

Bobwhite Quail Habitat Appraisal Tool

Name _____ Date _____ Planner _____

Land management goal: 1 covey per ____ acres (optimum home range is 15 acres) Size of evaluation area: ____ acres

Habitat components, listed below, are the elements needed for survival and propagation of the species. For BWQ, these components include (A) Nesting Cover, (B) Brood Habitat, (C) Covey Headquarters, (D) Food, and (E) Arrangement of Habitats.

Scoring Instructions - Descriptions for quail habitat components are listed below. Under each description, find the rating or explanation that best matches the habitat being appraised on your farm. Then locate the corresponding score (the bold number in front of the explanation) and write it on the chart to the right. Two columns are provided for existing and planned conditions. These scores will be used to determine limiting factors at the end of this form. The charts allow for up to four habitats to be appraised on this form.

(Additional forms can be printed online at extension.missouri.edu/explore/miscpubs/mp0902.htm.)

	Existing	Planned		
<p>A. Nesting Cover - Herbaceous cover consisting of bunch grasses with forbs and low-growing shrubby cover with last year's grass growth available before or during nesting season (May 1 to Sept. 15).</p> <p>Nesting cover quantity - Percentage of home range dominated by preferred cover.</p> <p>10 30% or more 8 20% to 30% 6 10% to 20% 4 1% to 10% or open stands at ground level fescue/brome 0 None present (if 0, skip to Brood Habitat)</p> <p>Average nesting cover height - The condition of nesting cover vegetation (previous year's growth) during the nesting season, with residue available for use May 1.</p> <p>10 Greater than 8 inches 8 6 to 8 inches 4 4 to 6 inches 2 Less than 4 inches</p> <p>Distance to edge - Distance from center of nesting cover to an edge.</p> <p>10 50 to 75 feet 6 25 to 50 feet or 75 to 150 feet 2 less than 25 feet or more than 150 feet</p>	1.		Nesting cover quantity	
	2.			
	3.			
	4.			
		1.		Average nesting cover height
		2.		
		3.		
		4.		
		1.		Distance to edge
		2.		
		3.		
		4.		

<p>B. Brood Habitat - Herbaceous plants and bare ground that consists of new growth of forbs/weeds, annuals, minimum or no-till crops in each home range, needed from May 15 to Sept. 15.</p> <p>Brood habitat quantity - Percent of the home range dominated by forbs/weeds annuals or crop cover.</p> <p>10 40% or more forbs/legumes, annuals or minimum/no-till crops 8 30% to 40% forbs/legumes, annuals or minimum/no-till crops 6 20% to 30% forbs/legumes, annuals or minimum/no-till crops 4 10% to 20% forbs/legumes, annuals or minimum/no-till crops 2 1% to 10% forbs/legumes, annuals or minimum/no-till crops 0 No preferred cover, or conventional tilled crops (if 0, skip to Covey Headquarters)</p> <p>Percent bare ground - Openness throughout brood habitat area (below 6")</p> <p>10 25% to 50% 5 5% to 25%, or 50% to 75% 0 Less than 5% or more than 75%: 0 (if 0 skip to Covey Headquarters)</p> <p>Screening cover - Brood habitat canopy cover above foraging broods (at least 6 inches high)</p> <p>10 50% or more 8 30% to 50% 6 10% to 30% 2 1% to 10% 0 No herbaceous cover above height 6 inches</p>	1.		Brood habitat quantity	
	2.			
	3.			
	4.			
		1.		Percent bare ground
		2.		
		3.		
		4.		
		1.		Screening cover
		2.		
		3.		
		4.		

<p>C. Covey Headquarters - Woody shrubs, low-growing stemmy trees, down tree structures, feathered edge. Headquarters at a minimum should be 30 feet wide by 50 feet long, or 1,500 square feet.</p> <p>Covey headquarters quantity - Amount of covey headquarters in each home range.</p> <p>10 10% to 25% of home range 8 5% to 10% of home range 6 1% to 5% of home range 2 Less than 1% or more than 25% of home range 0 No covey headquarters within the home range: 0 (If 0, then skip to next page)</p> <p>Covey headquarters composition - Quality of the plant community.</p> <p>10 Woody shrubs and low-growing stemmy trees, upright growth habitat and little ground litter 6 Down tree structures, tangled vines, blackberry thickets, feathered edge, little ground litter 2 Larger trees without extensive low growing stems, or non-upright shrubs 0 Headquarters with closed/rank ground vegetation or overhead tree canopy</p> <p>Covey headquarters density - Canopy closure or canopy cover provided by plant structure.</p> <p>10 60% to 80% canopy at 3 to 12 feet high 8 40% to 60% canopy at 3 to 12 feet high 6 20% to 40% canopy at 3 to 12 feet high 2 Less than 20% canopy at 3 to 12 feet high 0 Canopy less than 3 feet high or more than 12 feet high or canopy more than 80%</p>	1.		Covey headquarters quantity	
	2.			
	3.			
	4.			
		1.		Covey headquarters composition
		2.		
		3.		
		4.		
		1.		Covey headquarters density
		2.		
		3.		
		4.		

	Existing	Planned	
D. Food - Seeds of grain crops and/or naturally occurring herbaceous or woody plants.			
Food quantity - Percentage of the home range that provides food plants for quail.			Food quantity
10 50% or more			
8 30% to 50%			
6 10% to 30%			
4 1% to 10%			
0 No food plants in home range: 0 (if 0, skip to Arrangement of Habitats)			
Food diversity - How many food groups are present in home range (forbs/legumes/grasses/grains/woody)?			Food diversity
10 4 or more food groups			
7 3 groups			
5 2 groups			
2 1 group			
Food accessibility - Percent of bare ground in food areas. (Food availability depends on bare ground.)			Food accessibility
10 50% or more			
7 30% to 50%			
5 10% to 30%			
2 Less than 10% bare ground			

E. Arrangement of Habitats: the spatial arrangement and mix of herbaceous and shrubby cover is an important consideration in determining the quality of the habitat components, including nesting and brood-rearing cover , protective escape cover and food.

Rating criteria for arrangement of habitats Do nesting cover, brood cover, covey headquarters and food occur within 150 feet of each other in one or more places within the home range?			Arrangement of habitats
10...yes			
5...within 660 feet			
0...no			
Distance to covey headquarters. What proportion of the home range is within 150 feet of a covey headquarters?			Distance to headquarters
10.....>80%			
8.....>60 to 79%			
6.....>40 to 59%			
4.....>20 to 39%			
0.....<20%			

Limiting factors for bobwhite quail

Enter the value of the lowest-scored habitat description for each habitat component, for existing and planned conditions. (Each chart allows space to total the scores of the four ranges recorded previously.)

The lowest limiting factor value equals the habitat component that requires the greatest attention. A wildlife biologist can help you interpret habitat scores, and a management plan can be created to correct deficiencies.

	Range 1	Range 2	Range 3	Range 4	
A. Nesting Cover					Existing conditions
B. Brood Habitat					
C. Covey Headquarters					
D. Food					
E. Habitat Arrangement					

	Range 1	Range 2	Range 3	Range 4	
A. Nesting Cover					Planned conditions
B. Brood Habitat					
C. Covey Headquarters					
D. Food					
E. Habitat Arrangement					