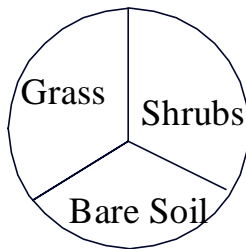




# THE COVEY HEADQUARTERS

Volume 13 Issue 1 Spring 2014

This newsletter is aimed at cooperators and sports-people in Missouri to provide information on restoring quail. This is a joint effort of the Missouri Department of Conservation, USDA-Natural Resources Conservation Service, and University of Missouri Extension. If you would like to be removed from this mailing list or have suggestions for future articles please contact [jeff.powelson@mdc.mo.gov](mailto:jeff.powelson@mdc.mo.gov) or 816-232-6555 x122 or write to the address shown.



The name of this newsletter is taken from an old concept....that a quail covey operates from a headquarters (shrubby cover). If the rest of the covey's habitat needs are nearby, a covey should be present. We are encouraging landowners to manage their quail habitat according to this concept. Use **shrubs** as the cornerstone for your quail management efforts. Manage for a **diverse grass, broadleaf weed and legume mixture and provide bare ground** with row crops, food plots or light disking **right next to** the shrubby area.

## Covey Headquarters Welcomes MDC's New Small Game Coordinator

We would like to introduce Scott Sudkamp as the new Small Game Coordinator for the Missouri Department of Conservation. Scott was hired December 1, 2013, to serve as the new Small Game Coordinator, serving a three year term appointment. For the past 10 years Scott worked as the Private Land Conservationist in Vernon and Bates Counties. Scott also worked as a Wildlife Biologist on public lands in both Missouri and Texas prior to his private land duties.

Scott states: "In this new position, I will serve as the Chair of the Quail and Small Game Task Force, a committee set up to oversee the coordination of small game hunting and management in Missouri, with Working Groups devoted to Habitat, Populations, Outreach, Program Review and Assessment, Focus Areas, and Partner Relations." These Working Groups will be taking on many challenges related to quail and small game throughout the state of Missouri.

Another aspect of this new position will be to oversee completion and implementation of the State and Regional Quail Plans. Modeled after the National Bobwhite Conservation Initiative (NBCI) plan template, biologists and managers from across the state have produced the plans that will guide our quail conservation efforts over the next 10 years. Final review of these plans is ongoing and should be completed soon, but MDC land managers are already taking action to increase acres of usable habitat on dozens of Conservation Areas across the state.

Scott also reports that the final aspect of his new position will relate to increasing appreciation for and hunting of small game across the state. "MDC's Wildlife Division has challenged me to find innovative ways to make small game more appealing to hunters and other wildlife enthusiasts." This will indeed be a challenge, as small game hunting participation has declined significantly as many hunters switched over to the pursuit of deer, turkey, and waterfowl, and still others gave up in response to continued population declines in many small game species. Scott mentions "In this arena, I will be looking for innovative ways to reach new participants and renew the interests of former small game hunters. This will be a challenge for sure, but one that needs to be met." If you have thoughts or ideas that you would like to share regarding quail and small game, send Scott an email at [Scott.Sudkamp@mdc.mo.gov](mailto:Scott.Sudkamp@mdc.mo.gov). We want to

welcome Scott to our Covey Headquarters newsletter and will be looking for future articles and updates on his new position and the status of the ever challenging Bobwhite Quail.

## Creating Mourning Dove Food Plots on Private Land

Many types of food plots can attract mourning doves. Many managers use a variety of food plot types and sizes for the most flexibility when it is time to prepare the sites and plant. Sunflowers are probably the most popular and effective food plot, but they have a longer growing season and require the most site preparation. Wheat also works well and needs less site preparation, but requires more planning. Millet varieties and annual weed food plots are less attractive to doves than sunflowers and wheat, but can be a great substitute if sunflowers or wheat cannot be planted in time. Generally, a food plot of 10 acres or more will attract the most doves, but plots as small as one acre can be very effective at attracting doves for smaller hunting groups. Below are specific recommendations to get the best out of common food plot types.

### Sunflowers

**Selecting Seed:** The first step in planting a sunflower food plot is to select your seed variety. The most commonly planted and available varieties generally take 90 to 105 days to mature. A good deadline for planting sunflowers is mid-May; planting much earlier than April 15 means the soil temperature may not be high enough, causing the seed to rot before germinating. Planting by the first of May allows sunflower seeds to completely mature by mid-August so mourning doves get conditioned to coming to your food plot well before the hunting season starts.

**Site Preparation:** If the site is currently in grass sod then it will need to be sprayed with herbicide to kill the grass and then either disk up the sod or no-till-plant the sunflowers right into the killed sod. If the site is corn field/stalks, then disking the soil recommended, but if it is beans you should be able to plant right into the bean stubble without any cultivation.

**Fertilization:** It is best to get a general soil test to know appropriate fertilizer amounts. In lieu of soil tests, 200 lbs. per acre of 12-12-12 or the equivalent is a good estimate of what will be needed.

**Herbicide:** The most common herbicides for sunflowers are two pre-emergents called Treflan<sup>TM</sup> and Eptam<sup>TM</sup>. The field should be disked once prior to applying a tank mix of 1 quart/acre of Treflan<sup>TM</sup> and 1 quart/acre of Eptam<sup>TM</sup> and then should be disked again immediately following, and once more two days after application. If grasses become a problem down the road when cultivation is no longer an option a post-emergent herbicide like Poast<sup>TM</sup> or Select<sup>TM</sup> could be used, although this will not be as effective as the pre-emergent herbicide application described above. Using a tank mix of Prowl<sup>TM</sup> and Treflan<sup>TM</sup> right after planting can also be effective if you do not have time or equipment to incorporate the herbicide into the soil before planting.

**Planting Rates:** Seed should be planted 5 to 12 lbs. per acre or 14,000 to 28,000 seeds per acre. The spacing between the rows should be 30 to 36 inches. Planting rows closer than 30 inches will reduce the amount of bare ground and make landing/foraging harder for the doves. Planting them farther apart than 36 inches will increase weed competition, which will also reduce bare ground and make the food plot less attractive. A corn planter, drill, or broadcaster can be used to plant sunflowers, but a corn planter will probably be the implement that is easiest to use to provide the ideal amount of bare ground around the sunflower plants.

**Cultivation:** If you see weeds in your food plot, cultivating between the rows is important. Cultivate one to three times from the time weeds first appear and when the sunflowers reach 12 inches in height. Root damage could result if you cultivate after the sunflowers are 12 inches tall.

**Mowing:** If you decide to try to make the sunflower seeds more available by mowing them, mow as soon as they mature in early to mid-August. Mow a portion of the food plot each week and increase the amount as you get closer to Sept. 1. If you have both a sickle bar mower and a bush hog, first cut the sunflowers

with the sickle bar. After the seed heads have dried for a couple of days run a bush hog over the downed heads. Leave some sunflowers standing if you want concealment spots for hunters. Most managers consider a ratio of 20-25% standing sunflowers to 80-75% mowed as ideal, but some have great success by only mowing a strip around the edges of the plot. If you already have heavy dove use in early- to mid-August, consider skipping any mowing.

## Wheat

**Site Preparation:** The work needed to prepare the soil for planting wheat will depend on the existing condition of the site. If the site is currently in grass sod then it will need to be sprayed with herbicide to kill the grass. Then, either disk up the sod or no-till drill the wheat right into the killed sod. If the site has corn stalks, then disking the soil is recommended. For beans, you should be able to plant right into the bean stubble without any cultivation.

**Fertilization:** Often no fertilizer is needed for wheat planting, but to be sure, have the soil tested. In lieu of fertilizing according to a soil test, a good estimate is to apply 250 lbs of urea per acre to the site, or a 12-12-12 or the equivalent per acre.

**Herbicide:** No herbicides should be needed for winter or spring wheat food plots with the possible exception of a glyphosate burndown being used as site prep before planting.

**Planting Rates:** Wheat food plots should be planted at a rate of 1 bushel per acre and using a conventional or no-till drill. Winter wheat should be planted from August 15th through October 15th. Spring wheat should be planted from April 10 through May 5th. If winter wheat is wanted to provide forage for deer in the fall, plant before September 15th.

**Mowing/Burning/Disking:** To ensure wheat in your food plot is available for doves, it should be disturbed in some way. You can mow, hay, burn or disk or a combination of all four. The disturbance should take place between one month and one day before the season opens. It is important not to disturb the entire field too early because if it rains, wheat seeds may germinate and doves will not eat them. If you mow, make sure not too much wheat straw is on the ground so doves can get to the grain. If there is too much straw, burning the cut/dried straw about two weeks before the season opens is recommended. If you burn your wheat field you will want to do it on a day that is damp enough so the straw does not burn too hot and completely consume the wheat seeds. Another good method to create areas where the doves can forage easier is to windrow the mowed wheat to open up more ground. Baling some or all of the windrows and leaving the bales throughout the field is a good way to provide cover for hunters. Disking the standing wheat in some areas is also a great way to provide grain among bare soil that is very attractive to doves.

## Millet

**Selecting Seed:** Many types of millet make good dove food plots. Millets that produce smaller seeds more easily eaten by doves are probably the best choice. Some of the most popular millets for doves include browntop, foxtail, pearl, and proso. The most important factor for selecting millet will be when you can plant. Foxtail millet generally takes 90 days to mature, proso millet takes 80 days, browntop millet 70 days, and pearl millet takes 60 days. Some rarely planted types of millet may be hard to find in certain areas.

**Site Preparation:** The site preparation needed for millet planting will depend on the existing condition of the site. If the site is currently in grass sod then the site will need to be sprayed with herbicide to kill the grass and then you can either disk up the sod or you can no-till drill the millet right into the killed sod. If it is corn stalks then disking the soil is recommended, but if it is in beans you should be able to plant right into the bean stubble without any cultivation.

**Fertilization:** Fertilizer is probably more important for millet than for other food plot types mentioned above. Applying fertilizer according to a soil test is ideal, but a general recommendation would be to apply 150 lbs. per acre of 18-18-18 or the equivalent.

**Herbicide:** Apply a pre-emergent grass herbicide at the labeled rate prior to planting into disked sod or in a tank mix with the glyphosate used to kill the existing sod for a no-till planting.

**Planting Rates:** Plant 20-40 lbs. per acre at a time of year that will allow the seed to be mature at least two weeks prior to the dove season opening. Millet can be planted with a drill or broadcaster. If a drill is used then 20 to 25 lbs. per acre should suffice. For broadcast seeding use 30 to 40 lbs. per acre. Unlike sunflowers, it is unnecessary to plant millet in widely spaced rows to allow for bare ground because you will need to mow and lightly disk a majority of the millet plot to make it available for doves anyway.

**Mowing/Disking:** Mow and lightly disk portions of the millet plot after the seed matures in a manner that will make the seed gradually available over the two weeks prior to the season opening. By the time the season opens you should have mowed and lightly disked a majority of the field, leaving a few strips to be used as cover for hunters.

## Annual Weeds

Probably the easiest and least expensive way to create a dove food plot is to simply disturb an area by disking or spraying to set back grass and release annual weeds. Weed species that doves find very attractive include common ragweed, foxtail, wild hemp and pigweed. Many of these species will probably mature after opening day so weed plots may provide the best opportunity after the opening week of the season. The key to attracting the doves to them is to mow or disk them after the weed seeds have matured. *This article was re-printed from an Iowa Department of Natural Resources publication*

## The Great Escape (Cover)

Elsa Gallagher & Ryan Diener, Quail Forever. These positions are cooperatively funded by the Missouri Department of Conservation, USDA-NRCS, the National Fish and Wildlife Foundation and Quail Forever.

With temperatures remaining below zero for many nights in a row, the fireplace crackling, and birddogs sleeping at my feet, my thoughts go to quail and songbirds. I see the tracks in the snow, especially surrounding recently developed edge feathered sites and I think of how important woody cover is to quail during these polar vortex nights. Radio telemetry data from quail in Missouri has shown that birds can hole up in escape cover for up to a week during snow and ice storms. Creating quail escape cover can be rewarding, and honestly, there just doesn't seem to be a lot to do for quail habitat at this time of the year except to work up a good sweat with a chainsaw!

One of the critical habitat needs of the bobwhite that is missing on many Missouri farms is adequate escape cover. Those who have worked hard to establish shrub thickets by planting or intensive management are among the lucky few that are maintaining decent quail numbers. Adequate cover means bare ground underneath and a good overhead canopy less than 15 feet tall. Edge feathering is an excellent practice that creates instant shrubby-like cover for quail. The average farm that once had this type of shrubby cover in fencerows and open woodlots have seen these areas mature into tall stands of trees with brome or fescue choking out the bare ground.

Areas to be edge feathered should be located adjacent to existing quality quail habitat. Trees or woody draws adjacent to diverse grasslands (native warm season grasses or managed cool-season grasses with forbs), food plots, and crop fields, can be dropped to create this habitat. These areas should be at least 30 feet deep and 50 feet long to provide the minimal cover quail require. The area where trees are going to be dropped needs to be sprayed with a non-selective herbicide first to kill the vegetation on the ground. Shrubby areas should have NO grasses growing under the brush; especially fescue or brome! All trees within the edge feathering zone should be cut down and left to lay where they fall, do not stack them

into brushpiles. The loosely woven treetops create the ideal cover for quail, while large brushpiles will deter quail movement and attract mammalian predators instead!

Leave any shrubby species that are already present (dogwoods, plums, blackberry, and sumac) standing, these provide the type of cover we are trying to create. Ideally, the edge feathered area will regenerate into native shrub cover after the tree removal is done. Be sure to apply herbicide to the stumps of the trees to keep them from re-sprouting and requiring another cutting in a few years (with the exception of cedar – they do not need to be treated). Allowing controlled burns to creep through your edge feathered areas helps to keep these areas in a shrubby cover type and also encourages native shrub growth and reduces tree sprouts. If fire is used, areas should only have to be edge feathered once, and will maintain the type of cover we want without the hassle of having to cut trees every five years.

How much is enough? A good way to “eyeball” whether you have enough shrubby cover in your diverse grassland or cropland area is to use the softball throw. Stand in an existing shrubby thicket and throw a softball as hard as you can, you should have another good shrubby thicket or edge feathered area at the distance you could throw the softball. This usually means that good escape cover makes up about 20% of the ideal quail landscape, unless you really throw like a girl.

Providing escape cover is a big part of improving your quail survival from year to year. Chainsaw and spraying work is also quite a bit more comfortable if done in the winter versus waiting until July – so go out there and create some escape cover for your quail, they’ll thank you for it, and so will all the rabbits and songbirds!

If you would like your farm assessed for quail habitat to see if you need any edge feathering or any other habitat work, contact your local Farm Bill Wildlife Biologist with Quail Forever or your local Private Land Conservationist with the Missouri Department of Conservation.

## **Did You Know???**

- The average number of eggs in a bobwhite nest is 12-15.
- The normal incubation for bobwhites is 23 days.
- A newly-hatched bobwhite chick is about the size of a bumblebee.
- Mid-June to mid-July is typically the peak hatching time.
- Bobwhite chicks can fly when they are three weeks old.
- Over 80% of the annual quail population fails to carry over to the next year.
- Bobwhites require from 47-55 days to complete their nesting cycle.
- It takes a bobwhite chick at least 120-140 days to develop to adult size.
- The daily water requirements are usually met through moisture from green plants, food, insects, and dew.

## **Spring Covey Headquarter Calendar**

### **March**

Create brood habitat by strip disking grassland fields this month.

Get food plot seed, herbicide, fertilizer and equipment ready for planting season.

Drop honeylocust and hedge trees in fencelines and woody draws for quail covey headquarters. Don’t forget to spray the stumps.

Spray fescue and brome in fencelines, woody draws and existing shrub clumps before leaf-out.

Use herbicides and fire to set back CRP cool-season grasses 3/15 – 4/30.

### **April**

Do not burn native warm-season grass now unless utilizing for forage or trying to eliminate fescue or brome. Fall and early winter burning are preferred for quail.

Plant shrub seedlings early for best survival.

Burn fescue and brome to severely stunt grass, then strip disk and interseed legumes.  
Till and fertilize food plots.  
Youth turkey season – April 12-13.

### **May**

Listen for quail whistle calls on clear calm mornings.  
Nesting season begins for quail and other grassland birds – keep your mower in the barn.  
Plant food plots this month for best results.  
Conduct breeding bird counts.

## **Blizzard Proof - What Pen Reared Quail and the January storm of 2014 taught me.** Submitted by one of our Illinois readers

I have a friend who has a young son who has been hunting for only 2 years and because I don't have any known "wild" quail on my land, I purchased a few pen-raised quail and set them out in my fields for the boy and 3 adults to hunt. My goal was to give the boy a small taste of what quail hunting is like. I set out 9 birds for the hunt. After the hunt we had a total of 5 in our possession. Here is the status of the 4 quail we didn't shoot, (I mean missed!).

One bird we never did find. Two birds were flushed and missed completely. These birds were in different areas of my fields and were flushed about 30 minutes apart. They landed in neighboring fields which we did not have permission to hunt. The last quail was planted near the farmstead. We flushed and missed him also. It landed next to a big concrete rubble pile used for erosion control in a waterway and disappeared. After trying to find it, we gave up and concluded that it burrowed into the rubble pile to escape. We chalked him up as a lost cripple. Later that evening at sunset when I was closing up the barns, I heard a quail doing his lonesome whistle from that rubble pile! He was alive and sounded very healthy!

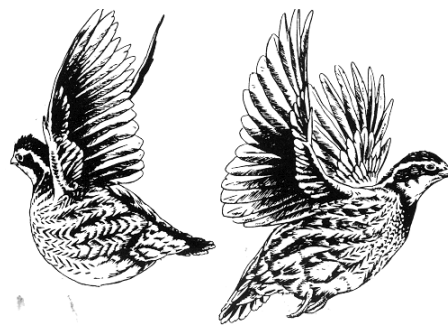
**Lesson one: Quail need escape cover!** The last quail we flushed, we missed and he was using that pile of busted up concrete to survive to another day. In fact the next morning, my dog and I hunted him again, he flushed and I missed again! This rubble pile demonstrated the value of brush piles and other thick cover on my land for quail to hide in and to avoid predators.

A few days later, I was in the back field walking along the small creek where I had done some edge feathering during the previous winter. I looked up and about 15ft in front of me I saw 2 quail! They saw me coming and slipped quickly into the thick growth of the grown up edge feather habitat that was there. These 2 quail were obviously ones that we had missed when hunting a few days earlier.....what amazed me was that they had found each other and had survived in the wild for 2 days and were using one of my edge feathered areas for protection!

**Lesson two: Place Escape Cover "EVERYWHERE" on your property.** These pen-raised quail were starting to make an impression on me. Their survival was proof that the habitat I was developing on the farm was working! One of the pen-raised quail used the rubble pile near the farmstead for cover and the other 2 quail were using an edge feathered area along my creek. Now I was learning you just can't have too much cover for quail to hide in and use to escape predators.

Speaking of providing escape cover on your land, I've read that approximately 20% of your habitat should be in shrubby, escape and loafing cover. Simple math then calls out six, (1500 sq. ft.) Covey HQ's per acre of habitat. Another rule I've read about shrub thicket placement is that they should be spaced about the distance that a person can throw a softball. Now when I look at some of my fields planted in native grasses, I can see the value of installing some additional shrub thickets and loose brush piles in the middle of these fields. It is easy to understand the benefit a quail gets if protective shelter is located every 150 feet instead of every 300 ft. Easy accessible escape cover means less chance for a quail to end up on some predator's lunch menu.

A few days later, after seeing the quail in the edge feather area, my farm got hammered by the early January blizzard that hit the St. Louis area. We all know what that was like, strong winds, minus zero temperatures and 12 inches of snow and 3 foot high snow drifts. While looking out my window during the storm, my once beautiful fields of wildlife habitat, (annual grasses and weeds) were all covered and matted with a thick layer of snow. I thought about the 2 pen raised quail I saw run into my edge feather area back by the creek. I doubted those pen-raised birds could survive these conditions, (and I haven't seen them since). Then I thought about wild birds. Would they be able to survive with the current habitat I have in place? My answer: probably not. My next thought was: What could I do to ensure that a "wild covey" could survive a storm like this? That leads me to the third lesson I learned.



**Lesson three: Plan for the worse weather conditions quail may encounter and provide them the "habitat components" they need to survive.** Key word here is "components". Before the storm, I thought I had some pretty good habitat, but afterwards, when everything was covered with snow and drifted in, I doubt even a wild quail would be able to survive in it. In an effort to find out what components I needed to add to my quail habitat, I contacted Jeff Powelson who is a Private Land Conservationist in Missouri and who helps out with the publication of this newsletter. Jeff has years of experience working with landowners helping them develop good quail habitat.

One specific question I asked him was: "Could I provide the proper winter habitat components that quail need for survival with just native plants?" By this I meant; "Can I get by without incorporating food plots as part of my habitat plan?" One goal I had for developing my property was to keep it in as much native plant material as possible. I didn't want to have to go to the extra effort to put in food plots if I didn't have to. When I described my goal to Jeff and my concerns about the poor condition of my habitat after the blizzard hit, Jeff responded: (underscore by me);

*"When it comes down to providing for quail, I do believe that the more diverse plant type you can provide the better chance of survival. I think if you were able to have a rotation of crops and weeds through the farm (being adjacent to the hard woody cover) that you will be providing the best chance for winter survival. I believe that standing crops such as milo/corn/milletts can provide a great cover and food source during these extreme times. The native broadleaf plants and wildflowers are also a great asset for a food source throughout the fall and early winter months, but when the snow and ice comes and covers plants up, when you have standing crops this is sometimes the only seed birds can find. Milo and sorghum can also provide some great hunting opportunities in the fall and winter months as well as cover when located next to good grass cover and woody cover. Always keep diversity and edge/transitional space in mind when planning. The wider the better when planning on food and cover, and don't just do strait lines, think curvy edge with varying widths when possible."*

Wow – everything I needed to know in one paragraph! With Jeff's answer, I now know that I need to add some agricultural food plots adjacent to my edge feather areas and loose brush piles this spring. Once my newly planted shrub thickets get bigger, I'll place some food plots adjacent to them as well. Installing these habitat components should help me get everything I need to make my habitat "blizzard proof" in the future and provide additional cover for the birds during extreme conditions.

Everything that I wrote in this article about quail habitat, I had read before. What I would like to emphasize to the readers is that I actually got to see and experience quail interact with the habitat on my farm. To me that made a huge difference. Actually seeing those two quail by the creek running into my edge feather area and using it for protective cover was literally worth a thousand words. I think it's safe to say that these supposedly "uneducated" pen-raised quail actually taught me a thing or two on what makes good quail habitat.

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### Mark Your Calendars

#### Prescribed Burn Workshop

**April 3** – 5:30-9:00PM at the Independence, MO Bass Pro Shop, Conservation Room. Call 816-228-3766 by April 1 to register.

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