecast, breeding population and reproductive success of pheasants, quail, and prairie chickens will be discussed. Breeding population data were gathered using spring calling surveys for pheasants (crow counts), quail (whistle counts), and prairie chickens (lek counts). Data for reproductive success were collected during late-summer roadside surveys for pheasants and quail, which quantify both adults and chicks observed. Reproductive success of prairie chickens cannot be easily assessed using the same methods because they do not associate with roads like pheasants and quail.
PHEASANT

Heavy rainfall in 2019 made for good residual nesting cover across much of the state coming into 2020. However, Kansas entered a long dry spell across most of the pheasant range early in 2020 with below average rainfall from February through May. This dry pattern broke in June with several scattered storms events across the northwest and central regions of the state. The timing of this rain was critical for producing brood cover for hatching pheasant chicks as well as copious amounts of insects. Continued rainfall through July maintained good habitat conditions and improved conditions in the southwest. Opportunistic brood reports from department staff and others suggested that brood sizes were up this year, as well as seeing considerably more broods; however, summer brood survey results have estimated that there was a decrease in the overall pheasant abundance. Roadside counts in the northwest remained similar to last year while numbers decreased through the rest of the state. Given the precipitation patterns through June were erratic, combined with the opportunistic reports, hunters will likely find that densities will vary widely on the landscape this season. Despite declines, Kansas continues to maintain one of the best pheasant populations in the country and the fall harvest should again be among the leading states. The highest densities this year will likely be in the Northern High Plains region of northwest Kansas.

QUAIL

Kansas continues to support above-average quail populations. The peak nesting for quail is later than pheasants, and they are more likely to make multiple nesting attempts. This allowed quail to take advantage of the summer rainfall better than pheasants and led to production levels that were higher or stable across most of the state. The bobwhite whistle survey in spring 2020 saw a significant increase, while the roadside survey index was the same as 2019. The only region showing notable declines was in the southeast, which has not maintained the above average densities like the rest of the state. Kansas maintains one of the premier quail populations in the country and harvest will again be among the highest this year. The best opportunities will be found in the central regions, with plenty of quality hunting scattered in the remaining regions.

PRAIRIE CHICKEN

Kansas is home to both greater and lesser prairie chickens. Both species require a landscape of predominately native grass and benefit from a few interspersed grain fields. Lesser prairie chickens are found in west-central and southwestern Kansas in native prairie and nearby stands of native grass established through the CRP. Greater prairie chickens are found primarily in the tallgrass and mixed-grass prairies that occur in the eastern third and northern half of the state. Greater prairie chickens have expanded in numbers and range in the northwestern portion of the state while declining in the eastern regions. Hunting opportunities will be best in the Northern High Plains and Smoky Hills Regions this fall, where populations have been either increasing or stable, and public access is more abundant. The Southwest Prairie Chicken Unit, where lesser prairie chickens are found, will remain closed to hunting this year. Greater prairie chickens may be harvested during the early prairie chicken season and the regular season with a two-bird daily bag limit in the Greater Prairie Chicken Unit. All prairie chicken hunters are required to purchase a $2.50 Prairie Chicken Permit. This permit allows KDWP to better track hunter activity and harvest, which will improve management activities and inform policy decisions.

OVERALL OUTLOOK: “GOOD”

Kansas should have good upland bird hunting opportunities this fall. Kansas has nearly 1.7 million acres open to public hunting (wildlife areas and WIHA combined). This is only a small portion of the more than 52 million acres of private land that also provides ample opportunity where permission can be obtained. The opening date for pheasant and quail seasons is November 14, and youth season is November 7-8. Youth hunters must be 16 years of age or younger and accompanied by a non-hunting adult that is age 18 or older. Please consider taking a young person hunting this fall!

HABITAT CONDITIONS

Kansas has a dramatic rainfall gradient from more than 50 inches of average annual rainfall in the far east to less than 15 inches in the far west. The amount and timing of rainfall plays a major role in reproduction for upland birds. In the west, wet years typically improve the available cover and increase insect availability for chicks. In the east, dry years are typically more optimal, as heavy rains during spring and summer can reduce survival of nesting birds and young chicks. In 2020, Kansas had below-average precipitation throughout the winter and early spring across the state, resulting in poor habitat conditions entering the nesting season. Precipitation events beginning in late May and continuing through much of the summer improved habitat conditions across many areas. These summer rainfall events created abundant weeds within crop stubble that is typically beneficial to upland birds. The drier than average weather prevailed longer in the southwest region and impacted production in that region.

GREATER PRAIRIE CHICKEN UNIT MAP

REGIONAL UPLAND BIRD MAP

STATEWIDE SUMMARIES

Closed to prairie chicken hunting
Northern High Plains (Northwest)
Public Land: 12,849 acres WIHA: 386,709 acres

Pheasant – Regional bird indices remained similar to last year and the region boasts the highest regional index from the summer brood survey again this year. The following spring breeding densities were similar to 2019. With no significant changes in any pheasant surveys, hunting opportunities should remain similar to 2019 as well; however, with areas furthest west receiving less rain this year, densities will likely be less in those counties compared to last year. The highest densities will be found in the northeastern portion of this region.

Quail – Quail are limited and are typically harvested opportunistically by pheasant hunters. Recent weather patterns have facilitated a population expansion into the area where appropriate habitat exists, providing hunters with a welcomed additional opportunity in recent years. Densities on the summer roadside survey decreased and remained the lowest regional density, most notably two of the routes in the region that had been recording higher numbers of quail had no detections this year. Opportunity will remain the best in the eastern-most counties of the region.

Prairie Chicken – Prairie chicken populations continue to expand in both numbers and range within the region. Only portions of this region are open to hunting (see map for unit boundaries). Lesser prairie chickens occur in the southern and central portions of the region within the closed zone. Within the open area, the best hunting opportunities will be found in the northeastern portion of the region in native prairies and CRP grasslands.

Glaciated Plains
Public Land: 51,469 acres WIHA: 75,703 acres

Pheasant – Opportunities will remain poor with pheasants occurring only in pockets of habitat, primarily in the northwestern portion of the region or areas managed for upland birds. Spring crow counts increased from 2019, however pheasants were detected on only one roadside route in 2020. Pheasant densities across the region are typically low, especially relative to other areas in central and western Kansas.

Quail – After falling last year, roadside surveys indicate birds increased on all routes this year in the region. Like many regions, the last five years have provided above average opportunity for quail. While densities will still be lower than western regions, the above average densities will provide better opportunities for those spending time in northeast Kansas this winter. With the limited amount of nesting and roosting cover throughout much of this in the region, targeting areas with or near native grass is key for success. Roadside counts were highest in the northwestern portion of the region.

Prairie Chickens – Very little prairie chicken range occurs in this region and opportunities are limited. Opportunities for encounters are highest in the western edges of the region along the Flint Hills, where some large areas of native rangeland still exist.

Smoky Hills
Public Land: 106,558 acres WIHA: 323,658 acres

Pheasant – After a slight increase, the spring calling surveys remained above average, but pheasant counts from summer roadside surveys declined. Total regional harvest was highest in the Smoky Hills last year, but success rates were lower than the other major pheasant regions. With reduced densities, success rates may decrease again in this region. Given its size and variability, this region will still be important to pheasant hunters and be a major contributor to the overall harvest. The northwestern portion of the region had the highest roadside densities this year.

Quail – The spring whistle survey increased this year, while roadside surveys remained the same. After large increases in the roadside survey last year, stable numbers maintained the region as having the highest roadside index for quail in 2020. Total regional harvest in 2019 was the highest in the state with good hunter success rates. Hunters in the area are becoming accustomed to the high densities experienced across the region in the past few years, making birds relatively easy to find; however, targeting edge habitat and weedy areas with nearby shrubs will be the most productive. Densities appear best in the north half of the region but several other areas across the region produced good estimates as well.

Prairie Chicken – Prairie Chicken hunting opportunities in the region should remain good. Production was likely improved with good residual cover and spring counts remain relatively good. This region includes some of the highest densities and access in the state for prairie chickens. Greater prairie chickens occur throughout the Smoky Hills where large areas of native rangeland are interspersed with CRP and cropland. The best hunting will be found in the central portion of the region, but several other areas support huntable densities of birds in appropriate habitat. Lesser prairie chickens occur in a few counties in the southwestern portion of the region within the closed zone (see map for unit boundaries).

Flint Hills
Public Land: 196,901 acres WIHA: 75,518 acres

Pheasant – This region is on the eastern edge of the primary pheasant range in Kansas and offers limited opportunities. Pheasant densities have always been relatively low throughout the Flint Hills, with the highest densities found on the western edge of the region. The spring crow counts and summer roadside survey both remained stable. The best opportunities will be in the northwest portion of the region along the Smoky Hills. Quail – This region had a slight decrease in the index of whistling bobwhites but remained above average. Summer roadside counts were slightly better than 2019.

Quail production was likely impeded in the core of the Flint Hills with above average burning limiting nesting cover. Hunters will find the best success in areas that maintained nearby nesting cover and have retained shrub cover that has been removed from large areas of the region during invasive species control. The northern half of the region recorded the highest roadside indices this year.

Prairie Chickens – The Flint Hills is the largest intact tallgrass prairie in North America and has been a core habitat for greater prairie chickens for many years. Management changes resulting in both areas of too little and too much prescribed fire have gradually degraded habitat quality and prairie chicken numbers have declined as a result. More grassland than average was burned in 2020, resulting in less nesting cover; however, summer rainfall created good brood cover and quality habitat entering the fall. Hunting opportunities will likely be similar to last year throughout the region.
**Regional Summaries**

**Southcentral Prairies**
*Public Land: 41,125 acres WIHA: 65,801 acres*

Pheasant – The spring crow survey remained unchanged from 2019 and near long-term averages. While total observations in the summer roadside survey declined, the pattern was inconsistent, with some notable improvement in the west half of the region. The highest pheasant densities in the region will be found in the west half again this year.

Quail – The spring whistle survey saw a marked improvement this year. This was followed by slight increase in the summer brood survey. As such, the region should have above average densities and was the second-highest regional index on the roadside survey this year. Harvest rates for quail were good in the region last year and opportunities should be better this year with these increases. The intermixing of quality cover types in the region provides more consistent opportunities in the Southcentral Prairies compared to other regions. The roadside counts were highest in western half of the region with some declines across the eastern half.

Prairie Chicken – This region is almost entirely occupied by lesser prairie chickens and areas included in their range are closed to prairie chicken hunting (see map for unit boundaries). Greater prairie chickens occur in very limited areas in the remainder of this region and will occur in very low densities with encounters most likely in the few remaining large tracts of rangeland in the northeastern portion of the region.

**Southern High Plains**
*Public Land: 116,821 acres WIHA: 176,800 acres*

Pheasant – The pheasant crow index was unchanged this spring and remained the highest regional crow index this year. However, roadside brood surveys showed declines after dry conditions, persisting in the area through June, reduced overall nesting success. Last year, this region boasted the highest success rates for hunters, but with lower densities this year, success rates will likely decline. The highest pheasant densities will be in the southeastern portion of the region.

Quail – The quail population in this region is highly variable and dependent on weather. Whistle counts were slightly down this spring across the southwest. Despite fewer adult quail in the spring, roadside survey results were the same as last year. Quail typically nest later than pheasant and were able to take advantage of rains the area received later in the summer. The highest densities will be found along riparian corridors where adequate woody structure exists. This association with riparian corridors also makes surveying the region for an accurate density of quail challenging, and opportunities can be better than roadside surveys suggest at times. Scaled quail can also be found in this region but make up a small proportion of quail in the region.

Prairie Chicken – This region is entirely occupied by lesser prairie chickens; therefore, prairie chicken hunting is closed in this area.

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**Conservation Reserve Program**

Under the 2018 Farm Bill, the Conservation Reserve Program (CRP) acreage cap will gradually increase over the next five years. Kansas currently has 1.9 million acres of CRP statewide. There was a new enrollment period in 2020; however, with 504,000 acres expiring and only 436,000 acres offered, there will be a net decrease in acres this year. Lower interest is currently attributed to reduced rental rates and incentives. In addition to loss of acres, the quality of habitat on the remaining acres may also be impacted.

There were 27 counties in Kansas that were released for emergency haying and grazing of CRP due to drought conditions. As a condition for reenrollment of many of the renewal acres, landowners are required to hay these fields as part of management. This should improve these fields in the future but will cause an immediate reduction in habitat. A large portion of properties in the WIHA program include CRP and expirations can reduce habitat quality or exclude properties from the program. However, the Kansas WIHA program remains strong, with nearly 1.14 million acres enrolled (atlases are available at ksoutdoors.com/wiha or at any license vendor).

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**More Information**

**Where to Hunt**

Kansas has nearly 1.7 million acres open to public hunting (wildlife areas and WIHA combined). This is only a small portion of the more than 52 million acres of private land that also provides ample opportunity where permission can be obtained.

To view maps of all lands open to public hunting, download the 2020-2021 Kansas Fall & Spring Hunting Atlas found at ksoutdoors.com/Hunting/Where-to-Hunt.

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