

Dove Fields in Florida (2025)¹

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This publication is intended for landowners and land managers who are interested in using dove fields for dove hunting and management. Information on what is legal when hunting doves on dove fields can be found at the end of the publication.

Mourning doves (*Zenaida macroura*; hereafter “doves”) are the most hunted and widely distributed gamebird in North America, with millions harvested each year. Both year-round resident birds and seasonal migrants can be found throughout Florida, where they are pursued alongside white-winged doves (*Zenaida asiatica*) during the fall dove season. Because doves are both a migratory species and an upland game bird, they are managed federally by the U.S. Fish and Wildlife Service (FWS) and at the state level by the Florida Fish and Wildlife Conservation Commission (FWC).

Planting food plots (i.e., dove fields) and manipulating native plant communities are popular tools for attracting and managing doves. When this practice is properly implemented, there are two distinct advantages:

1. Dove fields provide an abundant and accessible food resource for local doves throughout the year.
2. Dove fields attract doves to specific areas and thus enhance hunting opportunities.

If food plots are used for hunting, the location, number, and size of fields, as well as the species planted and timing of planting, must all be considered (see also [Normal Agricultural Practices in Florida for Dove Hunting](#)). Failure to consider all these factors can result in fields that don’t accomplish the desired goals and could result in scenarios where field activities are considered unlawful baiting by Federal law.

Where, how many, and when should dove fields be planted?

Where?

Doves are adapted primarily for open environments. Historically, their habitat was open forests and along forest-prairie edges, though they are now common across

many anthropogenic environments including pastures or cropland. Though there is some variation, doves typically nest in trees and shrubs on horizontal branches. In general, dove habitat requirements consist of roughly 60%–70% openings, 28%–38% woodland or shrubland, and 2% open water interspersed across an area. Doves forage on the ground for seeds and need exposed bare soil to properly access potential food items.

Considering the general needs of doves can help streamline the process of choosing a location for a field and help ensure doves will use the field. When possible, try to establish fields near sources of grit (sand, gravel, or small stones doves use to help digestion); possible roosting sites (can include trees or shrubs along woodland, or grassland edges, snags, fence lines, or power lines); and nesting cover (primarily trees or shrubs along woodland or grassland edges) for maintaining interest and use through the breeding season. Keeping these elements interspersed to minimize the time doves must take to travel between them will help encourage dove use.

A few trees or snags near the field can act as loafing or roosting sites for doves flying in, with snags being especially attractive. Nearby water sources, such as a pond, can also act as great attractants. In fact, some hunters will simply search for open water to hunt over instead of planting a field. Provided the slopes on a bank are shallow and there is some bare ground leading to the water’s edge, doves are likely to visit, particularly early in the season when temperatures are higher. When considering a site, soil conditions such as moisture-holding capacity, pH, and macro- and micronutrient levels, etc., are also important to consider. While some of these factors can be manipulated, collectively they play a significant role in determining which crops should be expected to be successful on a specific site. Finally, ease of access and manipulation are worth keeping in mind. It will be much easier and less expensive to set up a dove field in an open area near an already established road or trail than in the center of a dense woodland in a more remote section of a property.

How many fields?

While fields for mourning doves can be as small as one acre, a minimum size of 5–10 acres is recommended to

allow for sufficient hunting opportunities. Larger fields can be used to support more hunters, following a guideline of one acre for every hunter on a field to ensure safety. While larger fields generally attract more doves, consideration of hunter density is needed to ensure hunter satisfaction (e.g., enough hunters to keep doves flying).

The number of fields will be dependent on goals (what is the desired amount of hunting opportunity?); the state of the landscape (how much foraging habitat is currently available and what quality is it?); and the size of the property. If the landscape has a lower proportion of open areas than the 60%–70% recommended for dove habitat, it may be worth adding more dove fields to help provide more foraging space for doves.

When?

Where possible, dove fields should be planted to provide a year-round supplementary food source for doves. This helps maintain birds in the area and keeps them in better condition. It is generally a good idea to stagger the timing of plantings to ensure that some plants are mature and produce seeds throughout the year. Fields should be planted so that the plant variety matures at least 2–3 weeks before the planned hunting time. Multiple staggered plantings can be used to achieve this goal when multiple hunting events are desired. For more information on planting time in different Florida regions, see [Normal Agricultural Practices in Florida for Dove Hunting](#).

What to plant?

Ideally, dove fields should consist of multiple species or varieties of plants, as no single species can meet all the nutritional requirements of doves or be available to them year-round. Planting multiple species also helps to create a buffer against unexpected events, such as drought, flooding, or a pest outbreak. If all varieties of plants mature simultaneously and many birds are using a field, all the available seed can be consumed in a relatively short period of time, and the birds may abandon the field. Planting multiple species and staggering planting times can help avoid this situation and keep fields productive for longer.

Native plants can be very attractive if managed to suit the desired structural requirements for foraging and seed production. Some of the native species consumed readily by doves include crotons, mustards, ragweeds, pokeweed, and sunflowers. Using practices such as prescribed fire, disking, mowing, and herbicide application can help stimulate annual forbs and grasses. These practices can also create open ground just before hunting, which is an extremely effective strategy to attract doves.

Cultivated crops frequently used in dove fields include millets, sorghums, wheat, corn, and buckwheat. **It is not advised to plant sod forming pasture grasses or ryegrass for doves. Moreover, planting cool-season**

food plots requires careful planning to avoid

accidental baiting. Follow recommended practices to ensure responsible wildlife management (see the Baiting and Other Legal Considerations section of this publication for details).

Keep in mind that many species are available in several varieties, which may have differing seeding rates than those listed. Always check with the seed company before planting to determine appropriate rates. Also, note that the conditions throughout different environments in Florida may be inadequate to support some of these crops, due to a mismatch in plant adaptations and environment. These conditions vary greatly around the state, so at a minimum, soil pH and moisture, temperature patterns and extremes, seasonality, and rainfall should all be considered before choosing what to plant. More information about planting can be found in the sources at the end of this publication. Local Extension specialists may also be able to help address specific questions about what to plant and guidelines on what practices are appropriate. A link to the [find your local Extension office webpage](#) is also included in the resources at the end of the publication.

Field Prep and Planting

Proper preparation is critical to establishing a successful dove field and avoiding crop failures. Many of the soils in Florida are deficient in nutrients for commonly used dove field crops. Soil pH can also be a limiting factor. Conducting soil tests before planting can help determine which factors, if any, are limiting crop success and can guide the development of an appropriate fertilization and liming program. Because the liming process, which can help raise the pH of acidic soils, may require some time to take effect, a soil test should be conducted 4–6 months before the expected date of the initial planting. The UF/IFAS Extension [Soils lab](#) provides more information on soil fertility and offers soil testing services. Different crops often have different fertilization needs. More specifics may be found in the resources linked at the end of this document or by reaching out to local Extension specialists.

Plant when weather conditions are appropriate in the area, i.e., based on local rainfall patterns and when soil has adequate moisture for the chosen crop. Level and firm fields before and/or after seeds are planted. A firm seed bed ensures seed-to-soil contact and enhances water movement to the seed; leveling helps maintain a consistent planting depth and limits standing water. Keeping a consistent depth is especially important for small seeded species, as they can fail to emerge if they are planted too deeply. A cultipacker or roller can make this job easier, but dragging a weighted board or section of chain-link fence across the field can also serve in a pinch. Rolling after planting is essential, especially if broadcasting seed.

There are two typical methods used to prepare sites for dove field planting:

1. Tillage followed by seeding—Till the soil until it is bare and then broadcast seeds or apply them with a seed drill, usually following up with a roller or cultipacker. This removes all competing vegetation and incorporates organic material into the soil. While effective, the equipment and labor required can make this process expensive.
2. Overseeding—Lightly disk, burn, or chop the area and then broadcast seeds (may require some additional mowing) or drill seeds using conventional or no-till seed drills to minimize soil disturbance. This does not result in completely bare soil, and the remnant vegetation can help maintain habitat, reduce soil erosion risk, and limit pre-germination seed loss. Both warm and cool season species can be grown with this method, and it can be repeated for additional plantings between seasons. Some overseeding practices can still require specialized equipment, and competition with perennial grasses remaining at the site can occur, particularly in the warm season.

Please Note: **For a field to be legal to hunt, no seed or grain other than that grown in the field can be visible on the soil surface for at least 10 days prior to hunting unless the seed or grain is there as a result of a normal agricultural operation, as defined in the [Normal Agricultural Practices in Florida for Dove Hunting](#) tables. This means that any seed or grain placed, exposed, deposited, distributed, or scattered in the field that is not a result of a normal agricultural operation must be completely removed for 10 days prior to hunting the field.** In this context, “completely removed” can mean physical removal (buried/planted under the ground) or germination (after a seed germinates it becomes a plant, and plants are legal to hunt over). Put simply, any crop may be planted by any method, but planting practices not completed as part of a Normal Agricultural Operation may result in the exposure of grain/seed being visible on the ground. In which case, all grain/seed would need to be removed, buried, or germinated for 10 days prior to hunting in order for the field to legally be hunted over. Please reference the section on Baiting and Other Legal Considerations in this publication.

It is recommended to plant crops in alternating strips 24–30 feet wide with portions of the field allowed to remain fallow between them. Doves prefer to forage on the ground over bare soil. They have relatively weak legs, making scratching through dense vegetation or litter difficult. Having spaces with relatively bare ground is essential to promote foraging, and strips between row crops can also help address some of the challenges associated with overseeding. See the sources at the end of this publication for a more detailed description of some of these methods and reach out to local Extension specialists with questions.

Field Management

Because doves are ground foragers that require relatively open ground to forage effectively, it is often necessary to cut back excess vegetation, both from crops and from weeds, to increase seed availability. Furthermore, as crops and seed-producing native vegetation mature throughout the season, additional manipulation can be required to make the field more attractive to doves and facilitate hunting opportunities.

Manipulation of Cultivated Fields

To promote the bare ground that doves need, burning, grazing, or light disking may be done, or selective herbicide may be applied under crops or in strips between them. During the hunting season, it can be beneficial to cut down a strip or several rows of a crop every couple of days to increase both seed availability and ease of hunting. This strategy can be accomplished by silage chopping, mowing, shredding, disking, roller chopping, or grazing. Below, we have elaborated on some of the advantages and disadvantages of a few possible management practices.

- Burning is effective for quickly clearing areas and making seed available when standing crops produce a lot of dry, flammable material. Grasses fall into this category, with examples including millets, sorghum, and corn. Burning can also help to clear bare areas between strips. However, it can be difficult to burn only small sections of field, and seed can occasionally be damaged by the fire.
- Mowing can be applied to any crop and is generally accessible to most landowners. It is easy to target small sections of a field when mowing, leaving other areas to act as a reserve of the food supply. Seeds are scattered on the ground in mowed areas, which can help doves better access them. However, mowing does not necessarily promote the correct structure of vegetation for dove use, and it may be less desirable than other options despite its general accessibility. It may be necessary to mow multiple times, for instance, or to rake through cut vegetation to produce windows to bare ground, as scattered seeds buried in thicker litter can be inaccessible to doves. This and similar processes produce an immediate pulse of seeds that may attract doves over a short term (such as right before a planned hunt), but scattered seeds are quickly exhausted, and some may be buried in litter and unavailable. As plants mature and deteriorate, seeds will drop off at a slower rate naturally.
- Disking allows selectivity when managing fields. Disking a couple of weeks before the hunt can be an effective way to provide the bare soil conditions for dove foraging. While some seeds may be turned under and therefore made inaccessible, the structure of the vegetation is the most important factor governing dove use.

- Herbicide can sometimes be applied to selectively kill unwanted vegetation in a field with undesirable structure caused by noxious weed invasions. If you are intentionally planting a grass (e.g., millets, corn, sorghum), broadleaf selective herbicides can be broadcast to control undesirable broadleaved plants. If a broadleaved plant is planted (e.g., buckwheat, soybean, sunflower), grass-selective herbicides can be broadcast to control unwanted grasses. Prior to planting, non-selective herbicides can be applied to the field to additionally limit the spread of unwanted vegetation. This process may not create adequate bare ground but may be necessary to control plant structure when litter is abundant.
- Grazing, if there are livestock on the landscape, can help reduce the vegetative canopy and open new bare spaces at ground level for doves. For many crops, however, cattle may consume the seeds along with other parts of the plant, reducing available food for doves. Grazing may be most effective when planting sunflowers, as the movement of cattle can help shatter seed shells on the ground.

Manipulation of Fallow Fields

Many of the plants found abundantly in fallow fields and typically considered weeds, such as ragweeds, crotons, and native sunflowers, are excellent food resources for doves and can act as a strong attractant. These species can be beneficial if the proper window for planting cultivated crops is missed or if field conditions are unsuitable for desired crops. If this occurs, allow the seed bank to germinate and inspect what grows. Spot-spraying with herbicide can be used to target unwanted plants. This is an important practice because many undesirable weedy species produce a high number of viable seeds and can recolonize the field in subsequent years, requiring additional herbicide use. A shallow disking in the dormant season can encourage the growth of many desirable native annual plants. However, we recommend avoiding fertilization, as it can encourage competition from grasses and reduce bare ground under vegetation, which could impede dove foraging. The same manipulation practices described for cultivated crops can also be applied to fallow fields.

Manipulation of Native Plant Communities

Native plant communities often provide many species of interest to doves. In areas where cultivated crop production is not viable, relying on the natural community can be an excellent way to attract doves and help minimize the cost of establishing a field. In grassland or shrubland, the application of prescribed fire can aid the production of desirable dove foods and increase bare ground. Burning during the spring or summer should stimulate the growth of food-producing plants, and late-summer burnings may help prevent grasses or other vegetation from regrowing to a point that may impede access by doves. Disking in strips during the dormant season can also encourage the

growth of desirable plants and is particularly effective at sites with sandy soils. Avoid disking after March, as this may promote less-desirable species including grasses such as Johnson grass (*Sorghum halepense*), crabgrass (*Digitaria* spp.), Bahia grass (*Paspalum notatum*), sandbur (*Cenchrus* spp.), etc.

It can be advantageous to integrate species from native plant communities into existing cultivated plots as well. Cultivated dove fields are powerful attractants but do not otherwise contribute to dove production. Practices that make use of both the high seed production capacity of cultivated crops along with the vegetation structure and additional resources associated with native communities can further enhance the attractiveness of dove fields.

Baiting and Other Legal Considerations

This portion of the publication was provided for publication by Florida Fish and Wildlife Conservation Commission.

As migratory species, doves are protected under the Migratory Bird Treaty Act (1918) and cannot be legally hunted over bait. While many people have a general idea of what constitutes baiting, when agricultural practices are involved what constitutes baiting may not always be as readily understood. Excerpts below from [Title 50, Chapter 1, Subchapter B, Parts 20 and 21 of the Code of Federal Regulations](#) (the federal law that pertains to the hunting of migratory birds) can help clarify what exactly constitutes baiting.

Title 50, Code of Federal Regulations, Chapter 1, Part 20.11: Definitions

*(j) Baited area means any area on which salt, grain, or other feed has been placed, exposed, deposited, distributed, or scattered, if that salt, grain, or other feed could serve as a lure or attraction for migratory game birds to, on, or over areas where hunters are attempting to take them. **Any such area will remain a baited area for ten days following the complete removal of all such salt, grain, or other feed.***

(k) Baiting means the direct or indirect placing, exposing, depositing, distributing, or scattering of salt, grain, or other feed that could serve as a lure or attraction for migratory game birds to, on, or over any areas where hunters are attempting to take them.

Title 50, Code of Federal Regulations, Chapter 1, Part 20.21: What hunting methods are illegal?

(i) By the aid of baiting, or on or over any baited area, where a person knows or reasonably should know that the area is or has been baited. However nothing in this paragraph prohibits: ... (2) The taking of any migratory game bird,

except waterfowl, coots and cranes, on or over lands or areas that are not otherwise baited areas, and where grain or other feed has been distributed or scattered solely as the result of **manipulation of an agricultural crop or other feed on the land where grown**, or solely as the result of a normal agricultural operation.

Note: bolding in the above text was inserted by the author for illustrative purposes.

So, what is legal in Florida?

In Florida, the rules for planting for dove hunts are simple:

1. The only seed or grain that is legal to hunt over is that coming from the crop grown in the field where the grain or seed is found, or seed or grain that was placed there by planting aligned with the official normal agricultural practices published by UF/IFAS. (See [Normal Agricultural Practices in Florida for Dove Hunting](#).) Additionally, the grain that was grown in the field must never have left the field.
2. For a field to be legal to hunt doves, only seed or grain that was planted in accordance with the official recommendations published by UF/IFAS can be present while hunting. Any bait placed, exposed, deposited, distributed, or scattered in the field must be completely removed for 10 days prior to hunting the field (10-day rule). “Completely removed” means physical removal (i.e., buried/planted under the ground) or germination (after a seed germinates, it becomes a plant, which you can hunt doves over).

As referred to in the Code of Federal Regulations excerpt above, official normal agricultural practices can vary across states and regions. If you are unsure, it may be prudent to discuss with a [state Extension specialist](#) what exactly constitutes a bona fide agricultural practice in your area. If a landowner, manager, or hunter is ever unsure whether a field would be considered baited, they can call an FWC regional office to request for additional information prior to hunting. Ultimately, it is the hunter’s responsibility to make the final determination of whether a field would be considered baited.

Dove season in Florida typically starts in late September and ends in January, with three split hunting periods lasting between 3–7 weeks. Be sure to check with a local FWC office or on the [FWC website](#) for exact season dates and bag limits for the current year, as they may change slightly from year to year. Additionally, dove season dates often differ across FWC-managed lands, so please use the [Wildlife Management Area \(WMA\) Finder](#) tool on the FWC website to help plan any hunts in those areas.

Finally, several non-native dove species, such as the Eurasian collared-dove (*Streptopelia decaocto*) and common pigeon (*Columba livia*), are classified by FWC as non-protected birds, meaning they are legal to hunt year-

round on private lands (only during established seasons within the boundaries of Wildlife Management Area lands) without bag limits or restrictions on methods of take. Because these species look generally similar to native dove species, which are only legal to hunt during the established statewide season, it is the hunter’s responsibility to know how to properly identify non-protected doves *before* attempting to hunt them.

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Additional Sources of Information

Links to External Resources and Tools

- U.S. FWS, Office of Law Enforcement, *Dove Hunting and Baiting*:
<https://www.fws.gov/sites/default/files/documents/OLE%20Hunting%20-%20Dove%20Hunting%20and%20Baiting.pdf>
- FWC Dove Hunting Webpage:
<https://myfwc.com/hunting/dove/>
- FWC Regional Offices:
<https://myfwc.com/contact/fwc-office/regional-offices/>
- FWC WMA Brochures:
<https://myfwc.com/hunting/wma-brochures/>
- Electronic version of Title 50, Code of Federal Regulations, Chapter 1, Subchapter B:
<https://www.ecfr.gov/current/title-50/chapter-1/subchapter-B>
- UF IFAS Extension Agent Contacts by County:
<https://sfyl.ifas.ufl.edu/find-your-local-office/>
- UF IFAS Extension Soil Testing Lab Website:
<https://soilslab.ifas.ufl.edu/>
<https://soilslab.ifas.ufl.edu/extension-soil-testing-laboratory/>
- UF IFAS Extension Soil Testing Lab Brochure:
https://soilslab.ifas.ufl.edu/media/soilslabifasufledu/docs/SWES_Extension_Soil_Testing_Lab_2024_Brochure_Digital.pdf
- Baskett, T. S., M. W. Sayre, R. E. Tomlinson, and R. E. Mirarchi, eds. 1993. *Ecology and Management of the Mourning Dove*. Stackpole Books.
- Florida Invasive Species Council List of Invasive Plants: <https://www.floridainvasives.org/plant-list/2023-invasive-plant-species/>
- UF/IFAS Assessment of Non-native Plants in Florida’s Natural Areas: <https://assessment.ifas.ufl.edu/>
- Elmore, D., and B. Arnell. 2017. Dove Field Management. Oklahoma State University Extension. <https://extension.okstate.edu/fact-sheets/dove-field-management.html>

- Hamrick, B., and B. Strickland. 2011. Supplemental Wildlife Food Planting Manual for the Southeast. Mississippi State University Extension Service Publication P 2111, 2nd edition.
<https://extension.msstate.edu/publications/supplemental-wildlife-food-planting-manual-for-the-southeast>

Further Reading

A series of additional UF/IFAS EDIS documents describing more specifics on the planting and preparation practices of many of the crops recommended above.

- Vendramini, J., J. Erickson, W. Vermerris, and D. Wright. 2022. *Forage Sorghum*. SS-AGR-333. Gainesville: University of Florida Institute of Food and Agricultural Sciences.
<https://edis.ifas.ufl.edu/publication/AG343>
- Wallau, M., A. R. Blount, J. M. Campos-Krauer, M. A. Lashley, E. Rios, J. M. B. Vendramini, J. C. B. Dubeux, et al. (2021) 2024. "A Walk on the Wild Side: 2024 Cool-Season Forage Recommendations for Wildlife Food Plots in North Florida: SS-AGR-28 AG139, Rev. 8 2024." *EDIS* 2024 (5). Gainesville, FL.
<https://doi.org/10.32473/edis-ag139-2021>.
- Wallau, M., A. R. Blount, E. Rios, J. M. B. Vendramini, J. C. B. Dubeux, M. A. Babar, K. E. Kenworthy, C. H. de Souza, and K. H. Quesenberry. (2023) 2024. "2024 Cool-Season Forage Variety Recommendations for Florida: SS-AGR-84 AA266, Rev. 9 2024." *EDIS* 2024 (4). Gainesville, FL. <https://doi.org/10.32473/edis-aa266-2023>.
- Wallau, M., J. Vendramini, and E. Jennings. 2022. "Forage Planting and Establishment Methods on Prepared Seedbed: SS-AGR-161 AG107, Rev. 01 2022." *EDIS* 2022 (1). Gainesville, FL.
<https://doi.org/10.32473/edis-ag107-2022>.
- Waters, K., and M. Wallau. 2025. "Normal Agricultural Practices in Florida for Dove Hunting: SS-AGR-496 AG493, 9 2025." *EDIS* 2025 (5). Gainesville, FL.
<https://doi.org/10.32473/EDIS-AG493-2025>
- Wright, D. L., J. A. Ferrell, Santosh Sanjel, and I. Small. 2022. "Soybean Production in Florida: SS-AGR-182 AG185, Rev. 7 2022." *EDIS* 2022 (4). Gainesville, FL.
<https://doi.org/10.32473/edis-ag185-2022>.
- Wright, D., I. Small, C. Mackowiak, Z. Grabau, P. Devkota, and S. Paula-Moraes. 2022. "Field Corn Production Guide: SS-AGR-85 AG202, Rev. 8 2022." *EDIS* 2022 (4). Gainesville, FL.
<https://doi.org/10.32473/edis-ag202-2022>.

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