

FOOD PLOTS FOR WILDLIFE

DARCY TURNER, Turner Seed Company, 211 C.R. 151, Breckenridge, TX 76424

Food plots for wildlife is a never-ending process of change. Since we have been making mixes for wildlife, the mix has changed a little each Year. To the point that the mix looks nothing like the first mix. Several seeds have been in the mix, taken out and sometimes put back in the mix. The mix is customer-driven. Which means that you the customer by your comments and successes dictate the mix. Each year we try to evaluate something new that could possibly enhance a wildlife mixture. This will hopefully never change.

There have been several opinions given as to the benefits of food plots. Some will say that food plots will do best when the rainfall is best. True! We can't change rainfall and when a drought is on in your area it is hard to grow anything. We all know that there will be years that you actually are throwing your money away on seed for food plots. So the reaction is, Why gamble?. On a good rainfall year the native range condition might even be able to carry the full wildlife population. So why spend the money ?

For the sake of argument here is a little comparison in kind of seed to help you make up your mind. Commercial production of grain sorghum on dryland will average 1,500 to 2,000 lbs. of seed on an average year. The fact is most people who plant wildlife plots use poor farming practices, never fertilize, and control most of those good weeds that wildlife seem to eat. So divide the production by four and you are still raising around 500 pounds of seed per acre. Not a large amount for the poorest farmer to raise. Question? How many quail or doves will five hundred pounds of seed feed and for how long? Ask Dale Rollins to answer this easy one. Second question: How many pounds of seed will a native pasture produce of any seed to feed your birds? I can hear the answer now, "It depends". Having harvested native sunflowers, western ragweed, and several attempts at croton I can assure you that on a great year they will not make even half of this average five-hundred-pound crop! To add to this disparity remember that most of these fields are cultivated fields that received adequate rainfall, were nearly solid stands, and most are behind harvested or grazed stands that were fertilized and taken care of.

One area that is always overlooked with food plots is the role that the food plots play in conjunction with the native range. We all know that the native range has a certain amount of natural carrying capacity for our wildlife. To my knowledge no one has ever come up with a formula to evaluate this. Question: With the addition of adequate food plots on "average" years, what is the increase in: (1) bird population; (2) general health; (3) carrying capacity; (4) better hunts; (5) increase revenue; (6) happier hunters; (7) happy bankers; etc.?

As in any other capital endeavor there is always the bottom line. As in any other business I have found that some capital spent is always required to reap maximum benefits. There will always be those who take from the land only what it offers. To those nothing can be done to change their ways. To all of the rest of you who wish to improve the land, jump on the wagon and ride it as far as possible !

Wildlife seed mixtures are still in their infancy . Each year new plants are tested and a few make there way into a mix. Nothing is ever perfect but we still strive to improve !

Milletts

1. German Foxtail Millet- (*Setaria italica*) A warm season annual that grows to a height of 2-2 1/2 foot tall. It has a cylindrical head which is golden yellow at maturity. Produces a bristle or hair which helps protect the seed from grasshoppers. Matures in late August . (90- 100 days). When planted for dove hunting will need to be mowed or swathed down about two weeks before the season. This millet seems to have better drought tolerance than the other millets. Plant in early spring after last frost to help establish before the hot dry weather sets in. Plant 10-12 pounds per acre. 18,000 seed/lb.

2. Browntop Millet- (*Panicum ramosum*) Grassy looking annual millet that branches readily and resembles Panicum grass type seed head. Browntop will usually grow about two feet tall. The seed is cream brown in color. It will mature in about 60 days. Second most popular food millet. Also used around ponds for

duck food. Plant in early spring. Plant 10-15 pounds per acre. 145,000 seed per pound.

3. Japanese Millet - (*Echinochloa crusgalli* var. *frumentacea*) Similar to barnyard grass, has same scientific name except that Japanese millet is awnless. Usually used for ducks since it will grow in up to two feet of water. The seeds are brownish in color. Can also be planted in areas that receive extra runoff. Has to be planted on dry soil at time of planting. Plant 10-15 pounds per acre. 143,000 seed / lb.

Sorghum Types

1. Egyptian Wheat- (chicken corn) Belongs to the sorghum family. Brought to the U.S.A. by the slaves to feed their chickens. They planted it around the cotton fields. Grows 5 to 10 feet tall, depending on moisture. Seed will not fall off until after several hard freezes. Long season of growth- over 120 days. Deer will not graze the forage, cattle will as the leaves are waxy. Used for borders in hunting fields. Since seed holds on so long it is a great late season food for quail. Plant 3-5 pounds per acre in 20 to 40 inch rows. 16,000 seed per pound. Will shade out anything that is planted below it due to its massive height and foliage.

2. Hegari- (sorghum) Open pollinated white seeded sorghum that has been planted for years for hay and seed. Has high sugar content in plant and seed is highly desirable to birds. Good drought tolerance. Plant early spring at a rate of 20-25 pounds per acre. 30,000 seed per pound. (Note: Do not plant this plant until soil temperature is 65-70 degrees and plant shallow. Seed will not push through compacted soil at much depth.)

3. Hybrid Grain Sorghum- Cross between two sorghums for f-1 hybrid. Will make more seed than any open pollinated sorghum. Very drought tolerant crop. Planted in farming country for sorghum seed. We handle both a red and white hybrid sorghum. Birds prefer the white but the white will not last as long in plot as the red. Plant at a rate of 5-10 pounds per acre, depending on row spacing. 16,000 seed per pound.

4. WGF Sorghum- Open pollinated annual sorghum. Was developed in Oklahoma and selected for its unique characteristics. The leaves come off at angles that give good ground cover. The seed has a high tannin content that is bitter until ripe, so the birds will not eat the seed till plant has stopped growing. Has good drought resistance and produces a large seed head. Plant at rate of 5-10 pounds per acre in early

spring. 20,000 seed per pound.

5. Sorghum Alnum- (*Sorghum alnum*) A warm season biannual grass that looks similar to Johnsongrass. The seed are larger and darker in color than Johnsongrass. Very drought resistant. Used in mixtures since it nearly always will have a seed crop. Will not move and take over like Johnsongrass. Grows up to 4-8 feet in height. Plant 12-15 pounds of seed per acre. There are 90,000 seeds per pound.

Legume Seeds

1. Sesbania- (*Sesbania exaltata*) (Swamp Pea) Summer growing woody annual that grows from 4-10 feet tall, with pea-type leaflets. Makes a bean-type pod that bursts open at maturity, usually in late fall. Likes areas that receive extra moisture. Will reseed in these type of areas. Quail and turkeys love this seed. Plant at rate of 25 pounds per acre. 48,000 seed per pound.

2. Illinois Bundleflower- (*Desmanthus illinoensis*) - A warm season perennial native legume. Grows to a height of 3 foot and has white flowers. The seed pods are grouped in a dark round bundle. A high protein plant that should be planted in range mixes and spread out to insure survival. Not suited for small food plots. Will grow in low areas that flood after large rains. Plant 13.6 lbs acre on solid stands. 64,000 seed per pound.

3. Partridge Peas - (*Cassia fasciculata*) - A warm season annual native re-seeding legume. Grows to height of 3 1/2 feet and has showy yellow flowers. The seed pods are long have a slight curve with flat seeds that are dark brown to black in color. Flowers with each rain can set several crops in one season. Should be planted in range mixes to spread out to insure survival. Not suited for small food plots. Will grow in low areas that flood after large rains. Plant 13.4 lbs acre on solid stands. 65,000 seed per pound.

Forbs

1. Maximilian Sunflower- (*Helianthus maximiliani*) Native perennial warm season forb that grows for 3-9 feet tall. Yellow terminal flower that is smaller than native sunflowers. Leaves are long with a heavy mid-rib in center and fold up some at maturity. Blooms in fall of year only. Seldom planted in solid stands. Usually planted in range mixtures. Used in 18 inch rainfall belts and up. Once established a very

drought resistant plant . Plant 3 pounds pls per acre. 302,000 seed per pound.

2. Native Sunflower- (*Helianthus annuus*) A native warm season re-seeding annual sunflower. Grows two to seven feet tall. The flowers are yellow and terminal. The leaves have coarse minute hairs and are truncate in shape. Native sunflowers are the favorite seed of doves. The seed carries a dormancy on the seed itself that requires it to go through cold weather and have moisture to germinate in the spring. Seed should be planted in fall to enhance germination. Usually planted with a companion crop the first year. Plant 3 pls pounds per acre. 350,000 seed per pound.

3. Sesame- (*Sesamum indicum*) A warm season annual tap rooted forb. Plant grows one to four feet tall. All of the leaves and seed pods come off of a central stem (spike) . Sesame has to be planted on firm seed bed and very shallow to germinate. It will not germ any deeper than 1/2 inch depth due to crusting of soil. Once germinated the plant is very drought resistant .The plant will start flowering in 40-50 days, seed will mature in 110 days, and dry down in 140 days. The seed contains about 50% oil which makes it highly desirable for birds. The plants are not readily grazed by livestock.

4. Pigweed- (*Amaranth sp.*) A warm season annual tap rooted forb. The plant grows from two to eight feet tall. A highly desirable forb for deer browse that carries high crude protein during growth. In plots this year deer have shown little preference between cowpeas and pigweed. Seeds are shiny black and round. Birds love this seed. The biggest question to answer is: Will the deer ever allow the pigweed to grow enough to set a seed head? Plant 3-5 bulk pounds per acre.

5. Dove Weed- (*Croton sp.*) A warm season re-seeding annual forb. One of the favorite foods of dove and other birds. In Texas there are at least twenty different kinds of Croton. We are working on the wooly variety due to its large seed size and seed production. Crotons are highly indeterminate (ripen in stages), carry a dormancy in the seed, and tough to make a successful harvest. Wooly croton seed will be available by November. Plant 3-5 pounds per acre. (seed will be scarified).

6. Buckwheat- (*Polygonum convolvulus*) A warm season annual vine type forb that originated in Europe. Considered a noxious weed in cultivated fields in northern states. Produces a three-sided seed that is

used by all types of birds. Forage carries a high crude protein that is used by deer. This plant is still in the study stage but shows promise. Note: There are several varieties of Polygonum that have potential for wildlife plantings.

7. Okra (spineless)- (*Hibiscus esculentus*)- A warm season annual forb that is planted by gardeners. Drought resistant plant that makes massive amounts of pods containing high protein seed. Deer will graze the forage of okra. Plant 5 pounds per acre. There are 8,000 seeds per pound.

Future of Wildlife Management

With the current trend of land being bought by urban dwellers and turned into recreation pleasure areas, the acreage of wildlife management land will snowball. If you feel that this will not have any effect on you, just look at what it has already done to dove hunting in this area of Texas. In 1979 we started handling seeds for dove hunting. In these days there were 2-3 land owners that would leave a small area for hunting doves in each county. You could go out to a field that had wheat, triticale, German foxtail millet, native sunflowers , croton etc. and nearly always get your limit . Today these two or three land owners have turned into fifty to sixty per county. In this current management phase not only do you have to have plants that draw the doves but you better have a close water supply for the doves to drink from and some sort of gravel for them to put in their crop. The success of your dove hunters depends on all of these and your neighbor has probably already done this. If you doubt this just drive around after wheat harvest and see how much land is allowed to grow up in sunflowers etc. Notice how each field has a stock pound in close proximity to the field, and there will be a graveled road close by. They even allow all the mesquite trees to grow up in the fence rows. Shade anybody?

In 1979 most farmers and ranchers used hunting as an added income to supplement their agriculture practices. Due to the poor prices for all farm related commodities since this time the agriculture land owners today depend on hunting to carry the load in their enterprises . Economics has had a hand in this swift movement to wildlife management but even if farmers and ranchers were making a living off the land the movement would still be like a wildfire. This market is the same as any other market, this market is driven by money . The money comes from hunters, hunters who largely live in urban areas. These hunters

in general are professional people who fight the cement jungles all year . Like all animals that are caged in a small area they jump at the chance for " the wide-open spaces " .

Just like any other crop or herd these clients require a certain amount of time, work, politicking, and planning to insure satisfaction. Unlike other management jobs on the farms these "critters can jump into their 4x4's and drive off ". Ten to twenty years ago hunters were a nuisance to many of the larger well-to-do ranchers. Today they are the cog that drives the wheel in a ranch operation. Wine and dine these clients just like the rest of the business world does its customers and you will create a working relationship that is profitable and enjoyable. Remember that these critters think like you and are on your place for fun and relaxation . For on Monday they will be pounding the pavement . If you can supply your clients to place to unwind, relax, and act like a kid for a few hours a week the rewards will keep you in groceries.

Whether we as land owners like it or not we are supplying a service to our visitors. We can't change the weather or land that we own, but we can take steps to provide the most bang for the buck by management of our wildlife. Think of your land as a business, a business that requires thought, planning, hard work and a little luck. Luck is not lucky, luck is made by those who want it and will do what it takes to get it. In every county in central Texas there are land managers who make a good profit year in and year out. How do they do it ? They work at it!

The question often asked, but seldom answered, is: How do we improve upon what the good Lord has given us? God made man the stewards of the land. Our task is to care for the land. If God were to open a school for the purpose of educating us on land stewardship what would the courses be? Since we can't pick up the phone and call and ask this question we will have to use the brains we were given to figure this out. Here are some suggestions as to the curriculum.

1. Plant identification- surely we should know the plants that God put there for us to use.
2. Plant management - each plant has a place,

time and season for growth. Learn how each plant works in the big picture of the total ecosystem.

3. Wildlife critter management- each animal like each plant plays a different role in ecosystem.
4. Nutrition requirements of these critters such as crude protein requirements, amount used daily, stress periods etc.
5. Stocking rates for your place - each piece of land has the ability to carry "x" number of critters varying with amount of moisture, plants, etc.
6. Mineral requirements
7. Range management
8. Food plots- How many acres are necessary? What to plant? When to plant ? How does it work in conjunction with native range land?
9. Supplemental feed- economics? How much? Is it necessary?
10. Livestock production in combination with wildlife.

Get the picture? OK, here are all the degrees that you would need to be 100% proficient as a steward for your land:

1. range management - specializing in:
 - a. plant identification
 - b. grazing management
2. plant nutritionist
3. plant pathologist
4. plant physiologist
5. taxonomist
6. entomologist
7. agronomist
8. geologist
9. meteorologist

just to name a few. Since we can't spend our whole life is school we should do as we do with the Bible and study wildlife each and every day of our life. If and when we stop and see the whole picture we will realize that the complex picture is really " Just a lot of common sense " .