



Planting for Pollinators

Michaela Rogers Environmental Scientist, KDFWR

Whether it be the precipitous decline of the iconic monarch butterfly, or the crash of both native bees and honeybees, you may have heard about the current concern surrounding pollinators. These beneficial insects pollinate many of the crops we consume and support health and diversity of our natural environment. If you have ever wondered what can be done to help these butterflies and bees, look no further than the outdoor space around you. One of the greatest issues faced by pollinators is the scarcity of food resources. Specifically, the flowering plants that produce the nectar and pollen they consume.

So, plant wildflowers! Easy enough, right? Before you get into planting, there are a few things to consider to ensure the success of your pollinator plot. When selecting a seed mix, be sure to choose one that contains native forbs

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SPRING CHECKLIST

March - Mid April

- Prescribe burn in preparation to eradicate fescue.
- ___ Strip disk to promote bare ground and new forb growth.
- ___ Sow clover or lespedeza.
- __ Sow cool season grasses.
- Apply lime and fertilizer per soil test to wildlife food plots.



"A true conservationist is a man who knows that the world is not given by his fathers but borrowed from his children." — John James Audubon

Dealing with Deer Damage

Kyle Sams, Acting Big Game Program Coordinator, KDFWR

any of us can remember when Lseeing a deer was a rarity. In those days, we didn't mind the browsing in the back yard on our ornamental plantings and gardens. Today is a different story as Kentucky's deer herd is now estimated at 1 million animals. Today deer feeding on our gardens, ornamental plants or agricultural crops can be a problem. In addition, during May and June deer have fawns which can be a problem when mother attempts to defend her fawns from pets and people. Dealing with deer damage can be a tough issue, but with a little planning and implementation of various techniques, damage can be drastically reduced or eliminated. There are a variety of strategies to deal with deer damage and not all strategies are practical for every landowner. More importantly, it is best to use a variety of the techniques listed below that best fits your situation.

Deterrents

Deterrents are devices used to scare

deer away. Some common deterrents are propane canons, strobe lights, pyrotechnics, dogs on a tether, or flagging. However, these devices will typically provide only temporary relief as deer are highly adaptable and learn to overcome their fear and will be back causing damage. For a more long term solution, try a variety of the strategies below.

Repellents

There are two different types of deer repellents, taste repellents and area repellents. Taste repellents are sprayed directly onto a plant causing it to taste bad. Area repellents are repellents placed in the damage area that produce a foul smell to prevent the deer from entering the problem area. There are many commercial products available at your local hardware or department store. There are also many homeremedy repellents, however, their effectiveness is questionable.

Netting and Tubing

A tube around the base of a tree or sapling works well to prevent deer damage. Use a support stake to keep the tube upright. Most tubes will last 5-10 years. Netting and wire cages can also be used to wrap around trees or completely cover particular areas. Netting is generally used to protect seasonal fruits and flowers. Support stakes might be necessary to anchor the netting to provide maximum protection.

Fencing

Fencing is the most reliable, long term way to prevent damage. Fencing is recommended in areas to protect high value plants that require year round protection, such as vineyards. Eight feet or taller fencing is recommended however, is the most costly to implement.

Another common fencing type is multiple strands of electric fence. Place flagging or stands of cloth on the fence for deer to see them and help avoid running right through the fence. Other common practices are to put bait on the electric fence to entice deer to eat the bait instead of what is inside the fence. The electric fence then will shock the deer, training them to avoid electric fences.

The techniques listed above might

be able to help you reduce deer damage. If you would like more information. please check out our website at https://fw.ky.gov/Wildlife/ Pages/Deer-Damage.aspx. If you are still experiencing a problem after implementing some of these techniques and would like some technical assistance with deer damage, please contact your local Private Lands Biologist at 1-800-858-1549 or online at https://app.fw.ky.gov/Web-Contact/default.aspx.



Natural Ponds

Zack Couch At-risk Species Biologist, KDFWR

Water sources are a vital component of quality habitat. Landowners who install ridgetop ponds (especially in wooded areas) provide an important water source for mammals (including bats), birds, and amphibians. However, as is often the case, these small ponds require occasional maintenance to keep them functioning at their best for native wildlife. With that in mind, a few things to consider when sprucing up your upland pond are:

What are your goals and are you meeting them?

Upland water sources serve a variety of functions. Which are you most concerned with? Water sources created for amphibian use should be shallow enough that they go nearly or completely dry during the warm summer months. These ephemeral water sources (typically holding water in the early spring and late fall) are excellent breeding areas for amphibians. In addition, by "drying up" during the summer, fish and green frog populations are prevented from overtaking the pond, which would inhibit its effectiveness as a breeding area for other amphibians (especially salamanders). On the other hand, a water source that is meant to be utilized as a drinking source should be deeper in order to provide a drinking opportunity during the summer when water is scarce.

By examining your goals, and keeping an eye on water levels throughout the year, you can determine if your upland pond should be made deeper or be allowed to fill in with sediment naturally.



Remove unwanted vegetation

Cattails can often overtake an upland water source in short order. If allowed to become established, cattails can eliminate many of the benefits to native wildlife by crowding out drinking areas and hindering utilization by amphibians. Removing cattails (via either mechanical or chemical means) before they become established is an important step in keeping your upland water source wildlife friendly.

Shade and slope

Two of the most important aspects to upland water sources are shade and slope. Shade not only reduces water temperature (which is critical for maintaining adequate levels of dissolved oxygen) but also stabilizes water level fluctuations. While allowing your woodland pond to go dry during the summer is not a bad thing, keeping adequate water levels throughout a portion of the year is critical. A shallow pool in the open sun will often dry up too quickly, even in the spring or fall when the temperature is mild. The proper amount of shade will not only keep water temperatures from getting too high, but will also ensure that water levels are maintained long enough for amphibians to reach maturity. Ensuring that the forest surrounding your upland water source is healthy and available to provide shade for years to come will likewise ensure that your woodland pond remains an attractive feature for native wildlife.

Additionally, at least one side of your upland water source should have a gently sloping profile. Often, steep banks can develop in older woodland ponds that prevent movement of amphibians in and out of the water. If your pool starts developing steep banks (even if it's less than a foot high), consider using a shovel to regrade the banks to allow for a less abrupt transition from aquatic to terrestrial areas.

In the eastern United States, water is rarely a limiting factor for the daily resource needs of most animals. However, the installation of an ephemeral pond has great value to the plants, animals, and bugs that use them. Whether you are after the spring cacophony of amphibians or a watering hole for game animals in the fall, have a look at your property for the right place to establish your very own natural water area.

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Recreational Mowing Syndrome?

Clay Smitson Private Lands Biologist, KDFWR

ave you ever felt an unexplainable, deep-seated need to "clean up" tall grass, weeds, or brush on your property without really understanding why? Do you worry that your neighbors will think you're lazy if your property doesn't look just like the nearest golf course fairway? If so, then you too may be suffering from RMS or Recreational Mowing Syndrome. RMS can lead folks to believe that the freshly manicured look of their lawn should be expanded to take in all of their open fields and woodland edges. Folks who live in urban or suburban areas and purchase parcels of land in the country often just don't know how to properly manage larger open spaces. They mistakenly think they need to do something right away, and since they've mown their lawns their entire adult life they think mowing and clearing is automatically the way to go.

Years ago, farmers didn't have the modern equipment and luxury of excess time and money for fuel to keep

their farms mown cleanly to the fences or forests. During that time, many grassland wildlife species, such as bobwhite quail, rabbit, and grassland songbirds were thriving. Land cover and wildlife populations have changed drastically since then. The introduction of KY 31 tall fescue and the notion that the only good farm is a clean farm have led to dramatic reductions in the numbers of these animals across the Kentucky landscape. However, many folks who want to use their rural properties for home sites, recreation and even agricultural production often view the enjoyment of wildlife as an essential goal for country living.

So is there a cure for this widespread disorder? A fresh look at land management from a new perspective is a highly effective initial treatment. What may look to us like a weedy or brushy mess may actually be the only safe haven many smaller critters have to survive, thrive and reproduce. An overgrown fencerow, or a tall grass field may look a lot more like home to animals like quail and rabbit. Aside from letting these field borders thicken up a bit, larg-



SPRING & SUMMER CHECKLIST

April - May

- ____ Begin preparation of dove fields.
- ___ Plant tree and shrub seedlings.
- __ Spray herbicide to eradicate fescue.
- Conduct timber stand improvements and create brush piles.
- __ Establish wildlife mineral licks.

May - June

- __ Plant annual grain food plots/ dove fields (do not plant in same location as last year).
- Sow warm season grasses and wildflowers.
- Hinge-cut cedar trees for living brush piles.

July - August

- Create wildlife waterholes when the soil is dry enough.
- Perform exotic/invasive species removal.
- Mark trees for Timber Stand Improvement.
- Manipulate dove fields for season opener.
- ___ Plant winter wheat in late August.

er open fields often also could use some treatment themselves. While a neatly mown fescue field may have a green and vibrant appearance, it may actually end up being a nearly sterile environment--a biological "desert". Through the careful use of herbicides, and possibly reseeding, these sites can be transformed to more natural, healthy habitats of native

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"Pollinators," continued

and warm-season grasses. These will provide the most benefit to the helpful bees and butterflies that are Kentucky native species, while also providing plentiful resources for honeybee hives. By including native grasses in the mix, you will replicate a natural prairie, as grasses will fill in the space around wildflowers and aid in preventing weed encroachment. Making sure to include milkweed in your mix (common, butterfly, swamp, green, or other Asclepias species) will allow you to create habitat for the migratory monarch butterfly, who consumes milkweed leaves as a caterpillar and nectar from flowers as an adult butterfly.

When possible, look to include a diversity of flowers with different bloom periods. Popular choices for pollinators include (but are not limited to) purple or prairie coneflowers, bee balm, black-eyed Susans, tickseeds, blazingstars, partridge pea, mistflowers and joe pye weed. Particularly during the fall, when food resources are becoming scarce, having plants that are still in bloom (think goldenrod and late fall asters) can be critical for pollinators.

Unless you are lucky enough to begin with a blank slate, you will need to conduct weed control before seeding. If you suspect a site will be problematic, you will want to treat several times with herbicide, allowing time for regrowth in between each treatment



keeping an eye on what comes back. It is better to hold off on planting until the site is under control than to watch your hard work be overtaken by aggressive weeds and invasives. If killing off thick vegetation, removal will be necessary following this maintenance so that seed can reach the bare soil.

Once you have prepared your plot and are ready for planting, the most important thing to remember is that native forbs require only very shallow soil contact, and will not sprout if planted too deep. Be sure to double check your planting method so that seeds will be planted no deeper than 1/4th of an inch. When in doubt, check with your seed mix supplier for their recommendation on your specific mix.

Finally, remember that native forbs can be slow to establish. It will

take time for root systems to form, and some species may not bloom until the second or third season. Even when established, periodic maintenance will be necessary to encourage regrowth and maintain diversity in the plot. Mowing early in the year will help to curb weeds and encourage regrowth, while herbicide spot treatments should be used to control invasive plants.

Although many pollinators will remain dormant over the winter months, it is never too early to think about what you might like to put out when the planting season returns. Contact your local private lands biologist or NRCS Service Center for advice on implementing a pollinator planting on your property. We hope you will consider supporting pollinators in any of your future planting projects.

"Mowing," continued

grasses and wildflowers that may only need to be maintained every three years instead of several times a year. Not only will wildlife appreciate and enjoy it, so will your bank account. Land clearing and frequent mowing can result in expensive equipment purchases, labor expenses, and especially now with prices at all-time highs, fuel costs give those afflicted with RMS reason to evaluate their symptoms and consider remedial measures.

If you would like more information on treatments or prevention of this syndrome, you can contact your local Conservation District Office or the Kentucky Department of Fish and Wildlife Resources at (800) 858-1549. Technical assistance, equipment loans, and costsharing programs may be available in your area. You can fight RMS, free up more time and money to spend with the grandkids or other pursuits, and help restore wildlife on your property all with the same cure.



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