

Kansas Habitat Assessment Worksheet Lesser/Greater Prairie Chicken

This worksheet is designed to assist planners and landowners in developing a management plan for prairie chickens. The success of any species management plan depends on targeting the needs of the desired species and analyzing the designated habitat area as a whole to ensure that all required habitat elements are present. Planners are encouraged to seek the assistance of the local Kansas Department of Wildlife and Parks (KDWP) area or district biologist who has knowledge of local wildlife habitat needs when completing this assessment. Landowners' participation is also encouraged since this assessment will help to identify weak or missing components of habitat as a basis for making management decisions.

To ensure success, at least 40 percent of the lands within two miles should be native grassland for the planned management unit to be suitable for prairie chicken management.

For planning purposes, use the table below to subjectively rate the availability and quality of the prairie chicken habitat within a planning area based on the habitat component requirements described. Habitat communities and components that are absent or rated low are likely limiting prairie chicken habitat. The minimum habitat requirements will be considered met when all habitat components are rated high or medium. Existing and planned conditions should be evaluated.

Prairie Chicken Habitat Requirements Summary

Habitat Component	Habitat Requirements
Nesting Cover	Native prairie or other grasslands (Conservation Reserve Program [CRP], hay meadows) that provide residual cover in spring > 10 inches and < 30 inches in height with ground level openings. Vegetation should be clumpy with abundant bunchgrass preferred (low shrubs, sand sagebrush valuable in the southwest). Heights should be variable across pastures with some areas grazed noticeably more and others noticeable less than average. Trees should be absent or minimal. Trees should be restricted to low areas such as drainages.
Brood-rearing Cover	Herbaceous cover (or low shrubs, sand sagebrush in the southwest) in native pastures with a significant forb component that provides overhead cover and ground-level openings for chicks. CRP (> 10 inches and < 30 inches) with abundant forbs such as alfalfa.
Winter Cover	Extensive native prairie or other grasslands (CRP) that provide residual cover > 14 inches and < 30 inches in height with ground-level openings for ease of movement.
Food	Abundant forbs attract insects for chicks and adults. Small amounts of green vegetation are consumed throughout the year. Seeds provided in grain stubble and produced by perennial and annual weeds provide a fall and winter food source.
Water	Adequate moisture is generally obtained in foods eaten or by dew. Open water may be used if available during drought conditions in semi-arid (< 25 inches annually) parts of the state.
Interspersion	Areas of nesting cover and brood-rearing cover must be present in close proximity to each other. Edges between burned and unburned areas are highly valuable for reproduction. Areas dominated by annual burns offer very little nesting habitat. Areas with insufficient burning limit brood habitat and are vulnerable to tree invasion.

Habitat Component	Availability/Quality - Existing			Availability/Quality - Planned		
	High	Medium	Low/Absent	High	Medium	Low/Absent
Nesting Cover						
Brood-rearing Cover						
Winter Cover						
Food						
Water						
Interspersion						

Notes:

Habitat Component	Management Options for Increasing Prairie Chicken Habitat Quality or Availability	Conservation Practices
Nesting Cover April 15 - June 15	Preserve and maintain native grassland/forb communities by light to moderate season-long grazing or patch burning/grazing systems that produce desired nesting habitat. Restrict herbicide use to spot spraying for noxious weeds to avoid loss of nesting cover and brood-rearing cover.	314, 338, 472, 528
	Establish field borders and other strip habitats and plant to native grass/forb/legume mix.	386, 332, 412
	Plant a mixture of grasses, forbs, and legumes for nesting cover as described in habitat requirements.	645
	Cut hayfields at the highest possible height and delay cutting until after the primary nesting season. Mow hay fields from the center outward. Hay native hayfields after mid-July.	511
	Prescribed burns should be conducted at least one time and no more than three times in five years in pastures in the eastern half of Kansas or in any CRP, and at a reduced frequency in pastures in the western half of the state.	338, 314,472
Brood Cover May 15 - July 31	Leave unsprayed brood strips of 15 to 25 feet around edges of crop fields.	595
	Plant a mixture of grasses, forbs, and legumes suitable for brood-rearing cover.	645
	Preserve and maintain native grassland/forb communities by light to moderate season-long grazing or patch burning/grazing systems. Areas of high summer forb abundance created in parts of pastures that received heavy livestock use in previous year offer good brood-rearing habitat.	338, 528, 314, 472
	Restrict herbicide use on grasslands to spot control for noxious weeds in order to minimize loss of valuable forbs and invertebrates used as food.	595
	Interseed existing grasslands (not native pastures) such as CRP, odd areas, field borders, waterways, and roadsides with alfalfa or other forb/legume mixes.	550, 645
Winter Cover	Provide extensive areas of residual cover > 14 inches and < 30 inches in height, with ground-level openings, in native prairie and other grasslands. Light to moderate stocking rates (depending on the range site) are necessary to obtain these heights in pastures.	528, 314, 472
Food/Water	Restrict herbicide use on grasslands to spot control for noxious weeds to minimize loss of valuable forbs and invertebrates used as food.	595
Interspersion	Areas of nesting cover and brood-rearing cover must be present in close proximity to each other. Edges between burned and unburned areas are highly valuable for reproduction. Areas dominated by annual burns offer very little nesting habitat. Areas with insufficient burning limit brood habitat and are vulnerable to tree invasion. Create habitat diversity with a patch burning/grazing system or with light to moderate season-long grazing.	338, 528, 595

Contour Buffer Strips	332	Range Planting	550
Prescribed Burning	338	Pest Management	595
Field Border	386	Upland Wildlife Habitat Management	645
Grassed Waterway	412	Brush Management	314
Forage Harvest Management	511	Use Exclusion	472
Prescribed Grazing	528		

Kansas Habitat Assessment Worksheet Bobwhite Quail

This worksheet is designed to assist planners and landowners in developing a management plan for bobwhite quail. The success of any species management plan depends on targeting the needs of the desired species and analyzing the designated habitat area as a whole to ensure that all required habitat elements are present. Planners are encouraged to seek the assistance of the local Kansas Department of Wildlife and Parks (KDWP) area or district biologist who has knowledge of local wildlife habitat needs when completing this assessment. Landowners' participation is also encouraged since this assessment will help to identify weak or missing components of habitat as a basis for making management decisions.

To ensure success, land suitable for quail management should contain between 10 percent and 90 percent cropland within one-half mile of the planned management unit.

For planning purposes, use the table below to subjectively rate the availability and quality of quail habitat within a planning area based on the habitat component requirements described. Habitat communities and components that are absent or rated low are likely limiting bobwhite quail habitat. The minimum habitat requirements will be considered met when all habitat components are rated high or medium. Existing and planned conditions should be evaluated.

Bobwhite Quail Habitat Requirements Summary

Habitat Component	Habitat Requirements
Nesting Cover	Dense, clumpy herbaceous vegetation with overhead protection and open travel lanes at ground level. Grassy or weedy odd areas, undisturbed native grasslands and pastures, herbaceous buffers, unmowed roadside habitat greater than 15 feet wide, hay (unmowed), standing crop stubble (left untilled) until after the primary nesting season and green wheat may also be used in some parts of the state.
Brood-rearing Cover	Herbaceous cover with a strong forb component of low growing green foliage that provides for overhead cover, ground-level movement of chicks, and abundant insects. Weeds or legumes alone or in association with grasses or crops (e.g., weedy wheat stubble, Conservation Reserve Program [CRP] with alfalfa, or other forbs with similar growth habit).
Winter Cover	Dense herbaceous or woody vegetation. Weedy odd areas and fencerows, undisturbed grasslands (CRP), weedy crop stubble, evergreen/shrub windbreaks, shrub thickets, and buffers at least 30 feet wide.
Food	Abundant forbs attract insects required by chicks and used by adults during parts of the year. Waste grain and weed seeds also provide food for adults.
Water	Dew and foods eaten provide adequate water. Open water may be used if available in semi-arid (< 25 inches annually) regions of the state or during drought conditions.
Interspersion	A mixture of habitats noted above present within one-half mile

Habitat Component	Availability/Quality - Existing			Availability/Quality - Planned		
	High	Medium	Low/Absent	High	Medium	Low/Absent
Nesting Cover						
Brood-rearing Cover						
Winter Cover						
Food						
Water						
Interspersion						

Notes:

Habitat Component	Management Options for Increasing Bobwhite Quail Habitat Quality or Availability	Conservation Practices
Nesting Cover May 1 - July 31	Preserve and maintain grassy/weedy odd areas and edge habitat by conducting prescribed rotational burning, strip disking and deferred grazing to these areas. Limit livestock and other disturbance during the nesting season. Avoid mowing roadsides during the nesting season.	338,382,528, 645, 647
	Preserve and maintain grassland/forb communities by prescribed, rotational, or deferred grazing that will leave residue for nesting cover. Use only spot treatment herbicide application for noxious weed control. Eliminate invading trees and unwanted exotics.	314, 338, 528, 595
	Establish field borders and other herbaceous buffers using native grass forb/legume mix.	332, 386, 393, 412, 589C
	Cut hayfields at the highest possible height and delay cutting until after the primary nesting season. Mow hay fields from the center outward. Hay native hayfields after mid-July.	511
	Delay post harvest herbicide application and tillage during the nesting season to leave crop stubble and weed cover.	329
	Replace cool season introduced grasses with mixture of native warm grasses, forbs, and legumes.	550, 645
Brood Cover June 1 - September 15	Preserve and maintain grassy/weedy odd areas and edge habitat by conducting prescribed rotational burning, strip disking, and deferred grazing to these areas. Limit livestock and other disturbance during the brood rearing season. Avoid mowing roadsides during the brood rearing season.	338,382,528, 645, 647
	Preserve and maintain grassland/forb communities by prescribed, rotational, or deferred grazing that will leave residue for brood rearing cover. Use only spot treatment herbicide application for noxious weed control. Eliminate invading trees and unwanted exotics.	314, 338, 528, 595
	Establish field borders and other herbaceous buffers using native grass forb/legume mix.	332, 386, 393, 412, 589C
	Interseed existing grasslands, odd areas, field borders, waterways, and roadsides with alfalfa or other legume/forb mixes.	550, 645
	Delay post-harvest herbicide application and tillage to leave residual stubble and encourage broad-leaf weeds during the brood-rearing season.	329
	Leave unsprayed brood strips of at least 20 feet around edges of fields.	595
	Add switchgrass and alfalfa to brome waterways or plant to native grass.	412, 645
	Replace cool season introduced grasses with mixture of native warm season grasses, forbs, and legumes.	645
Winter Cover	Preserve weedy fencerows, dense undisturbed grasslands, abandoned farmsteads, shrubby habitats, and weedy draws.	338, 382
	Establish buffers using native grass/forb/legume mix or shrubs. Buffer treelines in crop fields with shrubs and native grass.	332, 393, 391, 412, 589C, 645
	Establish evergreen/shrub windbreaks or shrub thickets.	380, 612, 645
	Renovate mature hedgerows to create more shrubby habitat from regrowth.	650
Food/Water	Preserve and maintain grassy/weedy odd areas, field corners, roadsides, and edge habitat by conducting prescribed rotational burning and strip disking when appropriate.	338, 382, 645
	Establish food plots near winter cover or leave several rows of standing crops along the edges of cropfields and leave waste grain on the ground following harvest by not tilling.	329, 645, 647
	Limit herbicide and insecticide use on grassland and forb communities to spot control for noxious weeds to minimize loss of forbs and invertebrates used as food.	329
	Establish wildlife watering facility.	648
Interspersion	Combine above practices to increase interspersion of habitat components within one half mile.	

Brush Management	314	Forage Harvest Management	511
Residue Management	329	Prescribed Grazing	528
Contour Buffer Strips	332	Cross Wind Trap Strips	589C
Prescribed Burning	338	Pest Management	595
Windbreak/Shelterbelt Establishment	380	Tree and Shrub Establishment	612
Fence	382	Upland Wildlife Habitat Mgt.	645
Field Border	386	Early Successional Habitat Development/Management	647
Riparian Forest Buffer	391	Wildlife Watering Facility	648
Filter Strip	393	Windbreak Shelterbelt Renovation	650
Grassed Waterway	412	Wetland Restoration	657

Kansas Habitat Assessment Worksheet Ring-necked Pheasant

This worksheet is designed to assist planners and landowners in developing a management plan for ring-necked pheasants. The success of any species management plan depends on targeting the needs of the desired species and analyzing the designated habitat area as a whole to ensure that all required habitat elements are present. Planners are encouraged to seek the assistance of the local Kansas Department of Wildlife and Parks (KDWP) area or district biologist who has knowledge of local wildlife habitat needs when completing this assessment. Landowners' participation is also encouraged since this assessment will help to identify weak or missing components of habitat as a basis for making management decisions.

To ensure success, land suitable for pheasant management should contain at least 30 percent or greater amounts of cropland within one mile of the planned management unit.

For planning purposes, use the table below to subjectively rate the availability and quality of pheasant habitat within a planning area based on the habitat component requirements described. Habitat communities and components that are absent or rated low are likely limiting ring-necked pheasant habitat. The minimum habitat requirements will be considered met when all habitat components are rated high or medium. Existing and planned conditions should be evaluated.

Ring-necked Pheasant Habitat Requirements Summary

Habitat Component	Habitat Requirements
Nesting Cover	Wheat stubble (left untilled until after June 30th), green wheat, hay (unmowed until June 30th), grassy or weedy odd areas, undisturbed grasslands and pastures, herbaceous buffers, unmowed roadside habitat greater than 15 feet wide.
Brood-rearing Cover	Herbaceous cover with a significant forb component that provides overhead cover and ground-level openings for chicks. Weeds or legumes alone or in association with grasses or crops (e.g., weedy wheat stubble, Conservation Reserve Program (CRP) with alfalfa).
Winter Cover	Weedy odd areas and fencerows, undisturbed grasslands (CRP), weedy crop stubble, dense wetland vegetation, shrub thickets, buffers at least 30 feet wide.
Food	Abundant forbs attract insects for chicks and adults. Seeds provided in grain stubble and produced by perennial and annual weeds provide a fall and winter food source.
Water	Adequate moisture is generally obtained in foods eaten or by dew. Open water may be used if available during drought conditions in semi-arid (< 25 inches annually) parts of the state.
Interspersion	A mixture of habitats noted above present within one mile.

Habitat Component

Availability/Quality - Existing		
High	Medium	Low/Absent

Availability/Quality - Planned		
High	Medium	Low/Absent

Nesting Cover
Brood-rearing Cover
Winter Cover
Food
Water
Interspersion

Notes:

Habitat Component	Management Options for Increasing Ring-necked Pheasant Habitat Quality or Availability	Conservation Practices
Nesting Cover April 15 - July 15	Leave summer fallow wheat stubble untilled until after June 30th. Avoid applying sulfonylurea herbicides with residual broafleaf activity to green wheat (2-4-D is OK). Cut wheat at the highest possible height or use a stripper header. Avoid or delay post harvest herbicide application and tillage to leave residual stubble and weed cover.	329
	Cut hayfields at the highest possible height and delay cutting until after the primary nesting season. Mow hay fields from the center outward. Hay native hayfields after mid-July.	511
	Plant a mixture of grasses, forbs and legumes suitable for nesting cover.	645
	Establish field borders and other strip habitats and plant to native grass/forb/legume mix.	386, 332, 412, 589C
	Preserve and maintain grassy odd areas, field corners, roadsides, and edge habitat by prescribed burning when appropriate. Fence out these areas as needed to exclude livestock during the nesting season. Keep disturbance to a minimum on these areas until at least June 30th. Avoid mowing roadsides during nesting season.	382, 472, 528, 645, 647, 650
	Preserve and maintain grassland/forb communities by prescribed rotational burning, rotational, or deferred grazing that will leave residue for nesting cover. Restrict herbicide use to spot spraying for noxious weeds to avoid loss of nesting cover and brood-rearing cover.	338, 528, 595
Brood Cover May 15 - August 31	Avoid or delay post harvest herbicide application and tillage to leave residual wheat stubble and to encourage broad-leaf weed cover.	329
	Leave unsprayed brood strips of 15 to 25 feet around edges of fields.	595
	Plant a mixture of grasses, forbs, and legumes suitable for brood-rearing cover.	645
	Enhance weedy odd areas, field corners and edge habitat by conducting late-winter strip disking and prescribed rotational burning when appropriate. Fence out such areas as needed to exclude livestock during brood-rearing season.	338, 382, 472 645, 647
	Preserve and maintain grassland/forb communities by prescribed burning, rotational, or deferred grazing that will leave residue for nesting cover. Restrict herbicide use to spot spraying for noxious weeds to avoid loss of nesting cover and brood-rearing cover.	338, 528, 595
	Interseed existing grasslands, CRP, odd areas, field borders, waterways, and roadsides with forb/legume mixes.	550, 645
Winter Cover	Preserve weedy fencerows, dense undisturbed grasslands, abandoned farmsteads, shrubby habitats, and weedy draws.	382
	Fence livestock from playa lake vegetation and cattail marshes. Restore hydrology and vegetation in degraded herbaceous wetlands.	382, 472, 657
	Cut wheat and row crops as high as possible to maximize stubble height. Avoid applying sulfonylurea herbicides with residual broadleaf activity to green wheat (2-4-D is OK). Avoid or delay post harvest herbicide application and tillage to leave residual stubble and weed cover. Avoid grazing milo or corn stubble.	329
	Establish shrub windbreaks or shrub thickets.	380, 612, 645
	Establish herbaceous buffers.	332, 386, 393, 412, 589C
Food/Water	Enhance weedy odd areas, field corners, and edge habitat by conducting strip disking and prescribed rotational burning when appropriate.	338, 382, 645, 647
	Cut wheat or row crops as high as possible. Avoid grazing milo or corn stubble. Leave several rows of standing crops along crop field edges.	329
	Establish food plots near heavy grass, weed, or shrub cover well away from tall trees.	645
	Restrict herbicide use on grassland and forb communities to spot control for noxious weeds to minimize loss of forbs and invertebrates used as food.	595
	Establish wildlife watering facility.	648
Interspersion	Combine above practices to increase interspersion of habitat components.	

Residue Management	329	Prescribed Grazing	528
Contour Buffer Strips	332	Range Planting	550
Prescribed Burning	338	Cross Wind Trap Strips	589C
Fence	382	Pest Management	595
Field Border	386	Upland Wildlife Habitat Management	645
Filter Strip	393	Early Successional Habitat Development/Management	647
Grassed waterway	412	Wildlife Watering Facility	648
Use Exclusion	472	Windbreak/Shelterbelt Renovation	650
Forage Harvest Management	511	Wetland Restoration	657