

**NATURAL RESOURCES CONSERVATION SERVICE
CONSERVATION PRACTICE STANDARD**

UPLAND WILDLIFE HABITAT MANAGEMENT

(acre)
Code 645

Texas Supplement, Zone 1

MOURNING DOVE

Introduction

The mourning dove is adapted to a wide range of habitat conditions and flexible in many of their habitat needs. Doves do not have an actual home range but will regularly move in search of food. During nesting the mated pair will share incubation of the eggs. Generally females nest two to five times each year. The highest nesting density is found in the Rolling Plains while the High Plains nesting density is only moderate. The young are fed a secretion from the parents that is known as pigeon milk. This is gradually replaced by a diet of regurgitated seeds until the young are out of the nest. Mourning doves are migratory. The migration starts in September and by mid-October most doves have left the High Plains and Rolling Plains regions.

Cover Requirements

Mourning doves preferred habitat is one in which there is a large interspersion of brush, open grassland and cropland. Preferred nesting habitat includes urban shade trees, brushy rangeland, shelterbelts, woody fencerows and isolated rural trees. Trees with at least eight inch trunk diameter and ten to

thirty feet in height are preferred for nesting. Some preferred species are mesquite, hackberry and juniper. Research indicates doves prefer to nest in the outer edges of large brush tracts. Doves will also nest on the ground. Research suggests, in the Rolling Plains, that ground nesting sites are associated with prickly pear cactus, mesquite sprouts or fallen mesquite limbs. Large areas of bare ground with less litter seemed to be preferred for ground nesting.

Food Requirements

Mourning doves prefer to feed on sites where bare ground is present, but there may be overhead canopy present. Mourning dove's diet consists of nearly 100 percent seeds. Doves consume about one ounce of seeds per day. Grasses make up to 50 percent of their daily diet. Forbs and domestic grain crops make up the remainder. See Table 1 for important food plants.

Water Requirements

Mourning doves require water daily. They usually drink twice a day. Normal times are mid-morning and late evening.

They prefer watering sites that are open and free of vegetation.

Habitat Management Techniques

Cover

Management of cover for mourning doves should be targeted to providing quality nesting cover. Brush management should be planned that leaves isolated motts of mixed species. These areas should include mature trees with lateral limbs and rounded dense canopies. Ground nesting habitat can be provided during brush management by leaving areas with prickly pear, small multi-stem mesquite or fallen mesquite branches.

Prescribed burning can improve areas for ground nesting by opening up the canopy and reducing litter.

Studies have shown that on the High Plains taller herbeous vegetation that is sparse may increase ground nesting success. This is important in areas where few trees are present. Prescribed burning, in the spring, followed by one to two years of rest can help achieve this type cover.

Scattered trees in fence rows, trees around old farmsteads and shelterbelts are frequently used for nesting. These type areas should be protected.

Food

Mourning dove food supply can effectively be increased on both

cropland and rangeland by promoting early succession plant growth. This can be accomplished by several methods.

Crop Residue Management: After grain crops are harvested residues should be left on the soil surface during the fall and early winter period.

Disking: Soil disturbances created by disking will reduce existing vegetation and promote lower successional plant production. Disking is generally done in late winter and early fall. Disking should be done in strips on one to five percent of the habitat. Do not disk the same strips each year. For best results, have strips that are disked in present year and strips that were disked the previous year.

Grazing Management: Grazing can be used to promote lower successional plants and increase dove's food supply. This practice must be carried out carefully so the quality of the habitat for livestock and other wildlife species does not degrade. The objective is to heavily graze small areas while lightly to moderately graze the remainder of the pasture. This can be accomplished by herding, placement of watering facilities and feeding to concentrate grazing.

Prescribed Burning: Fire can be used to remove or reduce excessive grass growth and encourage lower successional plant growth. Early winter burns promote cool season forbs. Late winter or early spring burns promote warm season forbs. Prescribed burning must be in accordance to a written burn plan and carried out under the supervision of an experienced burner.

An ideal burn would be a mosaic burn, where the fire does not burn completely but leaves unburned areas interspersed with burned areas. Burning that creates a cooler fire, or by using internal firebreaks will help ensure a mosaic burn.

Fire and grazing in combination can be used to develop plots with lower successional plants. This can be done by burning several two to five acre plots within larger pastures. When the pasture is grazed, livestock will graze the burned plots heavily and favor the growth of lower successional plants.

Annual Food Plots: To achieve desired results food plots must be planned, planted and managed properly. A good seedbed must be prepared and the seeds planted using a drill or planter, if possible. The food plot may need fertilized and unwanted weeds controlled. See Table 2 for species, seeding rates and dates. Mixtures of species are more likely to provide food for an extended period. Food plots must be protected from livestock. Where deer numbers are high, they may overuse the food plot.

All Federal and State "Baiting Laws" must be observed when hunting over food plots.

Water

Where surface water such as ponds or streams is not present, surface water should be provided. Overflow areas from livestock water facilities, ground level watering devices or modifications of livestock water facilities can be used

to provide surface water. Refer to the practice standard for Wildlife Watering Facility, Code 648, for typical designs.

References

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Roberson, J. 1998. Habitat management for mourning doves. *Texas Wildlife Magazine*. Texas Wildlife Association, San Antonio. pp. 19-23.

Sontiere, E.C. and E.G. Bolen. 1976. Mourning dove nesting on tobosa grass-mesquite rangeland sprayed with herbicides and burned. *Journal of Range Management* 29(3): 226-231.

APPROVAL

/s/ Gary Valentine
State Wildlife Biologist
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TABLE 1
MOURNING DOVE
IMPORTANT FOOD PLANTS

Grasses	Forbs	Cultivated
Plains Bristlegrass	Native Sunflower	Grain Sorghums
Johnsongrass*	Crotons	Forage Sorghums
Barnyardgrass	Partridge Pea	Corn
Halls Panicum	Illinois Bundleflower	Wheat
Vine Mesquite	Spurges	Peanuts
Knotgrass	Pricklypoppy	Sunflowers
	Pigweeds	Soybeans
	Ragweeds	Cowpeas

*Non native but naturalized

TABLE 2
MOURNING DOVE
PLANTING INFORMATION FOR FOOD PLOTS

	Seeding Rate					
	# Per Ac					
	Broadcast	Rows	Planting	Planting	Minimum	
	or Drilled		Dates	Depth In.	Rainfall	Comments
ANNUALS						
Grain Sorghum	12*	4*	5/1 - 7/15	1 - 2	18	Includes all types
Soybeans	40*	13*	6/1-7/15	1 - 2	20	
Sunflower	15*	5*	5/1 - 7/15	1 - 2	18	
Cowpeas	20*	7*	6/1 -7/15	1 - 2	18	
Partridge Pea	13.4	5	4/1 - 5/30	1/4 - 1/2	18	Sandy Soils, Reseeder
COOL SEASON ANNUALS						
Wheat	60*	20*	9/1 - 11/1	1 - 2	18	
Rye	60*	20*	9/1 - 11/1	1 - 2	20	
PERENNIALS						
Illinois Bundleflower	13.6	4.5	12/1 - 5/30	1/4 - 1/2	18	Should be inoculated
Plains Bristlegrass	3	1	12/1 - 5/30	1/4 - 1/2	18	

* These rates are commercial all others are PLS.