

Randado Ranch Bobwhite Quail Habitat Evaluation

Prepared by David Grall
Grall Game Management, Inc
4202 Petronila Creek Court
Corpus Christi, Texas 78410
(361) 675-0422

Jim Hogg and Zapata Counties Texas

Purpose and overall finding. I evaluated the approximately 7,000 acre Randado Ranch to assess its potential for improving northern bobwhite habitat. The evaluation included review of the USDA soil survey, an on site inspection of pasture conditions, and review of prior habitat treatments and current grazing practices. I also recorded the predominant woody plants, grasses, and forbs. The ranch has strong habitat potential because sandy soils are widespread, the pasture and water infrastructure can support rotational grazing management, and prior brush treatments provide a practical starting point. The principal constraints are dense buffelgrass and advancing mesquite regrowth, both of which reduce the patchiness and plant diversity needed by quail.

Soils

Based on the soil survey reviewed for this evaluation, approximately 83 percent of the ranch consists of soil map units characteristic of the South Texas Sand Sheet. The principal sandy, generally well drained soils include Comitas, Delmita, Brennan, and Nueces Sarita map units. These deep or moderately deep sandy soils are favorable for quail habitat management because they can support diverse grasses and forbs and are generally responsive to properly timed soil disturbance. The site inspection confirmed that sandy soils are widespread. Cuevitas and Tela soils add ecological variation typical of the South Texas Brush Country. Soil map units are planning tools, however, and management prescriptions should be adjusted to actual soil texture, slope, erosion risk, and plant response in each pasture.

Brush

Much of the sandy portion of the ranch supports large honey mesquite, with an understory that includes granjeno, brasil, pricklyash, and lotebush. Previously chained strips contain substantial mesquite regrowth, interspersed with native shrubs. Because follow up chemical maintenance was discontinued, much of the regrowth is now large enough that mechanical treatment, or a carefully selected combination of mechanical and chemical treatment, will be required.

Brush management should be selective rather than uniform. Bobwhite need woody escape and loafing cover near feeding and nesting areas. Retaining irregular brush mottes and travel corridors while opening selected strips or patches will create more usable edge than broad clearing. Treatment layout should also protect desirable shrubs, minimize erosion, and preserve shaded loafing sites.

Grass

Buffelgrass is the dominant grass across most of the ranch. It is an introduced, warm season perennial bunchgrass that can form dense stands and recover rapidly after drought or fire. Its 2026 production was likely stimulated by early summer rainfall. Although individual bunches can provide nesting structure, nearly continuous dense stands reduce bare ground, suppress many native grasses and forbs, and can restrict movement by quail chicks.

The pasture being grazed had a more open grass structure and contained scattered early successional or disturbance associated grasses, including threeawns, dropseeds, and hooded windmillgrass. Their presence indicates that grazing or other disturbance has created some openings, but species composition and ground level structure should be monitored before the same treatment intensity is applied elsewhere.

Forbs and Supplemental Feed

Forb abundance and diversity were low where buffelgrass formed a dense canopy. Crotons, sunflowers, cowpen daisy, and ragweed occurred mainly in disturbed areas, including the pasture occupied by cattle. These seed producing plants, together with the insects associated with diverse forb cover, are important food resources for bobwhites, especially during brood rearing.

The ranch is broadcasting approximately 1,000 pounds of milo each week. Supplemental grain may concentrate birds and provide food during stressful periods, but it cannot replace suitable nesting cover, brood habitat, escape cover, and naturally diverse food plants. Feed distribution should be evaluated for cost effectiveness and managed to limit spoilage, disease risk, and concentrations of predators or non target wildlife.

Grazing and Water

The ranch is divided into 10 pastures of varying size, providing useful infrastructure for a planned rotational grazing system. Seventeen water wells also provide excellent water distribution for livestock management. The current herd is 78 cows. Stocking decisions should be based on grazeable acreage, forage production, rainfall, and utilization rather than animal numbers alone.

Properly timed grazing can reduce buffelgrass height and litter, create travel lanes and patches of bare ground, and stimulate some forb response. Grazing should remain heterogeneous: enough residual bunchgrass should be retained for nesting while adjacent patches remain open at ground level for feeding and brood movement.

Evaluation and Management Priorities

The predominance of sandy soils gives Randado Ranch very good potential for improving bobwhite production and hunting opportunity. Success will depend on creating and maintaining a shifting mosaic of nesting cover, brood and feeding habitat, and woody escape cover across the ranch rather than maximizing any single cover type.

- **Map present conditions.**
- **Use selective brush treatment.**
- **Reduce continuous buffelgrass dominance.**
- **Increase forb rich habitat.**
- **Monitor results.**

Recommended next step. Prepare a pasture by pasture habitat plan showing the location, acreage, timing, treatment method, and monitoring standard for the first phase of work. Prescribed burning and herbicide applications should be planned with qualified professionals and completed in accordance with applicable Texas requirements and product labels.