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, quail, and prairie chickens. 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.

Rainfall in Kansas varies greatly, from more than 50 inches of average annual rainfall in the far east to less than 14 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 2022, Kansas was plagued by limited precipitation and high heat for an extended period of time. This favored production in the eastern third of the state, while production in the western third of the state was limited.
PHEASANT

Drought conditions intensified in Kansas over the past year and had a marked impact on pheasant production across much of their primary range. This was most noticeable in the High Plains region of the western third of the state where there were widespread declines. In portions of the North Central Smoky Hills region, spring precipitation was enough in select areas to support a strong initial nesting attempt resulting in an overall increase for the region. However, this was not widespread and was not enough to offset losses in other regions. The statewide pheasant index has dropped to levels similar to the previous drought cycle. These declines will be exacerbated by the loss of huntable habitat, as the CRP program has continued to decline in enrollment and drought conditions opened much of the remaining CRP to be used for emergency forage for cattle across the entire Kansas pheasant range. This has the potential to artificially improve hunter success initially by concentrating birds in the remaining cover but will also likely concentrate hunting pressure. Despite declines, Kansas continues to maintain one of the best pheasant populations in the country and fall harvest will again be among the leading states. Simply note, hunters are likely to find challenging conditions and should be prepared to work for birds this season.

QUAIL

Kansas has continued to support above-average quail populations with spring densities remaining similar to 2021. This included significant increases in spring densities in the central regions of the state this spring. The peak nesting for quail is later than pheasants, which led to concerns about chick survival and nest initiation rates with mid-summer conditions; However, quail have a longer nesting season and can take advantage of quickly-changing conditions. The drought conditions reduced production in the southwest region of the state, but quail increased on brood surveys through much of Northcentral Kansas and eastward. The modest increases across these regions offset the decreases observed in the southwest resulting in statewide densities equivalent to 2021. Kansas maintains one of the strongest quail populations in the country and, given our abundant access, harvest will again be among the highest in the country. Drought conditions will impact huntable cover throughout the range and will likely be more noticeable as hunters travel further west in the state. The best opportunities will be in the Flint Hills and Smoky Hills regions of the state this season, with quality hunting opportunity scattered across 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. 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 recently 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 Smoky Hills Region this fall where populations have been stable, public access is more abundant, and the drought was less intense than further west.

The Southwest Prairie Chicken Unit, where lesser prairie-chickens are found, will remain closed to hunting this year. Greater prairie-chickens may be harvested with a 2-bird daily bag limit in the Greater Prairie-Chicken Unit. All prairie chicken hunters are required to have a Prairie Chicken Permit, which allows KDWP to track hunter activity and harvest to better inform management.

GREATER PRAIRIE CHICKEN UNIT MAP

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.
Pheasant – This region showed an increase on the roadside survey index, boasting the highest roadside density this year. The region maintained the highest regional harvest last year, as well. Given the observed increase, this region will again be a major contributor to overall harvest this season. Despite early rains contributing to production, habitat conditions have continued to deteriorate and will likely mean areas may be better than they initially appear. Hunters should target remaining cover in areas where good spring cover would have been present, especially in the western and southern portions of the region where the highest roadside densities were this year.

Quail – This region has enjoyed several years of well above average quail densities. The spring whistle survey increased this year, maintaining above average spring densities. Brood survey estimates also increased across most of the region. Given increases in both spring and summer surveys, hunter success rates are expected to improve compared to 2021. However, drought conditions will impact cover across all land types. Densities appear best in the west half of the region but several other areas across the region maintained good estimates, as well.

Prairie Chicken – The Flint Hills is the largest in-tact 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. Burning was near average in 2022, limiting nesting cover in the core of the Flint Hills. Hunting opportunities will likely be similar to last year throughout this region.
**REGIONAL SUMMARIES**

**Glaciated Plains**
Public Land: 51,469 acres WIHA: 67,430 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 specifically for upland birds. Roadside densities decreased with pheasants only being recorded on two routes this year. Pheasant densities across the region are typically low, especially relative to other areas in central and western Kansas.

**Quail** – Summer roadside surveys showed good improvements with densities approaching those typical for the central regions of the state. Like many regions, the last five years have provided above-average opportunity for quail. While densities will still be lower than many regions to the west, the increased densities will provide better opportunities for hunters spending time in northeast Kansas this winter. With limited nesting and roosting cover throughout much of this region, targeting areas with or near native grass will be key for hunter success. Roadside counts were highest in the northeastern portion of the region.

**Prairie Chicken** – Very little prairie chicken range occurs in this region and opportunities will be highest in the western edges of the region along the Flint Hills, where some large areas of native rangeland still exist.

**Osage Cuestas**
Public Land: 109,883 acres WIHA: 31,905 acres

**Pheasant** – This region is outside the primary pheasant range, therefore hunting opportunity is very limited. Pheasants are occasionally found in the northwestern portion of the region at very low densities.

**Quail** – Opportunities will be poor this year. While roadside estimates trended upward again this year, the modest improvements have still not mitigated several years of consecutively poor production. Roadside surveys remained depressed within this region, having the lowest regional density for quail. While overall hunting opportunities will be slightly improved, the best opportunities will be on areas specifically managed for upland birds and/or the western counties in grasslands extending east off of the Flint Hills.

**Prairie Chicken** – Greater prairie chicken populations have consistently declined over the long term in this region. Fire suppression and loss of native grassland has gradually reduced the amount of suitable habitat. Hunting opportunities are limited, but chickens can occasionally be found in large blocks of native rangeland, primarily along the edge of the Flint Hills.

**Northern High Plains (Northwest)**
Public Land: 12,849 acres WIHA: 378,089 acres

**Pheasant** – While this region boasted the highest density during spring surveys, drought conditions reduced production, creating significant declines in the roadside survey this year. In fact, all routes in the region declined from last year. Hunters may find some success in areas where there were good bird numbers in 2021, as there is the potential for more “carry over” birds. Given this, targeting grasslands adjacent to irrigation where there was a higher potential for moisture could also prove successful. The highest densities will be found in the Western counties of the region where densities were greatest last year.

**Quail** – Quail are limited and typically harvested opportunistically by pheasant hunters. Weather patterns have facilitated a population expansion into the area where appropriate habitat exists, providing hunters with increased opportunity in recent years. While densities on the summer roadside survey decreased this year due to drought conditions, opportunity will still exist, especially in the eastern most counties of the region.

**Prairie Chicken** – Prairie chicken populations have expanded in both numbers and range within the region. Only portions of this region are open to hunting (see map for unit boundaries). Production in the region was likely poor this year based on other upland bird production. Within the open area, the best hunting opportunities will be found in the northeastern portion of the region in native prairies and adjacent CRP grasslands.

**Southern High Plains**
Public Land: 116,821 acres WIHA: 157,426 acres

**Pheasant** – While this region saw a slight increase during spring crowing surveys, the summer brood survey showed significant declines. All routes in this region declined from last year. Carry-over birds may provide the best opportunity for success in areas where there were good bird numbers in 2021. Additionally, targeting undisturbed grasslands adjacent to irrigation may increase the likelihood of encountering birds where moisture may have facilitated some production. The highest densities were found in the Southcentral counties of the region where densities were greatest last year.

**Quail** – The quail population in this region is highly variable and dependent on weather. The roadside estimates were down this year due to poor production conditions. Densities were greatest in the Southcentral portion of the region, with the highest densities found along riparian corridors and/or where adequate woody structure exists. This association with riparian corridors makes surveying the region for an accurate density of quail challenging; therefore, hunting opportunities may be better than the roadside surveys suggest. Scaled quail can also be found in this region but make up a small proportion of total quail.

**Prairie Chicken** – Prairie chicken hunting is closed in this area.
Pheasant – Roadside survey estimates were slightly lower than last year. There were a few routes that maintained relatively good densities within the region. While roadside estimates are lower than the other major pheasant regions, last year this region boasted the highest hunter success rates. The highest pheasant densities will be found in the west-central portion of the region this year, with good opportunities in the northern part of the region as well, near higher densities to the north.

Quail – The spring whistle survey and summer brood survey both trended downward, however neither saw significant declines. Because harvest rates for quail were also highest in the region last year, opportunities should remain strong this year with marked improvements in key areas. The intermixing of quality cover types in the region provides more consistent opportunities across the South-Central Prairies compared to other regions. Roadside counts were highest in central portion of the region.

Prairie Chicken – The large rangeland areas in this region are almost entirely closed to prairie chicken hunting (see map for unit boundaries). Chickens occur in very limited areas in the remainder of this region at very low densities. Encounters are possible in the few remaining large tracts of rangeland in the northeastern portion of the region.

Southcentral Prairies
Public Land: 41,125 acres WIHA: 59,705 acres

Under the 2018 Farm Bill, the Conservation Reserve Program (CRP) acreage cap will gradually increase each year. Kansas currently has 1.7 million acres of CRP statewide. During the 2022 signup, however – with 294,815 acres expired and only 218,974 acres enrolled – there will be a net decrease in CRP acres again this year.

Decreased interest in enrollment is currently attributed to reduced rental rates combined with high commodity prices. In addition to loss of CRP acres, the quality of habitat on remaining CRP acres will be reduced.

A total of 86 counties in Kansas were released for emergency Haying and Grazing of CRP. A large portion of properties in the WIHA program include CRP, and expirations/haying can reduce habitat quality or exclude properties from the program altogether.

Given this, Kansas’ WIHA program still has nearly 1.09 million acres enrolled for 2022.

MORE INFO

The Kansas Department of Wildlife and Parks has a new hunting and fishing mobile app, GoOutdoorsKS!

GoOutdoorsKS allows hunters and anglers to purchase licenses and permits, sync current licenses, submit harvest reports, and find useful tools such as regulations.

GoOutdoorsKS is available on IOS and Android devices.

To view maps of all lands open to public hunting, download the “2022-2023 Kansas Fall & Spring Hunting Atlas” at ksoutdoors.com/Hunting/Where-to-Hunt

Download on your Apple or Android device!