

Managing Field Borders

Second in a series on management techniques to improve habitat for quail

Establishing and maintaining field borders around crop fields enhances habitat conditions for quail and other wildlife. Field borders can be managed for quail to provide nesting cover and brood range during spring/summer, and food and cover during fall/winter. Field borders can reduce soil erosion and improve water quality, with minimal impacts on crop production. Recent advances in precision farming show that field borders often are not economical to farm due to the reduction in sunlight and loss of nutrients from adjacent forest stands. In many cases, setting aside these sites, and maintaining them in native grasses and forbs, improves quail habitat while saving money on agricultural practices.

Width and Location: How wide should field borders be to provide habitat for quail? The answer is the wider the better. However, leaving as little as 10 feet may provide benefits, while 30 feet would be much better. A good approach is to use the width of the disk harrow, or multiples of the width, which will facilitate strip management. If possible, maintain field borders around the entire crop field to connect fallow corners and other adjacent habitats. However, field borders along even one side of a crop field may provide significant benefits for quail.

Disking: Field borders can be managed like long, linear fallow fields by combinations of winter disking and planting. For example, 1/3 to 1/2 of the border can be disked each year in November through February and allowed to remain fallow the following summer. Winter disking encourages development of the “good weeds” (ragweed, partridge pea, beggar weeds, etc.) that provide quail with brood range and fall/winter foods. As a general rule, field borders should not be disked during the spring/summer months, as this will eliminate critical brood rearing cover and encourage “bad weeds” (sickle pod, Johnson grass) that do not provide fall/winter food.

Planting: Planting can be an integral part of managing field borders for quail and other wildlife. Plant annual

grains like corn, Egyptian wheat, brown top millet and grain sorghum in the spring and summer to provide food and cover into the winter. Wheat or oats can be planted during late fall. These plantings should be established in strips, then allowed to remain fallow the following year and rotated across the border. Plant only a small portion of the border in any given year, maintaining the remainder in weeds and grasses that provide adequate nesting cover and brood range. Additionally, plant reseeding annuals like partridge pea, ragweed and beggarweed, then encourage these to reseed with periodic winter soil disturbance.

Mowing: Mowing has limited value in managing field borders for quail as it encourages formation of dense mats of vegetation at the ground level, which serve as an obstacle, especially to chicks. If used, mowing should occur only in late February through mid-March. Never mow during the April through September nesting season.

Herbicides: Sometimes the periodic use of herbicides is needed to control the invasion of trees and/or exotic grasses into field borders. Even with frequent soil disturbance, sweetgum and other light-seeded trees may invade field borders and shade-out desirable plants. This problem can be solved quickly by spot spraying with an approved herbicide. Another common problem is the invasion of Bermuda grass and other exotic grasses, into and underneath the weed canopy of field borders. These grasses restrict quail movement and can become so thick as to out-compete desirable vegetation. The best solution is broadcast spraying of an approved herbicide (i.e. imazapyr) to control exotic grasses within, and adjacent to, the border prior to establishment. Then, herbicides can be used on a periodic and localized basis to maintain control of the exotic grasses within field borders. For specific herbicide types and rates, managers should consult their county extension agent or an herbicide company representative.

-BQI Biologists, updated 2019

