

# **HABITAT DEVELOPMENT FOR BOBWHITE QUAIL IN THE HIGH AND ROLLING PLAINS**

**BIOLOGY JOB SHEET TX-9**

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In general, bobwhite quail habitat consists of space to live, food, cover, and to some extent, water. All these must be present and closely adjacent to each other and be available all 12 months of the year.

**LIVING SPACE** - A covey of quail will usually spend their lives within a relatively small area. Their range is governed by the quality of habitat present. Optimum habitat can support about one quail per acre. With a decrease in the habitat quality more living space is needed. A population of quail is generally considered satisfactory if a covey of quail (10-15 birds) occupies each 20-30 acres of quail habitat.

**FOOD** - The bobwhite's diet consists of about 15% insects and 85% plant matter. Insects are particularly important to chicks and young birds which need high protein food for growth. Plant matter is composed primarily of large, smooth, hard seeds. Forbs commonly called "weeds" and legumes provide the bulk of these seed. Seeds from plants such as sunflower, snow-on-the mountain, western ragweed, partridgepea, small wildbean, fringleaf paspalum, switchgrass, and johnsongrass are readily eaten by quail. If a habitat evaluation shows that additional food is needed for quail, this need can be satisfied by including in range seeding mixtures, those adapted plants that have smooth hard seed. Some of these are switchgrass, kleingrass, bristlegrass, blue panic, and sorghum album. These species can also be planted in pure stands. If wildlife food plots are established they should be designed to create as much "edge" as feasible. For example, a rectangular shape is better than a square. All seedings should be done on clean, firm seedbeds. Seed should be of genetic and climatic origin known to be locally adapted.

(more)

**Prepared by USDA Soil Conservation Service, Temple, Texas**

**COVER** - Bobwhite require different cover types which must be located in proximity to each other and near food plants if quail are to be maximized.

**1. Nesting Cover** - Bobwhites prefer clumps of perennial bunch-type grasses such as bluestems, switchgrass, lovegrass, and kleingrass. A nesting site should contain grasses at least 8-inches high. Several nesting sites should be present.

**2. Loafing and Escape Cover** - Quail spend a large part of the day, between the morning and evening feeding periods, near and under loafing and escape cover. This cover type is usually low-growing brush that is open underneath. This allows the bird to escape from danger. Motts of wild plum or Russian olive provide good loafing and escape cover.

**3. Travel & Feeding Cover** - Bobwhites move from one place to another primarily by walking. Vegetation should be thin enough to permit movement, yet provide concealment from ground predators and tall enough to provide overhead protection from avian predators. This cover type is deficient on heavily grazed pastures; but with proper grazing, a variety of plants provide travel and feeding cover.

**4. Roosting Cover** - Bobwhites usually roost on south or southwest exposures where vegetation is low and sparse. Bare ground is sometimes used. This enables the birds, which roost in a circle with heads to the outside, to flush straight up when disturbed. Roosting cover is rarely deficient.